



STATE OF IOWA

IOWA DENTAL BOARD

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

PHIL MCCOLLUM
INTERIM DIRECTOR

CONTINUING EDUCATION ADVISORY COMMITTEE

AGENDA

Date/Time: July 15, 2014, 12:00 P.M.

Location*: Iowa Dental Board, 400 SW 8th St., Suite D, Des Moines, Iowa
(Committee Members May Participate in Person or by Telephone)

Members: *Lori Elmitt, Board member, chair; Steven Fuller, D.D.S.; George North, D.D.S.; Marijo Beasler, R.D.H.; Eileen Cacioppo, R.D.H.; Kristee Malmberg, R.D.A.; Jane Slach, R.D.A.*

- I. CALL MEETING TO ORDER – ROLL CALL**
- II. COMMITTEE MINUTES**
 - a. March 26, 2014 – Teleconference*
 - b. June 10, 2014 – Teleconference*
- III. CONTINUING EDUCATION COURSE APPLICATIONS FOR REVIEW**
 - a. See course list*
- IV. CONTINUING EDUCATION SPONSOR APPLICATIONS FOR REVIEW**
 - a. See sponsor list*
- V. OPPORTUNITY FOR PUBLIC COMMENT**
- VI. ADJOURN**

*Committee members may participate by telephone or in person.

If you require the assistance of auxiliary aids or services to participate in or attend the meeting because of a disability, please call the Board office at 515/281-5157.

Please Note: At the discretion of the Committee Chair, agenda items may be taken out of order to accommodate scheduling requests of Committee members, presenters or attendees or to facilitate meeting efficiency.

Continuing Education Course Applications for Review

1. **Oral Surgeons, P.C., Implant Institute** – *“The Role of the Dental Hygienist in Routine Dental Implant Maintenance”* – Requested 3 hours
2. **Oral Surgeons, P.C., Implant Institute** – *“Advancement in Digital Impressions”* – Requested 2 hours
3. **Janet Blad** – *“Preventing Chronic Pain: A Human Systems Approach”* – Requested 20 hours
4. **Amber Lembergo/DANB** – *“Sedation in Pediatric Dentistry”* – Requested hours left blank
5. **Johnson County Public Health** – *“Age 1 Dental Visits: All You Need to Know”* – Requested 2 hours
6. **Spring Park Oral & Maxillofacial Surgeons Study Club** – *“OSHA/Infection Prevention 2014”* – Requested 2 hours
7. **Iowa Primary Care Association** – *“Pregnancy and Oral Health”* – Requested 1.5 hours
8. **University of Iowa, Dept. of Emergency Medicine** – *“Iowa Emergency Medical Responder”* – Requested 62 hours

Continuing Education Sponsor Recertification Applications for Review

1. Clinton Dental Study Club
2. Compliance Training Partners
3. Continuing Education Studies, Inc.
4. Creighton University School of Dentistry
5. Des Moines District Dental Society
6. Dickinson County Dental Society
7. Dynamic Dental Educators
8. Eastern Iowa Periodontics, P.C.
9. Fort Dodge Oral & Maxillofacial Surgery, P.C.
10. Kirkwood Community College
11. Frank I. Molsberry Dental Study Club
12. G. V. Black Dental Study Group of Des Moines
13. Great River Oral & Maxillofacial Surgery, P.C.
14. Homestead Schools, Inc.
15. Institute for Natural Resources
16. ILLIowa Study Club
17. Iowa Academy of General Dentistry
18. Iowa Dental Association
19. Iowa Society of Orthodontists
20. Iowa Western Community College

21. Johnson County Dental Society
22. Midwest Gnathostatic Research & Study Group
23. Oral Surgeons, P.C.
24. The Proctor & Gamble Company
25. Scott County Dental Society
26. Sioux City Dental Society
27. Tallcorn Dental Symposium
28. University of Iowa College of Dentistry
29. Western Iowa Technical Community College
30. Impact Dental Training, LLC*
31. Iowa Lakes Community College*
32. Ultradent Seminars*

*Added July 11, 2014



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INTERIM DIRECTOR

CONTINUING EDUCATION ADVISORY COMMITTEE

MINUTES

March 26, 2014

Conference Room

400 S.W. 8th St., Suite D

Des Moines, Iowa

Committee Members

Lori Elmitt, Board Member
Steven Fuller, D.D.S.
George North, D.D.S.
Eileen Cacioppo, R.D.H.
Marijo Beasler, R.D.H.
Kristee Malmberg, R.D.A.
Jane Slach, R.D.A.

March 26, 2014

Present
Present
Present
Present
Present
Absent
Absent

Staff Members

Christel Braness, Angela Davidson

I. CALL MEETING TO ORDER – MARCH 26, 2014

The meeting of the Continuing Education Advisory Committee was called to order at 12:02 p.m. on Wednesday, March 26, 2014. The meeting was held by electronic means in compliance with Iowa Code section 21.8. The purpose of the meeting was to review minutes from prior meetings, review requests for continuing education courses and sponsor approval, and other committee-related matters. It was impractical to meet in person with such a short agenda. A quorum was established with five (5) members present.

Roll Call:

<u>Member</u>	<u>Beasler</u>	<u>Cacioppo</u>	<u>Elmitt</u>	<u>Fuller</u>	<u>Malmberg</u>	<u>North</u>	<u>J. Slach</u>
Present	x	x	x	x		x	
Absent					x		x

II. COMMITTEE MINUTES

- *January 21, 2014 – Teleconference*

- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the minutes of the January 21, 2014 meeting as submitted. Motion APPROVED unanimously.

III. CONTINUING EDUCATION COURSE APPLICATIONS FOR REVIEW

- Iowa Valley Community College – *“Management of Dental Office Emergencies & Minor Maxillofacial Trauma”* (requested 3 hours)
- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Caitlin Beresford, D.D.S. – *“Current Scientific Evidence in Endodontic Practice”* (requested 1 hour)
- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Kiess Kraft Dental Labs/Metro West Dental – *“Management of Pregnant Patients”* (requested 2 hours)
- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Levin Group – *“Vision & Goals, Power Cell Scheduling, Power Scripts”* (requested 12 hours)

Ms. Branss reported that Ms. Malmberg and Ms. N. Slach could not participate in the meeting; however, they forwarded comments about this course indicating the course should not be granted credit since the focus is on practice management matters.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to DENY the course as submitted since the focus is on practice management. Motion APPROVED unanimously.
- Eastern IA Comm. College – *“Diagnosis & Treatment of Maxillary & Lingual Frenums”* (requested 2 hours)
- Eastern IA Comm. College – *“Periodontal Therapy”* (requested 2 hours)
- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the courses as submitted. Motion APPROVED unanimously.
- Iowa Primary Care Association – *“Nuts & Bolts of Providing Care to Patients Living with HIV”* (requested 1 hour)
- Iowa Primary Care Association – *“Unique Oral Health Needs in Patients with Compromised Immune Systems”* (requested 1 hour)
- Iowa Primary Care Association – *“Case-Based Reviews and Discussion”* (requested 1 hour)

- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the courses as submitted. Motion APPROVED unanimously.
 - Cassaidy Orthodontics – *“Improving Orthodontics, Improving Lives” (requested 1 hour)*
- ❖ MOVED by CACIOPPO, SECONDED by BEASLER, to APPROVE the course as submitted. Motion APPROVED unanimously.
 - Biologix Solutions – *“Proper Prescribing, Medical Errors Prevention, Safe Drug Disposal” (requested 2 hours)*
 - Biologix Solutions – *“Management of Medical Emergencies in a Dental Clinic” (requested 3 hours)*
 - Biologix Solutions – *“Substance Abuse - Chemical Dependency” (requested 3 hours)*
 - Biologix Solutions – *“Impact of Tobacco on Oral Health & Smoking Cessation” (requested 3 hours)*
- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the courses as submitted. Motion APPROVED unanimously.
 - Biologix Solutions – *“HIPAA” (requested 1 hour)*

Ms. Beasler had some questions about the compliance with the rules. After a review of the rules, it was determined that HIPAA courses are not eligible for credit since HIPAA focuses on government regulation.

- ❖ MOVED by BEASLER, SECONDED by NORTH, to DENY the course as submitted since it focuses on government regulation. Motion APPROVED unanimously.
 - Biologix Solutions – *“Pain Management in Dentistry” (requested 2 hours)*
 - Biologix Solutions – *“HIV/AIDS for Dental Healthcare Professionals” (requested 2 hours)*
 - Biologix Solutions – *“Hepatitis Infection - Implications in Dental Practice” (requested 3 hours)*
- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the courses as submitted. Motion APPROVED unanimously.
 - Biologix Solutions – *“Nitrous Oxide Sedation & Occupational Safety in Dentistry” (requested 2 hours)*

Ms. Cacioppo had some questions about the quality of the course since the course does not include a clinical, “hands-on” portion. Approval of the course for continuing education hours may create confusion with licensees/registrants thinking that this is approved as a basis for providing these services in a dental office without additional training. Dr. North agreed.

Ms. Braness asked if the committee might want to approve the course with the qualification that it does not meet the requirements for expanded functions training.

Dr. North wondered what the intent of this course was. Nitrous oxide training would be eligible for continuing education credit; however, it may not meet the criteria for expanded functions training to perform these services without additional training.

Ms. Cacioppo recommended denial of the course, with the option of reconsideration upon receipt of additional information, including the objective of the course. Dr. Fuller stated that a change in title might help clarify the intent.

- ❖ MOVED by CACIOPPO, SECONDED by BEASLER, to DENY the course as submitted, with the option for reconsideration upon the receipt of additional information. Motion APPROVED unanimously.
- Biologix Solutions – *“Ethics & Responsibilities in Dentistry (Rules & Regulations - IAC 650)” (requested 2 hours)*

Ms. Cacioppo reported that jurisprudence courses may be used for continuing education credit provided the course was prior-approved by the Board. The course, as proposed, addresses more than Iowa Administrative Code 650. Ms. Cacioppo stated that she was open to further discussion.

Dr. North questioned the intent of the course as currently outlined.

Ms. Cacioppo recommended denial of the course, with the option for reconsideration upon receipt of additional information.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to DENY the course as submitted, with an option for reconsideration upon receipt of more information. Motion APPROVED unanimously.
- Iowa Academy of General Dentistry – *“State of the Art Endodontics for the General Practitioners: Materials, Methods and Guiding Principles” (requested 24 hours total)*
- Ms. Davidson left the meeting at 12:16 p.m.

Ms. Cacioppo had some questions about the course since it appears that some of the topics, such as posture, are not approved for credit. It does not appear to clearly fit the rules. Ms. Cacioppo stated that the focus appears to be physical therapy. Ms. Elmitt agreed.

Dr. Fuller suggested approving the course for 22 hours, and making clear that this portion would not be allowed.

Dr. North stated that it is unclear how the hours of the course break out. Ms. Braness stated that the committee can ask for more information. Dr. North agreed.

Upon further discussion, it was determined that there was confusion about which course was being discussed. Following review of the course as submitted, there were no further questions about eligibility for credit.

- ❖ MOVED by NORTH, SECONDED by CACIOPPO, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Universal Therapy Group – *“Temporomandibular Joint Disorder Evaluation and Treatment and Occupational Hazards Related to Dentistry” (requested 2 hours)*

Ms. Cacioppo referenced the earlier discussion and indicated that this course focused more on physical therapy and would recommend denial based on current rules, as the course topic does not apply to clinical dentistry.

Dr. North stated that it would depend on how the hours break down.

Ms. Elmitt had some questions about the course and felt that more information would be needed before awarding any credit. Ms. Beasler stated that she would like to know if the course is directed towards patients or practitioners, what the specific time frame of the course is, and other information, which may be relevant.

- ❖ MOVED by NORTH, SECONDED by CACIOPPO, to ask for more information about the course. Motion APPROVED unanimously.
- Great River Oral Surgery Implant Study Club – *“The Importance of Proper Diagnosis, Treatment for Coding and Reimbursement with ICD-10” (requested 4 hours)*

Ms. Cacioppo stated that the focus of this course is coding and reimbursement; therefore, it is ineligible for credit.

- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to DENY the course as submitted since the course is focused on matters related to practice management. Motion APPROVED unanimously.
- Kiess Kraft Dental Lab – *“Peri-Implantitis: Etiology and Current Treatment Trends” (requested 2 hours)*
- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the course as submitted. Motion APPROVED unanimously.
- University of Iowa College of Dentistry – *“Education, Risk Assessment, and Treatment Planning for Patients Enrolled in the Dental Wellness Plan” (requested 2 hours)*

Ms. Cacioppo stated that the Dental Wellness Plan is a program that operates in assistance with Delta Dental. The program is intended for low-income populations. The course appears to focus on insurance. Dr. North agreed.

Dr. Fuller reported that this plan has an assessment requirement that needs to be completed as part of participation in the plan. Dentists can view the paperwork after it's been entered into the system. Ms. Cacioppo asked if that portion was more applicable to practice management. Dr. Fuller, Ms. Beasler and Dr. North clarified that part of the course involves examination and diagnosis.

❖ MOVED by CACIOPPO, SECONDED by NORTH, to ask for additional information.
Motion APPROVED unanimously.

- Invisalign - Aligntech, Inc. – *“Invisalign Clear Essentials II”* (requested 7 hours)

Ms. Elmitt stated that she attended this course, and the lunch was not a working lunch; therefore, it should not be counted towards the eligible hours.

❖ MOVED by NORTH, SECONDED by FULLER, to APPROVE the course as submitted.
Motion APPROVED unanimously.

- Sarah Bauer – *“Sugar, Sugar, Sugar: From Carbon to Caries”* (requested 3 hours)

Ms. Cacioppo stated that this speaker has presented good courses in the past, and would recommend approval.

Dr. Fuller questioned the lack of material submitted with the course. Ms. Beasler agreed with Dr. Fuller's concerns.

❖ MOVED by CACIOPPO, SECONDED by BEASLER, to request additional information.
Motion APPROVED unanimously.

- University of Iowa College of Dentistry – *“Culturally Responsive Health Care in Iowa”* (requested 6.5 hours)

Ms. Cacioppo stated that this course is based on communication, and would fit based on the cultural diversity in the state. Ms. Cacioppo was in favor of acceptance.

Ms. Beasler and Dr. Fuller indicated that they were a little confused by the material submitted. Dr. North questioned the content of the course, including the communication portion, which may not meet the intent of the rules related to communications.

Ms. Cacioppo reported that she attended other courses similar to this one that she felt were valuable and applicable to clinical practice.

Dr. North does not question the value, but wants to be sure it meets the rules. Dr. North recommended approval for 3 hours of credit. Ms. Cacioppo stated that this recommendation seemed reasonable.

- ❖ MOVED by CACIOPPO, to APPROVE the course as requested. Motion DIED for lack of second.
- ❖ MOVED by NORTH, SECONDED by ELMITT, to APPROVE the course for 3 hours. Motion APPROVED, 4-1. Ms. Cacioppo voted against the motion.
 - Iowa Dental Hygienists' Association – *“Implants: Indications, ICAT Scans, Grafts, Instruments for Maintenance and More”* (requested 2 hours)
 - Iowa Dental Hygienists' Association – *“Treating the Diabetic Patient in the Dental Office; Nutritional Counseling for the Diabetic and Pre-Diabetic Patient - What to Ask and When to Refer”* (requested 3 hours)

Dr. Fuller questioned the lack of content for these course. Dr. Fuller stated that a name is not enough information to determine credit.

Ms. Cacioppo thinks that the courses would be eligible based on the information provided.

Ms. Braness pointed out that rather than attach separate materials to the application for review, as is typical, the information was provided directly on the application.

- ❖ MOVED by ELMITT, SECONDED by NORTH, to APPROVE the course as submitted. Motion APPROVED unanimously.
 - *Mercy, Cedar Rapids – “2014 Spring Cancer Care Update for Dental Health Professionals”* (requested 2 hours)
- ❖ MOVED by CACIOPPO, SECONDED by BEASLER, to APPROVE the course as submitted. Motion APPROVED unanimously.

IV. CONTINUING EDUCATION CONTINUING EDUCATION SPONSOR APPLICATIONS FOR REVIEW

- *Oral Surgery Associates*

Ms. Beasler asked about individual course material for review. Ms. Braness stated that the committee has some options about how to address this. The committee can request additional information prior to making a final decision, or they can approve or deny the course and ask that the sponsor submit additional information later.

Dr. North asked if this sponsor would be subject to the same guidelines as the other sponsors. Ms. Braness reported that they would still be subject to compliance with Iowa Administrative Code 650—Chapter 25. The issue at hand is how the committee would prefer to move forward on this application at this time. Ms. Cacioppo stated that since this sponsor is affiliated with an oral surgery practice, it seemed less likely that they would focus on topics such as practice management, which is ineligible for credit.

- ❖ MOVED by BEASLER, SECONDED by CACIOPPO, to APPROVE the sponsor application as submitted, and include information about the requirements of Iowa Administrative Code 650—Chapter 25. Motion APPROVED unanimously

➤ Ms. Beasler left the meeting at 12:44 p.m.

V. OTHER BUSINESS

REQUESTS FOR RECONSIDERATION

- University of Iowa College of Dentistry/Iowa Dental Association – *“The Affordable Care Act and the Implications for Dentistry”*

Ms. Braness provided an overview of the request. At the previous Board meeting, this request was referred back to the committee for additional review at the request of Ms. Kelly.

Ms. Cacioppo and Dr. North stated that the course does not comply with the current rules regarding eligibility for credit. Board rules would need to change before credit could be awarded for this course.

Ms. Braness reported that at the last Board meeting, she indicated that a rule waiver may be the best route for allowing continuing education credit for this course. To date, a request for rule waiver has not been received.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to DENY the course as submitted since it focuses on government regulations. Motion APPROVED unanimously.

- Iowa Dental Association – *“Flying Under the Radar”*

Ms. Braness provided an overview of this request. The Iowa Dental Association has requested that the course be reconsidered for additional credit.

Ms. Cacioppo stated that there was not sufficient information to reverse the earlier decision of the committee, which awarded 1 hour of credit.

Ms. Braness stated Dr. McNurlen met with Mr. McCollum to get some information for the course. However, Ms. Braness did not know whether that information may have affected the course content.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the course for 1 hour as previously recommended. Motion APPROVED unanimously.

PROOF OF ATTENDANCE

Ms. Braness reported that the Board office was made aware of a case where some licensees may have taken proof of attendance for other licensees, who were not in attendance. This information was intended to be informational so that the committee members would be aware of this. Board

staff would ask sponsors of continuing education courses to be diligent in ensuring that only those in attendance would receive proof of attendance.

Ms. Cacioppo reported that at the courses, in which she is involved, they hand out the certificates of completion to the attendees, as opposed to leaving a pile available for anyone to pick up.

Ms. Braness stated that the committee and the Board may be limited in the options available to ensure proof of attendance is awarded only to those who participated in the course. However, staff can look at adding language to the correspondence as a reminder to sponsors to be aware of these concerns and ask that they address this as best as they are able.

Dr. North stated that the North Central District pre-prints the names on the certificates of attendance based on registration for the course. Dr. North agrees that continuing education sponsors need to find a way to address these concerns.

Dr. Fuller reported that the Des Moines District meetings may have a little more difficulty addressing this since so many people attend those meetings. Dr. Fuller suggested that each attendee be given a pre-printed card, and be presented with a code at the end of the meeting or each session. This may limit some of the problems in this area.

Ms. Braness stated that this could be addressed in the letters to sponsors, and asked that the committee members email suggestions for inclusion if they had ideas about how to efficiently address this.

VI. OPPORTUNITY FOR PUBLIC COMMENT

No comments were received.

VII. ADJOURN

❖ MOVED by FULLER, SECONDED by ELMITT, to adjourn. Motion APPROVED unanimously.

The meeting of the Continuing Education Advisory Committee adjourned the meeting at 12:56 p.m.

NEXT MEETING OF THE COMMITTEE

The next meeting of the Continuing Education Advisory Committee is scheduled for June 10, 2014. The meeting will be held at the Board offices and by teleconference.

These minutes are respectfully submitted by Christel Braness, Program Planner 2, Iowa Dental Board.



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CONTINUING EDUCATION ADVISORY COMMITTEE

MINUTES

June 10, 2014

Conference Room

400 S.W. 8th St., Suite D

Des Moines, Iowa

Committee Members

June 10, 2014

Lori Elmitt, Board Member
 Steven Fuller, D.D.S.
 George North, D.D.S.
 Eileen Cacioppo, R.D.H.
 Marijo Beasler, R.D.H.
 Kristee Malmberg, R.D.A.
 Jane Slach, R.D.A.

Present
 Present
 Present
 Present
 Present
 Present
 Absent

Staff Members

Christel Braness, Angela Davidson

I. CALL MEETING TO ORDER – JUNE 10, 2014

The meeting of the Continuing Education Advisory Committee was called to order at 12:03 p.m. on Tuesday, June 10, 2014. The meeting was held by electronic means in compliance with Iowa Code section 21.8. The purpose of the meeting was to review requests for continuing education courses and sponsor approval, and other committee-related matters. It was impractical to meet in person with such a short agenda. A quorum was established with six (6) members present.

Roll Call:

Member	Beasler	Cacioppo	Elmitt	Fuller	Malmberg	North	J. Slach
Present	x	x	x	x	x	x	
Absent							x

II. CONTINUING EDUCATION COURSE APPLICATIONS FOR REVIEW

- Oral Surgeons, PC – *“Welcome to Nobel Implants”* – Requested 1.5 hours

Dr. Fuller attended this meeting and thought the course speaker presented a lot of good information.

- ❖ MOVED by FULLER, SECONDED by CACIOPPO, to APPROVE the course as submitted. Motion APPROVED unanimously.
- North Central District Dental Society – “*Pediatric Dentistry Mini Topics*” – Requested 3 hours
- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the course as submitted. Motion APPROVED unanimously.
- North Iowa Periodontics – “*Treating Our Diabetic Patients*” – Requested 2 hours
- ❖ MOVED by NORTH, SECONDED by FULLER, to APPROVE the course as submitted. Motion APPROVED unanimously.
- IDPH – “*The Iowa Governor’s Conference on Public Health*” – Requested up to 7.5 hours

Ms. Cacioppo asked for some discussion about this request to determine whether the content of the courses meet guidelines for approval. Ms. Cacioppo referenced IAC 650—25.3(7)a(3) which states that the course information should be applicable in a professional capacity. Ms. Cacioppo stated that this sub rule would appear to allow continuing education credit for these courses. Ms. Cacioppo asked for input from the other committee members.

Ms. Malmberg agreed with Ms. Cacioppo’s comments since public health plays a role in dentistry.

Ms. Beasler expressed some concerns about the information provided regarding course content. Ms. Cacioppo stated that the committee had several options available to them.

Given the increasing role, which dental public health plays in dentistry, Ms. Cacioppo recommended granting continuing education credit. Dr. North agreed.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Kiess Kraft Dental Labs – “*Common White Lesions of the Oral Cavity*” – Requested 2 hours
- ❖ MOVED by CACIOPPO, SECONDED by ELMITT, to APPROVE the course as submitted. Motion APPROVED unanimously.

Ms. Beasler asked to briefly revisit the conversation about the course, “*The Iowa Governor’s Conference on Public Health.*” Ms. Beasler stated that approval was granted for this course; however, the course about the Affordable Care Act was denied credit. Ms. Beasler stated that some licensees may question what the difference was between the two courses. Ms. Cacioppo clarified that the Affordable Care Act course focused on insurance and regulations, which is specifically prohibited continuing education credit by rule. Ms. Cacioppo stated that the

committee and Board can consider rule changes to allow credit for courses such as the Affordable Care Act; however, current rules provide prohibitions against awarding credit for courses, which address insurance-related matters and government regulation.

Ms. Cacioppo stated that it comes down to the topic of discussion and what is currently allowed by rule. Ms. Beasler indicated that she wants the committee to consider some of these issues and concerns when discussing these kinds of courses.

Ms. Braness stated that these are all good points. Ms. Braness reported that the intention is to have the committee meet in person at some point to revisit the rules and determine if changes should be proposed to the current regulations. Ms. Braness agreed with Ms. Cacioppo in that the courses with the IDPH Governor's Conference do not appear focus on government regulations.

- Kiess Kraft Dental Labs – *“Advanced Evidence-Based Endodontic Therapy”* – Requested 2 hours
- Kiess Kraft Dental Labs – *“Multidisciplinary Approach to Manage Complex Prosthetic Rehabilitation”* – Requested 3 hours
- ❖ MOVED by MALMBERG, SECONDED by ELMITT, to APPROVE the courses as submitted. Motion APPROVED unanimously.
- Periodontal Specialists – *“What the Heck Does a Periodontist Really Do? Cool Things a Periodontist Can Do”* Requested 6 hours
- ❖ MOVED by CACIOPPO, SECONDED by BEASLER, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Oral Surgeons, PC – *“Precision, Productivity, & Profitability of Implant Prosthetics in Private Practice”* – Requested 8 hours

Ms. Malmberg expressed concerns about the profitability portion of the course. Ms. Beasler agreed with those concerns.

Dr. North stated that we need a better breakdown of the course content and time spent on each section. The committee decided to table decision pending the receipt of more information.

- Iowa Dental Assistants Association – *“Tobacco Update/Keeping Dental Health Professionals Informed”* – Requested 2 hours
- ❖ MOVED by NORTH, SECONDED by MALMBERG, to APPROVE the course as submitted. Motion APPROVED unanimously.
- SE Iowa District Dental Society – *“Dental Sleep Medicine”* – Requested 3 hours

Ms. Cacioppo has concerns about the presentation of the course since dental practitioners cannot diagnose sleep conditions.

Ms. Braness stated that the committee could request additional information. The committee members agreed.

- Iowa Oral & Maxillofacial Surgeons, PC – *“Practical Solutions for the Every Day Dentist”* – Requested 5 hours
- ❖ MOVED by CACIOPPO, SECONDED by FULLER, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Iowa Lakes Dental Club – Dr. Chris Bogue – *“Fraud and Embezzlement – Is it Happening to You?”* – Requested 4 hours

Ms. Malmberg stated that the course focuses on practice management. The committee members agreed.

- ❖ MOVED by BEASLER, SECONDED by MALMBERG, to DENY the course as submitted since it focuses on practice management. Motion APPROVED unanimously.
- North Iowa Dental Seminars – *“Dental Photography: The Basics and Beyond!”* – Requested 6 hours

Ms. Malmberg stated that that the Dental Educators Council met the previous week. The American Dental Association Commission on Dental Accreditation is considering making dental photography a requirement for accreditation moving forward.

Ms. Elmitt reported that many insurance companies are requiring digital photography more frequently prior to granting authorization.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the course as submitted. Motion APPROVED unanimously.
- Training Resources – *“Treating Tobacco Dependence – Mayo Clinic”* Requested 4.75 hours

Ms. Braness clarified that the sponsor, Training Resources, submitted three separate requests; however, the courses seem to be the same except for the speakers and location. The core content appears to be the same for all three courses.

Ms. Cacioppo stated that the proposed courses appear to focus on treating tobacco dependence; dental professional should be referring patients to the appropriate practitioners for treatment of tobacco dependence. Ms. Cacioppo had some concerns about whether the content of these courses met the criteria for approval.

Ms. Malmberg referenced the course *“Tobacco Update/Keeping Dental Health Professionals Informed,”* which was discussed earlier in the meeting. In that course, the intent of the course was

to inform and update dental professionals about how to identify, and then refer for treatment, as opposed to discussing specific treatment options.

Ms. Braness asked the committee if they wanted to ask for additional information. Ms. Cacioppo reported that the materials specifically state that the course addresses treating tobacco dependence.

Ms. Malmberg stated that she would like to see more information about the issue of treating tobacco dependence versus referral for treatment.

Ms. Cacioppo reviewed the information about the presenters. The presenters are not dental professionals.

Dr. Fuller stated that dentists should not be treating tobacco dependence since this does not fall directly within the practice of dentistry.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to DENY the course as submitted, though, the sponsor may request reconsideration upon the submission of additional information. Motion APPROVED unanimously.

III. CONTINUING EDUCATION CONTINUING EDUCATION SPONSOR APPLICATIONS FOR REVIEW

- *The DALE Foundation*

Ms. Malmberg stated that the DALE Foundation is associated with the Dental Assisting National Board (DANB). Ms. Malmberg stated that they are a reputable organization.

Ms. Cacioppo expressed concerns about the determination of continuing education hours for self-study courses; though sponsor status could be awarded.

Ms. Braness stated that the approval letter could include a reference to the committee's concerns regarding the assignment of continuing education credit hours, and make reference to Iowa Administrative Code 650—Chapter 25, which addresses how credit should be awarded.

- ❖ MOVED by MALMBERG, SECONDED by CACIOPPO, to APPROVE the sponsor application as submitted. Motion APPROVED unanimously.

- *Health Studies Institute*

Ms. Braness reported that the Health Studies Institute was an approved sponsor previously. The sponsor status lapsed approximately two years ago.

Ms. Cacioppo inquired for what period of time the Health Studies Institute had been an approved sponsor before the sponsor status lapsed. Ms. Braness stated that her recollection was that they had been sponsors for at least 5-6 years, and they may have held sponsor status for a period of time longer than mentioned.

- ❖ MOVED by CACIOPPO, SECONDED by NORTH, to APPROVE the sponsor application as submitted. Motion APPROVED unanimously.

IV. OTHER BUSINESS

2014 COMMITTEE APPOINTMENTS

Ms. Braness stated that this was a reminder that committee appointments will be made at the July 2014 quarterly Board meeting. Given the amount of time required for the committee, anyone, who feels like they cannot continue to serve, should let Ms. Braness know.

Ms. Malmberg asked when the next scheduled meeting of the Continuing Education Advisory Committee was scheduled. Dr. North confirmed that the meeting is scheduled for July 15, 2014.

V. OPPORTUNITY FOR PUBLIC COMMENT

No comments were received.

VI. ADJOURN

The meeting of the Continuing Education Advisory Committee adjourned the meeting at 12:28. p.m.

NEXT MEETING OF THE COMMITTEE

The next meeting of the Continuing Education Advisory Committee is scheduled for July 15, 2014. The meeting will be held at the Board offices and by teleconference.

These minutes are respectfully submitted by Christel Braness, Program Planner 2, Iowa Dental Board.

RECEIVED

MAY 29 2014

APPLICATION FOR PRIOR APPROVAL OF CONTINUING EDUCATION COURSE OR PROGRAM

IOWA DENTAL BOARD

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687
515-281-5157
www.dentalboard.iowa.gov

Note: A fee of \$10 per course is required to process your request. PLEASE TYPE OR PRINT.

1. Name of organization or person requesting approval: Oral Surgeons PC Implant
Address: 7400 Fleur Dr, Suite 200 Dm 50321 Institute
Phone: 515 274-0796 Fax: 274-4472 E-mail: rceynar@oralsurgeonspc.com

2. Type of organization (attach bylaws if applicable):

- Constituent or component society
- Dental School
- Dental Hygiene School
- Dental Assisting School
- Military
- Other (please specify): private practice

3. Which of the following educational methods will be used in the program? Please check all applicable.

- Lectures
- Home study (e.g. self assessment, reading, educational TV)
- Participation
- Discussion
- Demonstration

4. Course Title: The Role of the Dental Hygienist in Routine Dental

5. Course Subject: Implant Maintenance

- Related to clinical practice
- Patient record keeping
- Risk Management
- Communication
- OSHA regulations/Infection Control
- Other: _____

6. Course date: Sat. February 7, 2015 Hours of instruction: 3

7. Provide the name(s) and briefly state the qualifications of the speaker(s): _____

Gracy Anderson Butler, CRDH, MFT

8. Please attach a program brochure, course description, or other explanatory material.

9. Name of person completing application: Ronda Ceynar, CDA
Title: Prof. Relations Coordinator Phone Number: (515) 274-0796
Fax Number: 274-1472 E-mail: rceynar@hotmail.com
Address: 3940 Ingersoll Ave, DM IA 50312
Signature: Ronda Ceynar CDA Date: 5-27-14

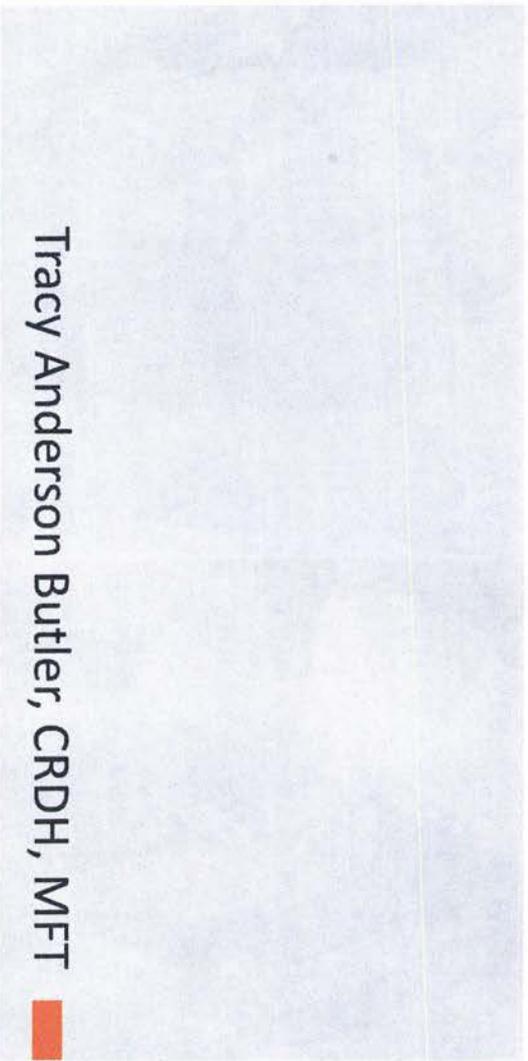
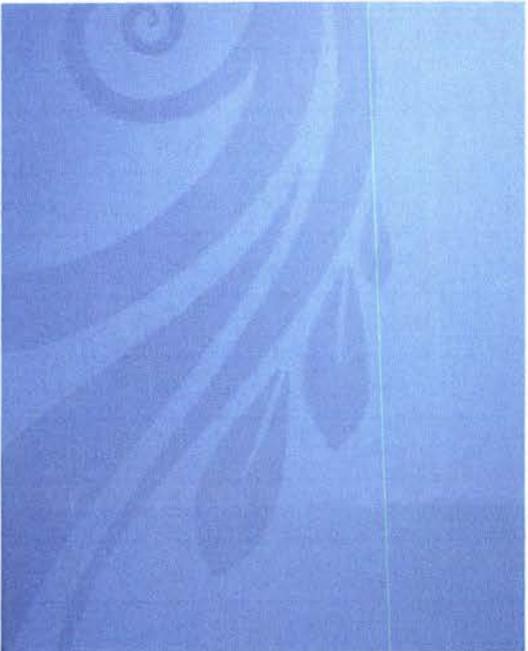
Board rules specify that the following subjects are NOT acceptable for continuing education credit: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

If the course was offered by a Board approved sponsor, you should contact the sponsor directly for approval information, rather than submitting this form. A list of approved sponsors and contact information is available on the Board website at www.dentalboard.iowa.gov. Continuing education guidelines and rules are also available on the Board's website. A course is generally acceptable and does not need to go through this formal approval process if it is directly related to clinical practice/oral health care.

Pursuant to Iowa Administrative Code 650—25.3(5), please submit the application for approval 90 days in advance of the commencement of the activity. The Board shall issue a final decision as to whether the activity is approved for credit and the number of hours allowed. The Board may be unable to issue a final decision in less than 90 days. Please keep this in mind as you submit courses for prior approval.

MAIL COMPLETED APPLICATION ALONG WITH THE REQUIRED **\$10 FEE PER COURSE** TO:

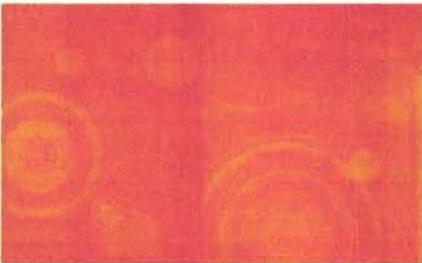
**Iowa Dental Board
Continuing Education Advisory Committee
400 S.W. 8th Street, Suite D
Des Moines, Iowa 50309-4687**



Tracy Anderson Butler, CRDH, MFT

The role of the dental hygienist in routine dental implant maintenance.

An interdisciplinary approach to implant maintenance and case presentation.



Program Outline



Implant Maintenance

Dental implants are now the standard of care for patients with missing teeth. As the number of cases increases, it is essential to communicate ideal dental care following implant placement. The dental hygienist is often recognized by the patient as a trusted mentor and a go-to once a patient faces treatment options. This course emphasizes the hygienists role in pre-, intra- and post-treatment to minimize infection and potential complications. This presentation will review current literature on instrumentation as well as sterilization of implant instruments used in hygiene maintenance appointment. Participants will learn key elements to effective case presentation for the dental implant patient and develop a clear protocol to recognize candidates.

Learning objectives

- Identify basics of implant types and components.
- Understand the importance of recare for the implant patient.
- Communicate the importance of regular post-operative care
- Understand the current literature on instrumentation
- Create decision tree for
- Identify potential complications and risks in pre- and post-operative care that may compromise treatment success

Achieve your Ideal Day



Tracy Anderson Butler, CRDH, MFT



Mrs. Butler has 24 years of diverse experience in the dental industry from chairside and beyond. Tracy is a registered dental hygienist, thought leader, motivational speaker, sales leader/coach and change agent. She believes the key to every successful treatment outcome begins with an accurate assessment leading to a co-diagnosis between the patient and dental team.

Following a gift from her grandfather of a dental mirror and explorer at age 2 she began to grow her patient base with every family member that would say "Ahhh. Tracy's passion for dentistry moved her toward restorative and comprehensive dentistry in Palm Beach, Florida. She attended the Dawson Academy and is a graduate of the Aesthetic Advantage Institute mastery level study. Mrs. Butler spent 11 years on faculty at Palm Beach State College in the dental hygiene program and research clinic.

Tracy feels blessed to have been mentored and coached by some of the best in function/relation, complete care dentistry as well as the business of dentistry and considers few things more rewarding than paying it forward. Tracy's commitment to patient centric care propelled her to pursue a career in implant and regenerative dentistry with Straumann, USA. She is currently the National Director of Hygienist Education/Professional Relations with Straumann.

Tracy believes in inspiring the power of possibility in each of us toward achieving our ideal day.

Tracy can be reached by email: tracy.butler@straumann.com

RECEIVED

JUN 17 2014

APPLICATION FOR PRIOR APPROVAL OF CONTINUING EDUCATION COURSE OR PROGRAM

IOWA DENTAL BOARD

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687
515-281-5157
www.dentalboard.iowa.gov

Note: A fee of \$10 per course is required to process your request. PLEASE TYPE OR PRINT.

1. Name of organization or person requesting approval: Oral Surgeons PC Implant Institute
Address: 7400 Fleur Dr Suite 200 DM 50321
Phone: 274-0796 Fax: 274-1472 E-mail: rceynar@oralsurgeonspc.com

2. Type of organization (attach bylaws if applicable):

- Constituent or component society
Dental School
Dental Hygiene School
Dental Assisting School
Military
Other (please specify): private practice

3. Which of the following educational methods will be used in the program? Please check all applicable.

- Lectures
Home study (e.g. self assessment, reading, educational TV)
Participation
Discussion
Demonstration

4. Course Title: Advancements in Digital Impressions

5. Course Subject:

- Related to clinical practice
Patient record keeping
Risk Management
Communication
OSHA regulations/Infection Control
Other:

6. Course date: 9-9-14 Hours of instruction: 2

7. Provide the name(s) and briefly state the qualifications of the speaker(s): _____

Bob Devine - see attached

8. Please attach a program brochure, course description, or other explanatory material.

9. Name of person completing application: Ronda Ceynar, CDA
Title: Prof. Relations Coordinator Phone Number: 274-0796
Fax Number: 274-1472 E-mail: rceynar@oralsurgeonpc.com
Address: 3940 Ingersoll Ave. DM 50312
Signature: Ronda Ceynar CDA Date: 6.16.14

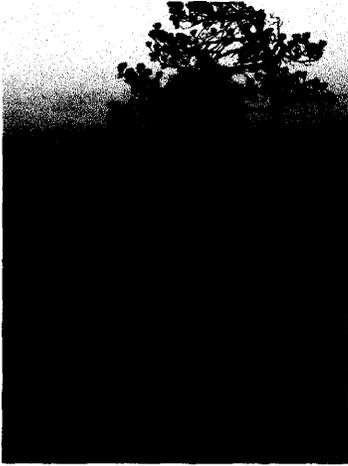
Board rules specify that the following subjects are NOT acceptable for continuing education credit: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

If the course was offered by a Board approved sponsor, you should contact the sponsor directly for approval information, rather than submitting this form. A list of approved sponsors and contact information is available on the Board website at www.dentalboard.iowa.gov. Continuing education guidelines and rules are also available on the Board's website. A course is generally acceptable and does not need to go through this formal approval process if it is directly related to clinical practice/oral health care.

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MAIL COMPLETED APPLICATION ALONG WITH THE REQUIRED **\$10 FEE** PER COURSE TO:

**Iowa Dental Board
Continuing Education Advisory Committee
400 S.W. 8th Street, Suite D
Des Moines, Iowa 50309-4687**



Bob Devine Started with 3M in 2007 as a Tech Service representative for core dental materials. In 2009 he became a Dental Practice Specialist in San Diego. Here he conducted hands on training and educated dental practices on the differences in dental materials. In 2013 he relocated to Minnesota and became a Clinical Digital specialist handling the revolutionary True Definition Scanner. Bob works closely with Labs and Dental offices that are moving into the digital age of Dental Impressions. He has a passion for Prevention and the In-direct procedure and has dedicated his time to increasing his customer's knowledge in all ways of dentistry. He enjoys golf, fishing, bike riding and hanging out with family and friends.

Course Description ----- Advancements in Digital Impressions----2 hours

Learn about the current advancements of Digital Impressions and the available technologies for dental offices and labs. This course will cover Traditional vs. Digital impression work flows and were your lab fits into the equation. Not ready to Mill? No Problem, the True Definition scanner is a great first step to digital Impressions that keeps your lab involved, yet improves the fit of every restoration. Come learn more about the future of Digital Impression systems!!

APPLICATION FOR PRIOR APPROVAL OF
CONTINUING EDUCATION COURSE OR PROGRAM

RECEIVED

JUN 03 2014

IOWA DENTAL BOARD

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687
515-281-5157
www.dentalboard.iowa.gov

Note: A fee of \$10 *per course* is required to process your request. PLEASE TYPE OR PRINT.

1. Name of organization or person requesting approval: Janet Blod

Address: 255 Toneff Drive, Elk Run Hgts, IA 50707

Phone: (319) 234-2775 Fax: (319) 236-1748 E-mail: jklod@yahoo.com
H (319) 234-2748

2. Type of organization (attach bylaws if applicable):

- Constituent or component society
- Dental School
- Dental Hygiene School
- Dental Assisting School
- Military
- Other (please specify): _____

3. Which of the following educational methods will be used in the program? Please check all applicable.

- Lectures
- Home study (e.g. self assessment, reading, educational TV)
- Participation
- Discussion
- Demonstration

4. Course Title: Preventing Chronic Pain: A Human Systems Approach

5. Course Subject:

- Related to clinical practice
- Patient record keeping
- Risk Management
- Communication
- OSHA regulations/Infection Control
- Other: _____

6. Course date: May 30 to early August - 8 week course

Hours of instruction: 20

5048

7. Provide the name(s) and briefly state the qualifications of the speaker(s):
James Friction - professor - University of Minnesota, Senior researcher, Health partners Institute for Education and Research, Pain Specialist, Minnesota Head and Neck Clinic, Avid researcher, teacher, and author of 5 books and over 150 publications and abstracts
8. Please attach a program brochure, course description, or other explanatory material.

9. Name of person completing application: Janet Blad
 Title: Dental Hygienist Phone Number: (319) 234-2775
 Fax Number: (319) 236-1748 E-mail: jklad@yahoo.com
 Address: 255 TONEFF Drive, Elk Run Njts, IA 50707
 Signature: Janet K. Blad Date: 6-2-14

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MAIL COMPLETED APPLICATION ALONG WITH THE REQUIRED **\$10 FEE PER COURSE** TO:

**Iowa Dental Board
 Continuing Education Advisory Committee
 400 S.W. 8th Street, Suite D
 Des Moines, Iowa 50309-4687**

UNIVERSITY OF MINNESOTA
Driven to Discover™

Preventing Chronic Pain: A Human Systems Approach

Watch Intro Video

Chronic pain is at epidemic levels and has become the highest-cost condition in health care. This course uses both creative and experiential learning to better understand chronic pain conditions and how they can be prevented through self-management in our cognitive, behavioral, physical, emotional, spiritual, social, and environmental realms.

About the Course

Chronic musculoskeletal pain (including head, neck, and back pain) is a significant cause of suffering, disability, and health care in the world. Care for chronic pain often involves surgery, multiple medications (including opioids), endless physical and chiropractic therapy, injections, implanted devices, and other passive treatments--making it the highest cost condition in health care. The burden upon individuals in terms of ongoing pain and suffering is incalculable.

Consider an alternative. By using a human systems approach, we can better understand how individual risk factors in the cognitive, behavioral, physical, emotional, spiritual, social, and environmental realms of our lives can interact to perpetuate chronic pain and, if improved, can prevent it.

During this course, you will: Identify the problems of our health care system in dealing with chronic pain. Review the diagnosis, mechanisms, and etiology of musculoskeletal pain conditions. Explore specific risk factors that can contribute to chronic pain. Learn how a human systems approach can be applied through evidence-based self-management strategies to prevent chronic pain. Experience active strategies designed to enhance the protective factors that can transform our own lives, and those of our patients, to one of health and wellness.

Course Syllabus

Part A: Putting pain in context

- The health care dilemma of pain
- The personal impact of pain
- The balance between health and illness

Part B: Tracing the mechanisms of pain

- Myofascial pain
- Headache
- Fibromyalgia
- Arthritis
- Current concepts of chronic pain mechanisms

Part C: Preventing pain in the 7 realms of daily life

- Resilience, self-efficacy, & expectation
- Exercise, posture, & reducing physical strain
- Positive relationships & social support
- Creating safe and protective environments
- Managing emotional challenges
- Diet, sleep, & energy

- Gaining insight, hope, & purpose

Part D: Bringing it all together

- The patient's story: foundations for clinical reasoning
- Transformative health care

Recommended Background

No background is required; all are welcome!

Suggested Readings

All course readings and materials will be available via the Coursera web site. Creative strategies are used to introduce each module. The story and excerpts from the romantic thriller novel entitled *The Last Scroll* are designed to illustrate concepts and stimulate discussions within the course. In this story, a lonely physician travels to an ancient Roman spa in Italy to learn about universal and timeless truths of health and wellness. For those interested in reading along, *The Last Scroll* is available at <http://www.amazon.com/dp/1475975163/>. Purchase of the book is not required for this course; book excerpts will be presented in video format for each module.

Course Format

Engage in creative learning strategies such as teaching through fiction, personal assessment tools, and experiential training. Modules consist of 10 - 15 minute video segments; interactive components including slides, videos, experiential demonstrations, practical training; and discussions to provide practical knowledge on preventing chronic pain.

There will be a Statement of Accomplishment offered for this course.

FAQ

Will I get clinical advice in this course?

No. This course deals with the principles of preventing early stage musculoskeletal pain from becoming chronic, severe, and disabling. The course does not provide clinical recommendations for individual situations.

Is continuing education credit available?

Yes. Licensed health care professionals who wish to earn continuing education credits can register by following the steps below.

This is a two-step process:

First, register for Coursera's Signature Track by clicking on the yellow bar entitled "Earn A Verified Signature" on this Coursera course page. [Cost: Signature Track for this course is \$49]

Second, register for continuing education via one of the options below:

- Click to register and pay for continuing **dental** education credits through the University of Minnesota's Continuing Dental Education Program. [Cost: \$200] The University of Minnesota's Continuing Dental Education program will issue you CE credits upon confirmation of completion from *Signature Track*.
- Click to register for continuing **medical** education credits through the University of Minnesota's Office of Continuing Professional Development. [Cost: \$200]

ACCREDITATION STATEMENT for CME Credit.

The University of Minnesota is accredited by the Accreditation Council for Continuing

Medical Education (ACCME) to provide continuing medical education for physicians.

CREDIT DESIGNATION STATEMENT. *American Medical Association/Physician Recognition Award.*

The University of Minnesota designates this enduring material for a maximum of 18.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ACCREDITATION STATEMENT for CDE Credit.

The University of Minnesota School of Dentistry is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. The University of Minnesota School of Dentistry designates this activity for 20 continuing education credits. Concerns or complaints about a CE provider may be directed to the provider or to the ADA CERP at www.ada.org/cerp.

RECEIVED

APPLICATION FOR POST APPROVAL OF CONTINUING EDUCATION COURSE OR PROGRAM

JUN 05 2014

IOWA DENTAL BOARD

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687
Phone (515) 281-5157
www.dentalboard.iowa.gov

NOTE: A fee of \$10 per course is required to process your request. PLEASE TYPE OR PRINT.

1. Course Title: Sedation in Pediatric Dentistry

2. Course Subject:

- Related to clinical practice
Patient record keeping
Risk Management
Communication
OSHA regulations/Infection Control

Other:

3. Course date: 2-25-14 Hours of instruction:

4. Provide a detailed breakdown of contact hours for the course or program:

5 articles + 50 question test

5. Name of course sponsor: DANB

Address: 444 N. Michigan Ave Suite 900
Chicago IL 60611-3985

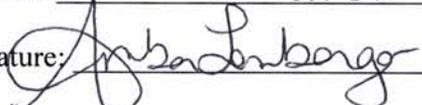
6. Which of the following educational methods were used in the program? Please check all applicable.

- Lectures
Home study (e.g. self assessment, reading, educational TV) + test
Participation
Discussion
Demonstration

397
\$10

7. Provide the name(s) and briefly state the qualifications of the speaker(s): _____

8. Please attach a program brochure, course description, or other explanatory material.

9. Name of person completing application: Amber Lembergo
Title: Dental Assistant Phone Number: 319-584-2557
Fax Number: 307-426-4016 E-mail: b-ball-baby@hotmail.com
Address: 305 Southern View Drive Cheyenne, WY 82007
Signature:  Date: ~~6-1-14~~ 6-1-14

Board rules specify that the following subjects are NOT acceptable for continuing education credit: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

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Pursuant to Iowa Administrative Code 650—25.3(6), within 90 days after the receipt of application, the Board shall issue a final decision as to whether the activity is approved for credit and the number of hours allowed.

MAIL COMPLETED APPLICATION ALONG WITH THE REQUIRED **\$10 FEE** PER COURSE TO:

**Iowa Dental Board
Continuing Education Advisory Committee
400 S.W. 8th Street, Suite D
Des Moines, Iowa 50309-4687**

Official Score Report



Sedation in Pediatric Dentistry Professional Development Examination Program (v.1.)

Tuesday, February 25, 2014

Amber L Lemberger
305 SOUTHERN VIEW DRIVE
CHEYENNE, WY 82007

CENumber: 190333
Score Date: 02/25/2014

Congratulations! The Dental Assisting National Board (DANB) is pleased to inform you that you have passed the Sedation in Pediatric Dentistry module of the Professional Development Examination Program (PDEP).

Listed below are your results for each article covered by the examination.

<u>Overall Examination Performance</u>	<u>Individual Articles</u>	<u>Total Possible</u>	<u>Your Score</u>
Professional Development Examination Program: Pass	Effects of Deep Sedation on Behaviors and Side Effects in Children Undergoing Different Dental Procedures	10	10
	Effect on Behavior of Dental Treatment Rendered Under Conscious Sedation and General Anesthesia in Pediatric Patients	8	8
	Adverse Events during Pediatric Dental Anesthesia and Sedation: A Review of Closed Malpractice Insurance Claims	12	11
	Stainless Steel Crown Aspiration during Sedation in Pediatric Dentistry	10	10
	Current Status of Nitrous Oxide as a Behavior Management Practice Routine in Pediatric Dentistry	10	9

We hope that the above information is helpful. Call 1-800-FOR-DANB if you have any questions.

Dental Assisting National Board, Inc. **Certificate of Completion**

This confirms that

Amber L Lemberger

has successfully completed the Dental Assisting National Board, Inc's (DANB's)
Professional Development Examination Program (PDEP) in

Sedation in Pediatric Dentistry

earning 12 CDE credits, DANB Recertification Category 3 (DANB Exams).

May be applied to meet DANB Recertification Requirements
CDA • COA • CPFDA • CRFDA • CDPMA • COMSA

Score Date: 2/25/2014



Measuring Dental Assisting Excellence®

Frank L. Maggio

Frank Maggio, DDS

DANB Board Chair



Dental Assisting National Board, Inc.

Measuring Dental Assisting Excellence®

MEMORANDUM

TO: DANB Professional Development Exam Program (PDEP) Participants

FROM: Cynthia C. Durley, M.Ed., MBA
Executive Director

RE: Sedation in Pediatric Dentistry PDEP

Thank you for your interest in DANB's new Sedation in Pediatric Dentistry PDEP offering. The articles in this module cover a range of topics related to sedation in pediatric dentistry, and we hope you will find this program a rewarding way to earn continuing dental education credits.

On behalf of the DANB Board of Directors, I would like to take this opportunity to recognize the American Academy of Pediatric Dentistry (AAPD) for its generous contribution, without which this new PDEP offering would not be possible. The AAPD has kindly provided the following articles. The first four are from *Pediatric Dentistry* and the final is from the *Journal of Dentistry for Children*:

- "Effects of Deep Sedation on Behaviors and Side Effects in Children Undergoing Different Dental Procedures," Mar/Apr 11, v. 33, n. 2
- "Effect on Behavior of Dental Treatment Rendered Under Conscious Sedation and General Anesthesia in Pediatric Patients," Nov/Dec 09, v. 31, n. 7
- "Adverse Events during Pediatric Dental Anesthesia and Sedation: A Review of Closed Malpractice Insurance Claims," May/Jun 12, v. 34, n. 3
- "Stainless Steel Crown Aspiration during Sedation in Pediatric Dentistry," Jan/Feb 08, v. 30, n. 1
- "Current Status of Nitrous Oxide as a Behavior Management Practice Routine in Pediatric Dentistry," 2011, v. 78, n. 1

The AAPD is the recognized authority on children's oral health. Founded in 1947, the AAPD is a not-for-profit professional membership association representing the specialty of pediatric dentistry.

The mission of the AAPD is to advocate policies, guidelines, and programs that promote optimal oral health and oral health care for infants and children through adolescence, including those with special health care needs.

The Academy serves and represents its membership in the areas of professional development and governmental and legislative activities.

Visit the AAPD website at www.aapd.org.



Scientific Article

Effects of Deep Sedation on Behaviors and Side Effects in Children Undergoing Different Dental Procedures

Levent Özer, DDS, PhD¹ • Zeynep Başak Öktem, DDS, PhD² • Zuhâl Küçükyavuz, MD³

Abstract: ***Purpose:** The purpose of this study was to determine behavioral characteristics and side effects in children undergoing restorative dental treatment with or without dental extractions under deep sedation. **Methods:** This study comprised 68 healthy 4- to 7-year-old children; 34 each were assigned to extraction and restorative groups. Children's behaviors were assessed using the following scales: (1) modified Frankl scale (preoperative period); (2) modified Houpt behavior rating scale (venipuncture period); and (3) modified Wilton behavior scale (recovery period). All complications observed during and after sedation were also recorded. **Results:** The occurrence of agitation was higher in the extraction group; however, this difference was statistically significant only at 15 minutes after completion of sedation. In both groups, the most common side effects observed were: involuntary movement (during sedation); sleepiness; agitation and dizziness (during the early recovery period); irritability; crying; and sleepiness (following hospital discharge). **Conclusions:** Agitation may be observed during procedures involving extractions. Few side effects were observed during and after the sedation procedure in both groups. (Pediatr Dent 2011;33:158-64) Received September 16, 2009 | Last Revision March 11, 2010 | Accepted May 17, 2010*

KEYWORDS: DEEP SEDATION, DENTAL TREATMENT, BEHAVIORAL CHANGES, SIDE EFFECTS

Sedation has been used in dentistry for several decades. The sedation of children is different from the sedation of adults. While moderate sedation is often sufficient for performing dental treatment in adults, deeper sedation levels may be required occasionally for children younger than 7-years-old.¹ Children are often sedated to control their behavior and ensure the safe and quality completion of a procedure. Moderate sedation may not always be sufficient in managing behavior, and deep sedation or general anesthesia may be required.²

Deep sedation is defined by the American Society of Anesthesiologists as a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.³

Restorative treatment with or without dental extractions is a widely used therapeutic procedure in young children. The purpose of this study was to determine behavioral characteristics, side effects, physiological changes, and recovery times in children undergoing restorative dental treatment with or without dental extractions under deep sedation.

Methods

Subjects were selected, as a convenience sample among 4- to 7-year-olds who applied to the Department of Dentistry, Faculty of Dentistry, Ankara University, Ankara, Turkey, for routine dental treatment between 2006 and 2007. Children who needed invasive dental treatment, but whose behavior could not be managed and whose parents consented to treatment under deep sedation, were included in the study. All children were seen initially using basic behavior management techniques, such as: tell-show-do; positive reinforcement; controlled expectations; distraction; modeling; and suggestion by the same pediatric dentist before sedation was considered. Children with medical illnesses or moderate-to-severe mental retardation were excluded from the study.

In total, 68 healthy children (ASA I) were included in the study. Of these, 34 who required 1 or more extractions in addition to restorative treatment were assigned to an extraction group (Group E), and 34 children who required restorative treatment without extraction were assigned to a restorative group (Group R). Dental treatment of both groups consisted of restorative treatments, such as: compomer, amalgam, or glass ionomer restorations; stainless steel crowns; pulp capping; pulpotomies; fissure sealants; and topical fluoride application. Five to 8 teeth of each patient were restored and types of procedures performed were similar between the two groups with the exception of the extractions. During dental treatment a plastic mouth prop was used to keep the children's mouth open. All cavity preparations were performed using water coolant. Due to loss of airway

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reflexes, sponges were used to protect the airway from aspiration of water, blood etc. In addition, because of continued salivary flow, the oropharyngeal region was aspirated frequently. Therefore, a rubber dam was not used so that the oropharynx could be cleaned easily, and the teeth were isolated with cotton pellets during dental treatment. In Group E, only decayed teeth that were nonrestorable were extracted. Written informed consent was obtained from parents of all participants, and ethics committee review and approval by Ethics Committee of Faculty of Dentistry (Ankara University, Turkey) was completed.

Following clinical and radiographic examinations, all treatment was planned and executed by an experienced pediatric dentist, and all behavioral assessments were performed by another pediatric dentist. Children fasted for at least 4 hours prior to sedation, and EMLA cream was applied to possible venipuncture sites by parents. Before the procedure, children were allowed to play in a playroom for 15 to 20 minutes. During this preoperative observation period, their behaviors were observed and recorded using a modified Frankl behavior rating scale (Table 1).⁴ Patients and their parents were then taken to the dental unit, where an anesthesiologist provided the children with a simplified, easily understandable explanation of the intravenous catheterization procedure.

Table 1. MODIFIED FRANKL SCALE

Rating	Behavior	
1	Definitely negative	Refusing to play game, crying forcefully or fearfully, or any other overt evidence of extreme negativism
2	Negative	Reluctance to playing, uncooperative behavior, and some evidence of negative attitude that is not pronounced
3	Positive	Acceptance of playing, willingness to comply with the dentist, cooperative behavior
4	Definitely positive	Good rapport with the dentist, interested in the environment, laughing and enjoying the situation

Table 2. MODIFIED HOUPPT SCALE

Haupt behavior scale	
1	No movement
2	Controllable movement
3	Continuous movement
4	Violent movement
Haupt crying scale	
1	No crying
2	Intermittent mild crying
3	Continuous persistent crying
4	Hysterical crying

The children's behaviors during venipuncture were evaluated using the modified Houpt behavior rating scale (Table 2).⁵ All preoperative and postoperative phases and the intravenous catheterization procedure were videotaped to verify the reliability of the behavior scales. The pediatric dentist who performed all behavioral assessments randomly selected videotapes of 10 patients and assessed each twice to standardize the behavioral assessments.

The first rating assessed was taken as the actual rating. Intraexaminer reliability regarding the modified Frankl scale, modified Houpt scale, and modified Wilton behavior scale was evaluated via Kappa statistics. Kappa values were: 0.91 for the modified Frankl scale; 0.87 for the modified Houpt scale; and 0.79 for the modified Wilton behavior scale. According to Fleiss, values between 1 and 0.75 represent excellent agreement.⁶

Pulse oxymetry and ECG monitoring were applied to all children, and baseline vital signs were recorded before drug administration. After obtaining intravenous access, all patients were sedated with midazolam (Dormicum, Roche, Fontenay, France; 0.1 mg/kg⁻¹) and propofol (Propofol, Abbott, Chicago, USA; 1 mg/kg⁻¹) by the anesthesiologist. Parents were allowed to stay with their children during venipuncture. Once unconscious, children were positioned in a dental chair, provided with supplemental oxygen (4 L/minute⁻¹) via a nasal cannula, and allowed to breathe spontaneously. Then, children were administered fentanyl citrate (Fentanyl, Janssen Pharmaceutica N.V., Belgium) intravenously (1 µg/kg⁻¹). All children were monitored by the anesthesiologist during the entire procedure. Children exhibiting signs of insufficient sedation (ie, involuntary movement, coughing, irregular breathing, laryngospasm, and tachycardia) during the procedure were administered supplemental propofol (0.5 mg/kg⁻¹) or fentanyl (0.5-1 µg/kg⁻¹), as required. Oxygen desaturation was defined as mild (85-90%) and severe (<85%); bradycardia and tachycardia were defined as a heart rate 30% below or above baseline, respectively. All complications observed during sedation were recorded by the same anesthesiologist, who was available at all times to interrupt the procedure and check the airway, if necessary.

Following restorative treatment, all Group E children received additional doses of fentanyl (0.5 mg/kg⁻¹) and propofol (0.5 mg/kg⁻¹) prior to extraction to prevent postoperative pain following extraction. Infiltration anesthesia (4% articaine hydrochloride with 1:100,000 epinephrine, 4 mg/kg⁻¹) was also administered to control hemorrhage, and extractions were performed.

Table 3. MODIFIED WILTON BEHAVIOR SCALE

Rating	Behavior
1	Agitated
2	Alert, restless
3	Calm, eyes spontaneously open
4	Drowsy, responds to minor stimulation
5	Asleep, able to rouse, but does not respond to minor stimulation

Sedation was stopped upon completion of treatment, and patients were taken to a recovery room with their parents. Time to eye opening and responsiveness to verbal commands were recorded in minutes. Recovery characteristics were assessed at 5-minute intervals using a modified Wilton behavior scale (Table 3).⁷ All side effects observed during the hospital stay were recorded. Time to discharge was defined as the time from the end of the procedure until the child fulfilled the discharge criteria, which included being fully awake and able to cough or breathe deeply, move all limbs voluntarily and maintain an oxygen saturation level greater than 93% on room air.⁸ The anesthesiologist determined the discharge time of all patients.

Parents were instructed to contact the hospital if they observed any adverse event that could be related to the procedure (eg, nausea, vomiting, or difficulty breathing) within 24 hours after discharge from the hospital. Parents were contacted by phone 48 hours after the procedure to answer a questionnaire related to complications observed at home by the same pediatric dentist who made all behavior assessments.

Statistical analysis of data was performed using SPSS 9.0 (SPSS Inc, Chicago, Ill). To compare demographic data, time to eye opening, time to responsiveness to verbal commands, drug doses, and duration of hospital stay between groups, *t* tests were used (Table 4). The chi-square test was used to

Table 4. DEMOGRAPHIC DATA, TIME TO EYE OPENING, TIME TO RESPONSIVENESS TO VERBAL COMMANDS, DRUG DOSES, AND DURATION OF HOSPITAL STAY OF EXTRACTION AND RESTORATIVE GROUPS

	Group E (N=34)	Group R (N=34)	P-value
Age (year) ±(SD)	5.0±0.9	5.0±0.8	.70
4	12	11	
5	10	12	
6	10	11	
7	2	0	
Weight (kg) ±(SD)	17.5±2.9	17.5±3.4	.90
Gender (males/females)	16/18	19/15	.60
Duration of procedure (min) ±(SD)	58.5±13.5	58.2±12.9	.90
Time to eye opening (min) ±(SD)	9.6±3.4	7.8±3.0	.02*
Time to answering verbal command (min) ±(SD)	11.3±3.6	9.0±3.0	.005*
Time to discharge (min) ±(SD)	31.3±2.2	30.7±2.7	.18
Total dose of midazolam (mg) ±(SD)	2.1±0.3	2.2±0.8	.70
Total dose of fentanyl (µg) ±(SD)	41.9±11.8	39.7±12.4	.45
Total dose of propofol (mg) ±(SD)	143.6±30.8	138.6±36.9	.54

Table 5. DISTRIBUTION OF PATIENTS ACCORDING TO MODIFIED FRANKL SCALE AND MODIFIED HOUPPT SCALE

	Group E patients N (%)	Group R patients N (%)
Modified Frankl scale		
Cooperative (3-4)	22 (65)	25 (74)
Uncooperative (1-2)	12 (35)	9 (26)
Modified Houppt scale		
Houppt behavior scale		
Acceptable (1-2)	21 (62)	23 (68)
Not acceptable (3-4)	13 (38)	11 (32)
Houppt crying scale		
Acceptable (1-2)	21 (62)	23 (68)
Continuous and hysterical crying (3-4)	13 (38)	11 (32)

compare incidences of adverse events during and after sedation between groups. A *P*-value of less than .05 was considered statistically significant.

Results

Demographic data, time to eye opening, time to responsiveness to verbal commands, drug doses, and duration of hospital stay are given in Table 4. Time to eye opening and time to responsiveness to verbal commands were statistically longer (*P*=.02 and *P*=.005, respectively) in Group E vs Group R. There was no difference in the duration of hospital stay between the 2 groups (*P*>.05).

According to the Frankl and modified Houppt scales, there was no significant difference between the behavior of the 2 groups during the presedation or venipuncture periods (*P*>.05; Table 5). Immediately after administering sedative drugs, oxygen desaturation on room air was observed in 24 Group E patients (71%) and 22 Group R patients (65%). In all cases, however, desaturation was mild and quickly returned to a satisfactory level (≥95%) following neck repositioning (head-tilt, chin-lift) and application of nasal oxygen. Mild desaturation during treatment also was observed for a short period (<20 seconds) in 6 Group E patients (18%) and 7 Group R patients (21%). This desaturation was caused by an additional opioid dose in 2 patients, laryngospasm in 1 patient and tonsillar hypertrophy in 1 patient. In the other 9 patients, the cause of desaturation was sponges and water from the dental turbine. These hypoxic occurrences were rapidly normalized by neck repositioning, removal of sponges, or oropharyngeal aspiration.

Side effects observed during sedation and the early recovery periods are shown in Table 6. Involuntary movement was the most common side effect observed during sedation in both groups. Although the occurrence of involuntary movement was higher in Group R (N=29; 85%) than in Group E (N=24; 71%), the difference was not statistically significant

($P=.14$). The most common side effects observed during the early recovery period were dizziness, sleepiness, and agitation. Dizziness was seen in all Group E patients (100%) and in 29 Group R patients (85%). The difference in occurrence of dizziness between the groups was statistically significant ($P=.02$). The rate of sleepiness was higher in Group E ($N=24$; 71%) than in Group R ($N=21$; 62%) and was not statistically significant ($p=0.44$). Severe agitation was also seen in 3 Group E patients (9%) and 5 Group R patients (15%) and was not statistically significant ($P>.23$).

Wilton behavior scale (WBS) scores for the early recovery period are shown in Table 7. At 5 minutes postsedation, 18 Group E patients (52%) and 5 Group R patients (14%) were

asleep (WBS=5). At 10 minutes, 5 Group E patients (14%) were asleep, but no Group R patients. Prior to 15 minutes, there were no differences between groups in the number of patients with WBS scores of 1 (agitated and alert) or 2 (restless). After 15 minutes, the incidences of WBS scores of 1 and 2 were significantly higher in Group E than in Group R.

Side effects after discharge were reported by parents in a questionnaire administered 48 hours after the procedure (see Table 8). The most frequently observed side effects were irritability, crying, and sleepiness during the 48 hours after the procedure. Irritability was observed in 18 Group E patients (53%) and 14 Group R patients (41%). Of these, 13 Group E patients (72%) and 11 Group R patients (79%) were also rated as uncooperative, according to the Frankl scale, before the sedation procedure. Crying was observed in 12 Group E patients (35%) and 7 Group R patients (21%). Neither of the differences between groups, however, was statistically significant. Only 1 Group E patient and 0 Group R patients had nightmares.

Discussion

Deep sedation is an alternative method of sedation for painful procedures in children. While the goals of pediatric sedation may vary according to the procedure performed, they generally target relief of anxiety and pain as well as control of excessive movement. There is no universal protocol for the sedation of children undergoing restorative treatment. Ideally, the sedation technique should be tailored to the needs of the patient and the procedure being performed.⁹ Studies on deeply sedated pediatric patients and recovery characteristics in dentistry, however, are limited. This study investigated behavioral characteristics, side effects, and recovery times in deeply sedated pediatric patients undergoing restorative dental treatment with or without dental extractions.

All providers of deep sedation should be able to rescue patients from the effects of general anesthesia, as mandated by the Joint Commission on Accreditation of Healthcare Organizations. The presence of an anesthesiologist has been recommended during deep sedation of children because of serious

Table 6. SIDE EFFECTS OBSERVED DURING SEDATION AND EARLY RECOVERY PERIOD

	Group E patients N (%)	Group R patients N (%)
During sedation		
Laryngospasm	0 (0)	1 (3)
Coughing	10 (29)	8 (24)
Apnea	0 (0)	0 (0)
Excessive secretion	2 (6)	0 (0)
Desaturation	6 (18)	7 (21)
Involuntary movement	24 (71)	29 (85)
Tachycardia	0 (0)	3 (9)
Bradycardia	0 (0)	0 (0)
Early recovery period		
Coughing	3 (9)	2 (6)
Nausea	0 (0)	0 (0)
Vomiting	0 (0)	0 (0)
Agitation	3 (9)	5 (15)
Sleepiness	24 (71)	21 (62)
Dizziness	34 (100)	29 (85)
Incontinence	1 (3)	2 (6)

* $P=.02$.

Table 7. WILTON BEHAVIOR SCALE (WBS) SCORES DURING RECOVERY PERIOD

Recovery period	Group E patients (N)					Group R patients (N)				
	WBS					WBS				
	1	2	3	4	5	1	2	3	4	5
Postop 5 th min	0	1	0	15	18	0	0	1	24	5
Postop 10 th min	1	2	7	21	5	0	5	12	17	0
Postop 15 th min	6	10	14	4	0	4	5	25	0	0
Postop 20 th min	9	8	17	0	0	5	6	23	0	0
Postop 25 th min	8	8	18	0	0	5	8	21	0	0
Postop 30 th min	9	6	19	0	0	6	5	23	0	0

Table 8. SIDE EFFECTS OBSERVED FOR 48 HOURS AT HOME AFTER THE PROCEDURE

Side effect	Group E N (%)	Group R N (%)
Agitation	17 (50)	12 (35)
Irritation	18 (53)	14 (41)
Crying	12 (35)	7 (21)
Sleepiness	10(29)	12 (35)
Nightmare	1(3)	0 (0)
Nausea	2(6)	1(3)
Vomiting	0 (0)	0 (0)
Dizziness	2(6)	4(12)
Incontinence	0 (0)	0 (0)

associated risks, such as airway obstruction, hypoxia, hypoventilation, and apnea.² In this study, an experienced anesthesiologist was present throughout the sedation procedure.

Previous studies have demonstrated that the use of drug combinations can widen the spectrum of action and decrease the side effects of anesthesia, mainly by reducing the doses of individual drugs required.^{2,10,11} Pharmacokinetic research has found a synergistic effect between propofol and fentanyl and propofol and midazolam.¹² Therefore, in the present study, the induction dose was lowered to 1 mg/kg⁻¹ propofol, used in combination with fentanyl and midazolam.^{9,13}

In the present study, short-term desaturation (<20 seconds) was observed in Groups E (18%) and R (21%). Vardi et al.¹⁴ and Godambe et al.¹⁵ reported higher rates of desaturation (23% and 31%, respectively) in their studies, whereas a study by Vespasiano et al.¹⁶ reported a lower desaturation rate (5%) among children deeply sedated with propofol. In the present study, the lower doses of a combination of 3 drugs may have played a role in lowering the desaturation rate. Airway restriction related to events associated with the dental procedure, however—such as abnormal head and tongue positions; foreign objects like cotton rolls and hand instruments; and the presence of blood, increased secretions, and exogenous water—may have played a role in increasing the desaturation rate. Other airway/respiratory events, such as bronchospasm, apnea, regurgitation, and aspiration, occurred infrequently in our study, in line with Vespasiano et al.¹⁶ Laryngospasm was seen in 1 patient due to aspiration of saliva; this event was eliminated with aspiration of oropharynx.

In the present study, time to eye opening and time to responsiveness to verbal commands were significantly longer in Group E (9.6 and 11.3 minutes, respectively) than Group R (7.8 and 9.0 minutes, respectively). These findings are to be expected, considering that Group E children received additional doses of fentanyl (0.5 mg/kg⁻¹) and propofol (0.5 mg/kg⁻¹) just prior to extraction in order to achieve a deeper level of sedation. For both groups, time to eye opening was shorter than the time reported for a previous study (12.8 minutes), in which only propofol was used for sedation.¹⁷

In the present study, the number of children with a WBS score of 3 ("calm, eyes open spontaneously") was higher in Group R than in Group E for all times recorded; however, the difference between groups was only statistically significant at 15 minutes after sedation. This result may be attributed to the longer dormancy of Group E children during the first 15 minutes caused by the additional doses of fentanyl and propofol.

Agitation can result from any number of sources, including pain, physiological compromise, and anxiety.^{18,19} The stress of intravenous induction and/or a rapid return to consciousness in a strange environment may also account for a large portion of behavioral disturbances during recovery.^{18,20} Postoperative agitation has been reported to occur in 12% to 18% of all children undergoing anesthesia.²⁰⁻²² In a study comparing sevoflurane with propofol, Picard et al.⁸ found agitation rates of 9% for patients administered propofol and 46% for those administered sevoflurane. In another study,

the postoperative agitation rate was 9% among patients receiving sevoflurane.²³ In a study of dental extraction and restoration performed under general anesthesia, Ersin et al.²⁴ found postoperative agitation rates of 36% among patients administered halothane and 76% among patients administered sevoflurane.

In our study, the postsedation occurrence of agitation was 18% in Group E and 21% in Group R; however, only 9% of Group E children and 15% of Group R children had complex symptoms consistent with severe agitation.²⁵ The number of children rated as "agitated and alert" (WBS=1) was higher in Group E than Group R at all recorded times; however, this difference was only statistically significant at 15 minutes. It is more likely that the difference in WBS scores between groups is related to the local anesthesia administered to Group E children rather than to pain, since local anesthesia can cause sensations such as paresthesia of the mouth, tongue, and cheeks that children have difficulty understanding. In comparison to our study, a previous study in which local anesthesia was not administered reported a higher postoperative agitation rate (74%), which the authors claimed to be associated with postoperative pain following dental treatment.²⁶ In the present study, to inhibit agitation due to pain, Group E children were administered local anesthesia before extraction.

One of the most significant differences between Groups E and R during the early recovery period was the higher incidence of dizziness found in Group E. This finding is likely due to the additional doses of propofol and opioid administered to Group E children close to the end of sedation and is not surprising, considering the longer period of dizziness and sleepiness associated with the higher drug doses, as also reported by Needleman et al.²⁶

One of this study's major findings was that children who exhibited restlessness and behavioral disorders following sedation had also exhibited negative behavior before sedation, according to Frankl scale rates and postoperative irritability rates 48 hours after sedation. This was true for 72% and 79% of the patients with postsedation restlessness in Groups E and R, respectively. These findings agree with those of earlier studies that identified children at risk of developing postanesthesia agitation who are more emotional and impulsive and less social and adaptable to environmental changes.^{18,20,27-29} Previous studies have demonstrated an association between preoperative anxiety and postdischarge behaviour.^{28,30} Kain et al.²⁸ also found that 67% of children exhibited new negative behavior on the day after surgery, 45% at 2 days after surgery, and 23% at 2 weeks after surgery. In the present study, according to parental perceptions, children in Groups E and R experienced high rates of postsedation agitation (Group E=50%; Group R=35%). None of the patients remembered anything about the procedure; however, the Group E child who had exhibited the most negative behavior prior to sedation had a postoperative nightmare.

Some studies have reported that administering opioids can increase the likelihood of postoperative nausea and vomiting.^{26,31,32} These postoperative side effects, however,

could also be caused by swallowing blood and oral intake of food or fluids pre- and/or postoperatively. In our study, nausea occurred in only 2 Group E patients and 1 Group R patient. These rates are similar to those reported by Vinckier et al.,³³ but lower than those reported in other similar studies.^{24,26,34-37} Despite the use of fentanyl, the low rates of nausea observed in the present study may be related to hemorrhage control following extraction and the fasting of children before and after sedation.

Conclusions

1. A higher rate of behavioral change was observed among children who had extractions performed in addition to restorative treatment when compared to children who underwent restorative treatment only; however, this difference was not statistically significant.
2. There was no significant difference between the two groups in relation to side effects.

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Scientific Article



Effect on Behavior of Dental Treatment Rendered Under Conscious Sedation and General Anesthesia in Pediatric Patients

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Abstract: *Purpose:* The purpose of this study was to determine if there were differences in the amount of time it took to exhibit positive behavior following dental treatment under general anesthesia (GA) vs conscious sedation (CS). *Methods:* This retrospective study examined charts of a pediatric dental office between 1999 to 2003. Patients presenting before 36 months old for an initial exam who were diagnosed with early childhood caries were included in the study. Following the initial exam, the patients were treated under GA or CS. These patients were followed to determine their behavior at the 6-, 12-, and 18-month recall appointments. *Results:* Thirty-nine patients who received treatment under GA were identified and 41 were treated under CS. The former were 3.9 times ($P < .01$) ($P = .0057$) more likely to exhibit positive behavior at the 6-month recall appointment. Although not statistically significant, a trend toward positive behavior was exhibited at the 12- and 18-month appointments. *Conclusion:* Clinicians should consider future behavior, in addition to caries, when determining treatment modalities for children presenting to their office with dental caries. (*Pediatr Dent* 2009;31:492-7) Received June 24, 2008 | Last Revision September 21, 2008 | Revision Accepted October 20, 2008

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Behavior management techniques have been changing among pediatric dentists.¹ Parenting philosophies, expectations, and acceptance dictate the use of behavior management practices.² Parents have become more willing to allow dental treatment of their children using conscious sedation (CS) and general anesthesia (GA) instead of other behavior management techniques.¹ There is speculation as to whether these practices will have long-term effects on patient behavior.

Treating patients under some form of sedation is widely accepted among practitioners. A 2004 study surveyed 65 advanced education programs for pediatric dentistry in the United States.³ Of the programs responding, 100 percent were teaching pharmacologic techniques (CS, IV sedation, GA) as an accepted management technique.³

A similar survey of 56 United States dental schools showed of the 48 schools responding; 67 percent to 98 percent of the programs taught pharmacologic techniques as acceptable for behavior management.⁴

Traditionally, the use of GA for the treatment of pediatric dental patients has been reserved for specific cases. The American Academy of Pediatric Dentistry (AAPD) has defined the guidelines by which patients should be judged when treating under GA. Indications for dental treatment under GA include patients: who cannot cooperate due to a lack of psychological or emotional maturity and/or mental, physical, or medical disability; for whom local anesthesia is ineffective because of acute infection, anatomic variations, or allergy; who are extremely uncooperative, fearful, anxious; who are uncommunicative children or adolescents; who require significant surgical procedures; for whom the use of GA may protect the developing psyche and/or reduce medical risk; and who require immediate, comprehensive oral/dental care.⁵ Other sources have established similar rationale for treatment under GA.⁶⁻⁸

The indications for the administration of sedation have also been outlined by the AAPD. Indications include patients: who are fearful and anxious; for whom basic behavior guidance techniques have not been successful; who cannot cooperate due to lack of psychological or emotional maturity and/or mental, physical, or medical disability; and

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Table 1. FRANKL BEHAVIOR SCALE

Frankl scale	Rating	Description
Definitely negative	1	Refusal of treatment, forceful crying, fearfulness, or any other overt evidence of extreme negativism
Negative	2	Reluctance to accept treatment, uncooperativeness, some evidence of negative attitude, but not pronounced (sullen, withdrawn)
Positive	3	Acceptance of treatment, cautious behavior at times, willingness to comply with the dentist, at times with reservation, but follows the dentist's direction cooperatively
Definitely positive	4	Good rapport with the dentist, interest in the dental procedures, exhibits laughter and enjoyment

for whom the use of sedation may protect the developing psyche and/or reduce medical risk.⁵

GA is often implemented to provide safe, comprehensive treatment under ideal conditions for both the patient and the practitioner.^{5,6,8-10} Treatment rendered under GA is often superior to treatment rendered under other forms of behavior management.^{11,12}

It is often difficult deciding when to select CS vs GA. Although some practitioners prefer to attempt sedation first for a defiant or preoperative patient, many practitioners decide to treat under GA as their first choice.¹³ The challenge for parents and clinicians is to create an environment which will allow for the acceptance of treatment in a positive manner in future dental visits.⁹

In a 1991 study by Sullivan et al., 80 children treated under GA were observed for a minimum of 2 years following treatment.¹² Eighty percent of the children who required treatment at a later date accepted local anesthetic and dental treatment without the assistance of advanced behavior management techniques.

In 1998, Kupietzky and Blumenstyk reported data on behavior of patients following treatment under GA vs oral CS.¹⁴ The study reported no difference in behavior of patients treated under CS vs GA. It was also reported there was no effect on behavior in dental experiences after sedation.

A study in 2000 by Peretz et al. reported data on children receiving dental treatment under CS or GA at the pediatric dental clinic of Hebrew University-Hadassah School of Medicine, Jerusalem, Israel.¹⁵ The study reported no relationship between the use of oral CS or GA and future behavior of pediatric dental patients. In 2002, McComb et al. reported similar findings between oral CS and future behavior of children in a dental setting.¹⁶

The purpose of this study was to determine if there were differences in the amount of time it took patients to exhibit positive behavior after receiving dental treatment under GA vs those receiving dental treatment under CS.

Methods

This retrospective study was approved by the Institutional Review Board of Indiana University/Purdue University, Indianapolis, Ind. Charts of a pediatric dental office in Indianapolis, logged between 1999 and 2003, were reviewed. All charts of patients receiving dental treatment under GA and CS were reviewed. Charts were selected for patients who, before 36-months-old, presented to the pediatric dental office for an initial oral exam and were diagnosed with early childhood caries (ECC). At this age, ECC is defined by the AAPD as a patient having at least 1 carious lesion, 1 tooth missing due to caries, or 1 dental restoration.¹⁷ Information was collected concerning age, race, gender, behavior at the initial exam, and existing medical conditions of each patient. Medical conditions potentially influencing behavior were not excluded. The behavior index utilized in this investigation was the Frankl behavior scale¹⁸ (Table 1).

Behavior scores were recorded by the pediatric dentist examining the patient at the time of the initial visit. These initial evaluations were performed by 1 of 3 dentists working in the facility. Following the initial visit, the patients were treated by the administration of GA or CS for ECC.

The CS regimen followed for each patient included chloral hydrate administered at 50 mg/kg with a maximum dose of 1 g, and hydroxyzine administered at 1 mg/lb with a maximum dose of 25 mg. Nitrous oxide sedation was also utilized at 50 percent. The use of protective stabilization was used to ensure the safety of the patient treated under CS.

The patients treated under GA were all performed at the Riley Hospital for Children in Indianapolis under the supervision of a pediatric anesthesiologist. The patients were treated in the outpatient surgery center and released with no unexpected outcomes.

Information regarding the patient's behavior was recorded following treatment under CS or GA. This information was then used to determine patient behavior at their 6-, 12, and 18-month appointments.

The primary outcome of interest was behavior exhibited during recall appointments following GA vs CS.

Table 2. SUBJECT CHARACTERISTICS AND VISIT DESCRIPTORS

	General anesthesia	Sedation N (%)	P-value N (%)
Male	22 (56)	20 (49)	.50
Female	17 (44)	21 (51)	.50
Total	39(100)	41 (100)	
Race			
African American	26 (67)	32 (78)	.18*
Caucasian	13 (33)	8 (20)	
Asian		1(2)	
Age (mean±SD) in years	2.43±0.57	2.48±0.45	.66
Comorbidities preadministration			
Asthma	11 (28)	7 (17)	.23
Sensory disabilities	4 (10)		.05
Sickle cell disease	2 (5)	3 (7)	.10
Preadministration Frankl score (mean±SD)	1.6±0.9	1.5±0.9	.62

* Comparison of African Americans and Caucasians only.

The behavior score recorded during the initial visit was collected to serve as a baseline behavior score. Comorbidities were also collected to control for possible biases in the data. For example, if all autistic children were given GA, then the analyses would be adjusted since behavior of autistic children is different from nonautistic children.

This retrospective study implies that the decision to use one form of pharmacologic behavior management over another was not a random decision. To adjust for possible biases in the data between the 2 groups, differences in baseline behavior, comorbidities, age, gender, race, severity of dental problems, and all other collected factors were tested for being significantly different.

Positive behavior was defined as a Frankl score of 3 or 4. Groups were tested for differences in the percentages of positive behavior exhibited at approximately the 6-, 12-, and 18-month recall appointments. To compare baseline variables between groups, only the first administration of sedation or GA for each patient was used. *T* tests, chi-square tests, and Fisher's exact tests were used to compare subject characteristics between groups.

The groups that resulted in a positive outcome were modeled separately for each visit. Baseline subject characteristics as well as the group effect were tested for significant associations with the outcome by using univariate repeated measures logistic regression models. Variables significant at the 0.3 level were included in a larger multiple

regression model. Backwards elimination was used to remove nonsignificant variables. To remain in the model, variables had to have a significance level of 0.05.

Results

Thirty-nine patients fitting the inclusion criteria treated under GA were identified and 41 were treated under CS. Subject characteristics are shown in Table 2. The odds of patients exhibiting positive behavior at the 6-month recall appointment were 3.9 times ($P=.01$) ($P=.0057$) higher for patients treated under GA vs CS (Table 3).

Patients seen at the 12-month recall appointment were 1.9 times ($P=.25$) ($P=.2469$) more likely to exhibit positive behavior following treatment under GA vs CS, which was not statistically significant (Table 3). Patients seen at the 18-month recall appointments were 2.25 times ($P=.25$) ($P=.2481$) more likely to exhibit positive behavior following treatment under GA vs CS, which was not statistically significant (Table 3).

There was a statistically significant difference in the number of teeth treated for patients seen under GA vs CS. It was found that a mean score of 11.0 ± 2.4 teeth ($P < .01$) ($P = .0020$) were treated for patients under GA vs 9.0 ± 3.1 teeth ($P < .01$) ($P = .0020$) treated for patients under CS (Table 2).

There were no statistically significant findings among groups of different sex, race, or medical histories (Table 2 and 4). No group exhibited statistically significant results to warrant a multiple logistic regression model.

Discussion

There are many challenges facing pediatric dentists in behavior management in the 21st century. The decision of how to treat a pediatric dental patient is influenced by society, marketing, media, communications, technology, and parenting practices.²

The behavior of pediatric patients reflects fewer boundaries, less discipline and self-control, and lowered behavior expectations by parents and society.² This tendency toward poor behavior has placed pharmacologic methods of managing pediatric patients to the forefront.²

Behavior following dental treatment is a concern for pediatric dentists when selecting a behavior management technique. The cost and benefit of management is taken into consideration with each decision, and the goal to create and maintain a well-behaved and consistent patient is important. The choices practitioners make are based on training, prior experiences, and scientific research.²

In this study, patients were more likely to exhibit positive behavior following dental treatment for ECC under

GA vs CS at their 6-month recall appointment. Additionally, although not statistically significant, there was a definite trend toward better behavior at the 12- and 18-month appointments. Patient behavior did improve over time following treatment under CS. The group treated under GA, however, exhibited positive behavior in a shorter time period. If patient behavior following treatment under GA consistently exhibits an increased likelihood of positive behavior vs behavior seen following CS, clinicians may be more likely to select GA over CS for their patient's initial treatment. This may also be a determining factor for clinicians treating children under sedation for reasons other than behavior.

In this study, patients were selected before 36-months-old who had no previous dental treatment to minimize anxiety caused by prior experience. This is an earlier age than many of the prior studies evaluating behavior following treatment rendered under GA or CS. The baseline behavior displayed by the patients in both groups was definitely negative to negative at the initial visit. The natural progression for most patients is to continue toward positive behavior. Using this age group is significant to demonstrate a trend toward patients exhibiting positive behavior earlier following dental treatment under GA vs CS.

In many of the earlier studies, patients were seen between 36- to 71-months-old for their treatment. At this age, many patients may have experienced dental treatment in some capacity and have established coping mechanisms to deal with their experiences. This may explain the differences seen between prior studies and this study.

Patients in this study were not eliminated for any pre-existing medical conditions. This is a difference between this study and many prior studies. No statistical significance was found in behavior across ethnic groups, gender, or medical conditions. Even in medical conditions that might lend to oral defensiveness, there were no statistically significant differences in behavior. Further investigation might be warranted to explore the influence of such conditions and behavior management's effect on future behavior.

All sedations performed in this study were performed using chloral hydrate and hydroxyzine. Chloral hydrate was administered at 50 mg/kg with a maximum dose of 1 g, and hydroxyzine was administered at 1 mg/lb with a maximum dose of 25 mg. Sedations performed with other therapeutics may elicit different results. The use of only one sedation protocol limited the bias of the retrospective study. The use of other sedative protocols including intravenous sedation may warrant further investigation.

In this study, all patients seen for treatment under both CS and GA received financial assistance through Medicaid. The patients followed were from a low socioeconomic status. These patients are considered high risk for caries according to the caries risk assessment tool (CAT).¹⁹ This may be a different patient population than was followed in prior studies, although no information was given in these studies describing socioeconomic status. By holding this factor constant, we attempted to limit bias intrinsic to retrospective studies. This may have an effect on the number of children exhibiting ECC. Our results, however, were based on the percentage of patients exhibiting positive or negative

Table 3. POSITIVE BEHAVIOR AT FOLLOW-UP VISITS

Recall appointment time (mos)	General anesthesia	Sedation N (%)	Odds ratio	95 percent confidence interval	P-value N (%)
6	26 (72)	16 (40)	3.9*	(1.5, 10.2)	<.01
12	21 (72)	18 (58)	1.9	(0.6, 5.6)	.25
18	18 (82)	16 (67)	2.3	(0.6, 8.9)	.25

* Statistically significant.

Table 4. MEDICAL HISTORY INFORMATION

	Anemia	Asthma	Sensory problems	Developmental delay	Heart murmur	Seasonal allergies	Sickle cell	Sulfa drug allergy	Ventriculo-peritoneal shunt	Ventricular septal defect	Total
GA*	0	11	4	1	3	1	2	0	1	1	24
CS†	1	7	0	1	0	0	3	1	0	0	13
Total	1	18	4	2	3	1	5	1	1	1	

* GA= General Anesthesia.

† CS= Conscious Sedation.

behavior. By following this percentage, it is assumed that these results will be consistent across multiple patient populations. There was also no financial influence in the decision to treat the patient under CS vs GA for the parents or the practitioner.

There was a significant dropout rate following the patients seen at the 6-month recall appointment to the 12- and 18-month recall appointments. Many patients did not return for routine dental appointments and many no longer sought dental treatment following their initial treatment. This is a consistent finding among patients of lower socioeconomic status.²⁰ This may have affected the significance of the results from the recall appointments at 12- and 18-months.

The study by McComb reported no relationship between oral CS and future behavior of children in a dental setting.¹⁶ There are many differences between the design utilized by this study and the study by McComb. The latter followed 38 children between 39 to 71 months old who were treated with oral sedation 2 to 34 months previously. Patients were sedated using midazolam or chloral hydrate and 50 percent nitrous oxide and utilized medical restraint during the sedation. The study group was compared to a control group of 38 children who received dental treatment without the use of sedation. These patients were matched to the study group in age and gender. The subjects received a dental prophylaxis and examination, at which time behavior was recorded. The studies used different CS protocols, patient populations, and inclusion criteria. This may be the reason for the difference seen in behavior following CS.

The study by Peretz reported no relationship between the use of oral CS or GA and future behavior of pediatric dental patients.¹⁵ In that study, data on 65 children who received dental treatment under CS or GA at the pediatric dental clinic of Hebrew University-Hadassah School of Medicine were followed. These patients were evaluated for behavior post-treatment at a mean age of 49.0±11.0 months following treatment under GA and a mean age of 45.5±10.6 months following treatment under CS. Patients were sedated using hydroxyzine at 3.7 mg/kg and nitrous oxide at 40 percent to 50 percent. Patients treated under CS also often needed multiple appointments to complete their treatment. Again, different patient populations, ages, and sedation protocols were utilized between the studies.

Kupietzky and Blumenstyk followed 20 children who received dental treatment under GA and 25 children who received treatment under CS in private practice in Israel.¹⁴ The patients had no previous negative medical experiences. They were in good health (ASA 1), between 36 and 72 months old, and in need of dental treatment. The sedation protocol consisted of administration of hydroxyzine, 5 mg/kg, with a maximum dose of 100 mg. The study reported no difference in behavior of patients treated under CS vs GA. It was also reported there was no effect on be-

havior in dental experiences after sedation. These results were contrary to this study's findings. Yet again, differences may be due to variation in ages, sedation protocols, and populations between the studies.

Retrospective studies have an inherent amount of bias associated with their results. In this study, bias was limited through the inclusion criteria and study design. All sedations were performed by the same practitioner, limiting bias. Patients were seen by different practitioners at recall appointments. Each practitioner could have different interpretation of the Frankl scale, limiting the consistency of which the behavior was judged. This retrospective study did not allow for bias from the data collector to create a "blind" environment. Not having the control of a prospective study does limit the correlation that can be drawn between effect of treatment on behavior. In this study, the correlation between behavior and behavior management techniques is still significant for the practicing dentist.

Future long-term studies on anxiety and behavior of patients could be beneficial to determine if the memory of treatment under GA or CS would lead to future dental anxiety. Dental anxiety as adults may lead to low self esteem and low dental moral, causing many patients avoid routine dental treatment.^{21,22}

Conclusions

Based on this study's results, the following conclusions can be made:

1. Patients were more likely to exhibit positive behavior at their 6-month recall appointment following dental treatment for early childhood caries under general anesthesia vs those treated under oral conscious sedation ($P<.01$) ($P=.0057$).
2. At the 12- and 18-month recall appointments, patients were more likely to exhibit positive behavior following treatment under general anesthesia; however, this was not statistically significant ($P=.25$) ($P=.2469$ and $P=.2481$ respectively).
3. Clinician should consider future behavior in addition to caries when determining treatment modalities for children presenting to their office with dental caries.

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Scientific Article



Adverse Events during Pediatric Dental Anesthesia and Sedation: A Review of Closed Malpractice Insurance Claims

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Abstract: Purpose: The purpose of this study of closed malpractice insurance claims was to provide descriptive data of adverse events related to child sedation and anesthesia in the dental office. **Methods:** The malpractice claims databases of two professional liability carriers were searched using pre-determined keywords for all closed claims involving anesthesia in pediatric dental patients from 1993-2007. **Results:** The database searches resulted in 17 claims dealing with adverse anesthesia events of which 13 involved sedation, 3 involved local anesthesia alone, and 1 involved general anesthesia. Fifty-three percent of the claims involved patient death or permanent brain damage; in these claims, the average patient age was 3.6 years, 6 involved general dentists as the anesthesia provider, and 2 involved local anesthesia alone. Local anesthetic overdoses were observed in 41% of the claims. The location of adverse event occurrence was in the dental office where care was being provided in 71% of the claims. Of the 13 claims involving sedation, only 1 claim involved the use of physiologic monitoring. **Conclusions:** Very young patients (≤ 3 -years-old) are at greatest risk during administration of sedative and/or local anesthetic agents. Some practitioners are inadequately monitoring patients during sedation procedures. Adverse events have a high chance of occurring at the dental office where care is being provided. (*Pediatr Dent* 2012;34:231-8) Received July 29, 2010 | Last Revision November 15, 2010 | Accepted December 21, 2010

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In-office sedation usage by dentists to treat children has increased over the past 15 years. It is estimated that between 10% to 20% of children will require pharmacosedation to safely and efficiently complete dental treatment.^{1,2} Children present the highest risk and lowest error tolerance in patient safety during sedation procedures. Although rare, the most serious adverse outcomes of pediatric sedation are brain damage and death. Precipitating adverse events to these tragic outcomes are primarily respiratory in nature owing to the child's respiratory and cardiopulmonary physiology and anatomy. Less serious adverse events range from vomiting and increased secretions to prolonged sedation and recovery.³

Attempts made to extrapolate the annual number of pediatric dental sedations yield estimates of between 100,000 to 250,000.⁴ There is, however, currently no reliable measure of the number of adverse events associated with these sedations or their overall safety record. Furthermore, there is truly no effective manner by which to quantitatively measure anesthetic safety in dentistry for children. Numerous studies have addressed the clinical effectiveness of various sedation regimens and protocols, but while the occurrence of any adverse events is typically included, specific details pertaining to these events are rarely discussed.⁵⁻⁷

Different approaches that have been utilized to study adverse events related to sedation in dentistry include surveys of state dental boards that maintain incident records of major morbidity and mortality, reviews of the Food and Drug Administration (FDA) adverse drug event reporting system, and published case reports.⁸ In their oft-cited study, Goodson and Moore collected published reports, case histories, and court documents involving 14 incidents of life-threatening reactions after pediatric dental sedation; they concluded that polypharmacy with multiple central nervous system (CNS) depressant agents may lead to unpredictable and severe interactions.⁹ The FDA database was recently used in a large study of adverse sedation events in pediatrics, in which the authors identified that a disproportionate number of cases resulting in death or permanent neurologic damage involved anesthesia/sedation for dental procedures.^{10,11}

Another means for studying adverse events is to survey dental practitioners directly. Many surveys have been completed to identify trends in sedation usage, preferred sedation regimens, and assessments of sedation success. No published survey studies, however, have specifically targeted adverse outcomes and the events leading up to them.^{1,12-19}

Analysis of closed malpractice claims from insurance carriers is another method of studying adverse events related to sedation and anesthesia. A malpractice claim is a demand for financial compensation for an alleged injury resulting from medical care, and it is considered "closed" when it has been dropped, settled by the parties, or adjudicated by the courts.²⁰ Interestingly, if a clinician chooses to report an adverse event even before he or she knows whether or not there will be a demand for compensation, the malpractice carrier will open an incident report, which may be considered a claim under the

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insurance policy. Even if there was no injury and no lawsuit, this type of information might capture near-misses that would otherwise never be reported to state or federal agencies.

The field of medical anesthesiology has been studying anesthesia safety via closed claims analyses since the 1980s. Through extensive analyses of the American Society of Anesthesiology (ASA) closed claims data, trends in anesthetic injury have been noted over the years that have led to suggestions in risk management strategies to improve patient safety. One such trend was the finding that esophageal intubations represented a large subclass of respiratory events leading to claims. This finding from the closed claims analysis is credited as an impetus for current standards requiring end-tidal carbon dioxide (CO₂) monitoring.²¹ Another large subclass of respiratory events leading to claims was difficult tracheal intubations, which led to the development of the first published ASA practice guidelines for management of the difficult airway.²²

Thus, closed claims analyses can help identify important anesthetic complications, mechanisms of injury, and problem areas for future research opportunities. The closed claims study model has been utilized infrequently in the dental research community. Published dental closed claim reports have primarily analyzed claims generated from oral and maxillofacial surgeons, with no such reports specifically analyzing claims from pediatric dentists or claims specifically involving children.^{23,24}

The utilization of closed malpractice claims to study adverse events and outcomes during sedation and anesthetic administration has never been performed to study pediatric dental anesthesia.

The purpose of this retrospective closed malpractice claims study was to provide descriptive data of adverse events related to pediatric sedation and anesthesia during dental treatment to help understand etiologic factors and to suggest preventive measures to improve patient safety.

Methods

This study was approved by the Institutional Review Board of the University of Kentucky, Lexington, Ky. The malpractice claims databases of 2 leading dental professional liability insurers were searched using predetermined keywords for all closed claims involving anesthesia in pediatric dental patients from 1993 to 2007. Medical Protective (MedPro) was selected as a data source because it is endorsed by the American Academy of Pediatric Dentistry (AAPD), insures health care professionals in all 50 states, and has the largest pediatric dentist market share in the country. The Dentists Insurance Company (TDIC) represents primarily general dentists and is licensed to insure in 40 states. The entire dental claims databases of these 2 companies were searched using the following keywords, any of which could produce a positive search result: "pediatric dentist"; "anesth"; "sedat"; "oral med"; "IV"; "IM"; "child"; and "death."

The resulting claims were reviewed and then further selected using the following criteria. Claims involving oral surgeons as the treatment provider were excluded from the results; however, claims involving oral surgeons as the anesthesia provider were included. Also excluded were those claims that involved patients older than 13-years-old; involved treatment outside the dental office setting (ie, in a surgery center or hospital); and resulted from an event unrelated to the administration of a sedative and/or anesthetic. For example, a claim was excluded if it involved a child who had been sedated for

dental procedures and the claim was filed because the child's parent was dissatisfied with the particular type of restorative treatment provided. After excluding the nonrelated claims from the initial database query results, the final regression resulted in 17 unique claims. Due to the small number of resultant claims, quantitative statistical analyses were not performed.

The 17 claims meeting the selection criteria were reviewed, and as much of the following qualitative data as possible were collected using a standardized form created by the authors:

1. the patient's age, sex, weight, and health history;
2. classification of provider(s) for dental treatment and anesthetic administration;
3. the anesthetic/sedative technique used;
4. the dental procedure initiated and duration of procedure;
5. the setting of the dental procedure;
6. monitoring and personnel utilization;
7. specific drugs and dosages administered and routes of administration;
8. the setting of the adverse event;
9. the nature of the adverse event and any clinical clues noted leading up to the event;
10. intervention initiated for the adverse event; and
11. result and severity of any adverse outcomes.

A narrative summary of each reviewed claim was also obtained to provide a detailed description of the events and outcomes and to ensure that all potentially relevant information was recorded. The level of information contained within the claims varied significantly, with some claims including the complete dental record, narrative statements by involved personnel, expert reviews, deposition summaries, and the cost of the settlement or award. Other claims included only brief statements of the event and the outcome. This study's focus was not on quantitative analyses, but rather on giving a complete representation of all pediatric dental anesthesia-related malpractice claims that have occurred over the past 15 years from 2 leading insurance carriers. Hence, the decision was made to include all claims meeting the criteria even if specific details were sparse or unavailable.

To tabulate the outcomes of the adverse events, claims were classified as either having major outcome severity (ie, death or permanent brain damage) or minor outcome severity (ie, no significant morbidity). Even though previous closed claims studies have primarily focused on major morbidity and mortality, in this study both major and minor outcome severity were included to ensure that near-miss incidents would be captured.

For those claims in which local anesthetics and/or sedative agents were administered, drug dosages in milligrams/kilogram (mg/kg) were calculated using the patient's weight. If a patient's weight was unavailable from the claims information, a weight was estimated based on the 50th percentile for the child's sex and age.²⁵ To determine whether or not an overdose of local anesthetic was administered, the percent relative to the maximum recommended dose (MRD) for the patient's weight was calculated, and any dosage greater than 100% of the MRD was considered an overdose.²⁶ Sedative dosages were also calculated using the patient's weight or estimated weight as previously described; however, comparison to the MRD could not reliably be performed due to the somewhat inconsistent range of suggested pediatric dosing by drug manufacturers and authors of sedation studies. An attempt was

made to determine if an administered dose was either a weight-based or a fixed dose, but this, too, could not be reliably performed without making multiple assumptions, and was, thus, not reported.

Results

Table 1 illustrates the demographics and characteristics of the 17 claims. The ages of patients involved were 1- to 11-years-old, with a median age of 3-years-old, and 82% of the patients were younger than 6-years-old. An equal distribution of age was observed by type of anesthesia provider.

Most of the claims (76%) involved the administration of 1 or more sedative agents (with or without administration of a local anesthetic agent). The 1 claim involving a general anesthetic was included because it occurred in a dental office. Of the 13 claims involving sedations, 10 involved an oral drug administration, 1 involved oral and intramuscular administration, and the route was unknown in 2 claims.

Fifty-three percent of the claims (N=9) involved major outcome severity. Of these 9 claims, the average patient age was 3.6 (± 1.87) years old, 67% (N=6) involved general dentists as the anesthesia provider, and 22% (N=2) involved local anesthesia alone. The outcome severity did not vary markedly when compared to the type of anesthesia administered or anesthesia provider.

The types of drugs and dosages administered in the claims involving sedation varied widely (Table 2). No single sedative agent was most frequently associated with major outcome severity.

Local anesthetic overdoses were observed in 41% (N=7) of the claims and ranged from 118% to 356% of the MRD (Table 3). Of these overdoses, 57% (N=4) were administered during sedation procedures, and 43% (N=3) occurred when local anesthetic was the only drug given. General dentists were the anesthesia provider in 86% (N=6) of the claims involving local anesthetic overdose followed by pediatric dentists (14%, N=1).

The location of adverse event occurrence was in the dental office where care was being provided in 71% (N=12) of the claims. Eight of these claims resulted in major outcome severity. The location of the adverse event in the remaining 29% (N=5) of claims was either at the patient's home, during transport, or at another dental office. Of these claims, only 1 resulted in major outcome severity.

Of the 13 claims involving sedation, definitive physiologic monitoring was utilized in only 1 claim (8%). The practitioner in this claim utilized pulse oximetry. In 46% (N=6) of the claims, monitoring was recorded as either "visual only" or "none." In the remaining 46% (N=6) of claims, the monitoring method could not be determined from the information contained within these claims. What follows is a brief synopsis of each claim.

Case 1. A 36-pound (16.4 kg), 3-year, 11-month-old male patient presented to a dental clinic for restorative treatment. The patient was given 50 mg of hydroxyzine (3 mg/kg) and 10 mg (0.6 mg/kg) of diazepam orally. One hour later, he was placed on a papoose board and given 2.5 cartridges of 2% lidocaine (90 mg, 5.5 mg/kg) along with 50% nitrous oxide (N₂O)/50% oxygen (O₂). Treatment was uneventful for 45 minutes until the patient exhibited signs of vomiting. His mouth and throat were suctioned, but nothing was retrieved. A few minutes later, he had a second episode of vomiting and

stopped breathing. The dentist checked for vital signs and, finding none, began cardiopulmonary resuscitation (CPR). Paramedics were called, and after their arrival, transported the child to the local hospital. His breathing was restored, but he suffered hypoxic brain damage and died 3 days later.

Table 1. DEMOGRAPHICS AND CHARACTERISTICS OF INCLUDED CLAIMS

Demographic/characteristic	N (%)
Patient's age (ys)	
1-3	9 (53)
4-6	5 (29)
7-11	3 (18)
Patient's gender	
Male	10 (59)
Female	7 (41)
Type of anesthesia administered	
Sedation +/- local anesthetic	13 (76)
Local anesthetic alone	3 (18)
General anesthetic	1 (6)
Type of anesthesia provider	
General dentist	11 (65)
Pediatric dentist	4 (23)
Oral surgeon	1 (6)
Orthodontist	1 (6)
Outcome severity	
Major (death or brain damage)	9 (53)
Minor (no permanent morbidity)	8 (47)
Adverse event location	
At treating office	12 (71)
At home or another office	5 (29)
Type of monitoring used (in sedation claims; N=13)	
Pulse oximeter	1 (8)
Visual only or none	6 (46)
Could not be determined	6 (46)

Table 2. DETAILS OF CLAIMS INVOLVING SEDATION

Case no.	Age (ys, mos)	Sedative agent(s)	Mg	Mg/kg	Outcome
1	3, 11	Hydroxyzine	50	3	Death
		Diazepam	10	0.6	
2	8	Chloral hydrate	1,700	75	Brain damage
		Hydroxyzine	100	4.4	
3	5	Hydroxyzine	8.75	0.6	Death
		Diazepam	10	0.7	
4	2	Chloral hydrate	Unknown		Death
5	3	Meperidine	12	0.9	Death
		Promethazine	25	1.8	
6	3	Unknown			Death
10	7	Unknown			Recovery
11	5	Meperidine promethazine	Unknown		Recovery
12	11	Midazolam	Unknown		Recovery
13	2, 2	Chloral hydrate	250	23	Recovery
		Meperidine	50	4.6	
		Hydroxyzine	62	5.8	
14	4	Chloral hydrate	1,000	50	Recovery
15	5	Chloral hydrate	1,000	55.6	Recovery
16	3, 6	Chloral hydrate	1,000	52	Recovery

Case 2. A 50-pound (22.7 kg), 8-year-old male patient presented to a dental clinic for full-mouth caries removal and restorative treatment. The patient's medical history included attention deficit disorder, for which he was taking Adderall (amphetamine/dextroamphetamine). He was given 1,700 mg of chloral hydrate (75 mg/kg) and 100 mg of hydroxyzine (4.4 mg/kg) orally. Fifty minutes later, the patient was brought into the operatory crying and anxious and was placed in a papoose. He then stopped crying and turned blue. The papoose was removed and the dentist administered O₂. It was determined that the child had no pulse. Paramedics arrived 8 minutes later and began resuscitation efforts. The child was transported to a local hospital where he remained in a coma for approximately 3 days. The child sustained hypoxic brain damage and required extensive rehabilitation therapy.

Case 3. A 30-pound (13.6 kg), 5-year-old female patient presented to a dental clinic for restorative treatment. The patient was given 8.75 mg of hydroxyzine (0.64 mg/kg) and 5 mg diazepam orally. After 15 minutes, the patient was brought into the operatory where she vomited. Another 5 mg of diazepam (0.74 mg/kg total) was given orally. The child was still crying and anxious and was placed in a papoose board. Three cartridges of 2% lidocaine (108 mg, 7.9 mg/kg) were administered along with 50% N₂O/50% O₂. During the procedure, the child continued to cry. The patient's arm broke free from the papoose, which was missing one of its Velcro straps. The dentist stopped the procedure and instructed the dental assistant to restrap the free hand. The dentist removed a bite block and left a cotton roll in place.

In an effort to calm the child, the dentist covered the child's mouth so that the child would breathe the N₂O through the nasal hood. When the child's hand was restrapped, the dentist's hand was removed from the child's mouth. The child gasped and aspirated the cotton roll. The dentist attempted to remove the cotton roll with high-speed suction, which caused the throat to bleed. Paramedics were called and arrived within 4 minutes, but were unable to visualize the cotton roll due to the bleeding. After attempting to remove the cotton roll for 10 minutes, the child was transported to the local hospital. At the emergency room, the child was intubated and the cotton roll was removed. She was given O₂ and her circulatory system restarted spontaneously. The child was trans-

ported to a local children's hospital where she remained on life support for 2 days before being declared brain dead.

Case 4. A 2-year-old male patient presented to a dental clinic for treatment. The patient's medical history included Russell-Silver syndrome. The child was premedicated with chloral hydrate by mouth 1.5 hours prior to the procedure. Toward the end of the dental procedure, the dentist noted that the child's respiratory rate had slowed. Paramedics were called immediately, and the dentist began CPR. Paramedics arrived, intubated the child at the dental office, and transported him to a local hospital. The child was pronounced dead upon arrival at the emergency department.

Case 5. A 3-year-old female patient presented to a dental clinic for restorative treatment. Prior to the procedure, the child was administered 12 mg meperidine and 25 mg promethazine orally. The patient was also given 1.2 cartridges of 2% lidocaine (43.2 mg, 3.1 mg/kg) for local anesthesia. Treatment was completed without incident, and the patient was discharged into the parent's care. Four hours after leaving the dental office, the child's parent called the paramedics from home. The patient was transported to the emergency department where she was thought to be brain dead upon arrival. The patient was transferred to the intensive care unit and pronounced dead.

Case 6. A 3-year-old male patient presented to a dental clinic for treatment. Prior to dental treatment, the child was given a combination of drugs that had been prescribed for another patient. The amount and types of drugs administered is not known. The patient went into respiratory arrest at some point during the dental procedure. The paramedics were called and the patient was transported to the local children's hospital. Upon arrival, no brain activity was detected. The patient was pronounced dead the following day.

Case 7. A 2-year, 6-month-old female patient presented to a dental clinic for restorative treatment. The patient was administered 1.25 cartridges of 3% mepivacaine plain (67.5 mg, 5.2 mg/kg) for local anesthesia. During local anesthetic administration, the child was crying, but then fell asleep afterwards. After treatment was completed, which consisted of 4 stainless steel crowns, the child could not be aroused. The dentist carried the child next door to another clinic to receive assistance in resuscitative efforts. Paramedics were called and the child was pronounced dead upon their arrival.

Case 8. A 36-pound (16.4 kg), 4-year, 1-month-old male patient presented to a dental clinic for extensive restorative treatment involving 3 quadrants of decay. The patient's medical history included obstructive sleep apnea, and he was reported as being congested on the day he presented for dental treatment. The patient was placed in a papoose board and was administered 3 cartridges of 2% lidocaine (108 mg, 6.6 mg/kg) within 3 minutes. After a few minutes, the patient appeared to fall asleep. Within 15 minutes of beginning treatment, the dental assistant noticed that the patient's tongue was purple. He was unwrapped from the papoose.

The patient's vital signs were checked and there was no detectable pulse or breathing. CPR was started and the paramedics were called. Paramedics arrived within 4 minutes of the call and assumed the resuscitative efforts. The patient was intubated, after which a volume of thick, mucous-filled fluid was suctioned from his airway. When the paramedics' efforts to resuscitate the child were

Table 3. DETAILS OF CLAIMS INVOLVING LOCAL ANESTHETIC OVERDOSES*

Case no.	Age (ys, mos)	Type of anesthesia*	Anesthesia provider [†]	Local anesthetic	% MRD	Outcome
1	3, 11	Oral sed, LA	GP	Lidocaine	125	Death
3	5	Oral sed, LA	GP	Lidocaine	180	Death
7	2, 6	LA	GP	Mepivacaine plain	118	Death
8	4	LA	GP	Lidocaine	150	Death
9	1, 10	LA	Pedo	Prilocaine plain	356	Recovery
13	2, 2	Oral and IM sed, LA	GP	Lidocaine	300	Recovery
14	4	Oral sed, LA	GP	Lidocaine	164	Recovery

* MRD=maximum recommended dose; oral sed=oral sedation; LA=local anesthetic; IM sed=intramuscular sedation; GP=general practitioner; pedo=pediatric dentist.

unsuccessful, the child was transported to the local children's hospital, where he was pronounced dead.

Case 9. A 1-year, 10-month-old female patient presented to a dental clinic for extractions and restorative treatment with stainless steel crowns. The child was struggling and crying and was placed in a papoose board. Once the patient was secured in the papoose, 40% N₂O/60% O₂ was administered, followed by 3 cartridges of 4% prilocaïne plain. A fourth cartridge of 4% prilocaïne plain was being administered. After injecting half the cartridge (252 mg total, 21.4 mg/kg), the patient began having seizures. Paramedics were called, and upon their arrival the patient was intubated and given diazepam. The patient was then transported to the hospital and observed in the pediatric intensive care unit for 1 day. She was then discharged the following day. The patient was followed by a neurologist for the following year and was determined to have not suffered any significant sequelae from the incident.

Case 10. A 7-year-old male patient was to be treated in a dental clinic for extractions. In preparation for the procedure, the treating dentist called into the local pharmacy a prescription for an oral sedative (type of sedative and dosage unknown). Following the instructions that the child's parent received with the prescription, 3 tablespoons of elixir were administered at home 1 hour prior to the dental appointment. When the patient arrived at the dental clinic, he was breathing but in a very sedated state. His vital signs were monitored, O₂ was administered, and the paramedics were called. No dental treatment was performed. The paramedics transported the patient to the local hospital where he was kept for overnight observation. He was discharged the next day without complications and attended school. It should be noted that in this case, the treating dentist claimed that the ordered prescription was for an at-home administration of 3 teaspoons of oral sedative rather than the 3 tablespoons that were given.

Case 11. A 5-year-old female patient with a history of asthma and respiratory problems presented to a dental clinic for extractions. The patient was given meperidine and promethazine (dose and route unknown) as well as N₂O/O₂ sedation (dose unknown). It is also assumed that the patient was given a local anesthetic agent, although the type and dosage was not reported. The treatment was completed uneventfully, and the patient was discharged into the parent's care. An unknown amount of time after leaving the office, the child's parent felt that the child was having difficulty breathing and called the paramedics. The child was transported to the hospital for observation, where it was determined that she had not suffered any cardiorespiratory compromise.

Case 12. An 11-year-old male patient presented to a dental clinic for treatment. Prior to the procedure, the patient received midazolam (dose and route unknown). The patient was monitored throughout the procedure with pulse-oximetry. At some point during treatment, the patient experienced a decrease in O₂ saturation levels due to airway obstruction by the tongue. Oxygen was administered and the paramedics were called. Upon the paramedics' arrival, the patient was found to be stable and no hospital transport was required.

Case 13. A 24-pound (10.9 kg), 2-year, 2-month-old male patient was scheduled for restorative treatment for extensive caries. The dentist provided a cocktail of medications with

instructions for the patient's mother to administer 2 teaspoons at bedtime and 1 teaspoon 1 hour prior to the appointment. Components of the oral cocktail included hydrocodone bitartrate, hydroxyzine (5.8 mg/kg total dose), and chloral hydrate (25 mg/kg total dose). Upon the patient's arrival at the dental clinic, he was still quite active, so he was placed in a papoose and the dentist attempted to administer N₂O unsuccessfully.

The dentist then gave the child 4 cartridges of 2% lidocaine (144 mg, 13.2 mg/kg) and 2 separate 25 mg intramuscular injections of meperidine (4.6 mg/kg). A bite block was placed in the child's mouth and treatment was initiated. During treatment, the child's parent, who was observing the procedure, noticed that the child was blue and did not appear to be breathing. The dentist administered naloxone (dose and route unknown), and the parent initiated CPR. Paramedics arrived and noted that the child was in respiratory arrest and having seizures. The child was transported to the local hospital, where he continued to have seizures for 30 minutes and remained unconscious for 3 hours. He regained consciousness and was discharged the following day in satisfactory condition.

Case 14. A 44-pound (20 kg), 4-year-old male patient presented to a dental clinic for restorative treatment with stainless steel crowns. The patient was premedicated with 500 mg chloral hydrate orally. Four cartridges of 2% lidocaine (144 mg, 7.2 mg/kg) were administered. The patient was apparently very calm, and restorative treatment was initiated. At some point during the procedure, the patient awakened and was given another 500 mg chloral hydrate orally (50 mg/kg total dose). Treatment was completed, and the patient was discharged. Five hours after initiating treatment, the patient was sleeping at home and could not be aroused. His parents transported him to the emergency department where he was treated and monitored for 4 hours. The child was then discharged in satisfactory condition.

Case 15. A 5-year-old male patient presented for restorative treatment with stainless steel crowns. The patient was given 1,000 mg chloral hydrate orally prior to the procedure. The patient did not appear to be sedated and was not cooperative for treatment. Because the patient was in pain, however, he was referred to another dental facility for emergency dental treatment. En route to the office, the patient fell asleep in the car. Upon arrival at the other dental facility, the dentist was concerned about the child's level of sedation and called the paramedics. The child was transported to the local hospital where he was monitored in the emergency department for 3 hours. He was then transferred to another hospital where he remained for overnight observation, and was released the following day.

Case 16. A 42-pound (19 kg), 3-year, 6-month old male patient presented for restorative dental treatment. The child was premedicated with 1,000 mg chloral hydrate (52 mg/kg) orally and then waited in the reception area. Approximately 15 minutes after drug administration, the patient became very groggy. He stood up, fell down, and bumped his head. The dental treatment was then performed without incident.

Case 17. A 3-year-old female patient presented to a dental clinic for restorative treatment. The patient was administered a general anesthetic by an oral and maxillofacial surgeon, who routinely worked with the treating dentist providing in-office anesthesia for the dentist's patients. The types of drugs and

dosages given were not reported. During treatment, the patient stopped breathing. Resuscitative efforts were initiated but were unsuccessful, and the patient was pronounced dead.

Discussion

Eighty-two percent of the claims in this study involved adverse event occurrences in patients younger than 6-years-old, which is not surprising, considering that this is the age group most commonly sedated in the dental office. Results of a 2000 survey of pediatric dentists indicate that 78% of sedated patients were younger than 6-years-old.¹ When considering the adverse events with major outcome severity (death or permanent brain damage), the average patient age was 3.6-years-old. This finding confirms that sedation risk and patient age are inversely related and reinforces the importance of heightened vigilance when sedating the very young patient, regardless of the number of event-free sedations a practitioner has performed.

The fact that general dentists were the most common anesthesia provider associated with adverse event claims (65% of the time) and with claims resulting in major outcome severity (67% of the time) could be due to several factors. It is unknown how many in-office sedations for children are provided by U.S. general dentists, and states' dental practice acts vary widely regarding the certification required to provide such sedation. Considering that 80% of U.S. dentists are generalists and most of the country's children are treated by generalists, one could speculate that there is simply a numerically greater chance of a claim being generated by a general dentist than a specialist.²⁷ Another possibility is that generalists were most commonly associated with adverse patient events because they have received less comprehensive training in the management and treatment of pediatric patients. In either case, it indicates that general dentists are providing sedation services to children and, thus, should have an in-depth knowledge of the current AAPD/American Academy of Pediatrics (AAP) Guideline for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures.²⁸

The source of the claims data must also be considered when examining the anesthesia provider. Even though MedPro insures the largest market share of pediatric dentists in the country and TDIC represents primarily general dentists, both insurance companies represent both generalists and specialists. The overall proportion of generalists to specialists for each company is unknown; thus, it is not possible to draw conclusions from the proportion of claims generated by each provider group.

The fact that minor outcome severity occurred in 47% of studied claims indicates that nearly half of the anesthetic-related adverse events were either managed properly by health care personnel or were self-limiting. Whether an adverse event resulted in major or minor outcome severity did not appear to have any association with the type of anesthesia provider or type of anesthesia administered.

Seventy-six percent of the aforementioned claims involved the administration of 1 or more sedative agents (with or without concomitant use of a local anesthetic agent). While most sedative administration was via an oral route, both the drug regimens and the drug dosages associated with adverse events varied widely. No single sedative agent was most frequently associated with major outcome severity. This may suggest that the drug dosage administered is more important than the specific drug choice. Even though it cannot be definitively con-

firmed, it appears from the numeric dosage amount in many of the claims that a fixed dose of medications was administered rather than a weight-based dose. The use of standard fixed dosing is problematic and has consistently been discouraged, since a sedation regimen should be individually based on, among other things, patient temperament, age and weight, and the amount and difficulty of dentistry planned.

An unexpected finding was that 41% of claims ($N=7$) involved the administration of an overdose of a local anesthetic agent, ranging from 118% to 356% of the MRD. The widespread use of local anesthesia in dentistry is generally very safe and effective. Serious adverse reactions, though rare, are occasionally reported in the literature; when involving children they are usually the result of dose-dependent toxicity reactions.^{29,30} The present study's findings suggest that there continues to be local anesthetic overdoses resulting in significant morbidity and mortality in children. The local anesthetic preparation of lidocaine has been cited as the least likely to cause toxicity reactions in children due to its dosage, volume, and vasoconstrictor concentration.^{29,31}

It is interesting to note that 2% lidocaine was the most frequently implicated local anesthetic when a toxic overdose was given. This is very likely because it is a much more commonly used local anesthetic and would, thus, have a statistically greater chance of being associated with an adverse event. Another interesting observation, for which there is no apparent explanation, is that 3 of the claims involving the highest local anesthetic overdoses (164%, 300%, and 356% of the MRD) resulted in minor outcome severity.

In this study, local anesthetic overdoses were found to occur both during sedation visits and when a local anesthetic was the sole agent. These findings underscore the universal importance that all dental practitioners treating children should consistently calculate a weight-based MRD of both sedative agents and local anesthetics. Additionally, practitioners should adjust downward the doses of local anesthetic when sedating children with drugs that are known to cause respiratory depression. It has been well documented that sedation with opioids and other CNS depressant agents like chloral hydrate may increase the risk of local anesthetic toxicity due to their synergistic CNS depressing effects, especially in children.^{9,32}

It has also been stated that local anesthetic toxicity reactions may be masked by the administration of benzodiazepines during sedations, thus making it more difficult for the practitioner to recognize a local anesthetic overdose. The current study supports this, as the only 2 claims involving benzodiazepine sedatives, in which the outcome was death, also involved a concomitant local anesthetic overdose.

The fact that most claims in this study involved adverse events at the dental office (vs in transit or at home after discharge) indicates that the treating dental practitioner will likely be the first responder in managing adverse events when they occur. Unfortunately, of the adverse events in this study that occurred at the dental office, most resulted in major outcome severity. From the details available, it suggests that by the time the initial event was recognized by the dentist, too much time had already elapsed, which reduced the chance of success for resuscitation. This finding emphasizes the importance of the treating dentist and staff's ability to both diagnose and manage adverse events as they occur.

Only 1 of the 13 sedation cases reported the use of pulse oximetry monitoring during treatment. Of the remaining 12 cases, 6 involved "visual monitoring only" or "no monitoring," and in the remaining 6 claims, monitoring practices could not be determined. A major emphasis of the AAPD/AAP sedation guideline has been monitoring. Clinicians' lack of adherence to the guideline is troubling, especially considering that the pulse oximeter and precordial stethoscope have been indicated as minimum monitoring for moderate (previously called "conscious") sedation since the 1993 guideline revision. The sedation of children represents a continuum rather than a static sedated state, and "it is common for children to pass from the intended level of sedation to a deeper, unintended level of sedation."²⁸ This deeper, unintended level of sedation occurred in several claims in this study, as evidenced by patients who could not be aroused and patients who were only found to be in distress after cyanosis was noticed.

Although it has been stated frequently in multiple publications, it is worth repeating that proper monitoring of children during sedation is paramount in detecting the subtle physiologic changes that may precede a very severe outcome. The multifactorial nature of most of the adverse events presented in this study highlights the many different aspects of care that the dentist must be cognizant of to ensure patient safety. The importance of heightened vigilance during child sedations cannot be overstated enough.

In 2 of this study's claims, dentists instructed parents to administer sedation drugs at home. While neither case resulted in major outcome severity, it reveals that some dentists are directly violating the AAPD/AAP sedation guideline, which clearly states that prescription sedation medications are not to be administered at home without direct supervision by the dentist. While the current guideline acknowledges that adherence cannot guarantee a specific patient outcome, it has been suggested that, when the guideline is followed, significant morbidity and mortality are minimal. Retrospectively determining whether or not the guideline has been followed depends on proper documentation in multiple areas, including: preoperative health assessment; details of the medications ordered and given; personnel; monitoring; and postoperative discharge criteria. From the type—and sometimes lack—of data available in this study, the proportion of practitioners adhering to the guideline cannot be determined.

Since general dentists may be unfamiliar with the Academy's guideline, however, it is important that the AAPD sedation guideline be promulgated to general dentists with adherence strongly encouraged for all practitioners who sedate children. Additionally, it may be of benefit if, at the dental school level, students are made aware of the advanced didactic and clinical training required to sedate children as well as the necessary certification required by their state dental board. Only with proper education and strict adherence to the Academy's guideline will practitioners be most prepared to safely sedate children for dental procedures.

Limitations in this study are similar to those of any closed claims analysis, and these have been well documented.^{33,34} Malpractice claims are a highly selective subset and not necessarily a cross-section of all adverse events. Not all adverse events result in malpractice claims, and thus would not be included in a closed claims study. Since this study considers only 2 of the many malpractice companies' claims histories, it cannot be

stated that their claims data are necessarily representative of claims throughout the country.

Also, because the total number of anesthetic and sedative administrations is unknown, the incidence and, thus, risk of anesthetic-related adverse events cannot be calculated. Depending on the nature of the adverse event, it can take anywhere from 1 to 5 years from the date of injury for a claim to close. Thus, there is a period of time during which claims are not available for review even though adverse events have occurred. Therefore, any recent changes in anesthetic injury trends may not have been identified in this study. With the most recent AAPD sedation guideline being published in 2006, it is unlikely that any changes in practice as a result of the new guideline would be reflected in this study's results.

The following recommendations are made based upon the findings from this study:

1. All children should be weighed prior to dental treatment.
 - a. Weight-based dosages of both local anesthetics and sedative agents should consistently be calculated to minimize the risk of overdose toxicity reactions.
 - b. Local anesthetic doses should be lowered when given in combination with any CNS depressing sedative agents.
2. Proper monitoring consistent with the American Academy of Pediatric Dentistry sedation guideline should be observed by any dental practitioner administering sedative agents to children for dental treatment.
3. Since the treating dentist will likely be the first responder during an adverse event, the dentist and staff must be prepared to diagnose and begin treating such emergencies.
4. Vigilance to all details, however minor, and absolute compliance with the AAPD sedation guideline are necessary to ensure the safest environment when children are being treated with any medications in the dental office.

Conclusions

Based on this study's results, the following conclusions can be made:

1. Very young patients (3-years-old or younger) are at greatest risk during administration of sedative and/or local anesthesia agents.
2. Some practitioners are inadequately monitoring patients during sedation procedures.
3. Adverse events have a high chance of occurring at the dental office where care is being provided.

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Case Report

Stainless Steel Crown Aspiration During Sedation in Pediatric Dentistry

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Abstract: Foreign body aspiration (FBA) causes death in more than 300 children every year in the United States. Morbidity and mortality are increased in children due to narrow airways and immature protective mechanisms. Factors to consider in pediatric dentistry are: (1) the patient's age and behavior; (2) presence and extent of disability; (3) local anesthesia; (4) body positioning; and (5) loose teeth. FBA requires prompt recognition and early treatment to minimize potentially serious and sometimes fatal consequences. The purpose of this case report was to describe the aspiration of a stainless steel crown in a 5-year-old boy during conscious sedation. It also discusses how a prompt and accurate diagnosis, early referral, and immediate treatment helped prevent serious complications. (*Pediatr Dent* 2008;30:59-62) Received March 9, 2006 / Last Revision June 1, 2007 / Revision Accepted June 10, 2007.

KEYWORDS: ASPIRATION, PEDIATRIC DENTISTRY, STAINLESS STEEL CROWN

Foreign body aspiration (FBA) is the cause of death for more than 300 children each year in the United States with a higher incidence in boys.¹ Morbidity and mortality tend to be increased in children because they have narrow airways and immature protective mechanisms.² A study by Black et al found that 78% of those who die after FBA were between 2 months and 4 years of age.³ Additionally, Sersar et al stated that FBA was one of the most common and serious problems among children, accounting for 7% of lethal accidents in 1 to 3-year-old children.²

The most frequently aspirated objects in children are foods, especially peanuts, followed by nonorganic materials like metals, plastics, or toys.¹ Aspirated foreign bodies tend to become lodged in the right main bronchus,³ possibly due to the nature of the anatomy of the tracheobronchial tree. Dislodgements in the left bronchus have also been reported.²

The common triad of presenting symptoms in an aspiration is coughing, choking and wheezing. Other signs include acute dyspnea and diminished breath sounds.¹⁻³ Sersar et al³ suggested that, of all these signs and symptoms, the most predictive is a witnessed aspiration associated with a choking episode—this is referred to as “penetration syndrome.” Aspiration of teeth and restorations is a recognized yet infrequent happening reported in the dental literature. Aspiration

of foreign objects during restorative procedures, especially under sedation, remains a real threat due to the challenges involved with treating young children and the difficulty in airway management.

The purpose of this case report was to describe the aspiration of a stainless steel crown (SSC) in a young child undergoing conscious sedation for restorative dental treatment. It also discusses how an accurate diagnosis prompted early referral for treatment, resulting in a safe outcome for the patient.

Case report

A healthy 5-year-old boy attended the Department of Pediatric Dentistry of the University of Florida, Gainesville, Fla, for routine restorative dental treatment. The child exhibited extreme anxiety at the initial visit and screening. Following discussion with the child's mother, it was decided that the best treatment option for the patient was the provision of dental treatment using sedation. The patient was in the primary dentition phase, his medical history was unremarkable, airway assessment was normal, and he was considered ASA class I. For treatment to be completed, 4 sedation sessions were scheduled.

The failure of oral midazolam alone to adequately sedate the patient at the first restorative appointment necessitated the use of a combination of midazolam and hydroxyzine⁴ for subsequent sedation appointments to increase patient cooperation and gain working time. This combination proved to be successful with this patient, and the sedations were relatively uneventful.

The final appointment involved the placement of an SSC on the primary maxillary left first and second molars.

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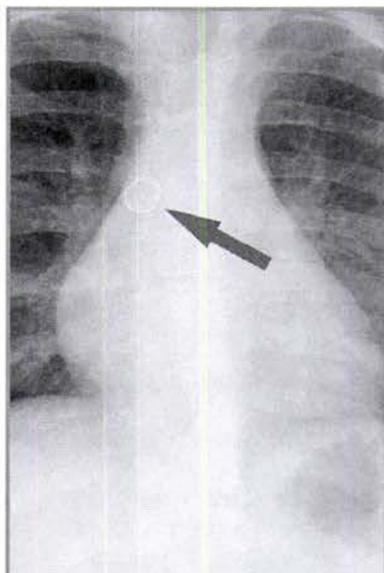


Figure 1. Lateral chest view with the stainless steel crown in place.

On the appointed day, the patient's weight was 18.1 kg. Following informed consent by the mother and verification of no change in the medical history, a combination of 10 mg (0.6 mg/kg) of midazolam with 50 mg (3 mg/kg) of hydroxyzine was given orally. As with previous visits, the patient was placed in a supine position and medically immobilized using a Papoose Board (Olympic Medical, Seattle, Wash) before treatment was initiated.⁵ Local anesthesia

was administered in the form of maxillary buccal and palatal infiltrations using 4% Septocaine with epinephrine 1:100,000 (SeptodontUSA, New Castle, Del). A mouth prop was inserted, rubber dam isolation was used, and the primary molars were prepared for SSCs.

To complete the distal preparation of the primary maxillary left second molar, the rubber dam was removed. The appropriate sizes of Ion Crowns (3M ESE, St. Paul, Minn) were, respectively, selected and fitted with a gauze throat shield in place to protect the airway. During the removal of the SSC on the first primary molar prior to cementation, the crown became dislodged distally behind the throat pack into the patient's airway. Following a quick oral exam and high vacuum suctioning, the mouth prop and the Papoose Board were immediately removed. The patient was placed in the prone position with several back slaps to attempt displacement of the crown from his airway. These attempts, followed by the Heimlich maneuver, did not yield the crown.

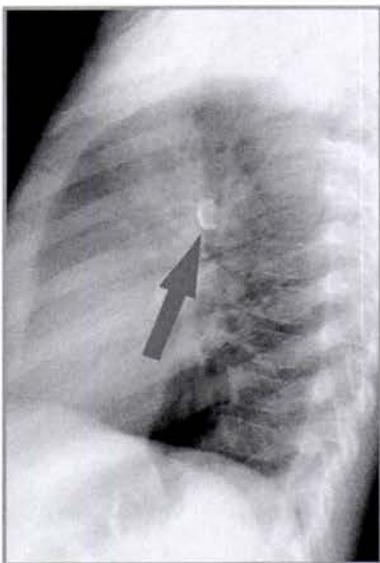


Figure 2. Posterior-anterior view with the stainless steel crown in place.

The initial assessment by the dentist showed that the patient was choking, coughing, and exhibiting mild expiratory wheezing with no obvious signs of respiratory distress. The operator made a provisional diagnosis of FBA. Since the patient showed good air exchange and no further signs of distress, he was moved into a recovery area where his mother was informed of the incident. She was extremely understanding and agreed to our attempts to retrieve the crown. The dentist had a telephone consultation with the pediatric radiologist at Shands hospital at the University of Florida, informed him of her suspicion, and provided him with a concise history of the preceding events followed by a verbal request for a chest radiograph.



Figure 3. The stainless steel crown is lodged in the right main bronchus.

The patient's respiratory status remained stable, and he was taken in a wheelchair to the hospital's radiology department—escorted by his mother and a dental assistant who was trained in cardiopulmonary resuscitation.

Upon return to the Department of Pediatric Dentistry and while awaiting the radiologist's results, the patient's condition continued to remain stable. The dentist proceeded to cement new SSCs on the primary maxillary left first and second molars



Figure 4. Photograph of the bronchus following removal of the crown.

using Fuji I glass ionomer luting cement (GC America, Inc, Alsip, Ill). The radiologist confirmed the diagnosis of FBA over the telephone and informed the dentist of the presence of the SSC in the entrance to the right main stem bronchus (Figures 1 and 2).

The pediatric surgeon on call was immediately contacted, and a diagnostic laryngoscopy with rigid bronchoscopy was performed under general anesthesia to retrieve the foreign body (Figures 3 and 4). The surgery was uneventful, and the patient was discharged home the same day.

Discussion

This case illustrates the ease with which dental foreign bodies can become dislodged in the airway of a child following routine dental treatment. Children are often referred for sedation because they express extreme behavioral management challenges for the dentist. Though age-appropriate, these behaviors—when coupled with extreme anxiety—make ordinary dental treatment difficult.

The common symptoms of foreign body aspiration are coughing, wheezing, choking, and acute dyspnea.¹⁻³ These symptoms may spontaneously subside, even when the foreign body remains. Radiographic features depend on the size, location, duration since aspiration, and the nature of the foreign body. Aspiration of foreign body may appear as atelectasis, consolidation, or bilateral over-aeration.² Bronchoscopy can be performed for both definitive diagnosis and treatment, if aspiration is suspected. Despite the rarity of these adverse events, aspirations or ingestions in dentistry have been known to occur, typically during cementation of permanent crowns and adjunct procedures such as placement of cast post and core, onlays, and implants.⁶ A study by Tiwana and Morton showed that, of the 36 cases of aspiration or ingestion of dental instruments or materials that occurred over a 10-year period, only one involved a true aspiration of a cast post and core.⁶ Hodges et al published a case report of a swallowing incident following a fractured solder joint of a dental mirror in an 18-year old developmentally disabled child.⁷

A search of the dental literature did not reveal any reported cases of aspirations in pediatric dentistry. We felt, however, that it was imperative to highlight this case to serve as a reminder that adverse events, though largely preventable, can still occur.

Aspiration or swallowing incidents are more likely to occur when treating a population of young patients with physical, medical, and mental disabilities. These patients often lack cooperative or communicative skills or adequate protective reflexes required for routine dentistry. This often necessitates the use of restraints, sedation, or general anesthesia to achieve a successful outcome of dental procedures. These factors inherently place the patient at more risk for aspiration or swallowing episodes due to their altered state of consciousness. The use of sedation may also be complicated by drug interactions, decreased communication skills, and emesis. Other factors to be considered in pediatric dentistry may include local anesthesia, body and head positioning, loose teeth, loose burs, or instrument fatigue.⁷ Aspiration accidents can be minimized by the use of a physical barrier such as rubber dam or gauze throat shields. Alexander and Delholm suggested using dental floss to secure the rubber dam clamp.⁸

Another suggestion is that local anesthesia, especially a mandibular block or palatal anesthesia, can interfere with the sensory or motor control of the pharynx, tongue, and palate.⁵ This creates an altered sensation, allowing objects to enter the posterior aspect of the oral cavity, and precipitating an aspiration or swallowing incident. The use of topical anesthetics also contributes to this altered sensory nerve function.

Positioning of the patient is a controversial subject. Some individuals believe the supine position decreases the risk of aspiration or swallowing while others believe this position promotes these incidents.^{8,9} While position does play a role, it is often mediated by other associated factors. In the case described, the patient underwent conscious sedation with a combination of midazolam and hydroxyzine. This pharmacological combination has proven successful for producing a mild to moderate sedation level in children.⁴

The combination of these sedatives with palatal anesthesia, the use of restraints, and a supine position, however, may have increased this patient's risk of aspiration in spite of placing a gauze throat shield in the posterior part of the oral cavity. Despite the fact that most aspirations are preventable, Hodges et al described the surprise onset of the object being "lost" or "dropped" into the oral cavity. The use of four-handed dentistry, high-speed suction, ligation of a properly fitted rubber dam clamp, and a gauze throat shield remains the most effective means of preventing aspirations and swallowing materials and loose instruments in dentistry.⁷

Children with behavioral challenges such as attention disorders, severe autism, or extreme and aversive behavioral manifestations—where communication is difficult and restraint is required—also pose an increased risk for aspirations. General anesthesia may be a more viable option for these patients than multiple sedation appointments. Loose primary teeth should be routinely checked, anticipated, and removed if necessary prior to placement of mouth props. Repeated sterilization techniques can result in an increase in instrument wear, leading to failure of soldered joints and disintegration of burs.⁷

Regardless of the reason for the adverse outcome, it is incumbent upon the dentist to be attentive to both early and delayed signs and symptoms of an aspiration accident and act promptly if and when it does occur. In this case, the ability of the dentist to recognize the signs and symptoms of aspiration following failed attempts to retrieve the crown prompted the request of a chest film. Hodges also recommended, in the absence of signs or symptoms of distress by the patient, precise communication with the radiologist following an aspiration or swallowing event with a duplicate sample of the foreign body to accompany the patient. This communication will aid recognition by allowing the appropriate radiographic technique to be selected.⁷ Immediate medical and surgical intervention for this patient resulted in the retrieval of the SSC within 2 hours of the incident and a safe discharge from the hospital on the same day. Over the years, professionals in the field of dentistry have worked hard to prevent and minimize adverse events

in the work environment through education and training of dental personnel. Accidents still happen, however, and it is essential that clinicians and their staff remain calm to make prompt decisions and take appropriate actions that will not only prevent potentially serious complications, but may ultimately save their patients' lives.

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Abstract of the Scientific Literature

Toothbrushing techniques in orthodontic patients

Since manual toothbrushes with different head designs are still the focus of interest for both manufacturers and clinicians, the aim of this study was to determine whether curved-bristle toothbrushes (CBTs) alone would be more effective in plaque elimination and promoting gingival health than orthodontic toothbrushing protocols in poor-toothbrushing orthodontic patients. The labial surfaces of the maxillary canine-to-canine anterior teeth of 30 patients (12 males and 18 females) were individually photographed following dental plaque staining before and 4 weeks after each toothbrushing protocol, with a 1-month washout interval. The toothbrushes used were: (1) a CBT; (2) an orthodontic toothbrush (OT); and (3) an OT in combination with interproximal toothbrush (OT + IT). OT + IT produced a statistically significant decrease in the mean plaque percentage both for the total labial (7%) and interproximal (18%) tooth surfaces, when compared with the other toothbrushing protocols ($P < .05$). No statistically significant differences were found between the CBT and OT for the amount of bacterial plaque and GI scores ($P > .05$). Neither the CBT nor the OT alone was able to remove plaque under the archwires in poor-toothbrushing patients. Therefore, the use of ITs should be mandatory for effective plaque removal in these patients.

Comments: When flossing is compromised due to orthodontic appliances, the use of interproximal toothbrushes should be reinforced not only by orthodontists but also pediatric dentists during regular recalls. **FMS**

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Current Status of Nitrous Oxide as a Behavior Management Practice Routine in Pediatric Dentistry

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ABSTRACT

Nitrous oxide (N_2O) as a behavioral management intervention in children has attained an excellent safety record and is, therefore, used widely. As is true of any diagnostic or therapeutic dental intervention, however, its usage merits periodic review, even if—or particularly when—it is routinely applied. For example, when N_2O is used in combination with other sedatives, such polypharmacy can produce potentially serious side effects. There are also bioenvironmental risks to patients and staff if ambient air is not properly monitored. Using historical publications, current empirical articles, professional usage policies, and educational textbooks, the purpose of this article was to review indications and contraindications of N_2O and discuss various factors that should or should not be considered about its use in the United States. Even though today's parents may be more accepting of pharmacologic approaches such as N_2O , the choice to use it should always be made with the child's best interest in mind.

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KEYWORDS: BEHAVIOR MANAGEMENT, PSYCHOLOGY, ETHICS, MEDICOLEGAL ISSUES, SEDATION

Nitrous oxide (N_2O) has been available since the mid 1800s, but only gained general acceptance as a dental inhalation sedation in the second half of the 20th century. Its use accelerated in the 1970s and 1980s, leveled off for a brief period because of environmental concerns, and then continued to increase into the 21st century. Today, nitrous oxide usage is a common practice in many general and pediatric dental offices, such that its use has often become routine within the United States. As is true of any diagnostic or therapeutic dental intervention, however, its usage merits periodic review, even if—or particularly when—it is routinely applied.

The purposes of this article are to: review the indications and contraindications of nitrous oxide in the management of children in US dental offices, including risks

caused by polypharmacy and problems arising from bioenvironmental exposure in the dental office; discuss usage trends, changes in parenting styles that impact patient management decisions, and N_2O in dental education; and offer 5 summary observations that should be considered when making treatment decisions.

N_2O BASICS REVISITED

NATURE OF N_2O

N_2O is a slightly sweet-smelling, colorless gas that is administered via inhalation and produces nonspecific central nervous system (CNS) depression sufficient to produce modest analgesia.¹ When administered in concentrations between 20% and 50% (and accompanied by 80-50% O_2 , respectively), depending on the patient's response, the patient remains awake but calm and able to follow verbal instructions. At extended concentrations above 50% and depending upon the clinical situation, patients may experience unconsciousness and suffer anoxia.

N_2O and similar sedative agents can be classified by the methods of administration, including: inhalation;

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orally; or intravenously. They also can be classified by their impact on patients' consciousness, ranging from conscious with control of protective reflexes to general anesthesia with total loss of reflexes. Using these 2 axes, N₂O qualifies as conscious inhalation sedation. The 2007 Guidelines for the Use of Sedation and General Anesthesia by Dentists, issued by the American Dental Association (ADA), however, recommend a more specific classification by replacing the single category of conscious sedation as minimal, moderate, or deep sedation.²

INDICATIONS AND ADVANTAGES

N₂O is generally indicated for the mild to moderately apprehensive pediatric patient who is able to understand and follow simple instructions. Success outside these parameters may be possible, but more variable. It is particularly useful for the first-time patient who anticipates pain and/or discomfort before dental care has even been initiated. N₂O additionally allows for increased chairside working time for the clinician (particularly significant for dental students) and those patients who tire quickly or experience patient "burn out" when the complexity of the condition or therapeutic plan requires multiple dental visits.

Dentally, N₂O presents a high success rate with rapid onset of action and rapid recovery. The depth and duration of the sedation is readily titrated. It exhibits a superior safety profile with no recorded fatalities or cases of serious morbidity when used alone and in appropriate concentrations for sedation.³⁻⁵ Side effects are minor, limited to headache, nausea and/or vomiting. These effects can be minimized by monitoring the procedure's length, speed of induction, fluctuation of concentration, and reversal of sedation.¹

In medicine, N₂O has long been used as an inhalation anesthetic for both the induction and maintenance of general anesthesia. More recently, N₂O protocols have been established for pediatric patients undergoing diagnostic procedures such as computer tomography, endoscopy, electroencephalography and bone marrow biopsies.⁶

CONTRAINDICATIONS AND DISADVANTAGES

N₂O is not indicated for every anxious or apprehensive pediatric patient. Its use becomes limited for those patients who resist mask placement and breathing through the mask due to age, maturity level, or mental, behavioral, and personality disorders. It may be ineffective for patients experiencing severe pain. Similarly, if patients suffer from an upper respiratory tract infection, chronic obstructive pulmonary disease, or gas-filled space conditions like acute otitis media, N₂O administration may be contraindicated.¹⁷ Fluctuations in concentration or extended exposure may subsequently increase the risk of nausea and/or vomiting. Regardless of the situation or circumstances, whenever it becomes difficult for the

clinician to judge the N₂O sedation level, the effectiveness of sedation may become compromised.

Current research is focusing on high and repeated exposure to N₂O during major surgery, especially its impact on the developing infant brain.⁸ Reports of increased postoperative homocysteine levels attributed to N₂O anesthesia can lead to postoperative endothelial dysfunction, myocardial ischemia, and infarction.⁹ Some authors, therefore, "question the routine use of N₂O in contemporary practice," although it should be emphasized that these concerns focus, at least presently, on N₂O anesthesia for major surgery.⁸

CO-MEDICATION RISKS

N₂O enjoys an undisputed safety record in children when used alone at subanesthetic concentrations. Recognized for its weak potency but effectiveness by both practitioners and liability carriers alike, its widespread use mimics that of local anesthetics.¹⁰ Both have similarly been given a wide level of acceptance and are used routinely and safely when correctly prescribed for a child's smaller body mass and tidal volume.

Additional risks are posed by the combination of N₂O with other sedative drugs given by a different route. Their actions become synergistic, and the potential for CNS depression is magnified, resulting in deeper sedation than desired or anticipated. In such cases, N₂O as a "relative" anesthetic (ie, a drug with effects directly related to the concentration), becomes a misnomer.¹¹ Furthermore, when N₂O is used alone, laryngeal reflexes remain intact, and patients retain their ability to protect their airway. However, with co-medications, reflexes may become compromised and patients risk aspiration in the event of vomiting, particularly if preoperative fasting was recommended but not observed. Such polypharmacy, including the combination of N₂O with local anesthetics that reach high serum levels, may even lead to respiratory arrest.¹²

BIOENVIRONMENTAL PROBLEMS OF N₂O

N₂O is emitted naturally by bacteria in soils and oceans. It is produced by humans through the burning of fossil fuels and forests and the agricultural practices of soil cultivation and nitrogen fertilization. It also can be used as an oxidizer in rocket motors and in internal combustion engines. N₂O is perhaps best known—or at least most often encountered—as the propellant in ready-use whipped cream and other such food-containing spray cans and as the gas with which snack food packages are filled to prevent the growth of oxygen-dependent bacteria. Altogether, N₂O contributes about 5% to the greenhouse effect. Only a fraction thereof (0.35-2%), however, is actually the result of combined medical and dental applications of N₂O gas.¹³

Hence, more urgent than its impact on our climate is the impact N₂O pollution may have in the dental office itself. N₂O is minimally metabolized when used as

inhalation sedative and excreted primarily through the lungs at a rate similar to its absorption. It retains its potency when exhaled by the patient into the room. This has led to concerns about occupational health hazards for clinic staff, particularly in poorly ventilated areas. Long-term exposure may additionally cause bone marrow suppression and reproductive system disturbances.¹⁴⁻¹⁸ The use of the rubber dam, scavenging equipment, and environmental monitoring, however, have significantly reduced these occupational risks. Inappropriate recreational use of N₂O in and out of the office setting collectively adds to total concentration of gas inhaled. Anesthesiologists acknowledge collateral interest by dentists who are concerned about theater pollution by N₂O and its adverse effects on their patients and staff.^{19,20}

Most dental practitioners, however, appear to be unconcerned about the amount of N₂O dispelled within their dental offices. A 1996 survey by Wilson of members of the American Academy of Pediatric Dentistry (AAPD) showed that 70% of pediatric dentists never tested ambient levels in their offices.²¹ A similar ADA study in 1994 reported that 18% and 29% of dentists who administered N₂O to 10% or more and 10% or less of their patients, respectively, did not use scavenger systems.²² The intention of testing is to detect equipment failure and assess ambient exposure to patients and staff, regardless of the number of patients who are given N₂O.²³

INCREASE IN N₂O USAGE DISCOVERY

N₂O was first synthesized in 1775 by the English chemist Joseph Priestly, who had previously identified oxygen. In the 1790s, Humphrey Davy, a contemporary of Priestly, studied the physiological properties of N₂O and tested its intoxicating effects upon himself and his friends. In 1844 Gardner Quincy Colton, an American showman, lecturer, and former medical student, administered N₂O as a general anesthetic to Horace Wells, a Connecticut dentist, for a molar extraction. Wells then attempted to promote its use, but was discredited following an unsuccessful demonstration to medical students. Recognizing N₂O as a weak general anesthetic, but good analgesic, Colton proselytized its use in dental surgery in the 1860s. Subsequently, Chicago surgeon Edmond Andrews combined N₂O with 20% oxygen to prevent asphyxiation while prolonging anesthesia. The N₂O/O₂ delivery system was perfected for easier and more reliable use in the early 20th century and gained widespread acceptance.

It should be emphasized that, for most of its first 100 years of dental application, N₂O was used as general anesthesia. Patients were rendered unconscious for 1 to 2 minutes, initially using N₂O only and later combined with O₂. The operation was performed quickly and with anticipation that the patient would regain cons-

ciousness shortly thereafter. Administration of N₂O remained potentially lethal until its usage shifted from anesthesia to analgesia and sedation in the second half of the 20th century, which could be achieved with much lower dosages.²⁴

RISE IN USAGE

The earliest survey about N₂O use among US dentists appears to be a 1977 survey by the ADA. At that time, only 35% of dentists used N₂O in their practices.^{25,26} By 1994, this number rose to 56%.²² This number, however, does not provide a good insight into the prevalence of its use. For example, one third of the dentists confirming N₂O usage had not administered it to any of their patients in the foregoing 12 months, and only approximately 7% of patients reported having had N₂O administered. Due to a heterogeneity of services by dental specialty, N₂O use varied considerably with specialty. While 46% of all specialists reported its use, orthodontists appeared to never use it vs 85% of oral and maxillofacial surgeons who did.

Unfortunately, pediatric dentistry was not specifically identified in the 1994 ADA survey. A 1996 report by Wilson and colleagues revealed that N₂O was a popular pharmacologic agent used by 89% of pediatric dentists, with most using it more than 5 times per week.²⁷ Again, this does not inform us about the prevalence of usage as a fraction of the total pediatric patient population or as a fraction of the number of interventions performed.

In a 1999 survey of pediatric dentists in the southeastern United States, Carr and colleagues found that 86% of all the surveyed dentists used N₂O.²⁸ Although by 1999, 22% of dentists older than 50 never used N₂O, all pediatric dentists younger than 30-years-old had it in their office. The study also found that the N₂O use by all respondents combined had risen slightly in the preceding 5 years (70% remained unchanged, 18% increased, and 12% decreased or discontinued use).

Similar trends are revealed by 4 surveys undertaken between 1985 and 2000 as part of the Project on Usage of Sedative Agents by Pedodontists.²⁹⁻³² In 1985, more than half of all pedodontists (55%) used N₂O on 10% or fewer of their patients, about a quarter (23%) on 10-50% of their patients, and the remainder (22%) used it on more than 50% of their patients. The latter percentage stayed the same in all subsequent surveys. The balance between the first 2 categories of dentists shifted somewhat, however, so that by 2000, 47% used it on fewer than 10% of patients and just under one third (31%) used it on 10% to 50% of their patients. Based on these surveys, we can conclude that in the last quarter of the 20th century, there was a gradual rise in the usage of N₂O by dentists in general, as well as among pediatric dentists, such that by 1999 all incoming pediatric dentists were using it.

The data indicates a large variation in usage among pediatric dentists. Even when N₂O became more prevalent, the practice variation did not disappear or even

lessen. Houpt and colleagues have suggested that the decision on the type of sedation to be used, including N₂O, seems to depend more on the experience and bias of the individual practitioner than on patient needs and characteristics.^{29,33} Similar conclusions can be drawn from the study by Carr and colleagues previously quoted. Not only did they find significant differences in usage among age groups, but practices varied dramatically within these groups. For example, approximately 18% of pediatric dentists older than 50 years used N₂O on every patient, 60% used it sometimes, and 22% never.²⁸ One can hypothesize that, as dentists mature, they also gain an understanding of child psychology, effective verbal and nonverbal communication skills, the art of persuasion, and leadership skills, enabling them to diminish or even delete the need for pharmacologic behavior management techniques.⁷

Carr et al. found that approximately 5% of dentists between 30 and 39 years old, 13% of those between 40 and 50-years-old, and 22% of those over 50 years old never used N₂O, which appear to confirm this expectation. But Carr et al. also found that the older generations of dentists were more likely than younger generations to increase rather than decrease or discontinue N₂O usage. This finding, however, also may reflect that a number of older dentists were perhaps still “discovering” the benefits of N₂O, whereas their younger colleagues were familiarized with N₂O during their dental education. Additionally, the oldest generation (>50 years old) was more likely than the 30- to 39-year-old generation to adopt a routine of always administering inhalation sedation (18% vs 13%).

CHANGES IN THE ACCEPTANCE OF DIFFERENT BEHAVIOR MANAGEMENT TECHNIQUES BY PARENTS

The rise in usage by pediatric dentists in the late 20th century was accompanied—and possibly stimulated—by a parallel rise in parental acceptance of behavior control methods. In the 1980s, parents became more sensitive to the treatment of children in the dental office, challenging traditional methods of management of pediatric behavior. In a 1984 survey, parents rated (1-10) nonpharmacologic techniques, with tell-show-do (TSD) as the most favored method of behavioral control, followed by positive reinforcement, voice control, mouth prop, physical restraint by assistant and by dentist, and hand-over-mouth.³⁴ By contrast, sedation (including sedation by means of N₂O) was listed as eighth best in acceptability, followed by general anesthesia (ninth) and papoose board (10th and last). In the event of an emergency in which patient behavior management was imperative, general anesthesia retained its same status, but sedation moved into fourth place.³⁵

Seven years later (1991), in a pediatric dentistry survey listing N₂O as a separate entity out of 8 possible modalities, N₂O was rated second in terms of parental acceptability following TSD; oral premedication and

general anesthesia were seventh and eighth, respectively.³⁶ Notably, there was a quadruple, across-the-board approval of any technique with explanation by the dentist, regardless of the general approval level for that technique. This suggested that provider-patient communication had become a major determinant of parent approval.

The persistence of this trend toward parental acceptance of N₂O was underscored by a 2005 study assessing contemporary attitudes of parents toward the same 8 management techniques used by Lawrence and colleagues.^{36,37} N₂O remained second to TSD, but general anesthesia showed a dramatic rise to third in acceptability. Changing perceptions of health care, such as increased familiarity with outpatient surgical services and increased drug marketing to the public through the printed press, television, and the Internet, may have led to widespread parental beliefs that pharmacologic behavior management is without risk of harm.³⁷

Changes in parental acceptance of different management techniques paralleled changes in the parent-clinician relationship. In the mid-1980s, parents began to assume a more active role in the management of their children in the dental office and questioned long-held, standard treatment philosophies and modalities. Dentists were compelled to adjust their relationship and to better accommodate parental concerns. A 2002 survey by the American Academy of Pediatric Dentistry reported a general consensus among the responding diplomats that major parenting changes had occurred during their practice careers which had led them to shift their behavior management techniques to less assertive modes.³⁸ A 2007 survey confirmed this shift from a more discipline oriented style characteristic of older practitioners who possess higher expectations for patient cooperation to a “deferment” style more popular among younger dentists who more often prefer to leave disciplinary management to parents.³⁹ As a result, parents have sought and been given an active voice in their child’s management. Whether their “requests,” if honored, are always in the child’s best interests, remains to be seen.

PREDOCTORAL DENTAL EDUCATION OF N₂O

The excellent safety record of N₂O for behavior management and increased parental acceptance for pharmacologic intervention may have driven N₂O usage upward in the last quarter of the 20th century, such that it has become a routine management component. In turn, this has impacted dental education. Not only are dental students now familiarized with the technique, it also has become a method to attain and extend a child’s behavior “good time,” to better accommodate students who work at a slower pace. This would seem to be a benefit for all parties involved, but on occasion may have an unexpected negative result.

It is the experience of the author that in the teaching environment, dental students may develop a clinic-imposed reliance upon N₂O for the management of

those pediatric patient displaying signs of apprehension or resistance. Such reliance might not be necessary for the more skilled and experienced clinician. As a result, students and recent dental graduates may not appreciate the nonpharmacological management techniques such as TSD, modeling, and positive reinforcement that may be all that is necessary for management. They may lack the self-confidence to work outside their educational comfort-zone. Fortunately, the current trend toward dental externship programs to supplement formal dental school clinical training via community clinics, hospitals, and private offices will expand student use and understanding of N₂O.

Guidelines for teaching N₂O in predoctoral education did not occur until 1971 with the publication of the *Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry* by the Council on Dental Education.⁴⁰ These guidelines resulted from a collaboration of the ADA, American Society of Dental Anesthesiology, and the American Association of Dental Schools. Prior to that time, "relative anesthesia" was presented as continuing dental education by Harry Langa, who published the first edition of his *Relative Analgesia in Dental Practice: Inhalation Analgesia and Sedation with Nitrous Oxide* in 1969.^{11,41} It is noteworthy that the 1971 guidelines stated that N₂O inhalation procedures should only be taught after students had achieved increased levels of clinical experience and responsibility, and only after having become familiar with basic intravenous techniques, a view no longer held today.

The next set of educational guidelines, dating from 1989, acknowledged varying levels between dental schools regarding clinical experience of N₂O use to be achieved by students. In response, the guidelines established a numerical experience requirement of 15 documented patients prior to certification of competency, which was identical to that of intravenous sedation.⁴² The 2007 update of Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students acknowledged that inhalation sedation was most often completed as part of predoctoral dental education and established a minimum of 14 hours, including a clinical component, during which competency would be achieved.² Records of didactic and clinical experience and the number of patients were to be maintained and available upon request to satisfy specific requirements for state inhalation sedation permits.

A 1989 ADA study of 59 dental schools surveyed the level of N₂O teaching. In nearly 12% of the responding schools, most students attained "familiarity" with N₂O sedation; in just over half of all schools (53%), the majority of students achieved "competency"; and in the remaining 36% of schools, most students attending those schools achieved "proficiency."⁴² These 1989 frequencies were comparable to those attained in a study by Belanger and Tilliss a few years later.⁴³ They distinguished between "no training," "training at

a basic competency level," and "training at a comprehensive level or proficiency." They found that 4% of responding dental schools (N=59) did not teach N₂O in the classroom, 9% did not provide clinical education, and 22% taught students to refer to a specialist for N₂O. Seventy percent of schools taught at a "basic competency" level and 61% of the schools attained basic competency in clinical application as well. Finally, 26% of schools sought to teach at a "comprehensive" level, and 9% aimed to teach at a "proficiency" level.

The findings of these 2 studies are contradicted by a 2004 study by Adair and colleagues.⁴⁴ They found that 47 of 48 responding schools taught N₂O in the classroom, while 1 school did not. But the clinical teaching level seemed to have decreased dramatically rather than increased. When clinical experience was defined as "at least one hands-on experience," as many as 32 schools (70%) did not teach N₂O (similar to general anesthesia, which was not taught in 31 schools). By contrast, only 4 schools did not teach "conscious sedation" (which, given the separate category of N₂O, must have referred to oral sedation). In addition to the 32 schools not providing clinical experience in N₂O, 12 more schools reported that only a quarter or fewer of their students had one hands-on experience with N₂O. Given the overall general usage of N₂O by practicing dentists, it would be rather disconcerting if these findings by Adair and colleagues are correct.

A different method of assessing the status of N₂O instruction in the undergraduate dental curriculum is to review successive editions of leading textbooks, such as the pediatric dental textbook *Dentistry for the Child and Adolescent*, which was first published in 1969 and is now in its eighth edition. The subject of N₂O first appeared in the second edition from 1974 (first edition, 1969⁴⁵) under the header of "relative anesthesia" as a "tool" to address dental pain as well as the fear of dental pain.⁴⁶ The third edition (1978) acknowledged reported recent concerns about occupational exposure.⁴⁷ By the fourth edition (1983), N₂O was described as both an analgesic to control pain and a psychosedative drug to modify behavior.⁴⁸ For the first time, adverse affects of nausea, vomiting, and cautionary drug interaction were reported. In the fifth edition (1987), N₂O was relocated from the chapter on pain relief to a new chapter on pharmacologic management of patient behavior, where it has remained since.⁴⁹ By the sixth edition (1994) and subsequent seventh edition (2000), N₂O was presented as a pharmacologic behavior management tool independent of any prerequisite rapport-centered approach, such as positive reinforcement or TSD.^{50,51} It was simply stated that N₂O was used by 85% of pediatric dentists, without making any attempt at specifying whether these dentists used it all the time, occasionally, or rarely. No reference to the scientific literature was provided to support the stated frequency.

In the current eighth edition (2004), concerns of specific occupational hazards are limited. This may explain the low compliance regarding office monitoring. Similarly, potential drug interactions are reported as "negligible" due to the high concentration of oxygen used.¹

CONCLUSION

After the analgesic qualities of N₂O were discovered in the 19th century, dental practitioners experimented with N₂O as a general anesthetic for almost a century, frequently pushing beyond physiologic tolerance levels. Its usage then shifted to that of an analgesic and subsequently to an inhalation sedative. The significantly reduced dosages needed to elicit sedation rendered the drug much safer and enabled dentists to administer N₂O with ever greater frequencies. Consequently, by the dawn of the 21st century, N₂O had become a routine component of dental care among US dentists.

Nitrous oxide has deservedly earned the respect of dental practitioners, particularly in the treatment of children. Even as a routine practice, however, N₂O use merits a periodic examination review to assure that its record of clinical safety and ethical soundness is sustained (for a more detailed discussion of the ethics of N₂O administration, the 2010 article by Levering & Welie²²) The following 5 observations should be considered when making decisions about N₂O administration:

1. N₂O has an undisputed safety record when used alone at subanesthetic concentrations. When used in combination with other sedative drugs, however, such polypharmacy entails risks.
2. N₂O poses a risk of bioenvironmental exposure to the clinician, staff, and patients when ambient air is not routinely scavenged and monitored.
3. Students' clinical experience with N₂O varies between dental schools, and there is insufficient evidence that all graduates are fully competent in N₂O usage.
4. Today's parents are more accepting of pharmacologic means of behavior management, including N₂O, in the dental office, which is likely to impact patient management decisions.
5. The choice to use or not use N₂O should always be in the current best interest of the child; past usage of N₂O for any particular child is not a sufficient reason to continue its use.

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This exam contains 50 items. For each item, select the **ONE** best answer by completely filling in the oval on your answer sheet that corresponds to your choice.

Article 1

Questions 1-10: *Effects of Deep Sedation on Behaviors and Side Effects in Children Undergoing Different Dental Procedures*

1. Which of the following is a reason that deep sedation levels may be required for children under the age of 7?
 - A. Reduce parent anxiety
 - B. Enhance patient behavior control
 - C. Decrease time needed for patient to heal
 - D. Reduce occurrence of allergic reactions to dental materials
2. Which of the following took significantly more time for Group E than it did for Group R?
 - A. Time to eye opening.
 - B. Time to discharge.
 - C. Duration of procedure.
3. Which of the following took significantly less time for Group R than it did for Group E?
 - A. Time to discharge.
 - B. Duration of procedure.
 - C. Time to answer verbal commands.
4. Which of the following was the most commonly observed side effect during sedation for both groups?
 - A. Bradycardia
 - B. Desaturation
 - C. Excessive secretion
 - D. Involuntary movement
5. Which of the following was the most commonly observed side effect during the early recovery period for both groups?
 - A. Nausea
 - B. Agitation
 - C. Dizziness
 - D. Sleepiness
6. Post-operation, how many Group E patients were still asleep after 5 minutes?
 - A. 0
 - B. 1
 - C. 18
 - D. 24
7. Which was the most common side effect observed in both groups after being at home for 48 hours?
 - A. Crying
 - B. Nausea
 - C. Irritation
 - D. Sleepiness
8. According to previous studies reported in this article, which method can widen the spectrum of action and decrease the side effects of the anesthesia?
 - A. The use of a single anesthetic drug
 - B. The use of a combination of anesthetic drugs
 - C. The administration of the anesthetic drug(s) at least 5 minutes prior to the procedure
 - D. The administration of the anesthetic drug(s) at least 10 minutes prior to the procedure
9. At 15 minutes post-operation, which Wilton behavior scale (WBS) score was significantly higher for Group R than for Group E?
 - A. Asleep
 - B. Restless
 - C. Agitated and alert
 - D. Calm, eyes open spontaneously

10. Which of the following is a major finding of this study regarding the children who exhibited the most negative behaviors (e.g., anxious, impulsive) prior to sedation?
- A. The duration of the procedure was significantly longer than for children who exhibited positive behaviors prior to sedation.
 - B. The duration of the procedure was significantly shorter than for children who exhibited positive behaviors prior to sedation.
 - C. Less likely to exhibit restlessness and behavioral disorders following sedation than children with positive behavior prior to sedation.
 - D. More likely to exhibit restlessness and behavioral disorders following sedation than children with positive behavior prior to sedation.

Article 2

Questions 11-18: *Effect on Behavior of Dental Treatment Rendered Under Conscious Sedation and General Anesthesia on Pediatric Patients*

11. According to this article, which percentage of advanced education programs for pediatric dentistry (in the U.S.) responding to the survey taught the use of pharmacologic techniques (i.e., conscious sedation, IV sedation, general anesthesia) as an acceptable method of behavior modification for pediatric patients?
- A. 25%
 - B. 50%
 - C. 75%
 - D. 100%

12. Which of the following is **NOT** an indication for the use of general anesthesia on pediatric patients, according to the guidelines established by the American Academy of Pediatric Dentistry (AAPD)?
- A. Acute infection
 - B. Hard of hearing
 - C. Medical disability
 - D. Lack of emotional maturity
13. According to this study, the odds that a patient treated under general anesthesia would exhibit positive behavior at a 6-month recall visit than would a patient treated under conscious sedation were
- A. 1.3 times higher.
 - B. 2.6 times higher.
 - C. 3.9 times higher.
 - D. 4.2 times higher.

14. According to this article, which of the following is a reason that a clinician may choose general anesthesia for initial treatment over conscious sedation?
- A. Pharmacological costs are less.
 - B. Time needed for treatment is reduced.
 - C. The time required for patient recovery is decreased.
 - D. The likelihood of positive behavior post-treatment increased.

15. Why is it significant that the patients in this study were under the age of 36 months?
- A. Patients younger than 36 months are better controlled by their parents, causing the resulting behavior to be caused solely by the sedation choice.
 - B. Patients younger than 36 months are less aware that they are in a dental office, and less medication is required to reach desired levels of sedation
 - C. Patients older than 36 months are more likely to have already had a dental treatment experience and established a coping mechanism.
 - D. Patients older than 36 months require more medication, which would cause the interpretation of the study results to be different for those younger than 36 months
16. Which of the following factors may have affected the significance of the results from the recall appointments at 12 and 18 months?
- A. Patients did not return for routine appointments.
 - B. Patients refused to participate in the study during follow-up appointments.
 - C. Dentists left the practice and follow-up appointment results were not recorded.
 - D. It was too difficult to assess whether the behavior changes were due to the patient getting older or due to the type of sedation used.

17. Which of the following is a stated reason that the study by Kupietzky and Blumenstyk resulted in no effect on behavior in dental experiences after sedation?
- A. The patients were between 36-72 months old.
 - B. The patient follow-up was only conducted over the phone.
 - C. The scales used to measure the patient's behaviors were flawed.
 - D. The parents were not allowed to be in the treatment room with the patients.
18. According to this study, which of the following could be a result of developing dental anxiety that remains in adulthood?
- A. Low self-esteem
 - B. Low pain tolerance
 - C. Increase in occurrence of dental caries
 - D. Increase in sedation required for dental treatments

Article 3

Questions 19-30: *Adverse Events during Pediatric Dental Anesthesia and Sedation: A Review of Closed Malpractice Insurance Claims*

19. Before administering sedatives and/or local anesthetics to a child, the child should be
- A. weighed.
 - B. intubated.
 - C. measured.
 - D. monitored.
20. The current weight of the child should be used to determine the
- A. length of the procedure.
 - B. type of sedative to be used.
 - C. type of barriers used to prevent aspiration.
 - D. dose of the sedative or local anesthetic.

21. Which organization developed a set of guidelines for the administration and monitoring of pediatric sedation and/or local anesthetic use?
- A. AAPD
 B. ADA
 C. CDC
 D. DANB
22. How many of the 13 sedation cases reported in the article mentioned that the dental office monitored the patient with pulse-oximetry during sedation and/or local anesthetic use?
- A. 1
 B. 2
 C. 3
 D. 4
23. According to the details presented in Table 2, how many of the 13 sedation cases resulted in death?
- A. 3
 B. 5
 C. 7
 D. 9
24. Which of the following is **NOT** a form of monitoring that can be used during sedation and/or local anesthetic use?
- A. Visual
 B. Temperature
 C. Pulse-oximeter
 D. Precordial stethoscope
25. Which age group is most at risk for complications during sedation and/or local anesthetic use?
- A. 1-3 years
 B. 4-6 years
 C. 7-8 years
 D. 9-10 years
26. According to the AAPD/AAP guidelines, prescription sedation medication should only be administered to children under a dentist's
- A. direct supervision.
 B. indirect supervision.
 C. general supervision.
27. If a child has a complication due to sedation and/or topical anesthetic use, the first responder will likely be
- A. a pediatric doctor.
 B. a hospital medical team.
 C. the treating dentist.
 D. the parent and/or guardian.
28. Which of the following should **NOT** be a main consideration when determining the sedative dose for a child?
- A. Patient weight
 B. Standard fixed dose
 C. Respiratory conditions
 D. Difficulty of procedure
29. Which of the following was **NOT** an outcome of sedation use in the 13 cases documented?
- A. Death
 B. Paralysis
 C. Recovery
 D. Brain damage
30. In the closed malpractice insurance claims reported in this article, which of the following was **NOT** included as a sign of a complication when chloral hydrate was one of the sedative agents used during the procedure?
- A. Blue skin
 B. Cold sweats
 C. Slowed respiratory rate
 D. Patient difficult to arouse

Article 4

Questions 31-40: *Stainless Steel Crown Aspiration During Sedation in Pediatric Dentistry*

31. 78% of pediatric dental patients who die after foreign body aspiration are between the ages of

- A. 2 months and 4 years.
- B. 5 and 6 years.
- C. 7 and 8 years.
- D. 9 and 10 years.

32. Which of the following is one of the common triad of presenting symptoms of aspiration?

- A. Dyspnea
- B. Sweating
- C. Sneezing
- D. Wheezing

33. In children, the most frequently aspirated object is

- A. erasers.
- B. peanuts.
- C. lima beans.
- D. plastic buttons.

34. Failure of soldered joints and disintegration of burs can be caused by increased wear of the instruments, resulting from

- A. improper drying.
- B. improper storage.
- C. repeated soaking.
- D. repeated sterilization.

35. Radiographic features of aspirated foreign bodies will depend on

- A. the weight of the patient.
- B. the position of the patient.
- C. whether the patient has previously aspirated.
- D. the length of time since the patient aspirated.

36. The pharmacological combination of midazolam and hydroxyzine can produce which level of sedation in children?

- A. Mild to moderate
- B. Moderate to deep
- C. Mild to deep
- D. General anesthesia

37. In the case report of a healthy 5-year-old boy, which of the following methods was first used in an attempt to remove the dislodged crown?

- A. Rigid bronchoscopy
- B. Insertion of a mouth prop
- C. High vacuum suctioning
- D. Patient placed in supine position

38. Which of the following can minimize the incidence of aspiration during sedation in pediatric patients?

- A. Gauze throat shield
- B. Placement of a mouth prop
- C. Use of high volume evacuation
- D. Have parent present during the procedure

39. In the case report of a healthy 5-year-old boy who aspirated a crown, the patient's risk of aspiration may have been increased due to the use of

- A. a mouth prop.
- B. palatal anesthesia.
- C. rubber dam isolation.
- D. an inappropriate crown size.

40. In this article, it is suggested that which nerve block can interfere with sensory motor control of the pharynx, tongue and palate?

- A. Buccal
- B. Incisive
- C. Maxillary
- D. Mandibular

Article 5

Questions 41-50: *Current Status of Nitrous Oxide as a Behavior Management Practice Routine in Pediatric Dentistry*

41. Which is the maximum concentration of nitrous oxide that should be administered so that the patient is still able to respond to verbal instructions?

- A. 20%
- B. 30%
- C. 40%
- D. 50%

42. The use of nitrous oxide offers oral healthcare providers the opportunity to extend working time. This opportunity is **MOST** significant for which member of the dental team?

- A. Dentists
- B. Dental hygienists
- C. Dental students
- D. Dental assistants

43. Prolonged exposure to nitrous oxide increases a patient's risk of which symptom?

- A. Nausea
- B. Indigestion
- C. Skin irritation
- D. Difficulty breathing

44. If a patient is co-medicated and then administered nitrous oxide, which function of the body can be compromised?

- A. Healing
- B. Digestion
- C. Peristalsis
- D. Respiration

45. When compared to the potency of nitrous oxide inhaled by a patient, the potency of exhaled nitrous oxide is

- A. retained.
- B. eliminated.
- C. increased.
- D. decreased.

46. In this article, it was reported that a 1999 survey of pediatric dentists from the southeastern region of the United States revealed that 22% of which age group of dentists reported that they never used nitrous oxide?

- A. Under 30
- B. 30-39
- C. 40-49
- D. Over 50

47. Which behavioral management technique for pediatric dental patients was most favored by parents in a survey conducted in 1984?

- A. Mouth prop
- B. Voice control
- C. Tell-show-do
- D. Hand-over-mouth

48. Drug company marketing strategies contributed to a shift in parent healthcare perceptions that may have caused parents to believe that pharmacologic behavior management is

- A. harmful.
- B. harmless.
- C. expensive.
- D. inexpensive.

Professional Development Examination Program

Sedation in Pediatric Dentistry: Edition 200-13

49. In 2007, the ADA's *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* publication was updated to require dental students to complete how many hours of inhalation sedation education?

- A. 10
- B. 12
- C. 14
- D. 16

50. Why did the use of nitrous oxide as an inhalation sedation method level off in the late 20th century?

- A. High cost
- B. Environmental concerns
- C. Other options became more popular
- D. High incidence of depression in patients



This is the end of the Examination.

Remember to carefully complete the answer sheet by thoroughly and PROPERLY filling in your certification number and PDEP authorization number BEFORE mailing to DANB.

This examination is yours to keep as a reference. PDEP participants are advised to keep this examination and accompanying articles until receipt of a passing score. Individuals who fail will be allowed to retake the examination and will be provided with a new answer sheet. However, additional copies of the articles and examination will not be available.

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JUN 30 2014

01-04-30 00304, 42235
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②

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Note: A fee of \$10 per course is required to process your request. PLEASE TYPE OR PRINT.

1. Name of organization or person requesting approval: Johnson County Public Health

Address: 855 S. Dubuque Street Iowa City, IA 52240

Phone: 319-688-5889 Fax: 319-688-5912 E-mail: etosh@co.johnson.ia.us

2. Type of organization (attach bylaws if applicable):

- Constituent or component society
- Dental School
- Dental Hygiene School
- Dental Assisting School
- Military
- Other (please specify): County Government

3. Which of the following educational methods will be used in the program? Please check all applicable.

- Lectures
- Home study (e.g. self assessment, reading, educational TV)
- Participation
- Discussion
- Demonstration

4. Course Title: Age 1 Dental Visits: All you need to know

5. Course Subject:

- Related to clinical practice
- Patient record keeping
- Risk Management
- Communication
- OSHA regulations/Infection Control
- Other: _____

6. Course date: Aug 9, 2014

Hours of instruction: 2

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1. Name of organization or person requesting approval: Johnson County Public Health

Address: 855 S. Dubuque Street Iowa City, IA 52240

Phone: 319-688-5889 Fax: 319-688-5912 E-mail: etosh@co.johnson.ia.us

2. Type of organization (attach bylaws if applicable):

- Constituent or component society
- Dental School
- Dental Hygiene School
- Dental Assisting School
- Military

Other (please specify): County Government

3. Which of the following educational methods will be used in the program? Please check all applicable.

- Lectures
- Home study (e.g. self assessment, reading, educational TV)
- Participation
- Discussion
- Demonstration

4. Course Title: Age 1 Dental Visits: All you need to know

5. Course Subject:

- Related to clinical practice
- Patient record keeping
- Risk Management
- Communication
- OSHA regulations/Infection Control
- Other: _____

6. Course date: Aug 9, 2014

Hours of instruction: 2

Continuing Education:

“Dental Visits for Infants and Toddlers – all you need to know”

Outline:

One in every two children less than 5 years of age is affected with some form of caries either treated or untreated (Source: CDC at <http://www.cdc.gov/nchs/data/databriefs/db96.htm>). Early Childhood Caries (ECC) is a severe form of caries and a serious problem in young children. The serious consequences include every tooth in the child’s mouth being affected with caries, advanced lesions involving pulp, infection of the peri-apex and sometimes the newly erupting permanent tooth. The treatment typically is both expensive and time consuming with multiple steps and appointments. However, preventing ECC and improving oral health of children in general is not as challenging. An early visit, as early as age one, to a dental office and a professional consultation can bring about a considerable change in the parents attitude towards the oral health of the child. Organizations like American Academy of Pediatrics, American Association of Pediatric Dentistry, Delta Dental, I-Smile of Iowa, are all promoting age one dental visits. Equipping dental care providers working in the field with means, such as, trigger questions for risk assessment and appropriate anticipatory guidance for the infants and toddlers, is the focus of the presentation.

Learning objectives:

- Attendees will understand the need for seeing children beginning at age 1 through age 3 and beyond
- Attendees will leave with anticipatory guidance for parents of infants and toddlers
- Attendees will be introduced to options for caries risk assessments

Mode of presentation: Power-point presentation, interactive session-discussion, and handouts

Targeted audience: Dental Hygienists, Dentists (??), and Dental Assistants (??)

Approximate time: 2 hours

In brief:

Why see children at age one?

The need, ECC

What to do at age 1 visit

Educating the parents is the key

Anticipatory guidelines for 0 to 36 months

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NOTE: A fee of \$10 *per course* is required to process your request. PLEASE TYPE OR PRINT.

1. Course Title: OSHA/Infection Prevention Update 2014

2. Course Subject:

- Related to clinical practice
- Patient record keeping
- Risk Management
- Communication
- OSHA regulations/Infection Control
- Other: _____

3. Course date: May 20, 2014 Hours of instruction: 2

4. Provide a detailed breakdown of contact hours for the course or program:

Diverse coverage of OSHA/Infection prevention topics to include: Blood borne pathogens, Protective equipment, Immunizations, handwashing, instrument processing, surface disinfectants & waste processing

5. Name of course sponsor: Spring Park OMS Study Club

Address: 5345 Spring St., Davenport, IA 52807

6. Which of the following educational methods were used in the program? Please check all applicable.

- Lectures
- Home study (e.g. self assessment, reading, educational TV)
- Participation
- Discussion
- Demonstration

7. Provide the name(s) and briefly state the qualifications of the speaker(s): _____
Paul R. Smith, DDS. has provided this training
for over 10 years to the Davenport District Association

8. Please attach a program brochure, course description, or other explanatory material.

9. Name of person completing application: Glenna Kohlmeyer
Title: Front Office Supervisor Phone Number: 563) 359-1601
Fax Number: 563) 355-7111 E-mail: glenna.kohlmeyer@springparkoms.com
Address: 5345 Spring Street, Davenport, IA 52807
Signature: Glenna Kohlmeyer Date: 5-20-14

Board rules specify that the following subjects are NOT acceptable for continuing education credit: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

If the course was offered by a Board approved sponsor, you should contact the sponsor directly for approval information, rather than submitting this form. A list of approved sponsors and contact information is available on the Board website at www.dentalboard.iowa.gov. Continuing education guidelines and rules are also available on the Board's website. A course is generally acceptable and does not need to go through this formal approval process if it is directly related to clinical practice/oral health care.

Pursuant to Iowa Administrative Code 650—25.3(6), within 90 days after the receipt of application, the Board shall issue a final decision as to whether the activity is approved for credit and the number of hours allowed.

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Iowa Dental Board
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Spring Park Oral and Maxillofacial Surgeons, PC

Presents:

OSHA/ Infection Prevention Update 2014

A comprehensive presentation by Dr. Paul R. Smith

Tuesday, May 20, 2014 12:00 P.M. – 2:00 P.M.

5345 Spring Street

Davenport, IA 52807

Topics to include, but not limited to:

Blood borne pathogens

Protective Equipment

Immunizations

Proper hand washing procedures

Instrument processing

Surface disinfectants

Waste Processing

2 hours of Continuing Education awarded to each attendee

2014 101366 00 CNED Continuing Education

Type CNED Continuing Education Sub Type Course Status New
 Group Licensure Parent ID Row ID 40141

Licensed Organization or Individual

Folder Nancy S Barr Adrianse
 Address 3210 SW 33RD ST, DES MOINES, Polk, Iowa, 50321-1900, Polk
 Phone 1 (515) 287-3983e Phone 2 (515) 333-5032e Public DiscNo PeopleID 3131

Tracking Dates and Reference Information

Open 06/18/2014 Issue Expiry
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 Folder Pregnancy and Oral Health Priority

Comment 1

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Contacts

Name	Type
Ms. Nancy S Barr Adrianse	Applicant

Additional Information

Description	Value
Application Signature	
Application Signature Date	
Hours Requested	1.5
Number of Courses per ye...	
Hours Awarded	
Course Subject	Clinical practice

Description	Value
Final Acknowledgements (2)	
Application Signature	<input checked="" type="radio"/> Yes <input type="radio"/> No
Application Signature Date	Select Date
Course Hours (2)	
Hours Requested	1.5
Hours Awarded	Enter Number
Course Details (9)	
Course Subject	Clinical practice
Course Title	Pregnancy and Oral Health
Course Presenter	Karin Weber-Gasparoni, DDS., Ph.D, Arwa Owais, BDS, MS, Cathy Skotowski, RDH, MS
Location 1	Sheraton, WDM
Date 1	Oct 17, 2014
Location 2	Enter Text or Number
Date 2	Select Date
Location 3	Enter Text or Number
Date 3	Select Date
Sponsor Details (6)	
Number of Courses per year	Enter Number
Type of Organization	Corporate
Name of Sponsoring Organization	Iowa Primary Care Association
Educational Methods 1	Lecture
Educational Methods 2	Discussion
Educational Methods 3	Choose

Title:

Pregnancy and Oral Health 1.5 CEUs

Objectives:

- Participants will learn about the literature and scientific evidence regarding oral health importance in pregnancy
- Participants will be able to identify different resources available to educate pregnant women and guide them in relation to oral health
- Participants will understand the recommended ways of communicating with pregnant women to adopt the best oral health behaviors during pregnancy

BIOS

Karin Weber-Gasparoni, D.D.S., Ph.D.



Associate Professor and Head, Department of Pediatric Dentistry, The University of Iowa
Director of the Infant Oral Health Program

Education:

DDS, Universidade Estadual de Londrina, Londrina, Brazil, 1994

Certificate, Dentistry for Babies, Universidade Estadual de Londrina, Londrina, Brazil, 1995

Certificate, Pediatric Dentistry, University of Iowa, 1999

M.S., Dental Public Health, University of Iowa, 1999

PhD, Oral Science, University of Iowa, 2003

Diplomate, American Board of Pediatric Dentistry, 2007

Dr. Weber-Gasparoni joined the College of Dentistry in 2003. She is an associate professor and head of the Department of Pediatric Dentistry. Dr. Weber-Gasparoni is a predoctoral and postdoctoral lecturer and clinical instructor. She is the director of the Infant Oral Health Program where pediatric dentistry and medicine residents, as well as senior dental students provide preventive dental care for infants and toddlers. Her research specialties include dental care for patients with special health care needs and infants, toddlers, and children of low-income, high risk populations. Her research includes early dental interventions, including early childhood caries, psychological theories of motivation, and public health issues affecting the health of pediatric dental patients.

Arwa Owais BDS, MS



Associate Professor, Department of Pediatric Dentistry, The University of Iowa

Education:

B.D.S., Jordan University of Sciences and Technology, 1994

M.S., Dental Public Health, University of Iowa, 2000

Certificate, Pediatric Dentistry, University of Iowa, 2000

Diplomate, American Board of Dental Public Health, 2003

Diplomate, American Board of Pediatric Dentistry, 2006

Dr. Owais joined the University of Iowa College of Dentistry & Dental Clinics in 2013 as an associate professor in the Department of Pediatric Dentistry. She served as a faculty member in the preventive dentistry department from 2000-2013 at Jordan University of Science and Technology in Irbid, Jordan. She was the vice dean of the College of Dentistry at Jordan University of Science and Technology from 2010-2013 and the head of the pediatric dentistry section at King Abdulla Hospital, Jordan, from 2010-2013.

Dr. Owais is a predoctoral and postdoctoral lecturer and clinical instructor in Pediatric Dentistry. Dr. Owais has several publications in the area of children oral health as well as other areas in pediatric dentistry.

Cathy Skotowski RDH, MS



Clinical Assistant Professor, Department of Pediatric Dentistry, The University of Iowa

Education:

Bachelor of Science, Dental Hygiene, The University of Iowa, 1981

Master of Science, Dental Public Health, The University of Iowa, 1991

Ms. Skotowski joined the College of Dentistry in 1986. She is the director of the department's preventive dentistry program. She participates in dental student instruction in the areas of fluoride and preventive dentistry. She coordinates community activities, which include scheduling and supervising dental health presentations, dental screenings, and fluoride varnish applications for daycare, preschool and elementary school-aged children. Ms. Skotowski stays current on pediatric oral health resources and continually updates the department's website of resources.

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NOTE: A fee of \$10 *per course* is required to process your request. PLEASE TYPE OR PRINT.

1. Course Title: Iowa Emergency Medical Responder

2. Course Subject:

- Related to clinical practice
- Patient record keeping
- Risk Management
- Communication
- OSHA regulations/Infection Control
- Other: Medical Emergencies

3. Course date: 2/4/14 - 4/10/14 Hours of instruction: 62 hours

4. Provide a detailed breakdown of contact hours for the course or program:

Tuesday & Thursdays from 6:00 pm - 9:30 pm

5. Name of course sponsor: University of Iowa

Address: Department of Emergency Medicine
Darrin Hayes 319-384-9057
darrin-hayes@uiowa.edu

6. Which of the following educational methods were used in the program? Please check all applicable.

- Lectures
- Home study (e.g. self assessment, reading, educational TV)
- Participation
- Discussion
- Demonstration

#5132
#10.

7. Provide the name(s) and briefly state the qualifications of the speaker(s): _____

Scott Devore
Ray Sterner } Instructor University of Iowa
Medical Emergencies
Darrin Hayes

8. Please attach a program brochure, course description, or other explanatory material.

9. Name of person completing application: Tina L. Blatch QDA-09334

Title: Dental Assistant Phone Number: 319-863-8139

Fax Number: _____ E-mail: tinablatch@gmail.com

Address: 2855 Hwy 1 Washington, IA 52353

Signature: Tina Blatch Date: 5/8/14

Board rules specify that the following subjects are NOT acceptable for continuing education credit: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

If the course was offered by a Board approved sponsor, you should contact the sponsor directly for approval information, rather than submitting this form. A list of approved sponsors and contact information is available on the Board website at _____. Continuing education guidelines and rules are also available on the Board's website. A course is generally acceptable and does not need to go through this formal approval process if it is directly related to clinical practice/oral health care.

Pursuant to Iowa Administrative Code 650—25.3(6), within 90 days after the receipt of application, the Board shall issue a final decision as to whether the activity is approved for credit and the number of hours allowed.

MAIL COMPLETED APPLICATION ALONG WITH THE REQUIRED **\$10 FEE** PER COURSE TO:

**Iowa Dental Board
Continuing Education Advisory Committee
400 S.W. 8th Street, Suite D
Des Moines, Iowa 50309-4687**

EMS CERTIFICATION APPLICATION FOR THE EMERGENCY MEDICAL RESPONDER OR
EMERGENCY MEDICAL TECHNICIAN

THIS FORM MUST BE SUBMITTED TO THE BUREAU OF EMS WITH THE \$30 CERTIFICATION FEE

TO BE COMPLETED BY THE TRAINING PROGRAM:

Candidate Number	Date Passed Practical Exam
<input checked="" type="checkbox"/> EMR <input type="checkbox"/> EMT	
18 10 04 01	03 31 14

The individual identified below has completed all training program requirements outlined in Iowa Administrative Code 641—131 and has completed all training program requirements for the level identified by the student number. This individual has also passed the state practical certification examination on the date listed above.

 Signature of Training Program Official	3/31/14 Date
Darrin Hayes Printed Name	

TO BE COMPLETED BY THE STUDENT:

Social Security Number	<small>Disclosure of your Social Security number on this license application is required by 42 U.S.C. Section 666(a)(13) and Iowa Code Section 252J.8(1). The number will be used in connection with the collection of child support obligations and as an</small>		
4 8 4 - 7 6 - 7 4 0 5	Last Name	First Name	MI
	Glatck	Tina	L
Home Mailing Address			
2855 Hwy 1			
City	State	Zip Code	
Washington	IA	5 2 3 5 3	
Date of Birth	Age		
0 7 / 2 0 / 7 1	4 2		
Home Phone Number			
3 1 4 - 8 6 3 - 8 1 3 9			
			<input type="checkbox"/> Check here if your address has changed since completing your EMS STUDENT REGISTRATION form.

Photo Scans
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Clinton Dental Study Club		
Contact Person: Ann McIntyre		
City: Clinton	State: Iowa	Zip: 52732
Phone: 563-243-6950	Fax: 563-243-2648	
Email: clintonfamilydental@hotmail.com	Website Address: dentistinclinton.com	

Name of Current Officer(s), Title(s), Address, Phone: 563-243-6950
Ann McIntyre DMD - President 400 S. 2nd St. Clinton, IA 52732
Kenneth P. Carlson - Immed. past pres.

Number of courses offered in 2013: 6
Average number of attendees: 95

Number of courses offered 2014*: 6
*To date

- Education Methods:**
- Demonstration
 - Discussion
 - Lecture
 - Participation
 - Self-study (e.g. reading, online courses, etc.)
 - Other: _____

- Course Subject Matter: (check all that apply)**
- Clinical Practice
 - Risk Management
 - OSHA Regulations/Infection Control
 - Patient Record Keeping
 - Communication
 - Other: _____

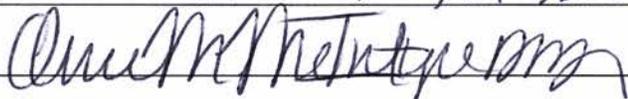
Name of Sponsor: _____

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
9/27/14	Lip & Tongue Ties in Pediatric Patients: Diagnosis & Treatment	Melinda Hochgesang DMD	Clinton, IA	2
10/21/2014	Mandibular Implant Overdentures: Clinical Treatment Planning	Robert Blackwell, DDS	Clinton Iowa	2
11/18/2014	BRONJ: Diagnosis, Treatment and Prevention	Ryan Lee, DDS	Clinton Iowa	2
1/20/2014	Head & Neck Cancer: The ENT's View	Melanie Giesler, MD	Clinton Iowa	2
2/17/2014	Record Keeping, Informed Consent and HIPPA compliance	Mike Byrne, JD	Clinton Iowa	2
3/24/2014	Dental Radiology Update	Jody Jorgensen	Clinton Iowa	2

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

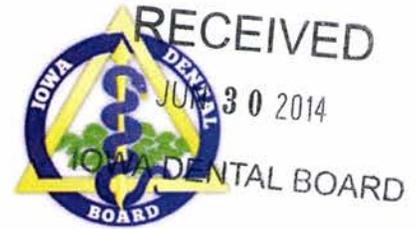
I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Ann M. McIntyre, DMD
 Address: 400 S. 2nd St. Clinton, IA 52732 Phone: 563-243-6950
 Signature:  Date: 6/24/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

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 Des Moines, IA 50309-4687

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IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <u>- Compliance Training Partners, LLC</u>		
Contact Person: <u>Julie Shaffer</u>		
City: <u>Farmington Hills</u>	State: <u>MI</u>	Zip: <u>48336</u>
Phone: <u>248-474-0176</u>	Fax: <u>248-919-5528</u>	
Email: <u>jshaffer@hptcinc.com</u>	Website Address: <u>hptcinc.com</u>	

Name of Current Officer(s), Title(s), Address, Phone:

Karson Carpenter, President, 20793 Farmington Rd, Farmington Hills, MI 48336
Alma Nava, Vice President, 20793 Farmington Rd, Farmington Hills, MI 48336

Number of courses offered in 2013: 132 (Nationally) Number of courses offered 2014*: 168
*To date (Nationally)

Average number of attendees: 8-10

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

✦ Trainer uses Powerpoint with voice over for presentation.
Karson Carpenter does voice over presentation

OSHA requires employers to train ALL exposed employees annually. OSHA safety training for the dental staff is more than just the prevention of infection. Proper training must also include the following:

- Chemical Safety
- **NEW Globally Harmonized System (GHS)**
- Medical and First Aid
- Personal Protective Equipment
- Walking and Working Surfaces
- Hazardous Materials
- Means of Egress
- Fire and Emergency Preparedness
- Electrical Safety
- Radiation/ X-ray Safety
- Recordkeeping
- Ventilation
- Post Exposure Protocol

This comprehensive training will review the current OSHA safety requirements and fulfill annual training requirements for your entire dental staff. You will receive an OSHA Checklist, OSHA required forms, a detailed workbook and other training resources to maintain compliance in your office.

*Photo on the left:
Complete CTP OSHA Compliance System*

Each attendee is required to purchase a workbook.

Workbook 683-0030 \$17.99

CEU's 683-0031 \$47.99

(4 CEU's will be issued after completion of an online examination)

Prices are subject to change without notice

You may, at any time, prior to 5 business days of your training, cancel your registration and receive a refund, less shipping charges.

Provided by:

**HPTC™**
Compliance Training Partners
"Training America to Work Safely"™

OSHA

IN-OFFICE SAFETY TRAINING

knowledge

service

quality

detail

Annual Required OSHA Safety

Training Course Including Biomedical

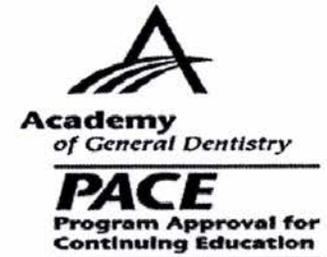
Waste Regulations and CDC Infection

Control Guidelines Conducted

in Your Office.

Training Outline

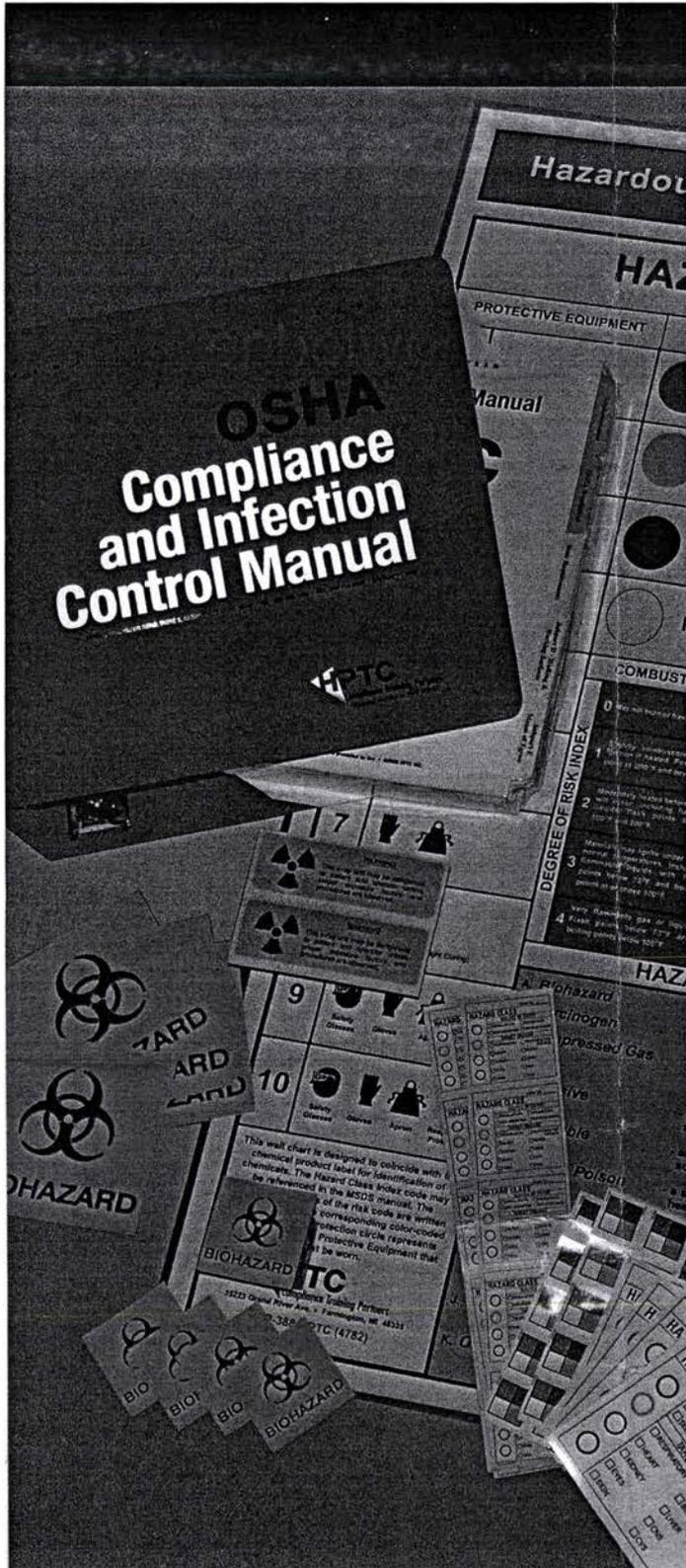
1. Review the OSHA standards including the Hazard Communication Standard, Bloodborne Pathogens Standard and all applicable subparts.
2. Introduction to the new Globally Harmonized System (GHS) of Hazard Communication.
3. Explanation of Exposure Control Plan and how to properly design one.
4. Explanation of appropriate methods for recognizing tasks that involve exposure to blood and saliva.
5. Explanation of engineering controls and work practice controls.
6. Information on personal protective equipment (PPE). This is to include types of PPE, location, removal, handling, decontamination, and disposal.
7. Explanation on the basis for selection of personal protective equipment.
8. Information on the hepatitis B vaccine.
9. Information on appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious material.
10. An explanation of the procedure to follow if an exposure incident occurs. This will include how to report the incident and the medical follow-up that must be made available.
11. An explanation of the signs, labels, and color coding for regulated waste.
12. Centers for Disease Control and Prevention Infection Control Guidelines.
13. Information on proper chemical labeling, MSDS and chemical cleanup protocol.
14. A "question and answer" period.



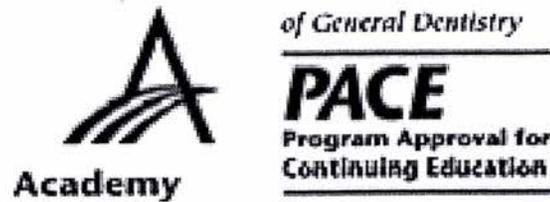
Compliance Training Partners/HPTC LLC is designated as an Approved PACE Program Provider by the Academy of General Dentistry. The formal continuing dental education programs of this program provider are accepted by AGD for Fellowship/Mastership and membership maintenance credit. Approval does not imply acceptance by a state or provincial board of dentistry or AGD endorsement. The current term of approval extends from 6/1/2013 to 5/31/2016. Provider ID 91077



20793 Farmington Road, Farmington Hills, MI 48336
888-388-4782



HIPAA regulations require employers to train their employees to insure the privacy and security of protected health information. This comprehensive course developed by Compliance Training Partners will allow participants to fully understand the requirements of the law as they pertain to their specific workplace.



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Photo on the left:
Complete CTP HIPAA Compliance System

Each attendee is required to purchase a workbook.

Workbook	HIPWB	\$17.99
Dental 2 CEU's	HIPCEU	\$47.99

Prices are subject to change without notice

You may at any time, prior to 5 business days of your training, cancel your registration and receive a refund, less shipping and handling charges.

Provided by:



HIPAA

COMPLIANCE TRAINING

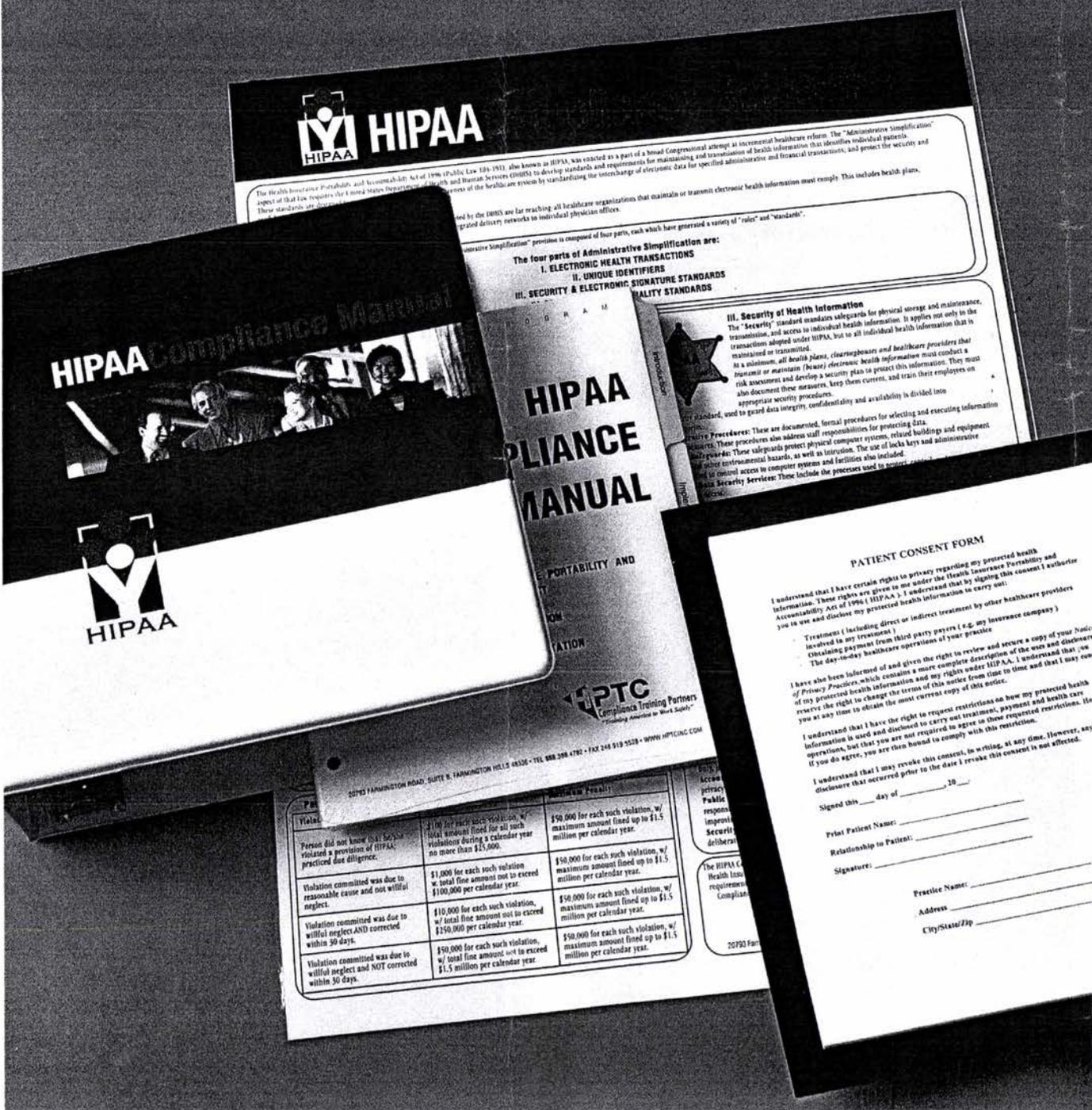


KNOWLEDGE, SERVICE, QUALITY, DETAIL

**This HIPAA
Compliance Training
course is designed for
you and your dental team
and is conducted
in your office.**

Training Outline

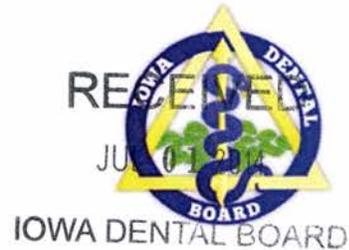
1. Background of the HIPAA regulations
2. Components of the regulation
3. Covered entities
4. Assignment of responsibility
5. Required documents
6. Electronic Transactions Standard
7. Hardware/ Software Components
8. Standard codes
9. Privacy Standard
10. Disclosure of Information
11. Protected Health Information (PHI)
12. Patient consent and patient authorization
13. Business Associate Agreements
14. Security Standard
15. HITECH
16. Suggested Documents
17. HIPAA 5010
18. NEW OMNIBUS Rule Requirements
19. Enforcement and penalties
20. Question and answer session



PTC
Compliance Training Partners
"Training America to Work Safely"

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888-388-4782 • www.hptcinc.com

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Continuing Education Studies, Inc.		
Contact Person: Ruth Ludeman		
City: Falls Church,	State: Virginia	Zip: 22046
Phone: (703) 536-0735	Fax: (703) 533-1153	
Email: RuthL@Continuingedstudies.com	Website Address: www.continuingedstudies.com	

Name of Current Officer(s), Title(s), Address, Phone:

Susan Young, President, 900 S. Washington St., Suite G13, Falls Church, VA 22046

Michael Ludeman, Vice President (same as above)

Paul Young, Asst. Treasurer, (same as above)

Ruth Ludeman, Secretary, (same as above)

Number of courses offered in 2013: 54

Number of courses offered 2014*: 54

*To date

Average number of attendees: 803 completed these courses in 2013 and 2014 to date

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Course ID	Title/Description	Credits
01003	Guidelines to Reduce the Risk of Tuberculosis Infection – This course describes the cause and spread of TB, ways to identify and manage infected patients, how to develop, implement and maintain TB infection control plan and policies and how to evaluate TB infection control programs. Authors Ellen Dietz, AAS, BS, Dr. Christopher Smart	1
03001	Oral Manifestations of Smokeless Tobacco – This course lists the usage and forms of smokeless tobacco, the harmful contents, general effects, dental diseases and conditions of the oral cavity associated with, the diagnostic criteria of leukoplakia/snuff dipper's pouch and the types of oral cancers associated with smokeless tobacco use. Author Ellen Dietz, AAS, BS	3
03002	Common Radiographic Pitfalls and How to Prevent Them – This course identifies common radiographic exposure and processing pitfalls and how to avoid or correct them. Author Ellen Dietz, AAS, BS	1
03005	Emerging Trends in Orthodontia – This course discusses trends, appliances, technology, products, strategies and successful preventive orthodontic treatment. Author Ellen Dietz, AAS, BS	1
03007	Glass Ionomer Cement - This course lists the armamentarium required for manipulation and application, minimal required PPE, clean-up procedures and special considerations for working with glass ionomer cement. Author Ellen Dietz, AAS, BS	1
03009	Dry Socket (Alveolitis/Alveolar Osteitis/AO): Causes, Treatment and Prevention – This course identifies the most common causes, risk factors, treatment and methods of minimizing and preventing postoperative complications. Author Ellen Dietz, AAS, BS	3
04001	Occupational Safety – Part I – This course identifies and describes potential occupational hazards, common health risks, preventive measures, and methods to reduce the potential of occupational hazards. Author Ellen Dietz, AAS, BS	1
04002	Occupational Safety – Part 2 – This course identifies and describes potential occupational hazards related to dental bonding materials, acrylics, acid etchant and methods to reduce them. Risks associated with noise levels, symptoms of hand injuries are also discussed. Author Ellen Dietz, AAS, BS	1
04003	Calcium Hydroxide Liner: Applications in Dentistry - This course describes the use, instrumentation, manipulation and application of calcium hydroxide, clean-up procedures and special considerations for working with calcium hydroxide cavity liner. Author Ellen Dietz, AAS, BS	1
04004	Hand Care and Hand Washing Technique for the Dental Team – This course describes updated CDC guidelines, related information, specific reasons and rationale for performing procedures correctly, 12 steps of proper technique and its importance. Author Ellen Dietz, AAS, BS	2
05001	Fabrication of a Self-Curing Custom Resin Tray – This course describes the use, composition and properties of self-curing acrylic material for fabrication of a custom tray. Criteria for an acceptable custom tray and special considerations when fabricating a custom resin tray are listed. The four stages of polymerization and the armamentarium and procedure for fabricating a self-curing custom resin tray are also described. Author Ellen Dietz, AAS, BS	1
05002	Improving Practice Efficacy with Dental Photography – This course lists and describes the applications of oral photography; compares the advantages of traditional verses digital; discusses photographic terminology and equipment and ways to communicate with patients and labs to increase acceptance of digital photography. Author Ellen Dietz, AAS, BS	1
05003	Film Placement: Ensuring Radiographic Quality – This course describes the benefits, advantages and principles of the paralleling (XCP) dental X-ray technique. Elements of radiographic quality, necessary steps for proper film placement in the maxillary and mandibular archs using the XCP/PID techniques are listed and discussed. Author Ellen Dietz, AAS, BS	1
05006	Pouring and Trimming Study Models – This course describes the uses and properties of plaster and stone (gypsum materials) used in dentistry; the steps required to pour and trim study models for diagnostic purposes and case	1

Course ID	Title/Description	Credits
	presentation and lists the preferred chemical disinfectant for study models. Author Ellen Dietz, AAS, BS	
06001	Guidelines for Cleaning Dental Unit Waterlines – This course lists and describes the CDC's position; the four steps required to set protocols for cleaning; the three types of products available to help ensure safe levels, three things the dental office can do to ensure that water filtration products and services have been properly evaluated and discusses the CDC's recently released advisory on assessing dental equipment, devices and waterlines following storm damage. Author Ellen Dietz, AAS, BS	1
06002	Diagnosis and Treatment of Dental Hypersensitivity – This course lists and describes the causes of dental hypersensitivity, management and treatment strategies including non-invasive and invasive, how to prevent and treat dental hypersensitivity associated with at-home whitening products and methods to prevent postoperative sensitivity in posterior composite restorations. Author Ellen Dietz, AAS, BS	1
06004	Oral Manifestations of Diabetes – This course describes the incidence, prevalence of, risk factors, typical symptoms and oral manifestations of the disease. Recommended treatment modalities are discussed. (Clinical Course) Author Ellen Dietz, AAS, BS	1
06005	Ergonomics in Dentistry – This course defines ergonomics as it relates to dentistry and describes the seven principles of four-handed dentistry, the five classifications of motion and ergonomic principles for the dentist/operator and chairside dental assistant. Author Ellen Dietz, AAS, BS	1
07001	Restless Legs Syndrome and Oral Health – This course defines restless legs syndrome, describes symptoms, relates the prevalence of RLS and its link to dental implications, lists 4 categories of medications commonly prescribed, special precautions that must be taken and dental therapeutic remedies for the alleviation of RLS and associated treatment. Author Ellen Dietz, AAS, BS	1
07002	Instrument Recirculation – This course names the two new innovative mechanisms designed to improve instrument management, describes working concept of the class B sterilizer and the requirements and prior considerations for converting to an automatic instrument washer/disinfector. ADA's considerations for the instruction processing area are listed and recommendations for dental healthcare workers safety during instrument processing are described. Author Ellen Dietz, AAS, BS	1
07003	Dental Implications of Sleep Apnea – This course defines, describes, lists and differentiates the types of sleep apnea and the risk factors associated. Common signs and symptoms including dental craniofacial symptoms are discussed. Accepted treatments, adjunct appliances and surgical techniques are described. Author Ellen Dietz, AAS, BS	1
07004	Implications for Treating the Pregnant Dental Patient – This course describes ADA's recommendations for dental treatment during pregnancy, indications for exposing radiographs on a pregnant patient, most preferred trimester for dental treatment, categories of medications and their implications and terms pregnancy tumor, pregnancy gingivitis and gestational diabetes and treatment implications. Author Ellen Dietz, AAS, BS	1
07005	Laser Dentistry – This course describes the unique features and advantages to both the dental team and patients. Current dental treatment applications available and disadvantages associated with lasers are listed. Commonly used types of dental lasers are listed and compared. Author Ellen Dietz, AAS, BS	1
07006	Nitrous Oxide – This course describes how nitrous oxide is administered, adverse affects, personal hygiene procedure to protect DHCWs, potential dangers with recreational use/abuse, methods and guidelines to reduce risk and recommendations for monitoring and measurement of airborne N2O. Author Ellen Dietz, AAS, BS	1
07007	California Dental Practice Act – Mandatory course only for California dental license renewals. Diane Callahan, RDH, BS	2
08001	Impacted Wisdom Teeth: An Update – This course defines the term, list most common causes, common indications for removal, commonly cited reasons for	2

Course ID	Title/Description	Credits
	prophylactic removal and most common surgical procedure. Procedures for surgical removal are described and the potential use of stem cells harvested from wisdom tooth pulp is related. Author Ellen Dietz, AAS, BS	
08002	MRSA: What the dental team needs to know – This course defines the term MRSA, its origins, forms of infections, risk factors for each and common methods of transmission. CDC recommended steps to help prevent cross contamination and guidelines to follow, how diagnosed and treatment are described. Author Ellen Dietz, AAS, BS	1
08004	Mercury Amalgam Safety and Hygiene for the Dental Team (Revised) – This course discusses the use of mercury, mercury vapor leaks, facts about amalgam restorations, ADA recommended guidelines, mercury spills and ADA best practices for Amalgam waste. Author Ellen Dietz, AAS, BS	2
08005	Oral Cancer: Prevention Through Early Detection – This course discusses various oral cancer detection methods, the role of computer-assisted brush biopsy diagnosis, the role of biomarker testing in the diagnosis of oral cancer and the number of Americans who use tobacco and the number diagnosed annually with oral cancer. Author Ellen Dietz, AAS, BS	2
08006	Substance Abuse: Awareness and Prevention (Update includes “Meth Mouth”) - This course describes the signs and characteristics consistent with substance abuse. Causes, manifestations of, obligations of dentist, symptoms and management of, signs specifically associated with dental personnel and recommended strategies to detect and refer patients are all discussed. Author Ellen Dietz, AAS, BS	3
09001	Avoid Dental Malpractice – Learn the most common reasons patients sue for dental malpractice, ways to reduce the practice’s risk for malpractice litigation, and what to do in the event of a malpractice suit. Author Ellen Dietz, AAS, BS	1
09002	The Link Between Oral Cancer and HPV (human papillomavirus) – This course discusses the strains of HPV most commonly associated with oral cancer, the rising incidence of oral cancer associated with HPV in young males, the epithelial and mucosal areas of the body likely to be infected, the various types of tests and treatments and the efficacy of Gardasil™ in preventing HPV-related cervical cancers in young girls. Author Ellen Dietz, AAS, BS	2
09003	Thyroid Disorders in the Dental Patient - This course covers the anatomy and physiology of the thyroid gland and its hormones, common signs and symptoms of hypothyroidism and hyperthyroidism, clinical and laboratory methods for evaluating patients, the epidemiology, clinical presentation and pathologic findings of the major types of thyroid disease and how to provide safe, effective dental care to patients with thyroid disease. Author Kristine Krafts, M.D.	3
09004	Dental Radiology Update - This course describes how X-rays work, how often dental radiographs should be taken, the four types of radiation and their relevance to dentistry and the need for quality assurance. Also discussed if the significance of occupational exposure, proper handling and disposal, OSHA required MSDSs and responsibilities of members of the dental team. Author Ellen Dietz, AAS, BS	2
09005	Dental Laboratory Asepsis – This course describes the rationale for disinfection required for dental lab cases to prevent chain of infection, the necessary infection control protocol for the in-house lab, the four necessary components of infection control protocol for the outside dental laboratory and explains why disinfection of cases is necessary when sending a case out to the dental lab or when the case is returned from the lab. (Clinical Course) Author Ellen Dietz, AAS, BS	2
10001	Hemostasis: General Principles and Disorders – This course discusses the general process by which blood clots, mechanisms that oppose blood clotting, evaluating a patient with a suspected bleeding or thrombotic disorder, clinical signs and symptoms, treatments available for uncontrolled post-operative bleeding. Author Kristine Krafts, M.D.	2
10002	Bone Grafting For Implant Reconstruction – This course discusses the common causes of bone loss, biology of bone formation in grafting procedures, types of dental bone grafting materials, commonly used synthetic bone graft substitutes, general technique in bone grafting procedure, available bone grafting procedures, common complications and common factors affecting the success rate of bone	2

Course ID	Title/Description	Credits
	grafts. Author Dr. Preethi. C	
10003	Dental Care for the Patient with Multiple Sclerosis – This course describes disease symptoms, affect on dental care and oral health, various orofacial co-morbidities, medications the patient may take, risk of drug complications and how to develop a plan of care for a patient and educate in oral self-management. Author Susan Peterman, MA, MPH	2
10004	Anemia – A brief review with practical applications for the dental professional – This course discusses the structure of the red cell, common laboratory tests to diagnose anemia, more common types of anemia, clinical signs and symptoms and the effect anemia has on dental management. Author Kristine Krafts, M.D.	2
11001	Leukemia – Signs, symptoms and implications for dental management – This course discusses the development, spreading, major types of, signs and symptoms of leukemia. Unique effects of leukemia on dental management and how to adjust patient care accordingly are also discussed. Author Kristine Krafts, M.D.	2
11002	Seniors Are More Than Denture Care – A CAMBRA Approach – This course discusses concepts of aging and oral health, the impact of latest oral systemic link evidence, the relationship of oral disease to common age related systemic diseases, methods to manage dry mouth for older adults, defines CAMBRA and ART and creating evidence based care plans. Author Patti DiGangi, RDH, BS	2
11003	Lymphoma – Signs, symptoms and implications for dental management - This course discusses more common types of lymphoma, methods of diagnosing, clinical signs and symptoms, unique symptoms and general methods of treating these symptoms. Author Kristine Krafts, M.D.	2
11004	The Facts on HIV, HBV, & TB Infections – This course is mainly concerned with dental healthcare personnel's exposure to pathogenic microorganisms. These organisms include HIV, HBV, HCV, Mycobacterium tuberculosis, Creutzfeldt-Jakob Disease, staphylococci, streptococci, and other viruses, and bacteria that colonize or infect the oral cavity and respiratory tract. At the completion of this course students will: 1. Remove the hysteria and high emotions regarding potential diseases that healthcare personnel may be exposed to during a dental procedure. 2. Learn what is necessary before an infection can take place. 3. Necessary precautions to take when dealing with high risk patients. Author: Kenneth C. Colerick, DDS	2
11005	Infection Prevention: What it means in 2011 Rolling the dice with patients health – This course discusses the modes of disease transmission, the importance of integration of health profile data, difference between sterilization and disinfection, emerging and re-emerging diseases, the <i>new bugs</i> on the block, reviews enhanced basic steps in sterilization techniques. Author: Patricia M. Pine, RDH, This course satisfies the California Dental Board requirement for 2 units of "infection control" continuing education for biennial relicensure. Author Patricia M. Pine, RDH	2
11006	Treating and Preventing Asthma Attacks in the Dental Office - This course discusses the rising incidence of asthma, two major contributors to morbidity and mortality rates, common medications and their effects, emergency procedures, methods in prevention and reduction of asthma attacks during appointments. Author Ellen Dietz, AAS, BS, Denise Allen Membreno, MS	1
11007	Causes & Treatment of Xerostomia (Dry Mouth) This course describes the condition, contributing causes, associated factors, diseases and patient education At the completion of this course students will: 1) describe the condition xerostomia and list contributing causes and associated factors and diseases. 2) Discuss the importance of the role of saliva in maintaining dental health. 3) Describe ways the dental healthcare provider can help educate patients afflicted with xerostomia about available treatment options. Author Ellen Dietz, AAS, BS	1
12001	Growth Factors and Periodontal Regeneration – Growth factors are essential biological mediators that occur naturally. They facilitate cell growth, differentiation, survival, and function in specific cell populations. Without growth factors life as we know it would not exist. At the completion of this course students will be able to: 1. Define the difference between repair and regeneration. 2. Discuss the potential for periodontal tissues to undergo repair versus regeneration. 3. Discuss the concepts of oral wound healing in periodontics. 4. Understand the role of growth and differentiation factors in periodontal	8

Course ID	Title/Description	Credits
	<p>regeneration.</p> <p>5. Discuss the principles of the biology of wound healing.</p> <p>6. Understand the molecular and cell biology of cementum.</p> <p>7. Discuss the role of cementum in periodontal wound healing and regeneration.</p> <p>8. Understand the role of growth factors as indicators of periodontal disease activity.</p> <p>9. Discuss the methods available to deliver growth factors to sites of periodontal disease.</p> <p>10. Discuss the future use of gene therapy to target growth factors to periodontal tissues.</p> <p>11. Discuss how human derived dental stem cells might have potential use in the future.</p> <p>12. Discuss the use of stem cells in periodontal regeneration.</p> <p>13. Discuss the impact of growth factors and cytokines on the differentiation of osteoblasts.</p> <p>14. Discuss the regulation and interaction of growth factor pathways.</p> <p>Author's Bio: Sue Hauwiller, DMD</p>	
12002	<p>A Review of Surgical Asepsis and Preparation before Performing the Surgical Dental Procedures - Surgical asepsis is the procedure done to reduce or eliminate contaminants; such as bacteria, viruses, fungi, and parasites, from entering the operative field to prevent infection. This contamination of the field of operation may occur from outside or from within the body. Surgical team must practice standard precautions to prevent any risk of contamination. If the precautions are not followed then the infection may be introduced on hands, instruments or ligatures, or by droplet infections. The goal to perform asepsis protocol is to eliminate infection and not sterility. Sterility is the "complete removal of contaminants. Upon completion of this course, the participant will: 1) Understand the definition of asepsis. 2) Understand the aseptic procedures followed in an oral surgery office. 3) Understand the risks for not following the proper aseptic procedures. Author Dr. Aamna Nayyar</p>	2
12003	<p>Alternative Dental Practices – This course discusses alternative dental practices which recognize that dental care has an effect on the whole body, unlike traditional dentistry which mainly focus on the obvious signs and symptoms. These practices identify and eliminate the root cause of the problem by including practices that help boost the body's defense mechanism, helping to relax the body and reducing manmade chemicals which are known hazards to the human body, so that the patient may reach optimal health and wellbeing. Alternative dental practices include unconventional diagnostic and treatment approaches to oral healthcare. Author Dr. Aamna Nayyar</p>	2
12004	<p>Fabrication of a Self-Curing Custom Resin Tray (Updated) – In certain clinical instances a custom tray is indicated for an individual patient, rather than using a stock or prefabricated tray. Upon completion of this course, the student will: 1. Describe the use (indications), composition and properties of acrylic material for fabrication of a custom tray. 2. List the criteria for an acceptable custom tray. 3. List and briefly describe the four stages of polymerization. 4. Describe the armamentarium and procedure for fabricating a custom resin tray. 5. List special considerations when fabricating a custom resin tray. Authors Ellen Dietz, Dr. Christopher Smart</p>	1
13001	<p>Treating patients with Special Health Care Needs and Disabilities - The American Academy of Pediatric Dentistry (AAPD) defines special health care needs (SHCN) as "any physical, developmental, mental, sensory, behavioral, cognitive, or emotional impairment or limiting condition that requires medical management, health care intervention, and/or use of specialized services or programs. . At the completion of this course, the dental professional will be able to: 1. Define special health care needs (SHCN). 2. Recognize the barriers to care for patients with SHCN. 3. Describe the requirements of the Americans with Disabilities Act of 1990 and relate how it impacts the dental office. 4. List the number of patients having disabilities in the U.S., according to the US Census. 5. Evaluate recommendations in treating patients with special health care needs. 6. Describe how to prepare your office for treating patients with special health care needs. 7. Know the anatomical differences in patients with Down syndrome. 8. Determine the importance of obtaining a thorough medical history for patients with special health care needs. 9. Know the common conditions that involve alteration of routine dental care. Author</p>	2

Course ID	Title/Description	Credits
	Dr. Malinda Husson	
13002	Autoimmune Diseases - A brief review with practical applications for the dental professional - This course reviews the four main autoimmune diseases likely to be encountered in a typical dental practice. Author Kristine Krafts, MD	2
13003	Nitrous Oxide in the Dental Office – This course describes how nitrous oxide is administered, adverse affects, personal hygiene procedure to protect DHCWs, potential dangers with recreational use/abuse, methods and guidelines to reduce risk and recommendations for monitoring and measurement of airborne N ₂ O/O ₂ . Author Candice Groat, RDH	2
13004	Mercury-Amalgam Safety and Hygiene for the Dental Team – This course discusses mercury amalgam and its use in dentistry. Author Candice Groat, RDH	3
14001	Complications and Adverse Effects of Oral Piercing - This course reviews a case study; describes the methodology used, health risks, complications and critical factors of concern for oral piercings. Author Candice Groat, RDH	3
14002	Common Radiographic Pitfalls and How to Prevent Them Update – This course reviews the vital role the dental team has in effectively and safely taking radiographs. Author Lori Solomon, RDH, BS	1
14003	Trends in Orthodontia - This course discusses orthodontics as a specialty within dentistry and the advances in orthodontic technology. Author Candice Groat, RDH	2

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Creighton University School of Dentistry		
Contact Person: Beth Stinebrink		
City: Omaha	State: NE	Zip: 68178 68100
Phone: 402-280-5054	Fax: 402-280-5094	
Email: bethstinebrink@creighton.edu	Website Address: www.creighton.edu/dentalschool	

Name of Current Officer(s), Title(s), Address, Phone:

Donal D. Scheidel, DDS, Director of CE
Beth Stinebrink, Program Planner for CE
2500 California Dr.
Omaha NE 68178

Number of courses offered in 2013: 14

Number of courses offered 2014*: 8

*To date

Average number of attendees: 900

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Creighton University School of Dentistry

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	See List Attached			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Beth Schnebrink

Address: 2500 California Dr. Omaha NE 68178 Phone: 402-280-5054

Signature: Beth Schnebrink Date: 6-18-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

**Creighton University School of Dentistry Continuing Education Program
For Period Beginning June 1, 2012 and Ending June 30, 2014**

Course Date	Course Name	INSTRUCTOR(S)	LOCATION	CE HOURS
June 1, 2012	Perio Symposium: Periodontal Prosthesis Optimizing Esthetic Results with Dental Implants and Restorations	Ernesto Lee, DDS Takanari Miyamoto, DDS Keisuki Wada, DDS Melissa Lang, DDS James Gerner, DDS	Harper Center, Omaha, NE	6.00
August 23, 2012	Coronal Polishing for Dental Assistants	James Howard, DDS Dennis Higgibotham, DDS Teena Beehner, RDH Christin Wagman, RDH	Creighton School of Dentistry, Omaha, NE	14.00
August 24, 2012	Radiology for Dental Assistants	Timothy Walker, DDS Jennifer Baumert, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
August 31, 2012	Medical Dental Implications of the Most Prescribed Medications	Harold Crossley, DDS, PhD	Ameristar Hotel, Council Bluffs, IA	6.00
Fall Dental Assembly Thursday (Track 1)				
September 20, 2012	Periodontal Considerations in Orthodontic treatment	Takanari Miyamoto, DDS	Tip Top Meeting Center Omaha, NE	6.50
	Interrelationship between Dentistry and Other Healthcare	Alvin G. Wee, DDS		
	Immune-Mediated Diseases of the Oral Cavity	Hardeep Chehal, BSC, BDS, MS		
	New Radiographic Technique to Detect Early Interproximal Enamel Cavitated Lesions	Douglas K Benn BDS, DDS		
Fall Dental Assembly Thursday (Track 2)				
September 20, 2012	Crown Lengthening Surgery; Rationale, Options, Techniques Social Aspects of Dental Care Medical Emergencies in the Dental Setting Abfractions and Erosive Lesions...What are they, where did they come from, and what do you do with them?	William G. Carney, DDS Gary H. Westerman, DDS David E Williams, DDS Scott C. DiLorenzo, DDS	Tip Top Meeting Center Omaha, NE	6.50

Annual Dr. and Mrs. Alvin R. Posey Continuing Education Alumni Lecture

September 21, 2012	Distraction Osteogenesis of the Facial Skeleton	Valmont P. Desa, DDS	Tip Top Meeting Center Omaha, NE	3.00
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September 21, 2012	Osseointegrated Implant Rehabilitation in the Head and Neck Cancer/Trauma Patient	James A. Kelly, DDS	Tip Top Meeting Center Omaha, NE	3.00
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Head & Neck Cancer: Detection, Treatment & Management

October 5, 2012	Surgery Perspective Perspective Causes of Oral Head & Neck Cancer Head & Neck Prosthetic Reconstruction Chemo vs. Radiation (How to Manage Afterwards?) Why to Ask Questions, When to Biopsy Screening/Diagnosis: What to Look For	Thomas Dobleman, MD Mark Lingen, DDS, PhD Alvin Wee, DDS Gamini Soori, MD Stephen Hess, DDS John Shaner, DMD	Omaha Marriot Regency Omaha, NE	7.25
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October 26, 2012	Clinical Challenges in Endodontics	Garry Myers, DDS	Creighton School of Dentistry, Omaha, NE	6.00
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November 2, 2012	Radiology for Dental Assistants	Timothy Walker, DDS Jennifer Baumert, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
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December 7, 2012	Infection Control and OSHA Annual Review	James Howard, DDS	Creighton School of Dentistry, Omaha, NE	3.00
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Endo/Path/Pros Restorations/Perio Inflammation

January 18, 2013	Confident Endodontic Case Selection: Why are you referring? Restoration of the Endodontically Treated Tooth Gingival Abnormalities in the Dental Office Risk Factors for Periodontal Disease: An Update on Inflammation	Thomas Beeson, DDS Scott DiLorenzo, DDS Nagamani Narayana, DDS Amy Killeen, DDS	SAC Museum Ashland, NE	6.00
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February 8, 2013	Creating More Predictable Restorations: A Crown Lengthening Workshop	James Kohner, DDS	Creighton School of Dentistry Omaha, NE	7.00
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February 22, 2013	Surgical and Restorative Advantages of a Conical Connection Implant	Craig Yanagihara, DDS	Creighton School of Dentistry Omaha, NE	3.00
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Practical Pain Management for all Healthcare Providers

March 8, 2013	Crucial Role of Sodium Channels in Pain: Lessons from Mice and Men Pelvin Pain The Behavioral Management of Fibromyalgia Shingles Diagnosis and Management of Dental Pain Drug Update Update on Drug Abuse: What's new on the Streets Drug Seekers vs. Real Pain Management	Theodore R. Cumins, PhD Julie A. Peterson, PT, DPT Thomas P. Guck, PhD Mark D. Goodman, MD Thomas J. Beeson, DDS Amy M. Pick, PharmD Ronald Kirschner, MD Frederick E. Youngblood, MD	Omaha Marriot Regency Omaha, NE	6.50
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March 22, 2013	Infection Control and OSHA Annual Review	James Howard, DDS	Creighton School of Dentistry, Omaha, NE	3.00
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April 5, 2013	Coronal Polishing for Dental Assistants	James Howard, DDS Dennis Higgibotham, DDS Teena Beehner, RDH Christin Wagman, RDH	Creighton School of Dentistry Omaha, NE	14.00
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April 15-16, 2013	Radiology for Dental Assistants	Timothy Walker, DDS Jennifer Baumert, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
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August 23-24, 2013 Add August 25	Radiology for Dental Assistants	Timothy Walker, DDS Jennifer Baumert, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
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Fall Dental Assembly Thursday (Track 1)

September 19, 2013	The Top 75 Drugs Prescribed in the United States Trauma to the Primary Dentition Torsional vs. Reciprocal Endodontic Instrumentation Diabetes and Obesity: Bone, Fat and Pancreas – A Regulatory Threesome	Lawrence C. Parrish, DDS Mark H. Taylor, DDS Jose L. Ibarrola, DDS D. Roselyn Cerutis, Ph.D	Creighton School of Dentistry, Omaha, NE	6.50
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Fall Dental Assembly Thursday (Track 2 Oral Cancer Symposium)

September 19, 2013	Oral Cancer Recurrence – Treatment and Complications	Thomas J. Dobleman, MD	Creighton School of Dentistry, Omaha, NE	6.50
	Avoid Disaster - Pre-radiation Dental Assessment and Management of Complications Post Head and Neck Cancer Care Hyperbaric Oxygen Therapy for Dental Conditions	Stephen J. Hess, DDS Alvin W. Wee, DDS Jeffery Cooper, M.D., F.A.C.E.P.		

Annual T.J. Urban, PhD Memorial Lecture

September 20, 2013	Update on the Recognition and Management of Common Oral Lesions and Painful Ulcerative Conditions	Paul C. Edwards, DDS	Creighton School of Dentistry, Omaha, NE	3.00
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Annual Dr. and Mrs. Alvin R. Posey Continuing Education Alumni Lecture

September 20, 2013	Radiographic Interpretation in General Dentistry	Tarnijt Saini, DDS	Creighton School of Dentistry, Omaha, NE	3.00
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October 18, 2013	Coronal Polishing for Dental Assistants	James Howard, DDS Dennis Higgibotham, DDS Teena Beehner, RDH Christin Wagman, RDH	Creighton School of Dentistry	14.00
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November 22-23, 2013	Radiology for Dental Assistants	Timothy Walker, DDS Jennifer Baumert, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
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December 6, 2013	Infection Control and OSHA Annual Review	James Howard, DDS	Creighton School of Dentistry, Omaha, NE	3.00
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January 24, 2014	An Insider's View into Forensic Odontology	Kenneth Hermsen, DDS	Harper Center Omaha, NE	6.50
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February 7, 2014	A Partnership in Prevention	Jill Day, CDA, BS	Creighton School of Dentistry, Omaha, NE	3.00
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February 21-22, 2014	Radiology for Dental Assistants	Timothy Walker, DDS Donal Scheidel, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
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February 28, 2014	Lasers in the Dental Practice with Dr. Tim Kelly	Tim Kelly, DDS	Creighton School of Dentistry, Omaha, NE	6.50
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March 21, 2014	Infection Control and OSHA Annual Review	James Howard, DDS	Creighton School of Dentistry, Omaha, NE	3.00
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Practical Pain Management for all Healthcare Providers

March 14, 2014	Review of Pain Mechanisms/New Medicines Physiological and Psychological Aspects of Dental Pain How Do You Deal With Acute Pain Management From a Team Perspective – Inpatient/Outpatient? Opioids – What They Didn't Teach You in School Panel: Opioid Overdoses Pain Meds in Dialysis Patients Management of HIV/AIDS-Related Peripheral Neuropathy Current Drug Trends	Frank J. Dowd, DDS David A. Blaha, DDS Christopher M. Criscuolo, MD Frederick E. Youngblood, MD Moderator: Joyce C. Davis, BS Richard J. Lund, MD Judith R. Gale, PT, DPT Sgt. Jason Scott	Omaha Marriot Regency Omaha, NE	6.50
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May 30-31, 2014 Add June 7	Radiology for Dental Assistants	Timothy Walker, DDS Jodi Miller, RDH Cathy VanWinkle, RDH	Creighton School of Dentistry, Omaha, NE	16.00
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June 13, 2014 Periodontics Symposium: Oral Health, Inflammation, and Chronic Diseases of Aging

June 13, 2014	Periodontal Risk Assessment and Outcomes of Diseases Impact of Common Risk Factors on Periodontal Maintenance Outcomes Prognosis vs. Actual Outcomes Inflammation and Chronic Diseases of Aging: Your Health and the Health of your Patients	Naota Kumagai, DDS Richard A. Reinhardt, DDS Martha E. Nunn, DDS, PhD Kenneth Kornman, DDS	DC Center Omaha, NE	6.50
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Des Moines District Dental Society</i>		
Contact Person: <i>Ryan Riley, DDS</i>		
City: <i>Des Moines</i>	State: <i>Iowa</i>	Zip: <i>50309</i>
Phone: <i>515-986-5605</i>	Fax: <i>515-986-5626</i>	
Email: <i>info@iowadental.org</i>	Website Address: <i>NA at this time</i>	

Name of Current Officer(s), Title(s), Address, Phone:

Blair Smith, DDS, MS; President; 9295 Bishop Dr. Suite 190, West Des Moines, IA 50266; 515-987-9130
Ben Nagel, DDS; President-Elect; 3700 Westown Parkway, West Des Moines, IA 50266; 515-225-6752
Amunda Jorgensen, DDS; Vice President; 100 SW Brookside Dr, Grimes, IA 5011; 515-986-3926
Ryan Riley, DDS; Treasurer/Secretary; 214 Watson Powell Jr. Way, Unit 515, Des Moines, IA 50309; 515-707-5345

Number of courses offered in 2013: 3

Number of courses offered 2014*: 2
*To date

Average number of attendees: 850

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Des Moines District Dental Society

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
9/28/12	"Achieving Long Term composite success"	Dr. Lou Graham	Prairie Meadows Altoona, Iowa	6
3/1/13	"Current Dental Prescribing"	Ms. Karen Baker	Prairie Meadows Altoona, Iowa	6
3/1/13	"Radiology/Infection Control"	Ms. Terri Deal	Prairie Meadows Altoona, Iowa	4
9/27/13	"Emergency medicine in Dentistry"	Dr. Stanley Malamed	Prairie Meadows Altoona, Iowa	6
2/26/14	"Digital Dentistry and the Virtual Patient: Are you impressed yet?"	Dr. David Gratton	Prairie Meadows Altoona, Iowa	6
2/28/14	"Radiology/Infection Control"	Ms. Terri Deal	Prairie Meadows Altoona, Iowa	4

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I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Ryan Riley

Address: 214 Watson Powell Jr. Way Unit 515, Des Moines, IA 50309 Phone: 515-244-9136 * 515-707-5345

Signature: Ryan Riley Date: 7/1/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687



DES MOINES DISTRICT DENTAL SOCIETY

July 2, 2014

Iowa Dental Board
400 SW 8th St., Suite D
Des Moines, IA 50309

Christel Braness:

I have enclosed the Continuing Education Sponsor Recertification Application along with a check for the fee of \$100.00. Please let me know if you need any additional information.

I had mailed the sign-in/registration for the Des Moines District Dental Society Spring Meeting that was held on February 28, 2014 on March 3, 2014. Please contact me via email or phone that you received and if you need any additional information or have any questions.

Thank you,

A handwritten signature in black ink, appearing to read "Ryan Riley". The signature is fluid and cursive, with the first and last names clearly distinguishable.

Ryan Riley, DDS
Treasurer of DMDDS

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>



Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>DICKINSON COUNTY Dental Society</i>		
Contact Person: <i>CRAIG E. NEWELL DDS, MS.</i>		
City: <i>P.O. Box 407 SPIRIT LAKE</i>	State: <i>IA</i>	Zip: <i>51360</i>
Phone: <i>(712) 336-3428</i>	Fax: <i>(712) 336-1722</i>	
Email: <i>drccraignewell@gwestoffice.net</i>	Website Address: <i>N/A</i>	

Name of Current Officer(s), Title(s), Address, Phone:

1510 HILL AVE
Amy HARTZELL DDS, PRESIDENT, SPIRIT LAKE, IA (712) 336-4895
(712) 336-3428
CRAIG NEWELL, DDS, MS, SEC./TREAS. P.O. Box 407, SPIRIT LAKE, IA 51360

Number of courses offered in 2013: 6

Number of courses offered 2014*: 3
*To date

Average number of attendees: 40

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Dickinson County Dental Society

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

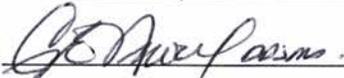
Date:	Course Title:	Instructor:	Location:	CE Hours:
1/8/13	ENDODONTICS	DR. MIKE HOMER.	OKOBOJI	2
2/12/13	ORTHODONTIC EVALUATION OF THE GENERAL PRACTICE	DR. CRAIG NEWELL	OKOBOJI	2
4/2/13	NEW AND EXCITING DENTAL PRODUCTS	DENTSPLY. ANGELA BERG.	OKOBOJI	2
10/8/13	SPECTRA CAVITY DETECTION DEVICES	BRIAN MORGANTIM AIR TECHNIQUES.	OKOBOJI	2
11/12/13	STREAMLINE METAL FREE CROWN OPTIONS	SCOTT BRIGGS. TRI-STATE LABS	OKOBOJI	2
12/10/13	Trouble Shooting Impression Taking + Material.	DENTSPLY ANGELA BERG.	OKOBOJI	2
1/4/14	TRAUMA AND IMPLANTS	SUMNER EIDSON.	OKOBOJI	2
2/11/14	MATURA- MCH/I-SMILE Program	TAMARA THOMPSON I-SMILE COORDINATOR	OKOBOJI	2
3/11/14	ORAL SURGERY UPDATES.	DR. JEFF DEAN.	OKOBOJI	

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: CRAIG E NEWELL, DDS, MS.

Address: P.O. Box 407, SPIRIT LAKE, IA 51360 Phone: 712.336.3428

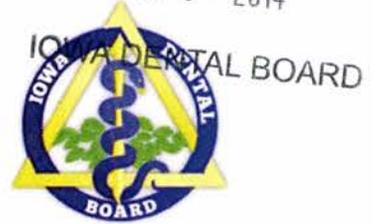
Signature:  Date: 6/28/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687

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JUL 03 2014



CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Dynamic Dental Educators</i>		
Contact Person: <i>Mark Taris</i>		
City: <i>Tampa</i>	State: <i>FL</i>	Zip: <i>33624</i>
Phone: <i>813.435.5244</i>	Fax: <i>813.969.2901</i>	
Email: <i>support@dynamicdentaled.com</i>	Website Address: <i>www.dynamicdentaled.com</i>	

Name of Current Officer(s), Title(s), Address, Phone:

Mark Taris President 4522 W. Village Dr #144, Tampa, FL 33624
Susan Taris Vice-President 4522 W. Village Dr #144, Tampa, FL 33624
phone 813.435.5244

Number of courses offered in 2013: 57

Number of courses offered 2014*: 59
*To date

Average number of attendees: self study

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Dynamic Dental Educators

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	see attachments of course summary			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Mark Taris

Address: 4522 W. Village Dr #144 Tampa, FL 33624 Phone: 813.935.5244

Signature: [Handwritten Signature] Date: 6/29/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

Dynamic Dental Educators - www.DynamicDentalEd.com

Phone 813.435.5244 Fax 813.969.2901

Dynamic Dental Educators Course Summaries

Accessing Dental Care – course #50391 – 2 Credits

This course discusses the inadequate access to dental care for underserved populations including the poor, the elderly, children, the disabled and the under educated. The role insurance and Medicaid play and what health professional shortages areas are and how they are determined is also reviewed. Results of inadequate dental care, along with some solutions to dental care access are identified.

Antibiotic Use in Dentistry – course #5047 – 3 Credits

This course will provide an overview of the antibiotic, antiviral, and antifungal formulations most frequently used in the scope of dental treatment for oral and maxillofacial infections which are caused by pathogenic organisms. Also discussed will be the spectrum of microbial activity, drug interactions, common indications for administration and potential side effects.

CAD/CAM – Digital Impressions – course #5048 – 2 Credits

This course discusses the advantages and disadvantages of CAD/CAM technology in the dental office, reviews the types of systems available, explains procedures for scanning and creating high resolution imaging to be used for restorations and discusses how this technology is changing dental restorations for both the dental office and the patient.

California Dental Practice Act – course #5029 – 2 Credits

This course is a review of the California Dental Practice Act. Topics covered include: the definition of the Practice of Dentistry, Acts violating the Dental Practice Act, License Requirements, Prescriptions and CURES and Duties of Dental Auxiliaries. Each topic in the Act is not covered due to the Act's length, only the sections which are most likely to impact your dental career.

California Infection Control – course #5052 – 2 Credits

This course is a review of infection control standards for the California dental professional. Topics reviewed include: personal protection equipment, sterilization (including heat sterilization monitors), disinfection, hand hygiene, other potentially infectious materials, sharps and dental laboratories. There is a review of various CDC Guidelines for Infection Control in Dental Health Care Settings.

Chemical Dependency – course #5045 – 2 Credits

This course discusses the science of addiction by reviewing how addiction develops and some factors leading to chemical dependency. Strategies for dealing with substance abuse through prevention, as well as some treatment options for substance abusers, along with managing a drug free workplace will be reviewed. (Meets Chemical Dependency requirement in TN and AZ. For additional chemical dependency courses, please see our Substance Abuse courses.)

Dynamic Dental Educators - www.DynamicDentalEd.com

Phone 813.435.5244 Fax 813.969.2901

Dental Lab/Technician Laws and Rules – course #6001 – 2 Credits

This course will review the regulations in the Florida Statutes which govern the business of dental laboratory operation and the profession of dental laboratory technology. Areas discussed include: shade verification, infection control, continuing education requirements, advertising and requirements for becoming a certified dental technician. Sample Laboratory Procedure Prescription and Laboratory Case Point of Origin and Material Disclosure Forms are provided. (This course was created for the Florida Dental Professional).

Dental Lab Quality Control – course #6002 – 4 Credits

This course discusses why a quality control system is needed, the quality control challenges facing the dental laboratory, the certified dental laboratory/technician program, the dental appliance manufacturers audit system and international organization for standardization (ISO). Also reviewed will be FDA audits, OSHA regulations related to medical and dental laboratories, CAD/CAM and digital technology in the dental lab.

Diabetes – course #5005 – 3 Credits

This course explores the causes, prevalence, and symptoms of Diabetes Mellitus types I and II. The reader will learn how to identify possible cases of diabetes, how to treat diabetic emergencies, and the effect diabetes has on dental health. Additionally, the prevention of diabetes is discussed, along with managing the dental patient, giving dental professionals information they can share with their patients.

Digital Radiography – course #5050 – 2 Credits

This course will review the components and fundamental concepts of digital radiography (digital imaging). Also discussed will be the advantages and disadvantages, basic infection control for intra-oral digital receptors, common errors associated with digital imaging and the difference between direct and indirect digital imaging.

Domestic Violence – course #5001 – 2 Credits

This course enables dental professionals to realize the magnitude of domestic violence and gain an understanding of the signs, symptoms, and injuries indicative of possible domestic violence. This course also helps dental professionals realize the reluctance of many victims to reveal the true cause of their injuries and gives them resources to share with their patients.

Dry Mouth (Sjogren's Syndrome) – course #5012 – 2 Credits

This course enables dental professionals to understand Sjogren's Syndrome, commonly known as dry mouth, by discussing its prevalence, causes, and symptoms. In addition, the reader will understand how to diagnose dry mouth and talk to patients about the condition. Dental professionals will learn of the available treatments for dry mouth and how to administer them.

Eating for a Healthy Mouth – course #5033 – 4 Credits

This course is intended to provide awareness and a better understanding of the connection between optimal nutrition and its impact on oral health. Topics discussed include: dietary considerations for the dental patient, nutritional counseling in the dental practice and how a diet affects dental caries and periodontal disease. Also, vitamins, minerals, major nutrients and antioxidants are reviewed.

Emergency Medications – course #5013 – 3 Credits

This course discusses which medications should be included in an emergency kit, the proper uses of emergency kit medications, and which medications to use in different emergency situations. Sections include first-line emergency drugs, second-line emergency drugs, and supplementary drugs. The course provides dental professionals with information they need to make informed decisions in emergency situations.

Ergonomics in Dentistry – course #5054 - 2 Credits

This course will discuss the most common musculoskeletal disorders which result from prolonged static postures and how the pain associated with these disorders can progress over the course of a dental career. Some treatment options will be reviewed, as well as ergonomic adjustments that can be made in the office to help prevent or retard the advancement of chronic pain and make the dental professional and their patients feel more comfortable in the office.

Florida Dental Practice Act – course #50171 - 2 Credits

This course is designed to help the reader understand the Florida Dental Practice Act - its purpose, scope, and the regulatory structure created by it. Dental professionals will learn of the requirements that dentists must fulfill under the Act and the rights afforded dentists under the Act, as well as duties that a dentist may delegate. Additionally, the scope of practice for dental hygienists is covered, making this course ideal for both dentists and hygienists. Finally, the course details prohibitions against certain conduct and grounds for disciplinary action for violations of the Act.

Forensic Dentistry – course #5067 - 2 Credits

This course is an introduction to forensic dentistry. It will discuss the role forensic dentistry has within forensic science, the methods used by forensic dentists who provide post-mortem identification, the most common areas in which forensic dentists are involved and the legal, medical and social reasons why post-mortem identification of a deceased person is essential.

Geriatric Oral Health – course #5053 - 3 Credits

This course will discuss the aging process and its effect on oral health. Topics to be reviewed include: oral problems that may be triggered as a side effect of some of the most commonly prescribed medications utilized by geriatric patients; changes to the oral and maxillofacial complex; how common chronic illnesses such as arthritis, osteoporosis, hypertension and cardiovascular disease impact oral health and oral health issues and treating the dementia patient.

Hepatitis B – course #5023 - 2 Credits

This course offers an overview of Hepatitis B. The reader will learn how Hepatitis B is transmitted and progresses, recognize risk factors and symptoms, and understand vaccination and treatment options. In addition, dental professionals will be given the guidelines they need to successfully implement a postexposure management program within the dental practice.

Hepatitis C – course #5024 - 2 Credits

This course offers an overview of Hepatitis C. The reader will learn how Hepatitis C is transmitted and progresses, recognize risk factors and symptoms, and understand current treatment options available to people infected with the virus. In addition, dental professionals will be given the guidelines they need to successfully implement a postexposure management program within the dental practice.

Hepatitis Comprehensive – course # 5022 – 4 Credits

This course is an overview of all Hepatitis strains. The reader will learn how to identify risk factors and symptoms of hepatitis, understand available vaccination and treatment options, and recognize appropriate prevention techniques for each type of hepatitis. In addition, dental professionals will be given the guidelines they need to successfully deal with postexposure management and implement a successful exposure management program within the dental practice.

HIV and AIDS – course #5002 – 2 Credits

This course explains how HIV develops in the body, its modes of transmission and the means of preventing infection. Also reviewed are: diagnostic testing, managing HIV/AIDS in the workplace through the OSHA Bloodborne Pathogens Standard and CDC guidelines, identifying risky behaviors which can lead to higher risks of HIV infection and oral manifestations of HIV infection. **THIS COURSE IS NOT APPROVED FOR KENTUCKY.**

Human Papilloma Virus and Oral Cancer – course #5036 – 2 Credits

This course is intended to provide awareness and a deeper understanding of the risks associated with the Human Papilloma Virus (HPV) and Oral Cancer. Dental office screening protocols will be reviewed, as well as, clinical signs and symptoms of oral cancer.

Implications of Eating Disorders – course #5015 – 3 Credits

This course discusses the role dental professional plays in nutrition education and extensively covers the major eating disorders. Anorexia nervosa and bulimia nervosa are defined and described including physical signs and symptoms, medical complications, and characteristic behaviors of persons with the disorders. The course also covers cultural, personal, and social factors that lead to eating disorders and available treatments. Of special interest are intervention strategies for dentists and hygienists, proper dental care and hygiene for patients with eating disorders, and the oral manifestations of eating disorders.

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Phone 813.435.5244 Fax 813.969.2901

Indiana Ethics, Statutes and Rules – course #5032 - 2 Credits

This course is a review of the Principles of Ethics and Code of Professional Conduct as set forth by the American Dental Association. It does not cover each and every ethical rule contained in the Code, but does discuss the principles of ethics, the Code of Professional Conduct, and principles of patient autonomy. Readers will also learn the principles of doing no harm, and review some more common rules related specifically to the Indiana Code and Statutes and Rules.

Infection Control – course #5008 – 4 Credits

This course will review procedures and practices which can provide effective protection against infection and cross-contamination by discussing standard precautions, sterilization and disinfection, hand hygiene, personal protection equipment, microorganism transmission, dental labs, postexposure management and prophylaxis, extracted teeth, radiographs and dental prostheses. Also, there is an overview of the most common diseases which present the greatest concerns among dental professionals and their patients. Also discussed are various CDC Guidelines for Infection Control in Dental Health Care Settings, as well as various CDC Guidelines for Environmental Infection Control in Health Care Facilities. **THIS COURSE IS NOT APPROVED FOR NEW YORK.**

Infectious Disease and Oral Infection – course #5038 - 3 Credits

This course helps dental professionals to identify patients who are at-risk or highly susceptible to infection, from opportunistic infectious diseases, as a result of dental procedures and/or pre-existing medical conditions. The dental professional will become familiar with oral and systemic infections and how some may result as a side effect of dental procedures and routine oral care. Some of the topics covered include: localized infection, diabetes, HIV/AIDS, bacterial endocarditis, acid reflux, herpes virus, hepatitis B and D and coxsackie virus. Readers will learn to identify appropriate prophylactic and post-procedural antibiotic treatments, and be aware of specific procedures that may create a higher risk of infection.

Introduction to Implant Dentistry and Osseointegration – course #5016 – 3 Credits

This course explores osseointegration, or creating a stable bone anchorage of an oral implanted metal tooth to bone. It discusses why this approach is better than soft-tissue anchorages and helps the dental professional gain an understanding of the working definition of osseointegration, the important factors for reliable bone anchorage of an oral implant, and the biocompatible materials for osseointegration. Also discussed are how physical implant design and surface characteristics play a role in bone tissue integration and how host bone surgical technique and load consideration affect osseointegration.

Lasers in Dentistry – course #5051 – 2 Credits

This course discusses the properties and types of lasers used in dentistry, explains clinical applications in which lasers are used for treating hard and soft tissue, discusses safety precautions to protect the patient and staff when working with lasers, discusses some benefits and drawbacks to using lasers in dentistry and defines the basic components of lasers.

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Latex Allergy – course #5006 – 2 Credits

This course introduces dental professionals to the complexities of latex allergies, including the reasons for increased prevalence of latex allergy, latex allergy statistics, and the possible risk factors for latex allergy. It provides information that will allow dental professionals to differentiate between and describe the three types of latex reactions, give examples of latex allergy symptoms, evaluate prevention methods, and uncover inconsistencies in latex glove composition.

Local Anesthetics Review – course #5042 – 2 Credits

This course will review the most commonly used topical and local anesthetics in dentistry. Also discussed will be the use of vasoconstrictors with local anesthetics to assist in achieving and maintaining anesthesia; how local anesthetics are metabolized and excreted by the body and reversal agents for local anesthetics. Also, the importance of a good patient medical history will be reviewed.

Maryland Abuse and Neglect – course #5058 – 2 Credits

This course examines the issue of child abuse and neglect, and the abuse and neglect of the elderly and disabled persons in the State of Maryland from a public health and safety perspective. Reviewed is a general understanding of the prevalence of the problem, who is at risk, how society is affected, and the safety net that is currently in place to help families in need. Also reviewed are Maryland state policies regulating reporting procedures, along with state sponsored programs providing services to the population at risk for abuse and neglect.

Maryland Infection Control – course #5059 – 2 Credits

This course is a review of infection control standards for the Maryland dental professional based on MOSH, OSHA and CDC guidelines. Topics reviewed include, but not limited to: personal protection equipment, hand hygiene, disinfectants, immunization, other potentially infectious materials, sharps, post-exposure evaluation and equipment decontamination.

Medical Emergencies – course #5027 – 4 Credits

This course assists the dental professional in identifying and attending to the more common medical emergencies encountered in the dental office. The dental professional will learn how to assign a medical risk level to their patients, how to address drug related emergencies and how to attend to an unconscious patient. A sample office emergency protocol form is included, as well as suggested contents for emergency kits.

Nitrous Oxide in Dentistry – course #5043 – 2 Credits

This course will review nitrous oxide equipment operations, discuss the advantages and disadvantages of using nitrous oxide, review incremental and rapid induction techniques, briefly discuss the respiratory system and summarize ADA guidelines for nitrous oxide. Also, complications of using nitrous oxide will be reviewed.

Nutrients to Restore Periodontal Health – course #5057 – 4 Credits

This course discusses the nutrients important to periodontal tissue growth and repair, and which foods and supplements supply them. It helps dental professionals to gain a better understanding of the periodontal tissue structure and the changes it undergoes when diseased. After studying the course, practitioners will understand the different types and amounts of nutrients and vitamins necessary for periodontal health, and how periodontal health relates to overall health.

Nutrition and Chronic Disease – course #5021 - 3 Credits

This course explores the relationship between nutrition and chronic disease and the consequences of a poor diet. Discussions include the components of a healthy diet, the relationship between health and diet, and the nature of chronic disease. Also reviewed are the relationships between diet and several major diseases: cardiovascular disease, diabetes, cancer, and osteoporosis. This course also assists the dental professional in giving their patients sound advice on how to eat a healthy, nutritious diet that promotes both dental health and general wellness, and helps patients avoid chronic disease.

Nutrition and Dental Health – course #5014 - 2 Credits

This course provides dental professionals with a review of the nutritional components required for good dental health and clarifies their role in providing nutrition education to their patients. Topics discussed include the status of dental health in the United States, the general relationship between nutrition and dental health, and the role of the dental hygienist in providing nutrition education. Readers will also learn current dietary guidelines for the United States, nutrition and dietary factors related to dental caries, and the role of key nutrients in building strong teeth and gums. Upon completing this course, dental professionals will be in a position to advise their patients on how best to eat in order to preserve dental health.

Nutrition and Diet – course #5020 - 4 Credits

This course explores the link between healthy eating and overall well-being. Topics discussed include: the factors which influence food choices, the influence of diet on health and disease, and essential nutrients and how to obtain them. It also examines the current dietary guidelines recommended by the U.S. Departments of Agriculture and Health and Human Services and the revised MyPlate food guide, which helps to implement this approach. Once a dental professional has completed this course, they will be able to make basic recommendations to patients concerning healthy eating habits.

Oral and Maxillofacial Viral Diseases – course #5035 - 2 Credits

This course will discuss viral diseases which effect the oral cavity and surrounding facial tissues. The viruses will include the Herpes Virus family, Human Papilloma Virus, Measles, Mumps, Chickenpox, Shingles and HIV. Also discussed will be treatments and prognosis of the viruses and opportunistic infections which cause problems for HIV patients.

Oral Cancer Detection – course #5046 - 4 Credits

This course will discuss the role of the dental professional in oral cancer detection, how biological changes can promote oral cancer and review the stages of oral cancer of the lip and oral cavity. Also reviewed are the examination steps for oral, head and neck cancer and teaching oral self examinations to the patient.

Oral Manifestations of Systemic Diseases – course #5041 - 3 Credits

This course discusses the oral manifestations of varied disease processes and conditions, the most prevalent oral side effects of medications used to treat systemic diseases and the effects of chemotherapy and radiation therapy on the oral cavity. Some diseases reviewed are STD's such as candidiasis, HIV/AIDS and oral hairy leukoplakia, psychiatric diseases and autoimmune diseases. Pregnancy and menopause are also discussed.

Oral Surgery Extractions - course #5049 - 3 Credits

This course will review patients who have the common chronic illnesses of hypertension, diabetes, osteoporosis, hepatic and renal disease and cardiovascular disease, and their influence upon patients having tooth extractions. Also reviewed will be common post surgical complications and options for their treatment.

Osteoporosis – course #5037 - 3 Credits

This course will provide dental practitioners with an understanding of osteoporosis, along with its prevention, causes, treatment options and detection using dental x-rays. Also discussed will be nutrients which are needed to build bone, anti-nutrients which lead to bone disease, side effects of some commonly used osteoporosis medications and oral early warning signs of osteoporosis.

Pain Control and Management – course #50101 –2 Credits

This course discusses pain control and management and how it relates to the practice of dentistry. By adequately controlling and managing pain, dental professionals may clear the way for improved dental health among patients who view dental visits as "too painful" based on their experiences with pain and anxiety. This course reviews pharmacological strategies of local anesthesia, sedation, and analgesics, as well as, special considerations in pain control and management for children, pregnant women, the elderly and the disabled.

Pain Management Alternatives – course #5060 –2 Credits

This course discusses alternatives to traditional pain control and management. Minimally invasive dentistry is reviewed and how these procedures can be incorporated into the dental practice to aid in more effectively managing pain. The behavioral management (distraction) methods of audio/visual and virtual reality, as well as the complementary and alternative medicine modalities of hypnosis, massage, acupuncture and aromatherapy are discussed.

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Periodontal Health Maintenance – course #5031 – 3 Credits

This course will discuss oral health maintenance in adults and children and how important it is for the patient to maintain a rigid oral health maintenance program through proper home care and regular dental visits after periodontal treatment. In addition, local and systemic antibiotic therapy, supragingival and subgingival irrigation, home care devices (including oral irrigators and power toothbrushes), dentrifices, mouthrinses and treatment considerations for periodontal health maintenance are discussed.

Pharmacology in the Office – course #5018 - 3 Credits

This course is a review of the possible adverse reactions caused by drug interactions. Concentrating on the drugs most commonly used in dentistry, this course teaches dental professionals drug combinations to avoid and which situations present the most opportunity for adverse drug interactions.

Prevention of Medical Errors – course #5025 - 2 Credits

This course discusses the identification and prevention of medical errors in dentistry. It allows the dental professional to understand the types and magnitude of medical errors and the factors that contribute to an increased risk of medical errors. The course also reviews the prevention of specific medical errors, latent and active errors, root cause analysis and offers some examples of actual dental malpractice cases.

Radiograph Detection of Atherosclerosis – course #5034 - 2 Credits

This course will discuss atherosclerosis or hardening of arteries and how panoramic radiographs can be used to identify atherosclerotic lesions during a routine dental exam. Also, patients at high risk for atherosclerosis and screening measures for atherosclerosis are reviewed.

Rules, Laws, and Ethics – course #5003 – 2 Credits

This course is a review of the Principles of Ethics and Code of Professional Conduct as set forth by the American Dental Association. It does not cover each and every ethical rule contained in the Code, but does discuss the principles of ethics, the Code of Professional Conduct, and principles of patient autonomy. Readers will also learn the principles of doing no harm, duties of a dental professional to provide dental care, rules for utilizing non-profit and commercial referral services and patients rights and responsibilities. **Indiana residents please select Indiana Ethics, Statutes and Rules for your course requirements.**

Special Needs Patients – course #5040 – 4 Credits

This course defines a special needs patient, which includes people with both mental and physical disabilities. Disabilities such as: Alzheimer's, Cerebral Palsy, Eating Disorders, Heart Conditions, Down Syndrome, Mental Disability, ADHD, Autism, Multiple Sclerosis and Parkinson's are reviewed. The reader will understand how to accommodate the requirements of some special needs patients to aid them in maintaining proper oral healthcare when possible. Some dental organizations are identified which can assist the disabled population.

Sports and Energy Drinks – course #5069 – 2 Credits

This course will discuss the health consequences of consuming sports and energy drinks by the casual and non-athlete. These health consequences include: oral disease, obesity, heart disease and type 2 diabetes. An understanding of the pH scale will be presented to assist in better comparing the pH, caffeine, carbohydrate and caloric content of these drinks to alternative drinks. Also discussed is the importance of food sequencing and its benefits to the oral cavity.

Stress Management for Healthcare Professionals – course #5019 – 4 Credits

This course is designed to help dental professionals, including students, learn to deal with the uncertainty of modern living and the demands of personal and professional life in order to provide better care for their patients and themselves. Readers will learn to identify major sources of stress and to change perceptions of these stressors when they cannot be avoided, making them better able to focus on the job of providing dental care. Also, the reader will become familiar with the fight or flight response, definitions and causes of stress, the signs and symptoms of stress, the health consequences of stress, appropriate and effective stress management, and understand the stressors which occur in the dental practice.

Substance Abuse & Addiction – course #5044 – 2 Credits

This course will review alcoholism, drug addiction, illicit drugs and tobacco, list some of the more commonly abused drugs and discuss drug use and abuse among age groups. Also, identifying and managing an addicted patient will be discussed along with an overview of substance abuse treatment. (Meets Chemical Dependency requirement in TN and AZ. For additional chemical dependency courses, please see our Chemical Dependency course.)

Substance Abuse Adult – course #5004 – 2 Credits

This course deals with adult substance abuse and its effects on general and dental health. After completing this course, dental professionals will be able to identify a patient with a substance abuse problem, identify symptoms of withdrawal from specific substances and comprehend the negative health effects of alcohol, cocaine, heroin, marijuana, tobacco and OTC and prescription drugs. They will also be able to differentiate between alcohol dependence and alcohol abuse and to understand and distinguish between the terms, substance abuse and chemical dependency. (Meets Chemical Dependency requirement in TN and AZ. For additional chemical dependency courses, please see our Chemical Dependency course.)

Substance Abuse Pediatric – course #5011 – 2 Credits

This course discusses facts about substance abuse (chemical dependency) in children. The dental professional will gain a basic knowledge of current substance abuse trends among children and understand what causes a child to be at risk for substance abuse. They will also learn mechanisms for preventing and treating pediatric substance abuse and should feel more comfortable addressing pediatric substance abuse issues. In this way, they will be better prepared to offer assistance to their younger patients and their parents should the need arise. (Meets Chemical Dependency requirement in TN and AZ. For additional chemical dependency courses, please see our Chemical Dependency course.)

Teeth Whitening – course #5030 - 3 Credits

This course provides dental professionals with information about teeth whitening. A brief history of bleaching is discussed, along with intrinsic and extrinsic staining. Internal and external teeth bleaching are discussed along with their adverse reactions. Some external bleaching topics discussed include: tray versus strip delivery, OTC products, dentrifices and general side effects.

Temporomandibular Joint (TMJ) – course #5056 - 4 Credits

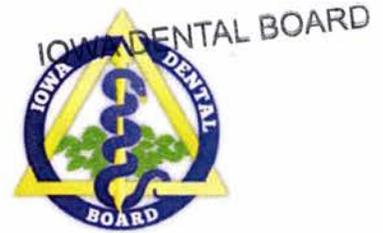
This course will review the basic anatomy of the temporomandibular joint (TMJ) region and associated structures, present extracapsular (muscle) and intracapsular (joint) disorders and their treatments and review diagnostic testing criteria and imaging techniques for the TMJ region. Also discussed is the necessity of completing a comprehensive history, which includes physical and visual examinations, to evaluate a patient for a possible TMJ disorder.

Tobaccos Oral Health Effects – course #50071 - 3 Credits

This course examines tobacco use in the United States and the various effects it has on dental health. After completing this course, dental professionals will be able to differentiate among the various types of tobacco uses and the subsequent risk each type imposes, identify the reasons why cigarettes and smokeless tobacco are the prime risk factors for oral cancer, and determine why smokeless tobacco users have a high risk of dental caries. Readers will also be able to explain tobacco's added risk factors for periodontal disease and recognize the possible effects of maternal smoking on pregnancy. Also discussed will be the risks of environmental tobacco smoke on nonsmokers and children and a high level review of tobacco cessation therapy, along with determining a guideline for assessing a tobacco user's readiness to quit.

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JUN 23 2014



CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Eastern Iowa Periodontics, PC</i>		
Contact Person: <i>Sarah Gretter</i>		
City: <i>Coralville</i>	State: <i>IA</i>	Zip: <i>52241</i>
Phone: <i>(319) 645-0018</i>	Fax: <i>(319) 645-0020</i>	
Email: <i>easterniaperio@gmail.com</i>	Website Address: <i>easterniowaperio.com</i>	

Name of Current Officer(s), Title(s), Address, Phone:

Adrienne Gunstream, DDS, MS
2441 Coral Court Ste 5
Coralville, IA 52241
(319) 645-0018

Number of courses offered in 2013: *12*

Number of courses offered 2014*: *3*
*To date

Average number of attendees: *15*

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: _____

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing. * See attached page

Date:	Course Title:	Instructor:	Location:	CE Hours:
9/12/12	Management of chronic periodontitis patients	Adrienne Gunstream	North Liberty	1
5/23/12	Gingival and Periodontal Diseases	Adrienne Gunstream	Iowa City	1
8/9/12	Hygiene Instrumentation	Adrienne Gunstream	Tipton	1
11/28/12	Periodontal Evaluation and Management	Adrienne Gunstream	Cedar Rapids	1
12/6/12	Contemporary Management of Periodontal Patients	Adrienne Gunstream	Coralville	1
2/11/13	Strategies for Achieving Optimal Gingival Esthetics	Adrienne Gunstream	Coralville	1
3/11/13	Contemporary Management of Periodontal Patients	Adrienne Gunstream	Cedar Rapids	2
4/21/13	Esthetic Implant Strategies	Adrienne Gunstream	Iowa City	1
7/9/13	Periodontal Considerations for the General Practice	Adrienne Gunstream	Cedar Rapids	1
7/16/13	Periodontal Considerations for the General Practice	Adrienne Gunstream	Cedar Rapids	1

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Adrienne Gunstream
 Address: 2441 Coral Ct. Ste 5, Coralville Phone: (319) 645-0018
 Signature:  Date: 6/18/2014

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
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 Des Moines, IA 50309-4687

Date:	Course Title:	Instructor:	Location	CE Hours:
8/8/2013	Periodontal Maintenance and Instrumentation	Adrienne Gunstream	Iowa City	1
8/28/2013	Treatment Planning for Periodontal Patients	Adrienne Gunstream	Williamsburg	1
9/25/2013	Treatment Planning for Periodontal Patients	Adrienne Gunstream	Coralville	1
10/15/2013	Simple Solutions for Predictable Implant Placement	Adrienne Gunstream	Coralville (CWD)	1
10/29/2013	Periodontal Exam and Gingival Diseases	Adrienne Gunstream	Iowa City	2
11/7/2013	Periodontal Diseases	Adrienne Gunstream	Iowa City	2
11/7/2013	Peri-Implantitis, Peri-implant Mucositis and Evaluating Implant Health	Adrienne Gunstream	Iowa City	1
2/27/2014	Periodontal Case Presentations	Adrienne Gunstream	Iowa City	1
5/3/2014	Periodontal-Prosthetic Treatment Planning for the Maxillary Anterior	Adrienne Gunstream	Coralville	0.75
5/28/2014	Periodontal Case Presentations	Adrienne Gunstream	North Liberty	1

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JUN 23 2014

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD



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400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Fort Dodge Oral + Maxillofacial Surgery, P.C.</i>		
Contact Person: <i>Dr. Jonathan DeJong</i>		
City: <i>Fr Dodge</i>	State: <i>IA</i>	Zip: <i>50501</i>
Phone: <i>515-576-8727</i>	Fax: <i>515-576-7076</i>	
Email: <i>jmax1@fdoralsurgery.com</i>	Website Address: <i>www.fortdodgeoralsurgery.com</i>	

Name of Current Officer(s), Title(s), Address, Phone:

<i>Dr. Eric Pearson, President</i>	<i>Address/Phone as above</i>
<i>Dr. Eric Knox, VP</i>	<i>"</i>
<i>Dr. Jonathan DeJong, Sec</i>	<i>"</i>

Number of courses offered in 2013: 0

Number of courses offered 2014*: 0

*To date

Average number of attendees: N/A

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Fr Dodge Oral + Maxillofacial Surgery

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	N/A			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Jonathan DeJong

Address: 804 Kenyon Rd STE 120 Phone: 515-576-8727

Signature: JR DeJong Date: 6/14/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Kirkwood Community College		
Contact Person: Laura Daman, RN		
City: Cedar Rapids	State: IA	Zip: 52406
Phone: 319-398-5626	Fax: 319-398-7741	
Email: laura.daman@kirkwood.edu	Website Address: www.kirkwood.edu/ce	

Name of Current Officer(s), Title(s), Address, Phone:

1. Laura Daman, RN, Program Director, Nursing + Allied Health,
Continuing Education & Training Services, 6301 Kirkwood Blvd SW,
Cedar Rapids, IA 52406, 319/398-5626.

2. Mike McLaughlin, PhD, Dean of Health Occupations, same
address, 319/398-4947.

Number of courses offered in 2013: 22

Number of courses offered 2014*: 22

*To date

Average number of attendees: 15-20

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: Mandatory Reporter Training

Name of Sponsor: Kirkwood Comm. College

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	* Location:	CE Hours:
See attached spreadsheet				
* Note: Location for all Kirkwood Community College dental continuing education courses is				
"main campus" (6301 Kirkwood Blvd SW, Cedar Rapids) and/or KTS sites (Kirkwood sites in our 7-county service area.)				

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Laura Daman

Address: 6301 Kirkwood Blvd SW, Cedar Rapids Phone: 319-398-5626

Signature: Laura Daman Date: 7-03-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

**Kirkwood Community College
Iowa Dental Board Sponsor Report
Fiscal Year 2013 and Fiscal Year 2014**

Start Date	End Date	Course Title	Instructor	CE Hours
7/1/2012	6/30/2013	Expanded Functions Dental Assistant (Non Grad)	Pam Hanson/Jane Slach	max of 44
7/1/2012	6/30/2013	Expanded Functions Dental Assistant (Grad)	Pam Hanson/Jane Slach	max of 22.5
7/1/2012	6/30/2013	Dental Assisting Tutoring: Infection Control	Jane Slach	0
7/1/2012	6/30/2013	Dental Assisting Tutoring : Jurisprudence	Jane Slach	0
7/1/2012	6/30/2013	Radiography Remedial Tutoring	Jane Slach	0
9/11/2012	9/11/2012	Training for Mandatory Reporters of Child and Dependent Adult Abuse	Diana Nicholls Blomme	3
9/20/2012	9/20/2012	Infection Control: Dental Office	Kristee Malmberg	2
10/10/2012	10/10/2012	Anatomical Landmarks: Dental	Jane Slach	2
10/16/2012	10/16/2012	Dependent Adult Abuse and Mandatory Reporting	Diana Nicholls Blomme	2
10/26/2012	10/26/2012	Dental Radiography Update	Shaunda Clark	2
11/1/2012	11/1/2012	Infection Control for the Dental Office	Kristee Malmberg	2
11/5/2012	11/5/2012	Providing Quality Dental Care to Children and Adults with Special Healthcare Needs	Matthew Geneser	2
11/13/2012	11/13/2012	Child Abuse and Mandatory Reporting	Kerstin Marnin	2
2/8/2013	2/8/2013	Dental Radiography Update	Shaunda Clark	2
2/19/2013	2/19/2013	Training for Mandatory Reporters of Child and Dependent Adult Abuse	Diana Nicholls Blomme	3
3/7/2013	3/7/2013	Anatomical Landmarks: Dental	Jane Slach	2
3/13/2013	3/13/2013	Infection Control for the Dental Office	Kristee Malmberg	2
3/26/2013	3/26/2013	Dependent Adult Abuse and Mandatory Reporting	Diana Nicholls Blomme	2
4/1/2013	6/30/2013	EFDA: Monitoring of Nitrous Oxide Inhalation Analgesia with a Dental Patient (online)	Pam Hanson	12
4/23/2013	4/23/2013	Child Abuse and Mandatory Reporting	Kerstin Marnin	2
5/14/2013	5/14/2013	Dependent Adult Abuse and Mandatory Reporting	Diana Nicholls Blomme	2
6/18/2013	6/18/2013	Child Abuse and Mandatory Reporting	Kerstin Marnin	2
7/1/2013	6/30/2014	Expanded Functions Dental Assistant (Non Grad)	Pam Hanson/Jane Slach	max of 44
7/1/2013	6/30/2014	Expanded Functions Dental Assistant (Grad)	Pam Hanson/Jane Slach	max of 22.5
7/1/2013	6/30/2014	Dental Assisting Tutoring: Infection Control	Jane Slach	0
7/1/2013	6/30/2014	Dental Assisting Tutoring : Jurisprudence	Jane Slach	0

7/1/2013	6/30/2014	Radiography Remedial Tutoring	Jane Slach	0
7/1/2013	6/30/2014	Supragingival Cement Removal	Jane Slach	3
7/1/2013	6/30/2014	EFDA: Monitoring of Nitrous Oxide Inhalation Analgesia with a Dental Patient (online)	Pam Hanson	12
7/16/2013	7/16/2013	Dependent Adult Abuse and Mandatory Reporting	Diana Nicholls Blomme	2
7/19/2013	7/19/2013	Infection Control for the Dental Office	Kristee Malmberg	2
8/9/2013	8/9/2013	Dental Radiography Update	Shaunda Clark	2
8/20/2013	8/20/2013	Child Abuse and Mandatory Reporting	Tara Strang	2
9/17/2013	9/17/2013	Training for Mandatory Reporters of Child and Dependent Adult Abuse	Diana Nicholls Blomme	3
10/15/2013	10/15/2013	Dependent Adult Abuse and Mandatory Reporting	Diana Nicholls Blomme	2
10/29/2013	10/29/2013	Infection Control for the Dental Office	Kristee Malmberg	2
11/12/2013	11/12/2013	Child Abuse and Mandatory Reporting	Tara Strang	2
2/11/2014	2/11/2014	Training for Mandatory Reporters of Child and Dependent Adult Abuse	Diana Nicholls Blomme	3
3/11/2014	3/11/2014	Dependent Adult Abuse and Mandatory Reporting	Diana Nicholls Blomme	2
3/25/2014	3/25/2014	Infection Control for the Dental Office	Kristee Malmberg	2
4/7/2014	4/7/2014	Facial Piercing and Body Modification: An Overview for Dental Professionals	Mike McLaughlin	2
4/15/2014	4/15/2014	Child Abuse and Mandatory Reporting	Tara Strang	2
4/21/2014	4/21/2014	"But They're Just Baby Teeth:" The Highlights of Pediatric Dentistry	Steven Leifker/Gregory Weinber/Kayla Risma/Sandra Fox	2
4/25/2014	4/25/2014	Dental Radiography Update	Shaunda Clark	2
	Note:	All Mandatory Reporting classes originate on Main Campus and are broadcast live to students at our 9 county sites via the Kirkwood Television System (KTS).		
	Note:	EFDA courses and remediation sessions are classified as "open enrollment" classes each fiscal year; as a result, the end date is determined by the student start date and established by the KCC dental faculty.		

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

RECEIVED

JUN 20 2014

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following Board Approval. **IOWA DENTAL BOARD**

Official Name of Sponsor: <u>Frank I. Molsberry Dental Study Club</u>		
Contact Person: <u>Gary W. Colwell</u>		
City: <u>415 N. 15th St. Adel</u>	State: <u>Iowa</u>	Zip: <u>50003</u>
Phone: <u>515-993-4594</u>	Fax:	Note address change Retired from 906 Main
Email:	Website Address:	

Name of Current Officer(s), Title(s), Address, Phone:

Russ Carlson, Pres., Des Moines, 515-279-0856
Bill Pearce, Treas., Windsor Hts, 515-222-5949

Number of courses offered in 2013: 1

Number of courses offered 2014*: none
*To date

Average number of attendees: 15

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: CPR up date

Name of Sponsor: Molsberry Study Club

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
4-16-13	CPR update	Scott Gavin Cert. Instructor	Carlson Office	3

We meet once a month and spend hours discussing dental related topics. Is not turned in as CE credit hours.

Sponsors must be formally approved for planning and providing continuing education. When course content does not meet the requirements as defined by the board, sponsors must refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Gary W. Colwell

Address: 415 N. 15th, Adel, Ia. 50003 Phone: 515-993-4594

Signature: Mary W. Colwell Date: 6-18-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>G. V. Black Dental Study Group of Des Moines</i>		
Contact Person: <i>Jeff Hagan 2900 Westown Parkway Suite 100</i>		
City: <i>West Des Moines</i>	State: <i>IA</i>	Zip: <i>50325</i>
Phone: <i>515-223-2248</i>	Fax: <i>515-225-2128</i>	
Email: <i>jeffhagan1@gmail.com</i>	Website Address: <i>N.A.</i>	

Name of Current Officer(s), Title(s), Address, Phone:

Jeff Hagan (president) 2900 Westown Pkwy Suite 100 ^{WDM} 223-2248
John Frank (Vice Pres.) 7400 Fleur Drive, D.M., 287-7773
Joe DeMarco (Treasurer/Secretary) 974 73rd St., D.M., 282-0973

Number of courses offered in 2013: 5

Number of courses offered 2014*: 4
*To date

Average number of attendees: 35

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: G.V. Black Dental Study Group of Des Moines

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
10-15-12	Digital Orthodontics and Case Presentations	Kyle Mann, D.D.S.	Willow Creek Golf Course	3
11-5-12	Everyday Dentistry, more than Everyday Esthetics	Robert Marges, D.D.S.	" "	6
1-21-13	Pharmacology	Karen Baker RPh, M.S.	" "	6
2-11-13	Strategies for Restorative Success in the Esthetic Zone with Teeth + Implants	Jean-Francois Bedard	" "	6
9-16-13	Dental Sleep Medicine	DPS and Rachel Fergel RPT, RPSGT	" "	3
11-11-13	Temporomandibular Disorders / Dental Radiology	Ali Pourian, D.D.S. Rick Peterson, P.T.	" "	6
1-20-14	Medical Disorders / Current TX	Karen Baker RPh, M.S.	" "	6
	Protocols and Considerations in Dental Treatment		" "	
2-17-14	Periodontics: Alveolar Ridge Preservation / Implants, Grafting, Implant Maintenance	Gustavo Avila Ortiz Sathesh Elangovan	" "	6
4-21-14	Dental materials, Caries Management, Composites, Operative Techniques	Steve Armstrong D.D.S. Rodrigo Maia DDS Sandra Guzman-Armstrong DDS	" "	6

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Jeff Hagan

Address: 2900 Westown Parkway Suite 100 Phone: 515-223-2240
West Des Moines, IA 50266

Signature: [Signature] Date: 7-1-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <u>Great River Oral and Maxillofacial Surgery, P.C.</u>		
Contact Person: <u>Beth Mehr</u>		
City: <u>Dubuque</u>	State: <u>IA</u>	Zip: <u>52003</u>
Phone: <u>563-557-1440</u>	Fax: <u>563-557-9052</u>	
Email: <u>bmdnr@greatriveroms.com</u>	Website Address: <u>www.greatriveroms.com</u>	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. Michael Dalton Program Director as above

Dr. Andrew DeWitt Program Director as above

Dr. T.J. King, III Program Director as above

Number of courses offered in 2013: 6

Number of courses offered 2014*: 1
*To date

Average number of attendees: 25

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Great River Oral and Maxillofacial Surgery, P.C.

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	see attached			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Beth Mohr

Address: 100 Bryant St. Dubuque, IA 52003 Phone: 563-557-1440

Signature: Beth E. Mohr Date: 6-19-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

Continuing Education 8-31-12 thru 8-31-14

Date	Course Title	Presenter	Location	CEU
9/11/2012	When Bad Implants Happen to Good People	Lary George D.D.S..MS	Dubuque, IA	2
11/13/2012	Implant Provisionalization in the Esthetic Zone	Christopher Barwacz, D.D.S., F.A.G.D.	Dubuque, IA	2
1/21/2013	Dental Implant Techniques/Dental Implants in Your Office	Michael J. Dalton, D.D.S./Matt Meyer	Dubuque, IA	1
2/5/2013	Reconstruction of Horizontal/Vertical Bone Defects	Kimberly V. Pingel, D.D.S.	Dubuque, IA	2
4/19/2013	The Team Approach to Dentistry	Shelly Ryan	Dubuque, IA	4
9/10/2013	Implant Therapy: When, How, and Why	Robert Blackwell, D.D.S.	Dubuque, IA	2
10/15/2013	Dental Implant Techniques/Dental Implants in Your Office	Michael J. Dalton, D.D.S./Matt Meyer	Dubuque, IA	1
11/12/2013	Esthetic Zone-When is too many, too many?	Paul Olin, D.D.S.	Dubuque, IA	2
2/4/2014	Oral Medicine	Karen Baker, M.S. Pharm.	Dubuque, IA	2
				<u>2</u> *To date
				18

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Homestead Schools, Inc.</i>		
Contact Person: <i>Vijay Fadia</i>		
City: <i>Torrance</i>	State: <i>CA</i>	Zip: <i>90505</i>
Phone: <i>(310) 791-9975</i>	Fax: <i>(310) 791-0135</i>	
Email: <i>homesteadschools@Socal.nn.com</i>	Website Address: <i>homesteadschools.com</i>	

Name of Current Officer(s), Title(s), Address, Phone:

*Vijay Fadia, President. 23800 Hawthorne Blvd. Ste 200,
Torrance, CA 90505
(310) 791-9975*

Number of courses offered in 2013: 180

Number of courses offered 2014*: 180
*To date

Average number of attendees: _____

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Homestead Schools, Inc.

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	See attached			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Jennifer Dayrit

Address: 23800 Hawthorne Blvd. Suite 200 Phone: (310) 791-9975
Torrance, CA 90505

Signature: Jennifer Dayrit Date: 6/23/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

The following courses (starting with #9____) are available only online: HomesteadSchools.com.

- | | | | |
|--|--------------|--|--------------|
| <input type="checkbox"/> Tooth Trauma (online slides) #96375 | 4 C.E. Units | <input type="checkbox"/> Soft Tissue Injuries of the Oral and Maxillofacial Region/ Suturing Skills #96386 | 4 C.E. Units |
| <input type="checkbox"/> Dental Amalgam (online slides) #96352 | 3 C.E. Units | <input type="checkbox"/> Acute Periodontal Conditions (online slides) #96380 | 4 C.E. Units |
| <input type="checkbox"/> Odontogenic Infections (online slides) #96491 | 4 C.E. Units | <input type="checkbox"/> Home Bleaching (online slides) #96357 | 2 C.E. Units |
| <input type="checkbox"/> Bloodborne Pathogens (online slides) #96382 | 4 C.E. Units | <input type="checkbox"/> Maxillofacial Trauma (online slides) #96381 | 4 C.E. Units |
| <input type="checkbox"/> Impression Materials (online slides) #96376 | 4 C.E. Units | <input type="checkbox"/> Radiation Safety (online slides) #96483 | 3 C.E. Units |
| <input type="checkbox"/> Dental Curing Lights (online slides) #96496 | 3 C.E. Units | <input type="checkbox"/> Amalgam Safety (online slides) #96493 | 3 C.E. Units |
| <input type="checkbox"/> Dental Infection Control (online slides) #96498 | 3 C.E. Units | <input type="checkbox"/> Restorative Composite Resins (online slides) #96495 | 3 C.E. Units |
| <input type="checkbox"/> Practical Oral Care for People with Developmental Disabilities #96360 | 4 C.E. Units | <input type="checkbox"/> Intravenous Sedation Monitoring (online slides) #96497 | 3 C.E. Units |
| <input type="checkbox"/> Detecting Oral Cancer: A Guide for Healthcare Professionals #96363 | 6 C.E. Units | <input type="checkbox"/> Oral Conditions in Children with Special needs #96358 | 4 C.E. Units |
| <input type="checkbox"/> Infection Control for Dental Radiography (online slides) #96391 | 2 C.E. Units | <input type="checkbox"/> Hand Hygiene (online slides) #96120 | 2 C.E. Units |
| <input type="checkbox"/> Emotional Aspects of Cancer #96385 | 4 C.E. Units | <input type="checkbox"/> Mercury Hygiene (online slides) #96388 | 2 C.E. Units |
| <input type="checkbox"/> HPV and Head and Neck Cancers #96389 | 4 C.E. Units | <input type="checkbox"/> Genetics, Disease, and Dentistry #96377 | 6 C.E. Units |
| <input type="checkbox"/> Oral-Maxillofacial Radiographic Pathology: | | <input type="checkbox"/> Oral Cancer Gallery #96364 | 4 C.E. Units |
| <input type="checkbox"/> Radiolucent Lesions #96236 | 8 C.E. Units | <input type="checkbox"/> Nutrition, Physical Activity, and Cancer #96387 | 4 C.E. Units |
| <input type="checkbox"/> Radiopaque Lesions #96237 | 8 C.E. Units | <input type="checkbox"/> Nutrition and Oral Health #96362 | 4 C.E. Units |
| <input type="checkbox"/> Mixed & Cortical Lesions #96238 | 8 C.E. Units | <input type="checkbox"/> Brush Cytology #96390 | 2 C.E. Units |
| | | <input type="checkbox"/> Oral Biopsies #96392 | 4 C.E. Units |
| | | <input type="checkbox"/> Xerostomia #96393 | 3 C.E. Units |

New Courses (online and book formats)

The course material will be sent to you by mail.

- | | | | |
|--|--------------|---|--------------|
| <input type="checkbox"/> Practice Management I #6255 | 7 C.E. Units | <input type="checkbox"/> Composites vs. Amalgam #6663 | 5 C.E. Units |
| <input type="checkbox"/> Practice Management II #6256 | 7 C.E. Units | <input type="checkbox"/> Amalgam-Medical, Clinical, and Legal Mythology #6662 | 7 C.E. Units |
| <input type="checkbox"/> Spanish for Dental Personnel #6260 | 6 C.E. Units | <input type="checkbox"/> Diet, Nutrition, and Oral Health #6270 | 4 C.E. Units |
| <input type="checkbox"/> Eating Disorders in Dental Patients #6263 | 7 C.E. Units | <input type="checkbox"/> Power Toothbrushes #6272 | 2 C.E. Units |
| <input type="checkbox"/> CDC Guideline for Hand Hygiene #6265 | 5 C.E. Units | <input type="checkbox"/> Biofilms and Periodontal Disease #6253 | 8 C.E. Units |
| <input type="checkbox"/> Child Abuse and Neglect: Role of Health Professionals #6268 | 6 C.E. Units | <input type="checkbox"/> Growth Factors and Periodontal Regeneration #6250 | 8 C.E. Units |
| <input type="checkbox"/> Treatment of Oral Cancer #6378 | 6 C.E. Units | <input type="checkbox"/> Dental and Oral Complications of Cancer #6176 | 5 C.E. Units |
| <input type="checkbox"/> Painless Injection #6541 | 4 C.E. Units | <input type="checkbox"/> Oral Cancer Screening Protocols #6179 | 6 C.E. Units |
| <input type="checkbox"/> Dental Emergency Patient #6508 | 4 C.E. Units | <input type="checkbox"/> Tobacco Connection #6379 | 5 C.E. Units |
| <input type="checkbox"/> Extended Denture #6395 | 6 C.E. Units | <input type="checkbox"/> Fixed Prosthodontics & the 16-unit Bridge #6418 | 7 C.E. Units |
| <input type="checkbox"/> Oral Surgery #6608 | 7 C.E. Units | <input type="checkbox"/> Children's Dentistry I #6691 | 5 C.E. Units |
| <input type="checkbox"/> Crown Procedures #6417 | 7 C.E. Units | <input type="checkbox"/> Children's Dentistry II #6695 | 3 C.E. Units |
| <input type="checkbox"/> Crown and Bridge (Updated) #6419 | 7 C.E. Units | <input type="checkbox"/> Occlusion #6687 | 4 C.E. Units |
| <input type="checkbox"/> Horseshoe Bridge w/ Paperclip Repair #6373 | 3 C.E. Units | <input type="checkbox"/> Occlusal Practice in Restorative Dentistry #6688 | 4 C.E. Units |
| <input type="checkbox"/> Chronic Orofacial Pain #6539 | 7 C.E. Units | <input type="checkbox"/> Occlusal Practice in Removable Prosthodontics #6689 | 6 C.E. Units |
| <input type="checkbox"/> Medically Complex Dental Patients #6557 | 6 C.E. Units | <input type="checkbox"/> Orthodontics and Occlusion #6692 | 3 C.E. Units |
| <input type="checkbox"/> Pharmacology in Dental Medicine #6113 | 7 C.E. Units | <input type="checkbox"/> Occlusal Considerations in Periodontics #6671 | 3 C.E. Units |
| <input type="checkbox"/> Oral Diseases in Children #6690 | 6 C.E. Units | <input type="checkbox"/> Occlusal Practice in Children's Dentistry #6672 | 3 C.E. Units |
| <input type="checkbox"/> Oral Cancer #6366 | 7 C.E. Units | <input type="checkbox"/> Management of Tooth Surface Loss #6693 | 3 C.E. Units |
| <input type="checkbox"/> Tobacco Cessation #6374 | 5 C.E. Units | <input type="checkbox"/> Occlusal Practice in the Provision of Implant Borne Prosthesis #6673 | 4 C.E. Units |
| <input type="checkbox"/> Treatment of Common Oral Conditions #6630 | 6 C.E. Units | <input type="checkbox"/> Occlusion: Diagnosis and Prognosis; Principles of Parallelism #6686 | 7 C.E. Units |
| <input type="checkbox"/> Cysts of the Jaws #6184 | 4 C.E. Units | <input type="checkbox"/> Clenching: The Tooth Killer #6676 | 3 C.E. Units |
| <input type="checkbox"/> Odontogenic Tumors and Tumor-Like Lesions of the Jaws #6280 | 4 C.E. Units | <input type="checkbox"/> Hypnosis in Dentistry #6538 | 4 C.E. Units |
| <input type="checkbox"/> Chronic Hepatitis B #6227 | 3 C.E. Units | <input type="checkbox"/> Diagnosing a \$5,000 Practice #6258 | 4 C.E. Units |
| <input type="checkbox"/> Clenching and Periodontitis #6674 | 2 C.E. Units | <input type="checkbox"/> Dental Assisting I #6275 | 3 C.E. Units |
| <input type="checkbox"/> Dentures (DVD) #6398 | 7 C.E. Units | <input type="checkbox"/> Dental Assisting II (Crown & Bridge) #6281 | 5 C.E. Units |
| <input type="checkbox"/> Esthetic Dentistry: Change Your Smile #6372 | 7 C.E. Units | <input type="checkbox"/> Dental Assisting III (Laboratory) #6285 | 3 C.E. Units |
| <input type="checkbox"/> Building a Rewarding Practice and a Balanced Life #6257 | 8 C.E. Units | <input type="checkbox"/> Diagnosis and Treatment Planning #6368 | 7 C.E. Units |
| <input type="checkbox"/> Host-Parasite Interactions in Periodontal Disease I #6683 | 8 C.E. Units | <input type="checkbox"/> Orofacial Pain #6532 | 8 C.E. Units |
| <input type="checkbox"/> Inflammation, Systemic and Periodontal Diseases #6681 | 8 C.E. Units | <input type="checkbox"/> Ethical Questions in Dentistry #6335 | 8 C.E. Units |
| <input type="checkbox"/> Periodontal Diseases: Diagnosis, Treatment, and Maintenance #6682 | 8 C.E. Units | <input type="checkbox"/> Law and Risk Management in Dental Practice #6337 | 8 C.E. Units |
| <input type="checkbox"/> Nicotine and Tobacco Dependence #6401 | 8 C.E. Units | <input type="checkbox"/> Dental Materials at a Glance #6403 | 8 C.E. Units |
| | | <input type="checkbox"/> Dental Management of the Hyperactive Patient #6536 | 4 C.E. Units |
| | | <input type="checkbox"/> Patient Communications #6558 | 8 C.E. Units |
| | | <input type="checkbox"/> Minor Oral Surgery in Dental Practice #6607 | 8 C.E. Units |
| | | <input type="checkbox"/> How to Take an Impression #6534 | 3 C.E. Units |
| | | <input type="checkbox"/> Oral Health in Geriatric Patients #6581 | 7 C.E. Units |

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Institute for Natural Resources (INR)		
Contact Person: Deborah Cheung		
City: P.O. Box 5757 Concord	State: CA	Zip: 94524-0757
Phone: (925)609-2820 x 238	Fax: (925)363-7798	
Email: dcheung@biocorp.com	Website Address: www.inrseminars.com	

Name of Current Officer(s), Title(s), Address, Phone:

Richard S. Colman, PhD, President, INR at P.O. Box 5757, Concord, CA 94524-0757

Stanley Sklute, JD, VP, INR at P.O. Box 5757, Concord, CA 94524-5757

Number of courses offered in 2013: 4

Number of courses offered 2014*: 1
*To date

Average number of attendees: 3

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: Behavior sciences, nutrition, aging, brain injury, sleep

Date	Course Title	Instructor	Locations	CE Hours
4/3/2013	STRESS, ANXIETY & DEPRESSION	A. DAUGHN, PsyD	DES MOINES, IA	0
4/18/2013	STRESS, ANXIETY & DEPRESSION	A. DAUGHN, PsyD	CEDAR RAPIDS, IA	0
4/19/2013	STRESS, ANXIETY & DEPRESSION	A. DAUGHN, PsyD	DAVENPORT-BETTENDORF, I	0
5/30/2013	EMOTIONAL CONTROL AND DIFFICULT PERSONALITIES	M. HOWARD, PhD	ALTOONA, IA	0
8/14/2013	FOOD, MOOD & COGNITION	L. PAWLAK, PhD	DAVENPORT, IA	0
8/15/2013	FOOD, MOOD & COGNITION	L. PAWLAK, PhD	WATERLOO, IA	0
8/16/2013	FOOD, MOOD & COGNITION	L. PAWLAK, PhD	DES MOINES, IA	0
10/2/2013	UNDERSTANDING DEMENTIA	J. COGGIN, MD	DAVENPORT, IA	0
10/3/2013	UNDERSTANDING DEMENTIA	J. COGGIN, MD	CEDAR RAPIDS, IA	0
10/4/2013	UNDERSTANDING DEMENTIA	J. COGGIN, MD	DES MOINES, IA	0
1/16/2014	FOOD CRAVINGS, HABITS & EMOTIONS	A. ST CHARLES, PhD	DES MOINES, IA	0
1/17/2014	FOOD CRAVINGS, HABITS & EMOTIONS	A. ST CHARLES, PhD	WATERLOO, IA	0

None of these courses were approved, thus zero CE hours.

Thank you!

Hebbie

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

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Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>



Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>ILLOWA STUDY CLUB</i>		
Contact Person: <i>Tom Kersting (secretary)</i>		
City: <i>Davenport</i>	State: <i>IA</i>	Zip: <i>52806</i>
Phone: <i>563-386-3065</i>	Fax: <i>563-388-5981</i>	
Email: <i>fekdds@mchsi.com</i>	Website Address: <i>WWW.ILOWASTUDYCLUB.COM</i>	

Name of Current Officer(s), Title(s), Address, Phone:

David Botsko (pres) 2334 W. Kimberly Rd. Davenport, IA 52806
Melce Franzman (vice pres) 1800 E 54th St. Ste A - Davenport, IA 52807
Tom Kersting (secretary) 100 E Kimberly Rd #501, Davenport, IA 52806

Number of courses offered in 2013: 9

Number of courses offered 2014*: 5
*To date

Average number of attendees: 20

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

<input type="text"/>	Email	The Illowa Dental Study Club				
<input type="text"/>	Password					
Remember me <input type="checkbox"/>	<input type="button" value="Login"/>	<input type="button" value="Schedule"/>	<input type="button" value="Past"/>	<input type="button" value="CEUs"/>	<input type="button" value="My info"/>	<input type="button" value="Dues"/>
<input type="button" value="Register now"/>	<input type="button" value="Lost password"/>					

Past Meetings

#	Date	Course	
1	Monday, May 5, 2014 at 6:00 PM	Christopher Barwacz, D.D.S Thunder Bay Grille Addressing Custom Abutment Complications Dr. Barwacz received his BS in 2003 and his DDS in 2007 from the University of Iowa. He completed his Advanced Education in General Dentistry residency at the Baylor College of Dentistry in Dallas, TX in 2008. Dr. Barwacz has been active in research throughout his formal education and was the recipient of the National Institute of Dental and Craniofacial Training Grant Award in 2004 and the Student Research Achievement Award in 2007.	
2	Monday, April 7, 2014 at 6:00 PM	Richard A. Williamson, B.S., D.D.S, M.S. Thunder Bay Grille Implant Reconstruction Dr. Williamson joined the College of Dentistry in 2001. He practiced general dentistry in College Station, Texas, for 17 years before returning to graduate school for his MS and certificate in prosthodontics. Dr. Williamson's research interests include: 1) implant reconstruction without extensive bone grafting; 2) diagnostic taxonomy/methodology/systems for the correlation between diagnosis and outcomes in prosthodontics; and 3) the accelerated aging of maxillofacial elastomers: chemical, physical and mechanical properties.	
3	Monday, March 3, 2014 at 6:00 PM	Ryan Lee, DDS, MS Thunder Bay Grille Orthognathic Surgery Dr. Ryan Lee grew up in Muscatine, Iowa. He attended Augustana College in Rock Island, IL for undergraduate studies. Dr. Lee entered the University of Iowa College of Dentistry in the fall of 2005 and graduated in 2009 with his D.D.S. degree. Dr. Lee entered his residency in Oral and Maxillofacial Surgery in July 2009. He trained at the University of Iowa Hospitals and Clinics. During residency he continued his research interest in the area of methods to secure airways in patients suffering from facial burns.	
4	Monday, February 3, 2014 at 6:00 PM	Gary Eggleston, DDS, MS Thunder Bay Grille Regenerative Endodontics Regenerative Endodontic Procedures (REP) use tissue engineering principles to re-grow pulpal tissue. Stem cells, scaffolds and growth factors will be discussed. Gary received his DDS from the University of Iowa in 2004. He went on to the University of Minnesota where he received his Endodontic Certificate. Gary has had an Endodontic practice in Bettendorf since October of 2009.	
5	Monday, January 6, 2014 at 6:00 PM	Local Members Thunder Bay Grille Case Presentations Members will present cases from their practices. Please contact us about presenting a case. We estimate that time should permit around (4) cases. Laptops are available if needed. As we have volunteers, more information will be available. Some presenters include Brian Mykleby, Bob Byrum and Dave/Jenifer Fritz.	
6	Monday, December 2, 2013 at 6:00 PM	David Gratton, DDS, MS Thunder Bay Grille Digital Impressions Dr. Gratton joined the Department of Prosthodontics in 2002 and is currently an associate professor. Before coming to the University of Iowa, he was an assistant professor in prosthodontics at the University of Western Ontario's School of Dentistry. He was also a dental staff member of the London Health Sciences Centre, University Campus, in the Oral and Maxillofacial Rehabilitation Unit, Department of Dentistry.	
7	Monday, November 4, 2013 at 6:00 PM	Daniel J. Caplan, DDS, PhD Thunder Bay Grille Diagnostic Dental Tests Dr. Caplan joined the College of Dentistry in 2007. Before coming to Iowa, he was a faculty member in the Department of Dental Ecology at the University of North Carolina School of Dentistry from 1995-2007. Dr. Caplan studies outcomes related to endodontic treatment, decision-making in endodontics, relationships between oral and systemic diseases and evaluation of diagnostic tests.	
8	Monday, October 7, 2013 at 6:00 PM	Gerry Funk, MD Thunder Bay Grille Head and Neck Reconstructive Surgery Dr. Funk is a Professor at the Iowa Carver College of Medicine. His Bio includes: Residency, General Surgery, Los Angeles County - University of Southern California Residency, Otolaryngology - Head and Neck Surgery, Los Angeles County - University of Southern California Fellowship, Head and Neck Oncology and Reconstructive, University of Iowa. Dr. Funk has been involved in treating complicated oral cancer cases, referred by dentists in the Quad City area.	
9	Monday, September 9, 2013 at 6:00 PM	Louis J. Freedman, MS, DC Thunder Bay Grille Soft Tissue and the TMJ Dr. Freedman earned his M.S. in Physiology from the University of Wisconsin-Madison (1978) and a D.C. from Palmer College of Chiropractic in 1982. He also earned a Diplomate in Chiropractic Neurology in 1999. He has been on the Palmer faculty since 1982. He has taught Neurophysiology, Endocrinology, and Cardiovascular Physiology during his career. He is a licensed chiropractor and practiced for 10 years.	
10	Monday, May 6, 2013 at 6:00 PM	Yung-Shen (Vinny) Huang, DDS, MS Thunder Bay Grille Prosthodontic Update Dr. Huang joined the University of Iowa College of Dentistry in 2003 as a full-time clinical assistant professor in the Department of Preventive & Community Dentistry, with a secondary appointment in the Department of Prosthodontics. He began his clinical activities in the Department of Prosthodontics in 2004. In 2005, he became a full-time teaching faculty member in the Department of Prosthodontics. He is currently involved in patient care within the intramural faculty practice, with emphasis on the restoration of fixed and removable prostheses as well as implant-supported prostheses.	
11	Monday, April 1, 2013 at 6:00	Gustavo Avila-Ortiz, DDS, MS, PhD Thunder Bay Grille Socket Grafting From 2009-2011, Dr. Avila-Ortiz was an adjunct assistant professor in the Department of Periodontics and Oral Medicine at the University of Michigan School of Dentistry. He joined the University of Iowa College of Dentistry in 2011 as an assistant professor in the Department of Periodontics.	

- Monday, February 4, 2013 at 6:00 PM**
12 **Satheesh Elangovan, BDS, DSc, DMSc | Symposium Cafe**
Biomaterials Based Ridge Augmentation
Dr. Elangovan joined the UI College of Dentistry Department of Periodontics in 2011 after completing his Doctor of Medical Science at Harvard School of Dental Medicine. Dr. Elangovan teaches in the undergraduate periodontal clinic, undergraduate comprehensive care program, and also in the periodontal resident clinics. Dr. Elangovan's primary research focus is biomaterials and tissue engineering. He is also involved in translational and health outcomes research pertaining to the field of periodontology and implant dentistry.
- Monday, January 7, 2013 at 6:00 PM**
13 **Study Club Members | The Symposium Cafe**
Case Presentations
Individual cases of interest will be presented by local dentists. Please call Mike Franzman or David Botsko to list your case. Case discussion should be no more than twenty minutes. Laptop available upon request if needed. Gary Eggleston and Paul Smith currently have agreed to present cases.
- Monday, December 3, 2012 at 6:00 PM**
14 **Dr. Alex Brandtner | The Symposium Cafe**
Behavior Issues in Pediatrics
Dr. Brandtner is a graduate of William Penn University and the University of Iowa School of Dentistry. He completed an additional two years of training in pediatric dentistry at the University of Iowa. He is certified as a specialist for treating infants, children, teenagers and the handicapped. Along with a caring and professional staff, he is dedicated to the oral health of children from infancy through the teenage year with an emphasis on preventative dental care.
- Monday, November 5, 2012 at 6:00 PM**
15 **Dr. Veeratrishul Allareddy | The Symposium Cafe**
3D Imaging Considerations
Dr. Allareddy is a Diplomate of the American Board of Oral and Maxillofacial Radiology, Clinical Associate Professor of Oral and Maxillofacial Radiology, Director of Predoctoral Oral and Maxillofacial Radiology and Clinical Associate Professor of Radiology at The University of Iowa, College of Dentistry. He will speak about 3D radiological imaging indications, dosages, and equipment considerations.
- Monday, October 1, 2012 at 6:00 PM**
16 **Steve Fletcher, DDS | Symposium Cafe**
Cleft Palate
Dr. Fletcher joined the College of Dentistry in 2010. He is a clinical assistant professor in the Department of Oral and Maxillofacial Dentistry. Dr. Fletcher is a member of the American Association of Oral and Maxillofacial Surgeons. In 2003, he received the Rudy Minger Memorial Award from the UI College of Dentistry. In 2004, he received the Hoffer Memorial Award and the Class of 1929 Award for Academic Excellence. In 2005, he was the recipient of the Fenton Memorial Award in Oral Surgery and also the Dental Class of 1923 Award for Academic Excellence.
- Monday, September 10, 2012 at 6:00 PM**
17 **Dr. Peter Damiano | Symposium Cafe**
Healthcare Reform (Obamacare) and Dentistry
Dr. Damiano is the director of the University of Iowa Public Policy Center. He is also a Professor in the Department of Preventive and Community Dentistry. Dr. Damiano's research focuses on access to primary dental and medical care including public and private health insurance programs as well as health policy. Current projects include a Commonwealth Fund-supported project evaluating the impact of the 2010 Health Care Reform Law on safety net providers in Iowa.
- Monday, May 7, 2012 at 6:00 PM**
18 **Chris Squier, PhD and Nancy Slach, RDH, BS | THUNDER BAY GRILLE**
Tobacco Cessation
Dr. Christopher Squier is a Professor in the Department of Oral Pathology, Radiology and Medicine at the College of Dentistry, University of Iowa. He directs the College of Dentistry graduate training program. He has published more than 200 books, chapters and peer-reviewed articles and has been served as editor for several dental research journals. He is a member of the Board of Directors of the American Cancer Society, Midwest Division as well as the Iowa State Commission on Tobacco Use. Nancy A. Slach is a Dental Hygienist with a Bachelor of Science degree in Dental Hygiene from the University of Michigan. She attended the University of Iowa where she worked on a Masters degree in Public Health Dentistry and received her Tobacco Treatment Specialist Certification from the Mayo Clinic. She has been employed by the University for over 30 years and has held positions at both the University of Iowa Hospital Dental Clinic as well as the College of Dentistry.
- Monday, April 2, 2012 at 6:00 PM**
19 **Phil Haan, Clinical Hospital Pharmacist | Symposium Cafe**
Pharmaceutical Considerations in Dentistry
Phil graduated from Southwest Oklahoma State University in 1988. He has worked in the Pharmaceutical field for 24 years including clinical hospital services for the last five years. He has lectured extensively in the local area to various academic and industrial audiences including MidAmerican Energy and Palmer College of Chiropractic.
- Monday, March 5, 2012 at 6:00 PM**
20 **Kim A Brogden, PhD | THUNDER BAY GRILLE (Main floor)**
Oral Inflammation
This lecture is one you won't want to miss! Dr Brogden is a member of the American Society for Microbiology, a Fellow in the American Academy of Microbiology, and a member of Phi Zeta and the American Association for the Advancement of Science. He is on the Board of Scientific Reviewers for the Annals of Agricultural and Environmental Medicine (1992-present) and was on the Board for Infection and Immunity (1998-2000). He has co-edited three books: Virulence Mechanisms of Bacterial Pathogens, second and third editions (ASM Press, Washington, D.C. (1995 and 2000) and [Polymicrobial Diseases](#).
- Monday, February 6, 2012 at 6:00**
21 **Dr Karen Potaczek; Dr Paul Smith | The Indigo Cafe**
Third Molar Extractions
They will present an update on extractions, especially third molars. Dr Smith regularly presents OSHA updates and from the slides, most of us are familiar with the fact he graduated from WV. Dr. Potaczek graduated from Marquette University School of Dentistry in 2006. Her clinical and research interests include orthognatic surgery, facial trauma, out patient anesthesia, bone grafting and dental implant surgery.
- Monday, January 9, 2012 at 6:00**
22 **Local Members | The Indigo Cafe**
Case Presentations
Members will present cases from their practices. Please contact us about presenting a case. We estimate that time should permit around (4) cases. Laptops are available if needed. As we have volunteers, more information will be available.
- Monday, December 5, 2011 at 6:00**
23 **Teresa Marshall, PhD | The Indigo Cafe**
Evidence Based Dentistry
Dr. Marshall joined the University of Iowa College of Dentistry in 1991. She is an associate professor in the Department of Preventive and Community Dentistry. In 2010, she was appointed director of experiential learning. Dr. Marshall's research interests focus on nutrition, oral health and systemic health. Current research efforts include diet, growth, and oral health in young children, as well as nutrition and oral health in the elderly.
- Mondrav.** **Dr. Karin Weber-Gasparoni | The Indigo Cafe**

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>



Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Iowa Academy of General Dentistry</i>		
Contact Person: <i>Julie Berger-Moore</i>		
City: <i>6331 Tanglewood Lane Lincoln</i>	State: <i>NE</i>	Zip: <i>68514</i>
Phone: <i>402-438-2321</i>	Fax: <i>402-438-2321</i>	
Email: <i>juliebergermoore@gmail.com</i>	Website Address: <i>NA</i>	

Name of Current Officer(s), Title(s), Address, Phone:

see attached list

Number of courses offered in 2013: 2

Number of courses offered 2014*: 2
*To date

Average number of attendees: 50-75

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Iowa Academy of General Dentistry

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
Oct. 11-13, 2013	Special Needs, Special Pt. Care, Practice Management & others	Shelly Ryan	Omaha, NE	20.15
	- held in Omaha & offered jointly through Nebraska Academy of General Dentistry			
March 8-10, 2013	Diagnosis & Restoration of the Dental Wear Patient	Dr. Paul Hansen	Des Moines & Johnston	24

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Jane Berger-Moore

Address: 6331 Tanglewood Lane Lincoln NE Phone: 68516 402-438-2321

Signature: Jane Berger-Moore Date: 7-1-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

2014-2015 IAGD Officers and Board of Directors

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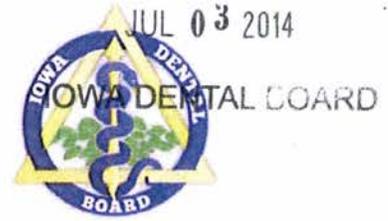
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Iowa Dental Association		
Contact Person: Suzanne Lamendola		
City: Johnston	State: Iowa	Zip: 50131
Phone: 515-986-5605	Fax: 515-986-5626	
Email: info@iowadental.org	Website Address: iowadental.org	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. Bruce Cochrane, President, 1611 - 1st Ave., N., Fort Dodge, IA 50501, 515-576-8151

Dr. Tom Ludwig, President-Elect, PO Box 713, Harlan, IA 51537, 712-755-2809

Dr. Tom Peek, Vice-President, 2750 - 1st Ave., NE, Cedar Rapids, IA 52402, 319-365-1456

Number of courses offered in 2013: 11

Number of courses offered 2014*: 16

*To date

Average number of attendees: 2600

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

2013-2014
Educational Programs
and Courses

	A	B	C	D	E
1	Date	Course Title	Instructor	Location	Hours
2					
3	5/2/2013	Diagnostic Dilemmas in Endodontic Treatment	Dr. William Johnson	Coralville	3
4					
5	5/2/2013	An Inside View of Forensic Odontology	Dr. Ken Hermsen	Coralville	3
6					
7	5/2/2013	The Ins and Outs of Polishing	Shirley Branam, RDH, MBA	Coralville	2
8					
9	5/2/2013	Dental Implants: Assessment & Maintenance Strategies	Shirley Branam, RDH, MBA	Coralville	2
10					
11	5/2/2013	Dental Equipment Maintenance Training	Henry Schein Dental	Coralville	0
12					
13	5/3/2013	The Christensen Bottom Line-2013 / 1st Session	Dr. Gordon Christensen	Coralville	2
14	5/3/2013	The Christensen Bottom Line-2013 / 2nd Session	Dr. Gordon Christensen	Coralville	1.5
15	5/3/2013	The Christensen Bottom Line-2013 / 3rd Session	Dr. Gordon Christensen	Coralville	1.5
16	5/3/2013	The Christensen Bottom Line-2013 / 4th Session	Dr. Gordon Christensen	Coralville	1
17					
18	5/3/2013	Current Concepts of Minimally Invasive Caries Management / 1st Session	Dr. Sandra Guzman-Armstrong	Coralville	1.5
19	5/3/2013	Current Concepts of Minimally Invasive Caries Management / 2nd Session	Dr. Sandra Guzman-Armstrong	Coralville	1.5
20					
21	5/4/2013	Bread and Butter Adhesive and Restorative Dentistry / 1st Session	Dr. Harald Heyman	Coralville	1.5
22	5/4/2013	Bread and Butter Adhesive and Restorative Dentistry / 2nd Session	Dr. Harald Heyman	Coralville	2
23					
24	5/4/2013	Posture, Pain and Productivity in Dentistry / 1st Session	Tim Caruso, PT, MBA, MS	Coralville	0
25	5/4/2013	Posture, Pain and Productivity in Dentistry / 2nd Session	Tim Caruso, PT, MBA, MS	Coralville	0
26					
27	5/4/2013	Infection Control Update	Dr. Carrie McKnight	Coralville	2
28		Infection Prevention: Are You Compliant?	Dr. Sherry Timmons		
29					
30	5/4/2013	Radiography Renewal Update	Dr. Veeratrishul Allareddy	Coralville	2
31					
32					
33	5/1/2014	Topics in Oral Pathology / 1st Session	Dr. Ricardo Padilla	Coralville	3
34		Topics in Oral Pathology / 2nd Session	Dr. Ricardo Padilla	Coralville	3
35					
36	5/1/2014	Bonding 007th Generation and Beyond	Dr. Todd Snyder	Coralville	3

2013-2014
Educational Programs
and Courses

	A	B	C	D	E
37					
38	5/1/2014	The End - To Complications, Sensitivity, Discomfort and Open Contacts	Dr. Todd Snyder	Coralville	3
39					
40	5/1/2014	Win the Battle Against Biofilm: Leverage the Power of Ultrasonic	Doreen Johnson, RDH, MA Ed.	Coralville	2
41					
42	5/1/2014	Assessing Anesthetic Options for Non-Surgical Periodontal Therapy	Doreen Johnson, RDH, MA Ed.	Coralville	2
43					
44	5/1/2014	Dental Sleep Medicine	Garrett Hufford	Coralville	2
45					
46	5/1/2014	Advancements in Digital Impressions	Bob Devine/Ryan Hart	Coralville	2
47					
48	5/2/2014	Restorative Implant Techniques for the Private Practice / 1st Session	Dr. Barry Franzen	Coralville	2
49	5/2/2014	Restorative Implant Techniques for the Private Practice / 2nd Session	Dr. Barry Franzen	Coralville	1.5
50	5/2/2014	Restorative Implant Techniques for the Private Practice / 3rd Session	Dr. Barry Franzen	Coralville	1.5
51	5/2/2014	Restorative Implant Techniques for the Private Practice / 4th Session	Dr. Barry Franzen	Coralville	1
52					
53	5/2/2014	Evidence-Based Dentistry: A Clinical Context / 1st Session	Dr. Richard Niederman	Coralville	2
54	5/2/2014	Evidence-Based Dentistry: A Clinical Context / 2nd Session	Dr. Richard Niederman	Coralville	1.5
55	5/2/2014	Evidence-Based Dentistry: A Clinical Context / 3rd Session	Dr. Richard Niederman	Coralville	1.5
56	5/2/2014	Evidence-Based Dentistry: A Clinical Context / 4th Session	Dr. Richard Niederman	Coralville	1
57					
58	5/2/2014	Am I Using My Practice Management Software to its Fullest Potential?	Daniel Easty	Coralville	0
59					
60	5/2/2014	Flying Under the Radar: Avoiding Problems With Your Patients,	Dr. Robert McNurlen	Coralville	1
61		Your Colleagues, and the Dental Board			
62					
63	5/3/2014	A Panel of Lectures on Current Topics in Clinical Periodontics / 1st Session	Dr. Satheesh Elangovan	Coralville	1.5
64			Dr. Paula Weistroffer		
65					
66	5/3/2014	A Panel of Lectures on Current Topics in Clinical Periodontics / 2nd Session	Dr. Adrienne Gunstream	Coralville	1.5
67			Dr. Derek Borgwardt		
68					
69	5/3/2014	Considerations for Providing Dental Treatment to the New Geriatric Patient:	Dr. Howard Cowen	Coralville	2
70		Medical, Preventive and Restorative Strategies			
71					
72	5/3/2014	The Affordable Care Act and the Implications for Dentistry	Dr. Pete Damiano	Coralville	0

2013-2014
Educational Programs
and Courses

	A	B	C	D	E
73					
74	5/3/2014	Infection Control and Prevention: How To Protect Yourself and Your Patients	Dr. Carrie McKnight	Coralville	2
75			Dr. Sherry Timmons		
76					
77	5/3/2014	Radiography Renewal	Dr. Axel Ruprecht	Coralville	2
78		Intraoral Radiography: Occlusal Techniques			
79		Vision and Perception: WYSIWYG or Is it?			

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>



Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <u>IOWA SOCIETY OF ORTHODONTISTS</u>		
Contact Person: <u>CLAYTON T. PARKS</u>		
City: <u>CEEDAR RAPIDS</u>	State: <u>IA</u>	Zip: <u>52403</u>
Phone: <u>319 329 3245</u>	Fax: <u>319 363 8886</u>	
Email: <u>ctparks@icloud.com</u>	Website Address: <u>www.iowaorthodontics.com</u>	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. Jeff Stordivant

Dr. Melissa Berthardt

Dr. Chris Holahan

Dr. Judy Demro

Number of courses offered in 2013: 1

Number of courses offered 2014*: 1
*To date

Average number of attendees: 80

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: IOWA SOCIETY OF ORTHODONTISTS

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
10/6- 10/7/13	Not Your Daddy's Orthodontics	Dr John Graham DDS, MD	Sheraton, Iowa City	11

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: CLAYTON T. PARRIS, SECRETARY/TREASURER

Address: 2227 1st Avenue SE Cedar Rapids IA 52402 Phone: 319 329 3045

Signature:  Date: 6-18-17

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Iowa Western Community College</i>		
Contact Person: <i>Teresa Roddy</i>		
City: <i>Council Bluffs</i>	State: <i>IA</i>	Zip: <i>51503</i>
Phone: <i>712-325-3265</i>	Fax: <i>712-325-3729</i>	
Email: <i>troddy@iwcc.edu</i>	Website Address: <i>iwcc.edu</i>	

Name of Current Officer(s), Title(s), Address, Phone:

N/A

Number of courses offered in 2013: *3*

Number of courses offered 2014*: *43*
*To date

Average number of attendees: *31*

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: *Radiography*

Name of Sponsor: Iowa Western Comm. College

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	SEE ATTACHED DOCUMENT			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Teresa Roddy
 Address: 2700 College Rd. Council Bluffs IA 51503 Phone: 712-325-3265
 Signature: Teresa Roddy Date: 6/23/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
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2012-2014 Current CEU Dental Programs offered at Iowa Western Community College

DATE	Course Title	Instructor	Location	CE Hours
4/18/2014	Radiography Renewal for Dental Assistants	Jodi Miller	IWCC	2
4/18/2014	Infection Control	Cathy Van winkle	IWCC	2
3/27/2014	Sleep Apnea and Treatment with Dental Devices	Scott McMillen	IWCC	2
3/13/2014	Immunologic Diseases in Dentistry	Dr. Steve Hess	IWCC	2
2/12/2014	Diabetes and the Dental Professional	Susan Manning	IWCC	2
4/30/2013	Women's Oral Health	Dr. Amy Chadwell	IWCC	2
4/23/2014	Preventative Dentistry	Dr. Amy Chadwell	IWCC	2
4/5/2013	Radiography Renewal for Dental Assistants	Jodi Miller	IWCC	2
4/5/2013	Infection Control	Cathy Van winkle	IWCC	2
11/1/2012	Radiography Renewal for Dental Assistants	Jodi Miller	IWCC	2
11/8/2012	Infection Control	Cathy Van winkle	IWCC	2

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

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Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Johnson County Dental Society		
Contact Person: Marcy Zwart - Hawkeye Family Dentistry		
City: 1705 South First Avenue, Ste P, Iowa City	State: IA	Zip: 52240
Phone: 319.338.7172	Fax:	
Email:	Website Address:	

Name of Current Officer(s), Title(s), Address, Phone:

Adrienne Gunstream, President

Marcy Zwart, Secretary / Treasurer

Number of courses offered in 2013: 3

Number of courses offered 2014*: 2
*To date

Average number of attendees: 20

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Johnson County Dental Society

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
11/12/12	Orofacial Pain: Diagnosis, Management ^{Mechanisms:}	Dr. Joe Vela	Holiday Inn Coralville, IA	1
2/11/13	Strategies for Achieving Optimal ^{Gingival} Esthetics	Dr. Adrienne Gunstream	Holiday Inn Coralville, IA	1
4/8/13	Current Cardiovascular Issues and ^{Dental} Implications	Dr. Karen Baker	Holiday Inn Coralville, IA	1
11/11/13	Prosthetic Implant Management	Mike Giesseman / Ryan Scott	Iowa City, IA	1
2/10/14	Current Controversies in Orthodontics	Suzanne Stock	Iowa City, IA	1
4/14/14	Management of Medical Emergencies in the Dental Office	Steven Clark	Iowa City, IA	1

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

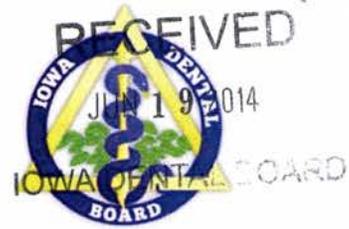
I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Adrienne Gunstream
 Address: 2441 Coral Ct. Ste 5 Phone: (319) 645-0018
 Signature: [Signature] Date: 6/24/2014

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Midwest Biotheostatic Research + Study Group</i>		
Contact Person: <i>Steve Rabedeaux</i>		
City: <i>1919 1st Ave E, Newton</i>	State: <i>Iowa</i>	Zip: <i>50208</i>
Phone: <i>641-792-2750</i>	Fax: <i>641-791-9797</i>	
Email: <i>drrob@pcpartner.net</i>	Website Address:	

Name of Current Officer(s), Title(s), Address, Phone:

Dave Jones Pres. 1026 Woodbury Ave. Council Bluffs, IA 51503 712-328-8573
Steve Rabedeaux CE officer. Above

Number of courses offered in 2013: 2

Number of courses offered 2014*: 1

*To date *Nov. 6+7 2014*

Average number of attendees: 16

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: _____

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
11-7+8 2017	Purpose Driven Perio	Jacobs	W. DSM	12
9-20 2013	Digital 3D Radiograph	Creaseon	Newton	6
6-14 2013	Myofunctional Oculofacial	Rosenblum	Council Bluffs	14
11-8+9 2012	Digital Radiography 3D	Uof IA	W. DSM	12

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I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Steven G Rabedeaux

Address: 1919 1st Ave E Newton, IA 50208 Phone: 641.792.2780

Signature: [Signature] Date: 6-17-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
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CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 http://www.dentalboard.iowa.gov

Include the non-refundable fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Oral Surgeons PC Implant Institute
Contact Person: Ronda Ceynar, CDA
City: Des Moines State: IA Zip: 50321
Phone: (515) 274-0796 Fax: (515) 274-1472
Email: rceynar@oralsurgeonspc.com Website Address: www.oralsurgeonspc.com

Name of Current Officer(s), Title(s), Address, Phone:

Jeffery A. Schwarzkopf DDS Ryan A. Marsh DDS
John A. Frank, DDS Luke J. Gremel, DDS
Scott A. Johnson, DDS, MD
John D. Janulewicz, DDS, MD

Number of courses offered in 2013: 6

Number of courses offered 2014*: 2
*To date

Average number of attendees: 25

Education Methods:

- Demonstration
Discussion
Lecture
Participation
Self-study (e.g. reading, online courses, etc.)
Other:

Course Subject Matter: (check all that apply)

- Clinical Practice
Risk Management
OSHA Regulations/Infection Control
Patient Record Keeping
Communication
Other:

Name of Sponsor: DSPC Implant Institute

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
2/22/14	Implants from A-Z	Oral Surgeons, PC	7400 Fleur Dr.	3
4/8/14	Nobel Implant Systems	Bill Goley	"	2
12/10/13	Straumann Digital Workflow & Guided Surgery	Grady Crosslin CDT	"	1.5
10/22/13	Managing the Transition Zone	Paul Patella, CDT	"	1.5
10/11/13	Restoratively Driven Implant Failure	Alfonso Pinedo, DDS	Courtyard By Marriott	7
4/4/13	Digital CAD/CAM Technology Same Day Dentistry	Patrick Willis, DDS	Courtyard By Marriott	4
1/14/13	Implant Complications	John Frank DDS	7400 Fleur Dr.	1.5

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Ronda Ceynar CDA
 Address: 3940 Ingersoll Ave DM 50312 Phone: 274-0796
 Signature: Ronda Ceynar CDA Date: 6-17-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: The Procter & Gamble Company		
Contact Person: Nancy Richter 8700 Mason-Montgomery Road, Box 1557		
City: Mason	State: OH	Zip: 45040
Phone: (513) 622-0099	Fax: (513) 622-6326	
Email: richter.ns@pg.com	Website Address: www.dentalcare.com	

Name of Current Officer(s), Title(s), Address, Phone: Addresses same as above

J. Leslie Winston, Global Professional & Scientific Relations, (513) 622-0484

Mary E. Sagel, Professional & Scientific Relations Team Leader, (513) 622-5588

Nancy Richter, dentalcare.com, CE Manager, (513) 622-0099

Number of courses offered in 2013: 185

Number of courses offered 2014*: 170

*To date 6/26/14

Average number of attendees: 23,840/month for 2013

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: all types of courses

Name of Sponsor: The Procter & Gamble Company

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
	See Attached			

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I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Nancy Richter

Address: 8700 Mason-Montgomery Road, Box 1557 Phone: (513) 622-0099

Signature: *Nancy Richter* Date: 7/2/14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

dentalcare.com CE Courses

A Guide to Clinical Differential Diagnosis of Oral Mucosal Lesions (CE110) (AGD Topic 739)

Continuing Education Units: 4 hours

Michael W. Finkelstein, DDS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The primary goal of this course is to help you learn the process of clinical differential diagnosis of diseases and lesions of the oral and maxillofacial region. The first step in successful therapeutic management of a patient with an oral mucosal disease or lesion depends upon creating a differential diagnosis. This course also includes both an interactive and downloadable decision tree to assist in the diagnosis.

A History and Update of Fluoride Dentifrices (CE94) (AGD Topic 011)

Continuing Education Units: 2 hours

James S. Wefel, PhD; Robert V. Faller, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is a review and update of cosmetic and therapeutic dentifrices, their impact on market shares and the development of multi-benefit dentifrice technologies. The first therapeutic dentifrice contained fluoride and entered into the market place in the mid 1950's. The public was not convinced of the importance of such a product until the American Dental Association (ADA) Seal of Acceptance was awarded to a product in 1964. Both public and market pressures have resulted in a continued development of new and improved products which not only have therapeutic value but also cosmetic value.

A Prospective Clinical Study to Evaluate the Effect of Manual and Power Toothbrushes on Pre-existing Gingival Recessions (CE349) (AGD Topic 770)

Christof E. Dörfer, DDS, PhD; Daniela Joerss, DDS; Diana Wolff, DDS

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The aim of this course is to evaluate gingival recession changes after six months of brushing with an oscillating-rotating power toothbrush (PT) or an ADA reference manual toothbrush (MT).

Actinic Cheilosis: Etiology, Epidemiology, Clinical Manifestations, Diagnosis, and Treatment (CE400) (AGD Topic 730)

Continuing Education Units: 2 hours

Michael A. Huber, DDS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Actinic cheilosis commonly affects the dental profession's anatomical area of responsibility and its diagnosis and management falls in the purview of oral healthcare providers. To administer competent care to patients with actinic cheilosis, clinicians must understand the disease, its treatment, and the impact the disease or its treatment may have on the patient.

Addressing Language and Cultural Barriers of the Spanish Speaking Patient (CE328) (AGD Topic 770)

Continuing Education Units: 2 hours

Cynthia Sellers, RDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

As this nation of 300 million interacts with and attempts to assimilate 1 million new Hispanic arrivals each year, some dental practices may choose to become more aware of an unfamiliar language and culture. Creating a dental office in which Hispanics are comfortable and well served will be very important to future

growth for some dental offices. And all dental practices are likely to find that treating patients with language and cultural differences is much easier if the dental team is prepared.

Adverse Reactions to Latex Products: Preventive and Therapeutic Strategies (CE81) (AGD Topic 148)

Continuing Education Units: 2 hours

Michael A. Huber, DDS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students

With the adoption of standard precautions by the Centers for Disease Control, the use of gloves extends to all aspects of patient care. The ubiquitous use of latex gloves and other latex products in health-care has resulted in a parallel increase in latex-associated adverse reactions. This course, based on a review of the literature, presents the etiology and epidemiology of adverse reactions to latex products, clinical manifestations of adverse reactions to latex products, strategies for the prevention of adverse reactions to latex products, and strategies for the treatment of allergic reactions to latex products.

Aging Systemic Disease and Oral Health: Implications for Women Worldwide (Part I) (CE302) (AGD Topic 750)

Continuing Education Units: 2 hours

Pam Hughes, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will review global prevalence and risk factors of three common health conditions among aging women: cardiovascular disease, diabetes, and osteoporosis. It explores prevention and treatment approaches, connections to oral health, and specific treatment plans for each condition. (This is Part 1 of a 2-part series on women, aging and oral health. Part 2 will appear in the dentalcare.com CE library.)

Aging, Systemic Disease and Oral Health: Implications for Women Worldwide (Part II) (CE330) (AGD Topic 750)

Continuing Education Units: 3 hours

Pam Hughes, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Part one of this two-part series on Women, Aging and Oral Health appears in the dentalcare.com CE library and introduced the global prevalence and risk factors of three common health conditions among aging women: cardiovascular disease, diabetes and osteoporosis. The aim of this course is to provide dental professionals with prevention and treatment approaches, information on connections to oral health and specific treatment plans for each condition.

Alginate Impression and Diagnostic Study Model Techniques (CE378) (AGD Topic 770)

Continuing Education Units: 3 hours

Ellen G. Gambardella, CDA, M.Ed.; Rita J. Johnson, COA, RDH, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students

Accumulation of dental data provides the foundation for comprehensive dental care. Alginate impressions and study models have been used in dentistry for years, primarily to aid in diagnosis and treatment planning. This CE course is intended to show how alginate impressions and study models are a valuable adjunct in providing optimal patient care.

An Integrated Clinical Summary: Professional Tooth Bleaching Using 14% Hydrogen Peroxide Whitening Strips (CE204) (AGD Topic 780)

Continuing Education Units: 1 hour

Robert W. Gerlach, DDS, MPH; Matthew L. Barker, PhD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Various advances in vital bleaching continue to expand the number of treatment options available to patients. A unique bleaching strip with 14% hydrogen peroxide (Crest® Whitestrips® Supreme) was introduced in 2003.

This advanced system carries a thinner but more concentrated gel on each strip. The combination of a higher concentration gel with lowered gel volume translates to improved whitening without adversely affecting oral soft tissue tolerability and irritation. This course provides an integrated review of comparative clinical trials evaluating the whitening response and safety of this vital bleaching system.

An Introduction to the Herpes Viruses (CE304) (AGD Topic 739)

Continuing Education Units: 1 hour

Joe Knight, PA-C

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students

The word herpes evokes an emotional response from almost everyone. Eighty percent of the world's population has serological evidence of the herpes simplex virus type one (HSV-1, generally orolabial herpes), while twenty-to-thirty percent of the U.S. population is seropositive for the herpes virus type 2 (HSV-2, generally genital herpes).

An Update on Demineralization/Remineralization (CE73) (AGD Topic 011)

Continuing Education Units: 3 hours

Mark E. Jensen, MD, DDS, PhD; Robert V. Faller, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course was one of the first courses available on dentalcare.com. The course has been updated without changing the original content, which is still valid. The updates include information on new technologies emerging for caries detection and evaluation as well as information on the evidence-based approach for dentistry in the area of demineralization and remineralization. This primarily includes the use of fluorides with information and resources on how to approach evidence-based dentistry for clinical practice. The course begins with a historical perspective on caries as a concern in the 1940's as a major public health problem and moves to the clinical practice today . . . from cure to prevention. Recent changes in the knowledge of the caries process in both enamel and root caries are detailed through the discussion of demineralization/remineralization. The course has been widely used by clinical staff (dental assistants, hygienists, and dentists in clinical practice) as well as students from all over the world. The course is not meant to be a comprehensive cariology course but rather an introduction to the concepts of demineralization and remineralization and how they can and should be incorporated into clinical practice. Upon completion of the course participants will understand the continued need for fluoride in the ongoing challenge to tooth structure, secondary lesions, root caries, and appreciate the need to examine the literature and evidence when applying clinical preventive techniques for caries prevention.

Basic Techniques for Management of the Infant and Toddler Patient (CE54) (AGD Topic 430)

Continuing Education Units: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

As the trend in the reduction of caries in the patient population continues and dentists scramble to find ways to maintain business by attracting new patients to their practice, many ignore a potential source of patients that exist in their practices. . . the infant and toddler pediatric patient. Introducing the pediatric dental patient during infancy and the toddler stage can have a mutual benefit for the child, parent, and dentist. Behavior modification techniques such as non-traumatic physical restraint and desensitization may be used to gain patient cooperation. Early examination can uncover potential problems thereby reducing future negative consequences of delayed intervention. Informing parents of the advantages of early dental care for their child is the most effective marketing strategy.

Biofilm: A New View of Plaque (CE42) (AGD Topic 10)

Continuing Education Units: 2 hours

Pamela R. Overman, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The primary learning objective for this course is to increase your general knowledge of the various ways that dental professionals have viewed plaque throughout the years, highlighting the current view of plaque as a biofilm and the ramifications for periodontal therapy.

Blood Pressure Guidelines and Screening Techniques (CE86) (AGD Topic 737)

Continuing Education Units: 1 hour

Connie M. Kracher, CDA, MSD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Hygiene Students, Dental Assistant Students

Screening for blood pressure by the dental professional has proven to be extremely effective since most patients with hypertension are unaware of their condition. Many patients see a dentist more frequently than a physician, giving the dental team the responsibility to inform their patients of their blood pressure reading and how it can affect their overall health.

Caries Process and Prevention Strategies: Epidemiology (CE368) (AGD Topic 257)

Continuing Education Units: 1 hour

Edward Lo, BDS, MDS, PhD, FHKAM

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 1 of a 10-part series entitled *Caries Process and Prevention Strategies*. Oral epidemiology is the area of public health that deals with the distribution and the impact of oral disease on the human population. In this course, emphasis is placed on the relevance of epidemiology to clinical practice and information about the prevalence, incidence, and trends of dental caries in the United States is presented. The term DMF (decayed, missing, and filled teeth) is introduced, along with variations and limitations of the DMF index, and an explanation of how to calculate DMF scores.

Caries Process and Prevention Strategies: The Agent (CE369) (AGD Topic 257)

Continuing Education Units: 1 hour

Susan Higham, BSC, PhD, CBiol, MSB

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 2 of a 10-part series entitled *Caries Process and Prevention Strategies*. Dental caries is a multifactorial, infectious disease affecting a significant percentage of the population. This course describes the etiology and pathways of progression of dental caries, including an in-depth review of the role of dental plaque and oral bacteria.

Caries Process and Prevention Strategies: The Host (CE370) (AGD Topic 257)

Susan Higham, BSC, PhD, CBiol, MSB

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 3 of a 10-part series entitled *Caries Process and Prevention Strategies*. It has been established that a host must be present for caries to develop. In this course, three host factors – the tooth, saliva, and the oral cavity's immune response – are introduced, and their roles in the caries process are explained.

Caries Process and Prevention Strategies: The Environment (CE371) (AGD Topic 257)

Susan Higham, BSC, PhD, CBiol, MSB

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 4 of a 10-part series entitled *Caries Process and Prevention Strategies*. In this course, the role of fermentable carbohydrates is discussed, paying particular attention to how caries can be influenced by the cariogenic potential of ingested sugars and starches, the physical traits of ingested carbohydrates (such as their adhesiveness), and the frequency of intake and exposure to sugars. The Stephan curve, which illustrates the dental pH changes over time in response to a carbohydrate challenge, is also introduced, with a discussion of how factors such as the type of carbohydrate, the buffering capacity of bacteria, and the type and amount of bacteria present in plaque affect dental plaque pH responses.

Caries Process and Prevention Strategies: Demineralization/Remineralization (CE372) (AGD Topic 257)

Susan Higham, BSC, PhD, CBiol, MSB

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 5 of a 10-part series entitled *Caries Process and Prevention Strategies*. In this course, the dynamic process of demineralization and remineralization is discussed, paying particular attention to tooth hard tissue structure, the role of acid production by cariogenic bacteria, and the critical pH at which tooth enamel begins to dissolve. The role of acid-reducing bacteria, saliva, and fluoride in tooth hard tissue remineralization will also be explained.

Caries Process and Prevention Strategies: Diagnosis (CE373) (AGD Topic 257)

Amid I. Ismail, BDS, MPH, MBA, DrPH

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 6 of a 10-part series entitled *Caries Process and Prevention Strategies*. This course introduces the dental professional to the importance of caries diagnosis in prevention of the disease, as well as the intricate link between caries diagnosis and treatment. The two main methods of lesion diagnosis used today—the visual–tactile method and bitewing radiography—are discussed, including recent advancements that improve their sensitivity, as well as their limitations. Topics also include newer methods of caries diagnosis, and a brief discussion of why too-early caries lesion diagnosis can be counterproductive and the benefits of enlisting the help of pediatricians in diagnosing caries in children.

Caries Process and Prevention Strategies: Erosion (CE374) (AGD Topic 257)

Susan Higham, BSC, PhD, CBiol, MSB

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 7 of a 10-part series entitled *Caries Process and Prevention Strategies*. This course establishes the concept of dental erosion as a condition that is distinct from caries, and as an emerging public health issue with increasing prevalence in people of all ages. Although often generalized under the heading of “tooth wear,” there are actually two distinct tooth surface loss processes that must be taken into account. Tooth surface loss can be the result of physical mechanisms, such as attrition and abrasion, or chemical mechanisms triggered by acid. Both of these mechanisms are discussed, as well as the chemical, biological, and behavioral factors that increase or reduce risk of tooth surface loss. In addition, diagnosis and prevention measures related to dental erosion are introduced.

Caries Process and Prevention Strategies: Prevention (CE375) (AGD Topic 257)

Marjolijn Hovius, RDH

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 8 of a 10-part series entitled *Caries Process and Prevention Strategies*. This course introduces the dental professional to the concept of oral health promotion and education as a means of preventing caries. The topics discussed include understanding patient behavior, the barriers to change a patient may experience, why it is important for a dental professional to provide continuous support even when a patient is slow to change, and helping a patient to set goals that promote caries-reducing habits.

Caries Process and Prevention Strategies: Intervention (CE376) (AGD Topic 257)

Marjolijn Hovius, RDH

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 9 of a 10-part series entitled *Caries Process and Prevention Strategies*. This course introduces the dental professional to the important role of fluoride in the prevention and control of dental caries. Systemic and topical forms of fluoride delivery are discussed as options for the majority of patients, and professional forms of fluoride delivery are discussed as sometimes-necessary measures for high-risk patients with severe caries.

Caries Process and Prevention Strategies: Risk Assessment (CE377) (AGD Topic 257)

Marjolijn Hovius, RDH

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 10 of a 10-part series entitled *Caries Process and Prevention Strategies*. This course introduces the dental professional to risk terminology, and methods for identifying caries-causing factors and assessing a patient's risk for developing dental caries. It also outlines a risk protocol that can be used with patients.

Child Abuse and Neglect: Implications for the Dental Profession (CE49) (AGD Topic 437)

Continuing Education Unit: 2 hours

Stephen A. Jessee, DDS; Amos S. Deinard, MD, MPH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students, Dental Residents, Dental Fellows

This course will provide information on the various types of child abuse and neglect; describe its victims and perpetrators; and outline the dental professionals' responsibilities in the recognition, reporting, treatment, and prevention of such cases.

Clinical Encounters in Pediatric Patients (CE352) (AGD Topic 430)

Continuing Education Unit: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will discuss a variety of dento/oro/facial conditions commonly found in pediatric patients and their management from infancy to adolescence.

Clinical Practice Guidelines for an Infection Control/Exposure Control Program in the Oral Healthcare Setting (CE342) (AGD Topic 148)

Continuing Education Units: 3 hours

Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will describe how to develop infection control/exposure control strategies appropriate for the oral healthcare setting.

Commonly Prescribed Medications in Pediatric Dentistry (CE336) (AGD Topic 430)

Continuing Education Unit: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The prescription of medications are more complicated than in the past with clinicians dealing with an increasing number of issues such as microbial resistance to prescribed antibiotics and drug interactions within the increased number of medications used by both adult and pediatric patients. In this course the reader will learn the characteristics, warnings and precautions and proper dosage for adult and pediatric patients for the following categories of medications: Antimicrobials (antibiotics, antifungals, and antivirals), analgesics, and fluorides.

Complementary and Alternative Medicine Techniques Available for Dentistry (CE357) (AGD Topic 730)

Esther K. Andrews, CDA, RDA, RDH, MA

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Complementary and Alternative Medicine (CAM) is a set of procedures considered to be outside the practice of conventional medicine. This CE course is intended to define Complementary and Alternative Medicine terminology and techniques, and recognize that patients may choose complementary and alternative procedures in addition to conventional dentistry.

Counseling & Treating Bad Breath Patients (CE130) (AGD Topic 557)

Continuing Education Units: 2 hours

Patricia Lenton, RDH, MA; Georgia Majerus, RDH, BS; Bashar Bakdash, DDS, MPH, MSD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The purpose of this course is to provide dental professionals with practical strategies to facilitate the discussion and treatment and oral malodor in the dental office. This course describes a useful communication model (P-LI-SS-IT) specifically aimed at discussing potentially sensitive issues. Several simulated dialogues are provided of how this communication model can be applied in the dental office.

Current Concepts in Preventive Dentistry (CE334) (AGD Topic 257)

Continuing Education Units: 5 hours

Connie Myers Kracher, PhD(c), MSD, CDA

Intended Audience: Dental Hygienists, Dental Assistants, Dental Hygiene Students, Dental Assistant Students

This course includes areas of prevention that are important for the dental professional to assess during your patients' dental examinations. Dentistry includes many different preventive practices, such as prophylaxis, fluoride treatments, full-mouth and bite-wing radiographs, sealants and other forms of primary preventive treatments used to detect dental caries and periodontal disease early.

Dental Anatomy: A Review (CE421) (AGD Topic 012)

Continuing Dental Education Units: 2 hours

Antoinette Metivier, CDA; Kimberly Bland, CDA, EFDA, M.Ed.

Intended Audience: Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Date Course Online: Mar 18, 2013

Course Expiration Date: Mar 17, 2016

It is important for the dental team to know the appearance of normal anatomy of the face and oral cavity. This knowledge provides a sound basis for identifying abnormal conditions. The dentist holds sole responsibility for diagnosis and treatment of the patient, however, the entire dental team should always be alert for abnormal conditions in all patients' oral cavities. There are, of course, wide variations of what can be considered normal, but with careful attention to detail the dental team will gain confidence and become more adept at identifying conditions that may require further attention.

Dental Business Office Design and Equipment (CE310) (AGD Topic 550)

Continuing Education Units: 2 hours

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The purpose of this course is to aid the dental team in the selection of equipment for the dental business office.

Dental Care for Infants (CE387) (AGD Topic 436)

Continuing Education Units: 1 hour

Ivonne Ganem, DMD, MPH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The Centers for Disease Control and Prevention report that caries is perhaps the most prevalent infectious disease to US Children. By the time they reach kindergarten, more than 40% of children have caries. To prevent oral disease, preventive interventions must begin at infancy. This course will present to providers the importance of educating their adult patients on when they should begin bringing their children to the dental office for an oral exam and to begin a thorough prevention program that will establish measures to prevent diseases such as Early Childhood Caries (ECC).

Dental Esthetics in Practice: Part 1 – Focus on the Patient (CE1001) (AGD Topic 780)

Continuing Education Units: 1 hour

W. Patrick Naylor, DDS, MPH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 1 of a 5-part series called **Dental Esthetics in Practice**. This course reviews concepts of beauty, factors that influence patients' interest in esthetic procedures, and techniques to effectively communicate treatment options with patients.

Dental Esthetics in Practice: Part 2 – Dental Esthetics and the Practice (CE1002) (AGD Topic 780)

Continuing Education Units: 1 hour

Roger P. Levin, DDS, MBA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 2 of a 5-part series called **Dental Esthetics in Practice**. Topics covered in this course include creating a cohesive esthetic office team, building a profitable esthetic practice, and ensuring successful outcomes for the patient and the practice.

Dental Esthetics in Practice: Part 3 – Understanding Color & Shade Selection (CE1003) (AGD Topic 780)

Continuing Education Units: 1 hour

Charles J. Goodacre, DDS, MSD; Paul Sagel, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 3 of a 5-part series called **Dental Esthetics in Practice**. From the fundamentals of color to digital imaging analysis, this course reviews the practical application of color and shade in dental esthetics.

Dental Esthetics in Practice: Part 5 – Tooth Whitening (CE1005) (AGD Topic 780)

Continuing Education Units: 0 hour

Carlos A. Muñoz-Viveros, DDS, MSD; Robert W. Gerlach, DDS, MPH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This is part 5 of a 5-part series called **Dental Esthetics in Practice**. This course focuses on the fundamentals of whitening, including whitening agents and factors that affect whitening response. It also reviews details of popular delivery systems, including in-office systems, tray-based systems and whitening strips.

Dental Implants: A Comprehensive Review (CE420) (AGD Topic 496)

Sanda Moldovan, DDS, MS, CNS

Continuing Dental Education Units: 3 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

According to the National Institutes of Health, there are over 100 million people missing teeth, and the need for implant dentistry is stronger than ever. Patients often ask dental team members questions regarding dental treatment options. Knowledge of the current procedures for implants is a must for anyone in the dental field. By becoming knowledgeable about different implant options, dental professionals will be able to help patients make educated decisions regarding their dental treatment.

Dental Implants and Esthetics (CE203) (AGD Topic 690)

Continuing Education Units: 1 hour

Charles J. Goodacre, DDS, MSD; Chad J. Anderson, MS, DMD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Assistant Students

Dental implants offer patients a means to replace one tooth or multiple teeth in a way that meets functional and esthetic needs. This course reviews various categories of esthetic complications, including: environmental morphology; surgical and soft tissue healing protocol; implant location; crown/prosthesis form and type of abutment; facial esthetics; and prosthesis discoloration.

Dental Implications of the ADHD Patient (CE359) (AGD Topic 750)

Continuing Education Units: 2 hours

Patricia Frese, RDH, MEd; Elizabeth McClure, RDH, MEd

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The goal of the course is to increase dental healthcare providers' understanding of treating the patient with ADHD.

Dental Management of Patients with Bleeding Disorders (CE319) (AGD Topic 750)

Continuing Education Units: 3 hours

Sandra D'Amato-Palumbo, RDH, MPS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

When a patient presents with a bleeding disorder, how should dental providers proceed to manage the complexity of the case? Management of such medically-complex patients involves "an understanding of basic physiology of hemostasis", which can greatly enhance one's comprehension of most bleeding and clotting disorders. In addition to this composite of knowledge, clinical application of recent evidence-based recommendations can contribute to the management of these patients who may potentially require specialized medical and or dental care.

Dental Photography (CE436) (AGD Topic 138)

Linda Kihs, CDA, EFDA, OMSA, MADAA; Debra Engelhardt-Nash

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Thousands of dental offices are now using dental photography to build patients' trust through visual communication. Since the largest percent of learning takes place visually, photographs should be part of any comprehensive treatment plan and can be used in diagnosis, education and motivation for the patient, case presentation, laboratory communication, insurance submissions, public relations and marketing.

Dental Terminology and Professional Knowledge (CE136) (AGD Topic 10)

Continuing Education Units: 1 hour

Nancy Hemingway, RDH, MS; Mary Ann Haisch, RDH, MPA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The purpose of this course is for the learner to gain understanding and enhanced vocabulary of dental terminology and overall professional knowledge by training through example, context, engagement and multiple representations of content.

Dentinal Hypersensitivity: A Review (CE200) (AGD Topic 730)

Continuing Education Units: 1 hour

Pat Walters, RDH, MSDH, MSOB

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Dentinal hypersensitivity is a common dental problem yet it is often under-reported by patients or misdiagnosed. This course will address the etiology, prevalence and diagnosis of dentinal hypersensitivity as well as review clinical evidence behind popular desensitizing dentifrices.

Designing a Comprehensive Health History (CE76) (AGD Topic 737)

Continuing Education Units: 2 hours

Mary Govoni, CDA, RDA, RDH, MBA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will teach dental professionals and office managers how to design and update medical and dental history forms for any dental practice. This course emphasizes risk management and optimum patient care. This course teaches the basic components of a patient medical history: including legal, ethical and treatment-related items that must be included on a health history form; requirements for confidentiality and updates of information. Specific suggestions are included for screening patients with cardiovascular disease, diabetes and other potentially life-threatening conditions.

Developing Effective Interactions with Today's Faculty and Dental Students (CE422) (AGD Topic 149)

Steven Schwartz, DDS

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Dental students expect quality education to become proficient practitioners and faculty are eager to provide it. Unfortunately misunderstandings and conflicting expectations between students and faculty of different generations provide obstacles to achieving that goal. This course intends to teach faculty a greater understanding of current dental students' perception of their education.

Diabetes: A Multifaceted Syndrome Treatment Considerations in Dentistry (CE93) (AGD Topic 750)

Continuing Education Units: 2 hours

Lynne H. Slim, RDH, MS; Cynthia A. Stegeman, RDH, Med RD, LC, CDE

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Diabetes is a major global public health problem and the sixth leading cause of death in the U.S. Proper management of diabetes will positively impact a patient's oral health, especially as it relates to risk for periodontal infection. Determining whether or not medical issues warrant immediate care before elective dental procedures is an important part of patient protocol and needs to be instituted by dental practitioners. Better overall communication and ongoing interaction between medical and oral healthcare providers is needed to improve the overall health of individuals with diabetes.

Diagnostic and Prognostic Evaluation for the Edentulous Patient (CE441) AGD Topic 671)

Continuing Dental Education Units: 3 hours

Joseph J. Massad, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

As far back as dental history has been recorded, the number one perplexing aspect is determining the outcome and patient satisfaction in complete denture therapy before treatment is started.

With today's knowledge of the past century, data has been compiled on specific problematic areas preventing an acceptable prognosis. This video presentation will review a method of evaluating the edentulous patient and addressing known documented factors leading to success and/or failure by predicting the outcome prior to starting treatment. With the use of an appropriate assessment and examination formula, the practitioner should be able to reasonably predict the outcome.

Digital Radiography in Dentistry: Moving from Film-based to Digital Imaging (CE350) (AGD Topic 165)

Continuing Education Units: 4 hours

Gail F. Williamson, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will provide a foundation for understanding digital imaging technology, necessary equipment, digital imaging receptors, technique, acquisition, enhancement, transfer and storage. Comparisons with film-based imaging as well as the diagnostic utility of digital images will be discussed.

Diseases of the Teeth and Jaws (CE306) (AGD Topic 731)

Continuing Education Units: 4 hours

Allan G. Farman, BSD, EdS, MBA, PhD; Sandra A. Kolsom, CDA, RDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course will help the dental auxiliary to understand the importance of high-quality radiographs and will, in the long run, make him or her that much more valuable to the dental team.

Do's and Don'ts of Porcelain Laminate Veneers (CE333) (AGD Topic 780)

Continuing Education Units: 2 hours

Gerard Kugel, DMD, MS, PhD; Shradha Sharma, BDS, DMD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will give guidelines on how to make esthetic changes for teeth that are discolored, worn, chipped, or misaligned. Porcelain veneers are considered to be strong and to have great esthetics and a long-term prognosis.

Eastern Medicine Meets Dentistry: The Use of Herbal Supplements in Dentistry (CE305) (AGD Topic 730)

Continuing Education Units: 3 hours

Natalie Kaweckyj, RDARF, CDA, CDPMA, COA, COMSA, MADAA, BA

Intended Audience: Dental Hygienists, Dental Assistants, Dental Hygiene Students, Dental Assistant Students

The dental team must be aware of oral products containing herbs and supplements and recognize potentially dangerous combinations between various herbs or supplements and drugs commonly used in dentistry today.

Eating Disorders: Understanding the Basics and the Oral Implications (CE427) (AGD Topic 750)

Continuing Dental Education Units: 3 hours

Natalie Kaweckyj, LDARF, CDA, CDPMA, COMSA, CPFDA, MADAA, BA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

In the United States, it is estimated that anywhere from five to ten million females and approximately one million males struggle with some type of eating disorder. This course will help the dental professional identify early warning signs of eating disorders that a patient may be exhibiting.

Effective Adult Learning for Oral Health Education (CE74) (AGD Topic 557)

Continuing Education Units: 1 hour

Linda D. Boyd, RDH, RD, EdD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The purpose of this course is to provide dental practitioners with strategies to effectively educate their adult patients in order to prevent and/or manage dental disease. An overview of adult education principles as well as practical strategies for educating adult learners in the dental setting will be provided.

Effective Nitrous Oxide/Oxygen Analgesia Administration (CE92) (AGD Topic 430)

Continuing Education Units: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Students

Administration of nitrous oxide/oxygen analgesia/anxiolysis is a safe and effective technique for reducing and even eliminating anxiety during dental treatment. This CE course will describe the objectives, indications and contraindications, and technique for successful administration of nitrous oxide to the pediatric patient.

Efficient & Effective Use of the Intraoral Camera (CE367) (AGD Topic 557)

Jill C. Obrochta, RDH, BS

Continuing Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course will provide a broad range of techniques and parameters with which to best utilize an intraoral camera within the dental practice. Intraoral cameras provide easy-to-use, high definition magnification and are one of the most powerful diagnosis and teaching tools within dentistry. Knowing the advantages and limitations of the intraoral camera will empower you to be an outstanding, cutting-edge clinician in this age of innovation.

Environmental Infection Control in Oral Healthcare Settings (CE363) (AGD Topic 148)

Continuing Education Units: 2 hours

Géza T. Terézhalmy, DDS, MA; Michael A. Huber, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The environment (air, water, and fomites) in healthcare settings serves as a reservoir for many pathogens. While there are few reports clearly delineating a cause-and-effect with respect to environmental opportunistic organisms and healthcare-related infections, the strength of available evidence affirms that infection control strategies, when consistently implemented, are effective in preventing environmentally-related healthcare-associated infections among susceptible patients and healthcare workers (HCWs). The course presents essential elements of an infection control/exposure control plan for oral healthcare settings with emphasis on environmental infection control.

Ergonomics in the Dental Business Office (CE312) (AGD Topic 550)

Continuing Education Units: 2 hours

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is designed to aid the dental business office team in practicing basic ergonomic concepts through the use of motion economy in order to maximize productivity and reduce strain.

Evidence-Based Decision Making: Introduction and Formulating Good Clinical Questions (CE311) (AGD Topic 770)

Continuing Dental Education Units: 2 hours

Jane L. Forrest, EdD, BSDH

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

The primary learning objectives for this course are to: 1) increase your knowledge of evidence-based concepts, principles and skills, and 2) specifically how to formulate a good clinical question in order to find relevant evidence to answer that question.

Fabrication of Provisional Crowns and Bridges (CE392) (AGD Topic 17)

Continuing Dental Education Units: 3 hours

Cynthia M. Cleveland, CDA; Angela D. Allen, CDA; Niki Henson, RDH, AS

Intended Audience: Dental Assistants, Dental Assistant Students

The course is designed to teach dental assistants how to fabricate provisional crowns or bridges. The term provisional also can refer to an interim or temporary restoration. Learning the techniques, materials, and procedures should give you a better understanding of what it takes to fabricate a provisional restoration.

Factors Affecting Implant Loss (CE440) (AGD Topic 496)

Charles J. Goodacre, DDS, MSD

Continuing Dental Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Implants are highly successful but certain oral and systemic conditions increase the risk of failure. This presentation will review these risks and suggest appropriate management when such conditions are present.

Forensic Dentistry (CE401) (AGD Topic 145)

Continuing Dental Education Credits: 2 hours

Marsha A. Voelker, CDA, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course provides an overview of forensic dentistry history, various identification methods utilized and how dental professional can become involved.

Four-Handed Dentistry, Part 1: An Overview Concept (CE65) (AGD Topic 250)

Continuing Dental Education Credits: 2 hours

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is the first of a three-part series and describes and discusses four-handed dentistry and its integration in the modern dental office.

Four-Handed Dentistry, Part 2: Equipment Selection (CE66) (AGD Topic 250)

Continuing Dental Education Credits: 2 hours

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is the second of a three-part series and reviews the selection of dental equipment for use in an ergonomic, four-handed dental practice.

Four-Handed Dentistry, Part 3: Instrument Transfer (CE67) (AGD Topic 250)

Continuing Dental Education Credits: 2 hours

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is the third of a three-part series and reviews the transfer of dental instruments for use in an ergonomic, four-handed dental practice.

Full Coverage Aesthetic Restoration of Anterior Primary Teeth (CE379) (AGD Topic 430)

Continuing Dental Education Units: 3 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Aesthetic treatment of severely decayed primary teeth is one of the greatest challenges to pediatric dentists. Aesthetic full coverage restorations are available for anterior and posterior primary teeth. This continuing education course will concentrate on aesthetic full coverage restorations for anterior primary teeth. A subsequent course will deal with full coverage of posterior primary teeth.

Fundamentals of Dentifrice: Oral Health Benefits in a Tube (CE410) (AGD Topic 11)

Paula M. Koenigs, PhD; Robert V. Faller, BS

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course will focus on the most common dentifrice ingredients and the oral health benefits they provide. Upon completion of the course, participants will understand not only the fundamentals of dentifrice ingredients, but also key regulatory aspects of the dentifrice market and the role of professional societies in credentialing consumer dentifrices.

Geriatric Dentistry: Reviewing for the Present, Preparing for the Future (CE123) (AGD Topic 752)

Continuing Education Units: 4 hours

Natalie Kaweckyj, CDA, RDA, CDPMA, COA, COMSA, FADAA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course reviews a variety of treatment dilemmas during dental care for the older adult patient and certain factors that should be considered when rendering treatment.

Gingival Health - Periodontal Assessment (CE327) (AGD Topic 490)

Continuing Education Units: 2 hours

Members of the ADAA Council on Education

Intended Audience: Dental Hygienists, Dental Assistants, Dental Hygiene Students, Dental Assistant Students

In today's busy dental practice, the dental team's role in data collection for diagnosis and treatment of periodontal disease is extremely important. The dental profession has a legal responsibility to recognize and record findings and also to inform and educate the patient regarding this disease and the prognosis it presents. Periodontal disease, when recognized and treated early, can have predictable outcomes.

Go Green: It's the Right Thing to Do (CE383) (AGD Topic 550)

Continuing Education Units: 1 hour

ADAA 2009 Council on Education; ADA Council on Dental Practice

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Office Managers, Dental Students, Dental Hygiene Students, Dental Assistant Students

What exactly is "going green"? What does it mean to the practice of dentistry? Dental healthcare professionals know the importance of preserving the environment and the environment's contribution to overall health and well-being. This course will include the parameters needed to initiate a program for your dental practice that is simple and practical to implement.

Guidelines for Infection Control in Dental Health Care Settings (CE90) (AGD Topic 148)

Continuing Education Units: 4 hours

Sharon K. Dickinson, CDA, CDPMA, RDA; Richard D. Bebermeyer, DDS; Karen Ortolano

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

In 2003, the U.S. Centers for Disease Control and Prevention (CDC) published updated recommendations for dental infection control. Developed in collaboration with authorities on infection control from CDC and other public agencies, academia, and private and professional organizations, this course consolidates and expands previous CDC recommendations and incorporates the infection-control provisions of the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard. This course provides an overview of current CDC recommendations for minimizing the potential for disease transmission during the delivery of dental care.

Hand Hygiene: Infection Control/Exposure Control Issues for Oral Healthcare Workers (CE353) AGD Topic 148)

Géza T. Terézhalmy, DDS, MA; Michael A. Huber, DDS

Continuing Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course presents the essential elements of an infection control/exposure control plan for the oral healthcare setting with emphasis on hand hygiene.

Hazard Communications & Hazardous Waste Regulations for Dental Offices (CE55) (AGD Topic 148)

Continuing Education Units: 3 hours

Eve Cuny, BA, RDA, CDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Chemical agents are used every day in healthcare settings throughout the United States. Dental offices rely on chemicals to disinfect contaminated surfaces, etch teeth before application of resin restorations, develop X-rays, and for countless other purposes. These benefits do not come without some risks. The Hazard Communication Program applies to all dental offices. It is possible to have a simple program, which can easily be updated as needed. This course is intended to broaden your knowledge in implementing a system to be in compliance with hazardous waste regulations.

HBV and HCV: Infection Control/Exposure Control Issues for Oral Healthcare Workers (CE309) (AGD Topic 148)

Michael A. Huber, DDS; Géza T. Terézhalmy, DDS, MA

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course presents the essential elements of an infection control/exposure control plan for the oral healthcare setting with emphasis on hepatitis B and C infections.

Health Literacy for the Dental Team (CE335) (AGD Topic 557)

Continuing Education Units: 2 hours

Patricia A. Lenton, GDH, MA; Jessica Ridpath, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This information will increase awareness and understanding by dental health personnel in the matters of health and oral health literacy. This course will define oral health literacy, describe steps being taken by professional oral healthcare organizations to address oral health literacy issues, and provide dental team members with practical strategies and resources to incorporate into their dental practices in improve patient understanding.

Helping the Special Needs Patient Maintain Oral Health (CE393) (AGD Topic 750)

Janet Jaccarino, CDA, RDH, MA

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Poor oral hygiene and dental disease may be more prevalent in patients with disabilities due to the effects of their condition and medication on the oral environment. This course provides dental professionals with information to help the patient with special needs and the caregiver attain the appropriate knowledge to treat and maintain good oral health.

Hepatitis: What Every Dental Healthcare Worker Needs to Know (CE307) (AGD Topic 148)

Continuing Education Units: 3 hours

John A. Molinari, PhD; Eve Cuny, RDA, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The risk of cross-infection between dental practitioners, auxiliaries and patients is considered significant, particularly because most human microbial pathogens have been isolated from the oral cavity. This course will increase awareness and understanding by dental health personnel in the matter of viral hepatitis in terms of clinical and asymptomatic disease, transmission and diagnostic tests, with major emphasis on hepatitis B and hepatitis C.

Herpetic Infections: Etiology, Epidemiology, Clinical Manifestations, Diagnosis, and Treatment (CE356) (AGD Topic 739)

Continuing Education Units: 2 hour

Vidya Sankar, DMSM, MHS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course presents the etiology, epidemiology, clinical manifestations, diagnosis, and treatment of herpetic infections relevant to dentistry.

HIV: Infection Control Issues for Oral Healthcare Personnel (CE97) (AGD Topic 148)

Continuing Education Units: 2 hour

Michael A. Huber, DDS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

This course presents currently available knowledge essential for the implementation of an effective HIV-related infection control plan with special emphasis on: (1) education and training related to the etiology and epidemiology of HIV infection and exposure prevention; (2) plans for the management of oral healthcare personnel potentially exposed to HIV and for the follow-up of oral healthcare personnel exposed to HIV; and (3) a policy for work restriction of HIV-positive oral healthcare personnel.

HSV and VZV: Infection Control/Exposure Control Issues for Oral Healthcare Workers (CE323) (AGD Topic 148)

Michael A. Huber, DDS and Géza T. Terézhalmy, DDS, MA

Continuing Education Units: 2 hours

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

It presents the essential elements of an infection control/exposure control plan for the oral healthcare setting with emphasis on HSV and VZV infections.

Hypertension: Risk Stratification and Patient Management in Oral Healthcare Settings (CE407) (AGD Topic 730)

Continuing Education Units: 2 hour

Michael A. Huber, DDS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

This continuing education course presents information on hypertension and its impact on the clinical process in dentistry. It emphasizes disease-specific and procedures-specific risk factors and the importance of determining a patient's functional capacity to minimize intraoperative hypertensive, hypotensive, and cardiac risks.

Identifying Diseases of the Teeth and Oral Cavity Through Radiographic Images (CE433) (AGD Topic 731)

Continuing Dental Education Units: 4 hours

Allan G. Farman, BDS, EdS., MBA, PhD; Sandra A. Kolsom, CDA-Emeritus, RDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will help the dental professional to understand the importance of high-quality radiographic images and will, in the long run, make him or her that much more valuable to the dental team.

Immunological and Inflammatory Aspects of Periodontal Disease (CE1) (AGD Topic 490)

Continuing Education Units: 4 hours

Michael P. Mills, DMD, MS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

The course reviews key components of the immune system and their coordinated roles in preventing and eliminating the etiologic agents of disease. Current concepts in the immunopathogenesis of periodontal disease will be discussed with emphasis on the role of inflammation in periodontal tissue destruction.

Impression Making for Implant Retained Restorations (CE424) (AGD Topic 693)

Joseph J. Massad, DDS

Continuing Dental Education Units: 1 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Prosthetic restoration typically requires multiple follow-up visits for adjustments that are generally negatively perceived by patients and time consuming for office staff. Preparatory work includes assessment exam, diagnosis and treatment plan. To achieve optimum results, an evidence-based approach can help achieve predictable outcomes.

Increasing Productivity by Effective Use of Four-Handed Dentistry – Part 1: An Overview of the Concept (CE428) (AGD Topic 250)

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is the first of a three-part series and describes and discusses four-handed dentistry and its integration in the modern dental office.

Increasing Productivity by Effective Utilization of Four-Handed Dentistry – Part 2: Equipment Selection (CE429) (AGD Topic 250)

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is the second of a three-part series and reviews the selection of dental equipment for use in an ergonomic, four-handed dental practice.

Increasing Productivity by Effective Utilization of Four-Handed Dentistry – Part 3: Instrument Transfer (CE430) (AGD Topic 250)

Betty Ladley Finkbeiner, CDA-Emeritus, BS, MS

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is the third of a three-part series and reviews the transfer of dental instruments for use in an ergonomic, four-handed dental practice.

Influenza Facts and the Healthcare Worker (CE446) (AGD 148)

Continuing Dental Education Units: 1 hour

Wilhemina Leeuw, MS, CDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Every dental team member must take necessary precautions to avoid illness, maintain a safe office environment for both the dental team and its patients, and keep current on new strains of influenza and other respiratory illnesses. Dental offices should implement a program for screening patients for aerosol transmitted diseases (ATD). Understanding the risks and how to deal with them can avoid panic, illness and even death.

Intimate Partner Violence and Elder Maltreatment: Implications for the Dental Professional (CE338) (AGD Topic 156)

Continuing Education Units: 1 hour

Amos S. Deinard, MD, MPH; Marniasha Ginsberg, BA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Residents, Dental Fellows, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will provide information on Intimate Partner Violence (IPV) and Elder Maltreatment (EM), describe their victims and perpetrators, and outline the dental professionals' responsibilities to recognize, report, treat, and prevent such cases.

Intraoral Radiographic Techniques (CE119) (AGD Topic 731)

Continuing Education Units: 4 hours

Christoffel J. Nortjé, PhD; Riann Ferreira, BChD; Ebrahim M. Parker, BChD, MScRad; Allan G. Farman, BDS, EdS, MBA, PhD; Sandra Kolsom, CDA., RDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

When examined under proper conditions, diagnostic-quality intraoral radiographs reveal evidence of disease that cannot be found in any other way. The course presents basic principles and concepts of intraoral procedures. Includes discussion of proper techniques for bitewing radiography as well as the use of paralleling, bisecting angle, and intraoral and extraoral occlusal techniques.

Intraoral Radiography: Principles, Techniques and Error Correction (CE137) (AGD Topic 731)

Continuing Education Units: 2 hours

Gail F. Williamson, RDH, MS

Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Proper patient care includes obtaining diagnostic intraoral and extraoral radiographs which are essential to patient assessment, periodontal therapy, treatment and re-evaluation. Radiographs are especially helpful during instrumentation as a guide for detection of calculus deposits or faulty restorations, as well as the diagnosis of dental caries, alveolar bone loss, pulpal changes, and anatomical imperfections in tooth and root surfaces. It is imperative that dental professionals are competent in taking radiographs to ensure diagnostically acceptable images, while keeping the amount of radiation exposure to patients at a minimum.

Introduction of Specialized Dental Software (CE382) (AGD Topic 550)

Connie Effinger, BS; Suzanne Kump, CDA, LDA, MBA; Kathy Zweg, CDA, LDA; Wilhemina R. Leeuw, CDA, MS

Continuing Education Units: 3 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course introduces a variety of functions and concepts that facilitate the transition from a manual dental-office accounting system to a computerized system - a change that can enhance and strengthen the practice for years to come. Although this course does not endorse any specific computer system, it presents principles that can be applied to most any computerized system.

Lasers in Dentistry: Minimally Invasive Instruments for the Modern Practice (CE394) (AGD Topic 260)

Steven R. Pohlhaus, DDS

Continuing Dental Education Credits: 4 hours

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

Lasers have been used in dentistry for over 20 years now. Recent developments in technology and differing wavelengths are creating a host of innovative treatments using various dental lasers. The modern practitioner needs to be familiarized with these devices and understand the possibilities and limitations of each device. This course will be designed to help educate the dental team and to clear the confusion regarding the various wavelengths available.

Local Anesthesia in Pediatric Dentistry (CE325) (AGD Topic 430)

Continuing Education Units: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will teach the clinician how to administer an effective, safe and atraumatic local anesthesia injection to a child (or adult). Rather than avoiding local administration for fear of traumatizing the pediatric patient, the clinician should strive to learn and use the latest modalities of local pain control to create a pleasant and comfortable dental experience for the child.

Local Anesthesia in Today's Dental Practice (CE364) (AGD Topic 132)

Margaret I. Scarlett, DMD

Continuing Education Units: 2 hours

Intended Audience: Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The success of contemporary dental practice largely hinges on the use of local anesthesia for patient comfort and safety. Dental hygienists and dental assistants should have a basic understanding of local anesthesia, proper methods for handling syringes, possible complications, and how to manage emergencies.

Maintaining Proper Dental Records (CE78) (AGD Topic 159)

Continuing Education Units: 2 hours

Luisa Bernoni

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course provides dental team members with the necessary background and instructions for proper charting. Although this course presents guidelines to minimize legal risks, it is for guidance purposes only and is not intended to be legal in nature. Legal counsel should be sought any time a practice decides to change and/or implement new forms, recordkeeping procedures, or privacy safeguards. A lawyer will be able to inform and advise on the specific laws, rules, and regulations that pertain to specific states and in specific situations.

Maintenance of Dental Implants (CE417) (AGD Topic 693)

Continuing Dental Education Credits: 1 hour

Prof. Dr. Fridus van der Weijden DDS; Dr. Dick Barendregt, DDS, MSc, PhD; Dr. Anna Louropoulou DDS, MSc; Dagmar Else Slot, RDH, MSc

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

This continuing education course presents information on the maintenance of dental implants, including: (1) how to probe dental implants; (2) approaches to clean dental implants professionally during maintenance and peri-implantitis treatment; and (3) home care options for dental implants.

Making Occlusal Records Consistent and Predictable (CE443) (AGD Topic 671)

Continuing Dental Education Units: 2 hours

Joseph J. Massad, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This video continuing education course will describe the principals of using a jaw recording device to obtain the patients vertical and centric relation position.

Management of Medical Emergencies in the Dental Office (CE445) (AGD Topic 142)

Continuing Education Units: 5 hours

Sue Protzman; Jeff Clark, MS, REMT-P

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is designed to improve your ability to plan for, manage and handle office medical emergencies as part of the dental team. Also includes a discussion of the importance of a thorough health history in dealing with medical emergencies, background information on emergencies, vitals and what should be included in office emergency equipment. Also provides scenarios of medical emergency situations and how to handle them.

Management of Pediatric Medical Emergencies in the Dental Office (CE391) (AGD Topic 430)

Steven Schwartz, DDS

Continuing Education Units: 2 hours

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The dentist's successful management of medical emergencies requires preparation, prevention and knowledge of definitive management not just by the dentist but by all dental staff. Although the primary focus of this course is the pediatric dental patient, adult medical emergencies will also be addressed.

Management of Traumatic Injuries to Children's Teeth (CE98) (AGD Topic 430)

Continuing Education Units: 2 hours

Steven Schwartz, DDS

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course presents currently available knowledge of the latest techniques for treatment of dental injuries in children and adults based on the guidelines from the American Academy of Pediatric Dentistry and the International Association of Dental Traumatology.

Mandated and Highly Recommended Vaccines for Oral Healthcare Workers (CE318) (AGD Topic 148)

Continuing Education Units: 2 hours

Michael A. Huber, DDS; Géza T. Terézhalmy, DDA, MA

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course presents currently available knowledge essential for the development and implementation of an effective vaccination strategy in an oral healthcare setting.

Maskcessorize: The Art of Choosing the Proper Face Mask for the Task (CE405) (AGC Topic 148)

Gaylene Baker, RDH, MBA

Continuing Dental Education Credits: 1 hour

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course provides a review of the clinical considerations regarding the appropriate selection and use of facial protection devices in various dental practice settings. The types and designs of facial protection devices available today will be reviewed, accompanied by a discussion of the relevant regulations and professional recommendations for use.

Maxillofacial Surgery Basics for the Dental Team: Part I (CE403) (AGD Topic 310)

Natalie Kaweckyj, LDARF, CDA, CDPMA, COA, COMSA, MADAA, BA

Continuing Dental Education Credits: 4 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The specialty of oral and maxillofacial surgery, formerly known as oral surgery, is responsible for the diagnosis and surgical treatment of diseases, injuries, and defects of the oral and maxillofacial region. This continuing education course will review some of the preparation procedures for oral surgery, whether performed in the general dentistry practice or specialty clinic.

Maxillofacial Surgery Basics for the Dental Team: Part II (CE404) (AGD Topic 310)

Natalie Kaweckyj, LDARF, CDA, CDPMA, COA, COMSA, MADAA, BA

Continuing Dental Education Credits: 4 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Oral and Maxillofacial Surgery (OMS) is one of the oldest dental specialties. It is the branch of dentistry that encompasses the diagnosis and surgical treatment of diseases, injuries, and defects of the oral and maxillofacial region. This continuing education course outlines the basic principles involved in the extraction of teeth, armamentarium needed, indications for extractions, classifications and management of

third molars extractions, preoperative and postoperative management of the surgical patient, and possible complications following treatment.

Measles, Mumps and Rubella: Infection Control/Exposure Control Issues for Oral Healthcare Workers (CE322) (AGD Topic 148)

Continuing Education Units: 2 hours

Michael A. Huber, DDS; Géza T. Terézhalmy, DDA, MA

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course presents the essential elements of an infection control/exposure plan for the oral healthcare setting with emphasis on measles, mumps, and rubella (German measles) infections.

Mercury in Dentistry: The Facts (CE88) (AGD Topic 251)

Continuing Education Units: 2 hours

Jennifer K. Blake, CDA, EFDA, FADAA

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The proper handling of mercury in the dental office is an important occupational safety issue for the dental team. This course addresses not only patient safety, but also the occupational safety issues for the dental team. The intent of this course is to provide the dental professional with currently available information about mercury hygiene.

Methamphetamine: Implications for the Dental Team (CE332) (AGD Topic 739)

Continuing Education Units: 3 hours

Patricia Frese, RDH, MEd; Barbara Kunselman, RDH, MS; Elizabeth McClure, RDH, MEd; and Janelle Schierling, RDH, EdD

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Methamphetamine (meth) abuse is increasing and is a situation that is being dealt with on a national level. Meth has a profound effect on the user's entire body including the oral cavity. As health professionals, we have an obligation to seek education on the symptoms of methamphetamine use and the protocol to use when treating a methamphetamine abuser. This course explores the history, physical and psychological effects, implications for dental team members and other topics related to the meth phenomenon

Mission Trips – First Do No Harm (CE397) (AGD Topic 159)

Continuing Dental Education Credits: 2 hours

Curt Hamann, MD; Charles Palenik, MS, PhD, MBA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The main purpose of an oral healthcare mission is to deliver oral hygiene instruction and clinical care to areas of the world where it is nonexistent or substandard. This course provides guidance to help ensure the health and safety of mission participants, their dental patients and the community at large.

Motivational Interviewing: A Patient-Centered Approach to Elicit Positive Behavior Change (CE381) (AGD Topic 557)

Continuing Education Units: 2 hours

Karen B. Williams, RDH, MS, PhD; Kimberly Bray, RDH, MS

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course reviews the fundamental principles of Motivational Interviewing (MI), a patient-centered, goal-directed approach to elicit positive oral health behavior change. The four key principles of MI – expressing empathy, developing discrepancies, rolling with resistance and supporting self-efficacy – are reviewed and then illustrated in two clinical case scenario videos.

Mycobacterium Tuberculosis: Infection Control/Exposure Control Issues for Oral Healthcare Workers (CE316) (AGD Topic 148)

Nuala B. Porteous, BDS, MPH; Géza T. Terézhalmy, DDS, MA

Continuing Education Units: 2 hours

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

In the absence of an effective vaccine, exposure prevention remains the primary strategy for reducing occupational exposure to *Mycobacterium tuberculosis* (MTB). Knowledge about potential risks and concise written procedures intended to minimize exposure and promote a seamless response following accidental exposure can greatly reduce the emotional impact of such events.

Nitrous Oxide and Oxygen Sedation - An Update (CE396) (AGD Topic 132)

Ann Brunick, RDH, MS; Morris Clark, DDS, FACD

Continuing Dental Education Credits: 2 hours

Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Nitrous oxide and oxygen (N₂O/O₂) in combination have been used safely and successfully for over 160 years to assist in the management of pain and anxiety. This course will teach about the desirable characteristics of nitrous oxide, indications and contraindications for N₂O/O₂ use as well as facts and myths surrounding chronic exposure to nitrous oxide, the biologic effects associated with high levels of the gas, and ways to assess and minimize trace gas contamination in an outpatient setting.

Not all Face Masks are Created Equal - What is Best for You (CE358) (AGD Topic 148)

Pamela J. Runge, RDH, MBA

Continuing Dental Education Credits: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course provides important information to help dental professionals make informed decisions regarding surgical face masks, a critical piece of personal protective equipment.

Nutrition & Oral Health: Eating Well for a Healthy Mouth (CE301) (AGD Topic 150)

Continuing Education Units: 2 hours

Diane Verneti-Callahan, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is intended to provide awareness and a deeper understanding of the connection between optimal nutrition and its impact on oral health.

Objective Quantitative Methods for Oral Health Research (CE354) (AGD Topic 770)

Continuing Education Units: 3 hours

Authors: Donald J. White, PhD; Edward Lynch, BDentSc, MA, TCD, PhD(Lon); Malgorzata Klukowska, DDS, PhD; George K. Stookey, PhD; Robert W. Gerlach, DDS, MPH

Intended Audience: Dentists, Dental Hygienists

Examiner-based diagnostic measures have served oral health clinical research for many years. They have a historical connection to established therapies and represent a direct context to practitioner experiences. Despite the advantages of the clinical grader, numerous contemporary technical developments from a variety of disciplines may hold promise in expanding the sensitivity and specificity of our clinical measures. In this video CE course, four experts share their knowledge regarding advances in objective methods used to evaluate oral health in the clinical setting. Three presentations focus on the opportunities presented by advanced imaging and image processing techniques while a fourth reviews opportunities presented by high field magnetic resonance.

Older Dental Patients: Myths and Realities (CE6) (AGD Topic 752)

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

This course presents information on the elderly dental patient. There are many misconceptions about elderly patients, and this course addresses key aspects of the elderly that will provide a greater understanding of this dynamic population. The course content includes analysis of the elderly of today compared to that of two and four decades ago, the status of today's dentate elderly, as well as periodontal status and dry mouth.

Oral Anticoagulants and Dental Procedures (CE419) (AGD Topic 730)

Ashley N. Castelvecchi, PharmD; Lamonica N. Crump, PharmD

Continuing Dental Education Credits: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will discuss the anticoagulant and antiplatelet therapies available in the United States as well as the recommended management of these agents prior to dental procedures.

Oral Cancer (CE348) (AGD Topic 739)

Richard C. Jordan, DDS, PhD, FRCD(C) FRCPath

Continuing Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will cover the important general features of oral cancer, its causes and clinical presentation and how the disease is managed.

Oral Cancer Genetics: From Diagnosis to Treatment (CE72) (AGD Topic 739)

Continuing Education Units: 3 hours

Natalie Kaweckyj, RDA, CDA, CDPMA, COA, COMSA, FADAA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will teach the dental professional to recognize signs and symptoms of cancer, the effects various cancer treatments have on the oral cavity, and how you can ease patient discomfort.

Oral Health and the Older Adult (CE8) (AGD Topic 752)

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS

Intended Audience: Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students

This course presents information that is key to working with the growing older adult patient population. It is important for dental professionals to understand the risk factors in dental disease, the primary causes of xerostomia, maintenance techniques for dental prostheses, and appropriate communication skills for this patient population.

Oral Health Care: A Whole New Language (CE21) (AGD Topic 10)

Continuing Education Units: 3 hours

Patricia J. Nunn, RDH, MS

Intended Audience: Dental Hygienists, Dental Assistants, Office Managers, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is intended for anyone new to the field of dental healthcare, whether they are a dental assistant, dental hygienist, dental student, or anyone already in the field, who would like a dental vocabulary refresher. The most commonly used terms in dentistry will be defined and memory joggers will be provided for most. Useful prefixes and suffixes often used to create dental/medical words are presented as are some common abbreviations.

Oral Health Maintenance of Dental Implants (CE339) (AGD Topic 690)

Continuing Education Units: 2 hours

Connie Myers Kracher, PhD(c), MSD, CDA; Wendy Schmeling Smith, RDH, BSEd

Intended Audience: Dental Hygienists, Dental Assistants, Dental Hygiene Students, Dental Assistant Students

In recent years, the demand for dental implants has risen greatly. Not only have techniques improved, but the benefits that implants provide patients have increased as well. Dental implants can improve appearance, confidence, and self-esteem; preserve remaining teeth; improve a person's ability to speak and masticate properly; and eliminate the need for full and partial dentures.

Oral Implications of Chemical Dependency & Substance Abuse for the Dental Professional (CE415) (AGD Topic 157)

Continuing Dental Education Units: 3 hours

Jill C. Obrochta, RDH, BS; Elizabeth McClure, RDH, MEd; Patricia Frese, RDH, MEd

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Drug abuse remains a significant epidemic in present day society. According to the 2010 National Survey on Drug Use and Health, nearly 9% of the United States population use illegal drugs. As contemporary dental professionals, it is important that we are educated on the current effects of commonly used and abused drugs or medications including alcohol and tobacco products.

Oropharyngeal Candidiasis: Etiology, Epidemiology, Clinical Manifestations, Diagnosis, and Treatment (CE380) (AGD Topic 730)

Continuing Education Units: 2 hours

Géza T. Terézhalmy, DDS, MA; Michael A. Huber, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

Candidal infections commonly affect the dental profession's anatomical area of responsibility and the diagnosis and management of such infections, to a great extent, fall in the purview of oral healthcare providers. This course presents the etiology, epidemiology, clinical manifestations, diagnosis, and treatment of candidal infections relevant to dentistry.

Ortho 101 for the Dental Professional (CE413) (AGC Topic 370)

Constance Schuster, RDH, BS

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will unveil helpful hints to utilize for the benefit of the orthodontic patient to prevent detrimental effects of inadequate homecare. Within the course there will be an overview of the types of braces and fixed appliances to increase the knowledge of the dental professional in regards to orthodontics. There will be information on different adjuncts to assist in accessing areas around braces and orthodontic appliances along with products to control or prevent disease progression. The increased knowledge of the dental provider focusing on orthodontic care contained within this course will improve patient outcomes in the creation and maintenance of a beautiful smile.

Orthodontics: A Review (CE202) (AGD Topic 370)

Continuing Education Units: 1 hour

Calogero Dolce, DDS, PhD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Orthodontics, the first specialty in dentistry, emphasizes proper occlusion and tooth alignment as well as ideal dental and facial esthetics. The American Association of Orthodontists estimates that three-quarters of the US population could benefit from orthodontic care, so it's important for dental professionals to understand the basic elements of orthodontics. This course reviews the need for orthodontic treatment, diagnostic procedures and records, biological factors affecting tooth movement, goals of orthodontic treatment, categories of treatment, popular orthodontic devices and oral hygiene considerations.

Osteoporosis: Prevention, Management, and Screening Using Dental Radiographs (CE303) (AGD Topic 754)

Continuing Education Units: 2 hours

Diane Vernetti-Callahan, RDH, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course is intended to provide dental practitioners with an awareness and a deeper understanding of osteoporosis; prevention, causes, detection and treatment options.

Osteoradionecrosis: Oral Health and Dental Treatment (CE351) (AGD Topic 739)

Continuing Education Units: 2 hours

Daniel E. Jolly, DDS, FAAHD, FACD, DABSCD

This course will define and explain the development of Osteoradionecrosis (ORN) as well as help the dental professional in identifying the signs and symptoms of ORN.

Patient Care Coordinator: Are You Ready for a Change? (CE431) (AGD Topic 551)

Continuing Dental Education Units: 2 hours

Linda V. Zdanowicz, CDA, CDPMA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

A very interesting and extremely beneficial position in the dental team is emerging, that of the Patient Care Coordinator (PCC). The PCC is an adjunct to the dentist, patient and team, and can improve the services provided and overall productivity of the practice. Although the specific responsibilities of a PCC may vary from practice to practice, this course offers a general outline of a PCC's responsibilities.

Periodontal Management of the Diabetic Patient (CE331) (AGD Topic 490)

Continuing Education Units: 3 hours

Spencer L. Fried, DDS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course provides information to assist clinicians in understanding the diabetes mellitus disease state and how it affects the course and treatment of periodontal diseases. The course reviews the manifestations and epidemiology of diabetes mellitus, its control and measures. It also reviews periodontal risk factors and indicators and the goals of periodontal therapies. Finally the effects of uncontrolled diabetes on periodontal disease are discussed, as well as the effects of uncontrolled periodontal disease on diabetes mellitus. The objective of the course is to review the rationale for the importance of diagnosing and treating periodontal disease as a necessary part of the diabetic patient's overall healthcare.

Periodontal Screening and Recording: Early Detection of Periodontal Diseases (CE53) (AGD Topic 490)

Continuing Education Units: 1 hour

Tanya Villalpando Mitchell, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Periodontal Screening and Recording (PSR) is a rapid method of screening patients to decide if a more comprehensive assessment is necessary. After taking this course, the participant will understand the benefits of the PSR system, identify who should be screened for periodontal problems, discuss the PSR system scoring and understand how it works, recommend treatment based upon the code interpretations, and discuss the PSR system with patients.

Periodontics: Oral Health and Wellness. I. Understanding Periodontal Health, Recognizing Disease States and Choices in Treatment Strategies (CE50) (AGD Topic 490)

Continuing Education Units: 4

Jason M. Mailhot, DMD, MS; Spencer L. Fried, DDS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course provides information to assist clinicians in promoting the goals of oral health by first understanding periodontal health, recognizing disease states and providing choices in treatment strategies. The course reviews basic periodontal anatomy (to include connective tissue, bone, periodontal ligament, and cementum) and physiology, periodontal disease classification, as well as the challenges,

manifestations and implications of attachment loss. Evaluation of periodontal therapeutic strategies is best accomplished through a review of the scientific evidence on the topic. The objective of the therapeutic strategies reviewed is to improve the health and function of all periodontal attachment structures rather than only bone in isolation.

Pharmacology of Analgesics: Clinical Considerations (CE442) (AGD Topic 016)

Continuing Dental Education Units: 3 hours

Anita Aminoshariae, DMD, MS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

Participants in this course will be introduced to evidence-based information related to the basic mechanisms of pain, the pharmacology of analgesics, and the rationale for the selection of an analgesic for the treatment of acute odontogenic pain.

Pharmacology of Local Anesthetics: Clinical Implications (CE449) (AGD Topic 016)

Continuing Dental Education Units: 3 hours

M. Louay Taifour, DDS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

Participants in this course will be introduced to evidence-based information related to the basic mechanisms of pain, the pharmacology of local anesthetic agents, and the rationale for the selection of a local anesthetic agent for perioperative anesthesia.

Pharmacology of Systemic Antibacterial Agents: Clinical Implications (CE450) (AGD Topic 016)

Continuing Dental Education Units: 3 hours

Leena Palomo, DDS, MSD; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Participants in this course will be introduced to evidence-based information related to the microbiology of odontogenic infections, the pharmacology of systemic antibacterial agents, and the rationale for the selection of an antibacterial agent for the treatment of odontogenic infections.

Pit & Fissure Sealants: The Added Link in Preventive Dentistry (CE128) (AGD Topic 430)

Continuing Education Units: 2 hours

Mary Ann Haisch, RDH, MPA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course presents an overview of dental pit and fissure sealants as a safe and effective way to prevent dental caries. The course starts with a brief look at the history of dental sealants followed by the current rationale for their use. Frequently asked questions about sealants are addressed along with the presentation of guidelines for sealant use. Information about materials currently used for sealants is presented along with general instructions for the successful placement of sealants. The use of sealants in public health programs is also addressed.

Power Toothbrushes: Everything You Need to Make Informed Recommendations for Your Patients (CE89) (AGD Topic 557)

Continuing Education Units: 3 hours

Ginger B. Mann, BSDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Power brushes are designed to facilitate the removal of bacterial plaque and food debris from the teeth and gingiva and to reduce calculus and stain accumulation. The information found in this continuing education course will arm the dental professional with information and resources needed to make effective power brush recommendations that motivate patients and boost brushing compliance.

Practical Panoramic Radiography (CE71) (AGD Topic 731)

Continuing Education Units: 3 hours

William C. Scarfe, BDS, FRACDS, MS; Gail F. Williamson, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This continuing education course is intended for general dentists, dental hygienists and dental assistants certified to operate x-ray equipment as well as students enrolled in dental and allied dental educational programs. The primary focus of this course is to broaden awareness of panoramic radiographic technique, error recognition and error correction.

Practice in Motion (CE366) (AGD Topic 770)

Continuing Education Units: 4 hours

Jacquelyn M. Dylla, PT, DPT; Jane L. Forrest, EdD, RDH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course is designed to educate dental professionals about efficient sitting positions and movements that assist with minimizing occupational pain and/or injury. As part of this course, we will examine why many practitioners need to change how they sit, discuss common postures/habits that contribute to life long pain and the consequences of not changing.

Prevention and Management of Oral Complications of Cancer Treatment: The Role of the Oral Health Care Team (CE129) (AGD Topic 754)

Continuing Education Units: 2 hours

ADAA 2000 Council Members

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course provides the dental team with information about potential oral complications and how these potentially serious problems can be prevented or managed.

Promoting the Patient Oral Self-Assessment (CE347) (AGD Topic 730)

Continuing Education Units: 2 hours

Nancy W. Burkhart, BSDH, MEd, EdD; Leslie DeLong, BS, MHA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This continuing education course is intended to give the dental practitioner a helpful guide that may be used to teach patients to perform an oral examination.

Prosthesis Retention and Effective Use of Denture Adhesive in Complete Denture Therapy (CE360) (AGD Topic 670)

Continuing Education Units: 2 hours

David R. Cagna, DMD, MS; Joseph J. Massad, DDS

Intended Audience: Prosthodontists, Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will review epidemiologic data on the growing older adult population and its impact on the need for complete denture therapy today and in the future. The challenges faced by the profession with respect to managing edentulism in this older adult population will also be considered. Finally, the therapeutic utility of denture adhesives, appropriate adhesive application to denture bases, and recommendations for denture and oral hygiene will be discussed and illustrated.

Radiation Biology, Safety and Protection for Today's Dental Team (CE399) (AGD Topic 731)

Continuing Dental Education Credits: 5 hours

Gail F. Williamson, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will provide an overview of radiation biology and the safety and protection measures that the dental team can implement to reduce radiation exposure to dental patients as well as minimize occupational exposure. This information applies to both film-based and digital radiography.

Radiographic Techniques for the Pediatric Patient (CE63) (AGD Topic 430)

Continuing Education Units: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The purpose of this course is to provide a discussion on the guidelines for radiographic exposure intervals for the reduction of ionizing radiation and innovative techniques that are helpful in conducting radiographic examinations for the pediatric patient. Also, suggestions for communicating with patients and parents about radiation safety and the need for radiographs are covered.

Recognizing and Managing Eating Disorders in Dental Patients (CE321) (AGD Topic 750)

Continuing Education Units: 2 hours

Cynthia A. Stegeman, RDH, MEd, RD, CDE; Lynne H. Slim, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

An increasing number of people, mostly girls and women, are struggling with eating disorders. Research has shown that there are now over 70 million individuals affected by eating disorders worldwide. Dental professionals have been recognized with important roles in the secondary prevention of eating disorders which includes early detection, patient-specific oral treatment, and referral for care. It is also recognized that increasing the number of oral healthcare professionals who are involved in secondary prevention behaviors is essential in helping those individuals with eating disorders that are in need of identification.

Saliva: Liquid Magic (CE414) (AGD Topic 730)

Constance Schuster, RDH, BS; Géza T. Terézhalmy, DDS, MA

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will detail the salutary effects of saliva on oral health. Flashbacks to basic biomedical sciences will set the stage for a practical understanding of this most intriguing body fluid and its relevance to clinical dentistry. The course will navigate through the physiology of salivary function, discuss the functional components of saliva, present the clinical consequences of hyposalivation, and present strategies to reestablish health.

Salivary Gland Dysfunction: Etiology, Epidemiology, Clinical Manifestations, Diagnosis, and Treatment (CE385) (AGD Topic 730)

Vidya Sankar, DMD, MHS; Géza T. Terézhalmy, DDS, MA

Continuing Dental Education Credits: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Salivary gland dysfunction may be characterized by either hyposalivation or hypersalivation. To provide competent care to patients with salivary gland dysfunction, clinicians must understand its many causes and associated complications, and develop preventive and therapeutic strategies accordingly. This course presents the etiology, epidemiology, clinical manifestations, diagnosis, and treatment of salivary gland dysfunction.

Setting It Straight – Advanced Orthodontics (CE326) (AGD Topic 370)

Continuing Education Units: 3 hours

Lori Garland Parker, MAOM, RDAEF

Intended Audience: Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The goal of this course is to familiarize dental professionals with the more advanced aspects of orthodontics.

Smiles for Tomorrow (CE4) (AGD Topic 430)

Continuing Education Units: 4 hours

American Academy of Pediatric Dentistry

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Office Managers, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course has been developed in cooperation with the American Academy of Pediatric Dentistry and is designed to offer pediatric oral health information. The topics reviewed include: normal oral structures, common oral conditions, eruption patterns, dental caries and prevention, and orofacial trauma. Upon completion of this course the user will better understand appropriate evaluation, treatment, and preventive measures that should be instituted during infancy and continued on a regular basis to maintain optimal health.

Snoring and Obstructive Sleep Apnea: Diagnosis and Treatment (CE448) AGD Topic 160)

Continuing Dental Education Units: 1 hour

Tija Hunter, CDA, EFDA, FADAA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Sleep apnea is considered a life threatening medical disorder in which a person stops breathing during sleep. The Institute of Medicine reports that 50 to 70 million Americans suffer from chronic sleep disorders including sleep apnea. This course presents dental professionals with an overview of the signs, symptoms and treatment options of patients with snoring and obstructive sleep apnea disorder.

Special Needs Care in Dentistry for Children (CE386) (AGD Topic 436)

Continuing Education Units: 1 hour

Ivonne Ganem, DMD, MPH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Over nine million US children and adolescents age 17 and under have a special health care need. This is 13% of the population. This course will provide an overview of the importance of the oral health care workforce under the current health care system for the special needs pediatric patient and the techniques necessary to successfully treat special needs pediatric patients.

Sports-Related Injuries and Sports Dentistry (CE127) (AGD Topic 154)

Continuing Education Units: 2 hours

Wendy Schmeling Smith, RDH, BSEd; Connie Myers Kracher, CDA, BSEd

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Whether for exercise, competition or the simple enjoyment of participating, increasing numbers of health conscious Americans are involved in sporting activities. This course is designed to explain the various sports-related dental injuries, discuss the three types of mouth guards utilized and the dental team's role in sports-related injuries and sports dentistry.

Squamous Cell Carcinoma of the Oral Tissues: A Comprehensive Review for Oral Healthcare Providers (CE83) (AGD Topic 739)

Continuing Education Units: 2 hours

Samer A. Bsoul, BDS, MS; Michael A. Huber, DDS; Géza T. Terézhalmy, DDS, MA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Annually, over 28,000 cases of oral and pharyngeal carcinoma are diagnosed in the United States. Oral health care providers can be instrumental in reducing the incidence of oral and pharyngeal premalignant and malignant lesions by identifying patients with high-risk behavior, educating their patients about the consequences of their high-risk behavior, and by early detection of premalignant and malignant conditions. To facilitate early diagnosis, oral health care providers must take into consideration the capriciousness of oral cancer and must be familiar with the availability and application of diagnostic modalities beyond conventional visual inspection and palpation of oral soft tissues.

Strategies for Developing a Quality Course: Teaching Methodologies/Faculty Development (CE398) (AGD Topic 149)

Cynthia C. Gadbury-Amyot, MSDH, EdD

Continuing Dental Education Credits: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants

This continuing education course will introduce participants to the latest strategies for course design with a focus on integration with curriculum and program competencies. A 360 degree approach to course design will be examined showing the linkages between learning goals, teaching and learning activities, assessment, feedback and subsequent revision for continuous course improvement.

Strategies for Searching the Literature Using PubMed (CE340) (AGD Topic 130)

Continuing Education Units: 3 hours

Jane L. Forrest, EdD, RDH; Syrene A. Miller, BA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This continuing education course is a follow up to the course, *Evidence-Based Decision Making: Introduction and Formulating Good Clinical Questions*. The primary learning objectives for this course are to increase your skills in conducting an efficient computerized search using PubMed to answer a specific clinical question, the second step of the Evidence-based process.

Surgical Complications with Dental Implants (CE439) (AGD Topic 496)

Charles J. Goodacre, DDS, MSD

Continuing Dental Education Units: 2 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Surgical complications of dental implants that have been reported are discussed along with the factors that increase the potential for these complications to occur and the anatomic knowledge needed to reduce or minimize such complications.

The Business of Dentistry: Financial Management for the Dental Office (CE389) (AGD Topic 550)

Continuing Education Units: 4 hours

Natalie Kaweckyj, LDARF, CDA, CDPMA, COA, COMSA, MADAA, BA; Wendy Frye, CDA, RDA, FADAA; Lynda Hilling, CDA, MADAA; Lisa Lovering, CDA, CDPMA, MADAA; Linette Schmitt, CDA, RDA, MADAA; Wilhemina Leeuw, CDA, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This financial management course focuses on how a dental practice protects information, receives monies for services rendered, and makes payments to outside entities. Upon completion of this course, the dental professional will be able to apply standard financial procedures to any dental practice.

The Business of Dentistry: Patient Appointments and Scheduling (CE426) (AGD Topic 560)

Natalie Kaweckyj, LDARF, CDA, CDPMA, COMSA, CPFDA, MADAA, BA; Wendy Frye, CDA, RDA, FADAA; Lynda Hilling, CDA, MADAA; Lisa Lovering, CDA, CDPMA, MADAA; Linette Schmitt, CDA, RDA, MADAA; Wilhemina Leeuw, MS, CDA

Continuing Dental Education Units: 3 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Office Managers, Dental Students, Dental Hygiene Students, Dental Assistant Students

This appointment management course focuses on the many procedures and appointments offered by today's dental offices. The business assistant must have a basic working knowledge of these procedures and therefore maintain an efficient office scheduling system.

The Business of Dentistry: Patient Records and Records Management (CE390) (AGD Topic 550)

Continuing Education Units: 4 hours

Natalie Kaweckyj, LDARF, CDA, CDPMA, COA, COMSA, MADAA, BA; Wendy Frye, CDA, RDA, FADAA; Lynda Hilling, CDA, MADAA; Lisa Lovering, CDA, CDPMA, MADAA; Linette Schmitt, CDA, RDA, MADAA; Wilhemina Leeuw, CDA, BS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course focuses on several office and management responsibilities including the attainment of complete and accurate records and their legal ramifications with regards to risk management, storage and patient consent. The dental professional must have a basic working knowledge of these procedures to maintain all office records.

The Business of Dentistry: Practice Administration (CE425) (AGD Topic 550)

Natalie Kaweckyj, LDARF, CDA, CDPMA, COMSA, CPFDA, MADAA, BA; Wendy Frye, CDA, RDA, FADAA; Lynda Hilling, CDA, MADAA; Lisa Lovering, CDA, CDPMA, MADAA; Linette Schmitt, CDA, RDA, MADAA; Wilhemina Leeuw, MS, CDA

Continuing Dental Education Units: 3 hours

Intended Audience: Dentists, Dental Assistants, Office Managers, Dental Students, Dental Assistant Students

This practice administration course focuses on the many office and management responsibilities, including tips on success, hiring and termination procedures, and communication in today's dental offices. The practice administrator must have a basic working knowledge of these procedures to maintain an efficient and productive staff.

**The Complete Denture Prosthesis: Clinical & Laboratory Applications
Baseline Data & Prognostic Indicators (CE102) (AGD Topic 670)**

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS; Joseph E. Grasso, DDS, MS; Kenneth S. Barrack, DDS

Intended Audience: Dentists, Dental Students

The first of a multi-part series, this course focuses on the range of data that must be compiled and assessed at the onset of treatment and presents the rationale and procedures for making preliminary impressions.

**The Complete Denture Prosthesis: Clinical & Laboratory Applications
The Patient Analog, Part 1: Final Impressions (CE106) (AGD Topic 670)**

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS; Joseph E. Grasso, DDS, MS; Kenneth S. Barrack, DDS

Intended Audience: Dentists, Dental Students

The second of a multi-part series, this course will review procedures and rationale for fabricating and evaluating the custom tray, for refining its borders in the mouth, for assessing the quality of the impression, and for ensuring the formation of a well-extended and durable master cast.

**The Complete Denture Prosthesis: Clinical & Laboratory Applications
The Patient Analog, Part 2: Intermaxillary Relations Records (CE107) (AGD Topic 670)**

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS; Joseph E. Grasso, DDS, MS; Kenneth S. Barrack, DDS

Intended Audience: Dentists, Dental Students

The third of a multi-part series, this course will describe: designing and fabricating baseplates and occlusion rims; determining the location and orientation of the occlusal plane and the occlusal vertical dimension; accurately recording centric relation; and transferring this record to an articulator.

**The Complete Denture Prosthesis: Clinical & Laboratory Applications
Fabricating the Trial Denture (CE108) (AGD Topic 670)**

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS; Joseph E. Grasso, DDS, MS; Kenneth S. Barrack, DDS

Intended Audience: Dentists, Dental Students

The fourth of a multi-part series, this course will review the factors that have been found to be most useful in selecting and arranging teeth, developing the occlusal scheme, and designing the posterior palatal seal.

The Complete Denture Prosthesis: Clinical & Laboratory Applications

Insertion, Patient Adaptation, and Post-Insertion Care (CE109) (AGD Topic 670)

Continuing Education Units: 2 hours

Kenneth Shay, DDS, MS; Joseph E. Grasso, DDS, MS; Kenneth S. Barrack, DDS

Intended Audience: Dentists, Dental Students

The fifth of a multi-part series, this course will review the steps that must be accomplished before the patient is dismissed with the new dentures, the essential elements of appropriate patient education about the new prostheses, and guidelines for diagnosing and addressing post-insertion problems that are most likely to be encountered.

The Dental Assistant's Role in Preventing Family Violence (CE124) (AGD Topic 156)

Continuing Education Units: 3 hours

Lynn Douglas Mouden, DDS, MPH, FICD, FACD

Intended Audience: Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This continuing education course will provide information regarding the dental assistant's role in preventing family violence. Through the understanding of what causes family violence and learning the definitions of child abuse and neglect, the dental assistant will also learn the protocol for properly identifying suspected cases of child abuse and neglect. This course will help the dental assistant understand the common symptoms that may mimic abuse and the differences in intervening in family violence cases involving adults. Additionally, the assistant should become very familiar with local and state dental initiatives to prevent family violence.

The Dental Implications of Long-Term GERD and the Development of Esophageal Cancer (CE416) (AGD Topic 770)

Continuing Dental Education Units: 2 hours

Nancy W. Burkhart, BSDH, M.Ed., EdD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course presents key factors related to the early signs of both hard and soft tissue damage in the mouth related to gastroesophageal reflux disease (GERD).

The Dental Staff's Management of Medical Emergencies (CE131) (AGD Topic 142)

Continuing Education Units: 5 hours

Sue Protzman; Jeff Clark, MS, REMT-P; Wilhemina Leeuw, MS, CDA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Medical emergencies can occur at any time in the dental office. The best way to handle an emergency is to be prepared in advance. This course reviews how to handle medical emergencies and should make the dental professional more confident in his or her ability to handle all aspects of the job.

The Dental Team's Role in Identifying and Preventing Family Violence (CE432) (AGD Topic 437)

Continuing Dental Education Units: 3 hours

Lynn Douglas Mouden, DDS, MPH, FICD, FACD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This continuing education course will provide information regarding the dental team's role in identifying and preventing family violence. Through the understanding of what causes family violence and learning the definitions of child abuse and neglect, the dental team will also learn the protocol for properly identifying suspected cases of child abuse and neglect. This course will help the dental team understand the common symptoms that may mimic abuse and the differences in intervening in family violence cases involving adults. Additionally, the dental team should become very familiar with local and state dental initiatives to prevent family violence.

The Detection and Management of Temporomandibular Joint Disorders in Primary Dental Care (CE395) (AGD Topic 182)

Continuing Dental Education Credits: 2 hours

Kimberly Hanson Huggins, RDH, BS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

The course provides information about Temporomandibular Disorders (TMD), suggested patient history questions, clinical examination criteria, and methods of treatment and how to help patients self-manage their TMD pain and symptoms under the guidance of the dental professional.

The Flu.....and You: A Novel Challenge with 2009 H1N1 Influenza A (CE355) (AGD Topic 148)

Continuing Dental Education Credits: 2 hours

Nancy Andrews, RDH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants

Dental healthcare workers will undoubtedly be exposed to both 2009 H1N1 (previously called "Swine Flu") and seasonal influenza. Every dental team member must take necessary precautions to avoid illness, maintain a safe office environment for both the dental team and its patients and keep current on new strains of influenza and other respiratory illnesses. A program should be put in place in every dental office that screens patients for aerosol transmitted diseases (ATD). Understanding the symptoms, risks and how to deal with them can avoid panic, illness and even death. This course will describe the various strains of influenza, suggest how to recognize flu, and present facts about prevention and treatment of the flu.

The Importance of Pharmacology in the Delivery of Quality Dental Care (CE329) (AGD Topic 730)

Continuing Education Units: 5 hours

Mary Govoni, CDA, RDA, RDH, MBA; Richard L. Wynn, PhD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course provides the dental professional with a broad overview of various categories of drugs and their implications for dental patients and treatment.

The Intraoral and Extraoral Exam (CE337) (AGD Topic 739)

Continuing Education Units: 3 hours

Nancy W. Burkhart, BSDH, MEd, EdD; Leslie DeLong, RDH, AS, BSHS, MHA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will introduce the protocol for a complete oral cancer screening with proper techniques for both the intraoral and extraoral exam; provide some patient education information, as well as information on some adjunct considerations that may be utilized in lesion detection and lastly, to suggest that all patients be told they are actually receiving a complete oral screening exam.

The Many Faces of Oral Lichen Planus (CE313) (AGD Topic 739)

Continuing Education Units: 3 hours

Nancy W. Burkhart, BSDH, MEd, EdD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will increase awareness and understanding by dental health personnel in the matter of Lichen planus. Lichen planus is a mucocutaneous disease affecting approximately 1.5 to 2% of the world population. The course of the disease is usually unpredictable with bouts of remission and exacerbation being common.

The Patient with Special Needs: General Treatment Considerations (CE384) (AGD Topic 754)

Janet Jaccarino, CDA, RDH, MA

Continuing Education Units: 3 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Patients with disabilities, who make up a large segment of the population, are often overlooked when it comes to oral health care for a variety of reasons. However, it is our responsibility as dental health care professionals to meet the needs of this very special group of patients. By taking this course the dental

professional will be able to recognize the patient with special needs, understand the oral health issues facing patients with disabilities, and implement simple design changes to treat these patients.

Therapeutic Mouthrinsing: An Effective Component to Oral Hygiene (CE317) (AGD Topic 730)

Continuing Education Units: 1 hour

Pam Hughes, RDH, BS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Brushing and flossing remain the preferred method for plaque control. Unfortunately, many patients lack the motivation or ability to maintain low plaque levels, leading to periodontal disease, dental caries and other oral health conditions. Chemotherapeutic rinses provide a convenient, cost-effective way to enhance plaque control achieved with mechanical hygiene. This course reviews three common agents used in chemotherapeutic rinses and recommends factors to consider when advising patients to add a rinse to their oral hygiene routine.

Treating Patients with Autism in a Dental Setting (CE402) (AGD Topic 750)

Continuing Dental Education Units: 3 hours

Josalyn Sewell, RDH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Autism affects 1 in 88 US children. It is more common than pediatric AIDS, diabetes, and cancer combined. Individuals with autism have difficulties with communication, social interaction and sensory processing. These characteristics pose very unique challenges in a dental setting. This course will give all team members a better understanding of the disorder and prepare professionals for the rewarding experience of helping patients with autism.

Treatment Guidelines for Determining When to Extract a Tooth and Place a Dental Implant versus Retain the Endodontically Treated Teeth (CE437) (AGD Topic 690)

Continuing Dental Education Units: 3 hours

Charles J. Goodacre, DDS, MSD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course discusses the factors that must be considered when deciding whether to retain a tooth or extract it and place a dental implant. Available science and clinical experience are included in the presentation.

Treatment of an Edentulous Patient with a Dry Mouth (CE20) (AGD Topic 752)

Continuing Education Units: 4 hours

Kenneth Shay, DDS, MS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

The primary learning objective for this course is to increase general knowledge and skills in the dental management of the complete denture patient with a dry mouth.

Understanding Asthma Patients in the Dental Office (CE408) (AGD Topic 750)

Barbara Fried, RDH, MBA

Continuing Dental Education Units: 1 hour

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This continuing education course provides information to assist clinicians in understanding the patient with asthma and the implications for the care of asthmatics in the dental office. This course includes an overview of the respiratory system, the manifestations and epidemiology of asthma, measures for ongoing assessment and control, and implications for the dental practice.

Understanding Nicotine Addiction and Tobacco Intervention Techniques for the Dental Professional (CE51) (AGD Topic 158)

Continuing Education Units: 3 hours

Arden G. Christen, DDS, MSD, MA; Jennifer A. Klein, RDH, MSA; Stephen J. Jay, MD; Joan A. Christen, BGS, MS; James L. McDonald, Jr., PhD; Christianne J. Guba, DDS, MSD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The purpose of this course is to alert dental professionals to the harmful effects of tobacco, both to the oral cavity and to the body. The course is also designed to teach professionals specific skills they may use to help tobacco users become free of their addiction.

Understanding the Dangers and Health Consequences of Spit Tobacco Use (CE120) (AGD Topic 158)

Continuing Education Units: 3 hours

Susan C. Dodd, RDH, BA

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course reviews the reasons the dental team is in an ideal position to use the "teachable moments" that occur during a dental visit to counsel their patients on the dangers of tobacco use while supporting them in their cessation efforts.

Using Research for Clinical Decision-Making: Elements of a Research Report (CE45) (AGD Topic 130)

Continuing Education Units: 2 hours

Ann L. McCann, RDH, MS; Emet D. Schneiderman, PhD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course describes the parts of a research report and the information that should be contained within each section. This will guide practitioners in their review of research articles so that they can identify the specific research questions/hypotheses being explored and what was discovered about them. These skills will help dental healthcare providers decide whether or not to incorporate these research findings into their patient therapy and practice procedures.

Using Research for Clinical Decision-Making: Evaluating a Research Report (CE46) (AGD Topic 130)

Continuing Education Units: 2 hours

Ann L. McCann, RDH, MS; Emet D. Schneiderman, PhD

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The course describes the criteria for judging the quality of a research report and provides guidelines for interpreting the research information. These skills will help dental health care providers decide whether or not to incorporate the research findings into their patient therapy and practice procedures.

When Teeth are Retained through Root Canal Treatment, What are the most Critical Factors that Guide Successful Restoration? (CE438) (AGD Topic 70)

Charles J. Goodacre, DDS, MSD

Continuing Dental Education Units: 3 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

This course will provide answers to the most pertinent questions regarding the contemporary principles that guide the restoration of endodontically treated teeth.

Wired for Learning - Orthodontic Basics (CE365) (AGD Topic 370)

Lori Garland Parker, BS, MAOM, RDAEF, CDA, COA

Continuing Education Units: 3 hours

Intended Audience: Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

Orthodontics specializes in the diagnosis, prevention and treatment of dental and facial irregularities, but from a patient's view, it simply creates great smiles! This course introduces the basics of orthodontics, with the goal of peaking interest in this specialty of dentistry, and providing education to springboard an individual considering a career in this specialty.

Xerostomia: A Continuing Challenge for Oral Healthcare Professionals (CE96) (AGD Topic 750)

Continuing Education Units: 2 hours

Lynne H. Slim, RDH, BSDH, MSDH; Cheryl Thomas, RDH

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assistant Students

The care administered by healthcare professionals should be guided by evidence-based decision making and practice recommendations. The purpose of this course is to provide information on Xerostomia, or dry mouth, a rapidly growing problem in the U.S. population, and a xerogenic condition that has a variety of possible causes. Clinical guidelines for oral treatment and dental caries prevention in patients with chronic xerostomia are complicated by new products and therapies and need to be updated by dental teams on an annual basis.

X-ploring Metabolic Syndrome (CE388) (AGD Topic 750)

Continuing Dental Education Credits: 3 hours (

Sandra D'Amato-Palumbo, RDH, MPS; Melissa Janeiro, RDH, BS; Renee Prajer, RDH, MS; Gwen Grosso, RDH, MS

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

The primary goal of this course is to educate oral health care professionals about the emerging diagnosis and prevalence of patients with **Metabolic syndrome (MetS)**, and its impact on oral and systemic health. The secondary goal is to present practical and evidence-based clinical guidelines and strategies that can assist oral health care professionals when treating patients with **MetS** and/or its associated risk factors. Comprised of a group of co-existing risk factors, this syndrome predisposes patients to coronary artery disease, stroke, and type 2 diabetes mellitus.

You Have Your License – Now What? Career Strategies for the New Dentist (CE412) (AGD Topic 556)

Continuing Dental Education Units: 2 hours

Steven Schwartz, DDS

Intended Audience: Dentists, Dental Students

Date Course Online: Apr 14, 2013

Course Expiration Date: Apr 13, 2016

After years of preparation - college, dental school, post graduate training, you have obtained or are about to obtain your dental license and begin your dental career. Among dentistry's advantages as a career choice are that there are multiple alternatives to achieving personal and financial success; private practice ownership, association in small or large practice, public health dentistry, teaching and research. Each choice has its advantages and disadvantages as well shared and individual strategies to achieve success.

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Scott County Dental Society		
Contact Person: Danae Krutzfeldt DDS		
City: Davenport	State: IA	Zip: 52807
Phone: 563-359-5510	Fax: 563-359-3051	
Email: danaelynn@yahoo.com	Website Address: www.qcdentistry.com	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. Rachael Martin - President

Dr. Danae Krutzfeldt - Secretary/Treasurer

Number of courses offered in 2013: 2

Number of courses offered 2014*: 2
*To date

Average number of attendees: 60

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: CPR

Name of Sponsor: Oral Arts

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
4/5/2013	Endodontic Aspects of Traumatic Injuries to Perm. teeth	Dr. Manuel Gomez	The Lodge Bettendorf, IA	4
10/14/2014	Drug Related Problems in Dental Practice	Ms. Karen Baker	The Lodge Bettendorf, IA	4
2/2014	CPR	FCS Emergency consulting	The Lodge Bettendorf, IA	2
3/28/2014	Possibilities in Dentistry; Cosmetic Restorative and Implant Dentistry	Dr. David Little	The Lodge Bettendorf, IA	6

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Danae Krutzfeldt
 Address: 3475 Jersey Ridge Rd, Davenport, IA 52807 Phone: 563-359-5510
 Signature: Danae Krutzfeldt Date: 6/19/2014

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

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Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Sioux City Dental Society		
Contact Person: Julie Lohr DDS		
City: Sioux City		State: Iowa
Phone: 712-255-1163		Zip: 51104
Fax: 712-252-6157		
Email: frontdesk@lohrfamilydentistry.com		Website Address: siouxcitydentalociety.wordpress.com

Immediate Past Pres.	- Dr. Clint Norby	301 Oak Tree Lane Dakota Dunes, SD 57049	5095	605-242-0107
President	- Dr. Mike Wheatley	2929 Hamilton Blvd. Lower E Sioux City, IA 51104		712-258-3636
Vice President	- Dr. Julie Lohr	2918 Hamilton Blvd. suite 101 Upper D Sioux City, IA 51104		712-255-1163
Secretary	- Dr. Amber Wisner	150 Tower Rd. Ste. 100 Dakota Dunes, SD 57049		1-800-745-8829
Treasurer				

Number of courses offered in 2013: 6 Number of courses offered 2014*: 6

Average number of attendees: 300-500 depending on the course

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Sioux City Dental Society

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:

see attached sheets please

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Julie Lohr DDS
 Address: 2918 Hamilton Blvd. Upper D suite 101 Sioux City, IA 51104 Phone: 712-255-1163
 Signature: Julie A. Lohr Date: 6/25/2014

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

Sioux City Dental Society, Inc.

www.scdentalsociety.com



2012-2013 Program Schedule

The Sioux City Dental Society, Inc. is a non-profit organization dedicated to providing excellent continuing education programs for the Siouxland dental community. Continuing education credit hours are endorsed through the Academy of General Dentistry. 3.0 credit hours are available for attending only the morning session and 6.0 hours for attending the entire day's program.

- October 19, 2012** *8:00-10:00 am **Dr. Axel Ruprecht** Radiology Update (2 CE)
October 19, 2012 **Drs. David and Richard Madow** (NO CE Credit except for South Dakota)
How to Love Dentistry, Have Fun and Prosper!
The Madow Brothers lecture begins at the usual time of 9:00am
- November 9, 2012** **Dr. Douglas Young**
The Art and Science of CAMBRA: A team approach using chemical treatments and minimally invasive dentistry (6 CE)
- January 11, 2013** **Dr. Martin Goldstein**
Essential Anterior Dentistry: Digital Portrait to Finished Case (6 CE)
- February 8, 2013** **Dr. Barbara Steinberg**
Medically Complex Dental Patients: A Team Approach to Treatment (6CE)
- March 8, 2013** **Dr. Todd Shatkin**
Mini Dental Implant Training with the Results of a Ten Year Mini Dental Implant Study (6 CE)

Location: Marina Inn & Conference Center, 4th and B Streets, South Sioux City, NE
(Continental breakfast served with each program)

Time: Registration begins at 8:30 am. Program begins at 9:00am (Ends b/t 3- 4pm)

*Registration for the Radiology course on October 19 begins at 7:30 am

Dues: Entire program year membership (October to March) - **\$350 per doctor**
Individual program - **\$175 per doctor** (includes staff for that meeting only)

Staff of Sioux City Dental Society member doctors may attend meetings at no additional cost

Staff not employed by a Sioux City Dental Society member doctor - **\$30 each per meeting**

Officers:	Shawn Walton, DDS	Past President	712-255-7607	waltondocw@aol.com
	Jane Lilly, DDS	President	712-239-5125	janedds99@gmail.com
	Clinton Norby, DDS	Vice President	605-242-0107	cnorb001@gmail.com
	Mike Wheatley, DDS	Secretary/treasurer		drwheatley@siouxlan.net

Look for schedule changes, announcements and lecture handouts at www.scdentalsociety.com

Send checks payable to Sioux City Dental Society, Inc. and registration form to: Sioux City Dental Society
PO Box 1403
Sioux City, IA 51102

.....
For 2012-2013 program registration, please return this portion with appropriate registration fee:

Name: _____ Email: _____

Address: _____ Phone #: _____

Sioux City Dental Society, Inc.

www.scdentalsociety.com



2014-2015 TENTATIVE Program Schedule

The Sioux City Dental Society, Inc. is a non-profit organization dedicated to providing excellent continuing education programs for the Siouxland dental community. Continuing education credit hours are endorsed through the Academy of General Dentistry. 3.0 credit hours are available for attending only the morning session and 6.0 hours for attending the entire day's program.

- October 3, 2014** **Dr. Gordon Christensen**
Practical Clinical Courses in Dentistry (6 CE)
- November 14, 2014** **Dr. Karen Baker** Pharmacology Update (6 CE)
WITCC Instructors Radiology Update (3 CE)
- January 9, 2015** **Dr. Leif K. Bakland**
Dental Trauma: Problems, Solutions, and Expectations (6 CE)
- February 13, 2015** **Dr. Robert E. Marx**
Oral Pathology Recognition: Treatment vs. Referral (6 CE)
- March 13, 2015** **Dr. Michael Kanellis**
Current Topics in Pediatric Dentistry (6 CE)

Location: Marina Inn & Conference Center, 4th and B Streets, South Sioux City, NE
(Continental breakfast served with each program)

Time: Registration begins at **8:30 am**. Program begins at **9:00 am** (Ends b/t 3- 4pm)

Dues: Entire program year membership (October to March) - **\$350 per doctor**
Individual program - **\$175 per doctor** (includes staff for that meeting only)
Staff of Sioux City Dental Society member doctors may attend meetings at no additional cost
Staff not employed by a Sioux City Dental Society member doctor - **\$30 each per meeting**

Officers:	Jane Lilly, DDS	Past President	712-239-5125	janedds99@gmail.com
	Clinton Norby, DDS	President	605-242-0107	cnorb001@gmail.com
	Mike Wheatley, DDS	Vice President	712-258-3436	drwheatley@siouxlan.net
	Julie Lohr, DDS	Secretary/Treasurer	712-255-1163	julie@lohfamilydentistry.com

Look for schedule changes, announcements and lecture handouts at www.scdentalsociety.com

Send checks payable to **Sioux City Dental Society, Inc.** and registration form to: Sioux City Dental Society
PO Box 1403
Sioux City, IA 51102

.....
For 2013-2014 program registration, please return this portion with appropriate registration fee:

Name: _____ Email: _____

Address: _____ Phone #: _____

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>



Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <u>TALLCORN DENTAL SYMPOSIUM</u>		
Contact Person: <u>LARRY ALQUIST DDS</u>		
City: <u>HAMPTON</u>	State: <u>IOWA</u>	Zip: <u>50441</u>
Phone: <u>(641) 456-4666</u>	Fax: <u>(641) 456-5592</u>	
Email: <u>larryalquist@hotmail.com</u>	Website Address: <u>N/A</u>	

Name of Current Officer(s), Title(s), Address, Phone:

- 1) PRESIDENT - DR GEORGE NORTH
ALLISON, IA 50602 (641) 257-9016
- 2) SEC-TREAS - DR LARRY ALQUIST
109 3RD ST NE HAMPTON, IA 50441
(641) 456-4666

Number of courses offered in 2013: 2

Number of courses offered 2014*: 3

Average number of attendees: 6 or 7

*To date THERE WILL BE SEVERAL MORE COMING

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: TALL CORN DENTAL SYMPOSIUM

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
6-19-12	CASE PRESENTATIONS (PROSTHODONTICS)	DR. MIKE ARCURI	CEDAR FALLS, IA	2
9-27-12	DENTAL COMPLICATIONS OF HEAD + NECK RADIATION	DR. MIKE ARCURI	CEDAR FALLS, IA	2
10-30-12	VARIOUS ASPECTS OF PRACTICE ADMIN.	DR. FRED RIDDLE	CEDAR FALLS, IA	2
1-22-13	"ORAL PATHOLOGY"	DR. GEORGE NORTH	ALLISON IA	2
11-12-13	ANGIOEDEMA + BLOOD CLOTTING MECHANISMS	ROBERT THOMSEN PH.D.	MASON CITY IA	2
1-21-14	CERAMIC CROWNS	ORAL ARTS DENTAL LAB	CEDAR FALLS, IA	2
3-25-14	BISPHOSPHONATES IN DENTISTRY	DR. JOHN HARDINGER	ALLISON IA	2
3-25-14	CORRECTIVE ORTHO	DR. RACHEL HARDINGER	ALLISON IA	1

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: LARRY J. ALQUIST DDS

Address: 109 3RD ST NE HAMPTON IA 50441 Phone: (641) 456-4666

Signature: Larry J. Alquist DDS Date: 6-23-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D
Des Moines, IA 50309-4687

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION

IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>



Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: The University of Iowa College of Dentistry		
Contact Person: Ms. Penni Ryan		
City: Iowa City	State: IA	Zip: 52242-1010
Phone: 319-335-7166	Fax: 319-335-7155	
Email: penni-ryan@uiowa.edu	Website Address: www.dentistry.uiowa.edu/ce	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. David Johnsen Dean Univ. of Iowa College of Dentistry 319-335-7144

Dr. Galen Schneider Executive Associate Dean Univ. of Iowa College of Dentistry 319-335-7146

Ms. Penni Ryan Director of Continuing Education and Alumni Relations
Univ. of Iowa College of Dentistry 319-335-7166

Number of courses offered in 2013: 22

Number of courses offered 2014*: 7

*To date

Average number of attendees: 60

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

IOWA CDE

Continuing Dental Education 2011 – 2012

SEPTEMBER

2011

- 2/3 No Courses (Tennessee Tech) – Football Tickets Available – If interested, please contact Penni Ryan at 319-335-7166 or penni-ryan@uiowa.edu
- 16 **Clinical Approaches to Implant Temporization for Esthetic Implant Restorations/Hands-On** – Departments of Prosthodontics and Periodontics, Center for Implant Dentistry, Dental Clinical Research Center Supported by unrestricted educational grants from Astra Tech AB and Brasseler USA
Location: College of Dentistry
- 17 **Pregame Professional Program (Pittsburgh)**
Interesting Pathology Cases From the Oral and Maxillofacial Region – Dr. John Hellstein
Minimally Invasive Operative Dentistry Strategies – Dr. Justine Kolker
(All Pregame Programs supported by an unrestricted educational grant from Professional Solutions Insurance)
Location for all Pregame Programs: College of Dentistry
- 23 **Digital Impression and Chairside CAD/CAM Symposium/ Hands-On** – Dr. David Gratton
(Supported by unrestricted educational grants from Henry Schein and Patterson Dental)
Location: Holiday Inn and Conference Center
- 24 **Pregame Professional Program (LA-Monroe)**
Environmental Factors Driving Patient Food Choices and Diet Counseling in the Dental Office – Dr. Teresa Marshall

OCTOBER

- 14 **Alumni Day** – Presented by the Class of 1976
Oral-Systemic Health Link and the General Practitioner – An Update of Current Literature – Dr. Howard Cowen
Common Oral Lesions In Dental Practice – Dr. Michael Finkelstein
Dental Root Resorption – Dr. Thomas Peek
- 15 **Pregame Professional Program (Northwestern)**
Is Prevention Realistic for Aging and Elderly Frail Patients – Dr. Erin Lacey
Hot Button Topics in Infection Prevention – Dr. Carrie McKnight
- 21 **Pulpal Management of Young Permanent Teeth, Traumatic Injuries and MTA Uses** – Dr. Joe Camp
(Supported by an unrestricted educational grant from Dentsply Tulsa)
Location: Holiday Inn and Conference Center
- 22 **Pregame Professional Program (Indiana)**
Clinical Radiology Conference – Dr. Trishul Allareddy and Dr. Axel Ruprecht

NOVEMBER

- 4 **Pediatric Boot Camp Revisited** – Department of Pediatric Dentistry
Location: Holiday Inn and Conference Center
- 5 **Pregame Professional Program (Michigan)**
Early Oral Cancer and Chronic Mucositis – Dr. Michael Finkelstein
- 11 **Oral Surgery** – Department of Oral Surgery
Location: Holiday Inn and Conference Center
- 12 **Pregame Professional Program (Michigan State)**
Clinical Pathologic Conference – Dr. Sherry Timmons
New Prescription Drugs: Impact on Dental Practice – Professor Karen Baker

FEBRUARY

2012

- 10 **Program To Be Announced**
(A Distance Learning CE Program)
- 17 **Topic To Be Announced** – Professor Karen Baker
(A Distance Learning CE Program)

MARCH

- 2 **Program To Be Announced**
(A Distance Learning CE Program)

APRIL

- 14 **Nitrous Oxide (limited registration)** – Department of Periodontics

MAY

- 4-6 **IDA State Meeting**, Des Moines

JUNE

- 15 **Iowa Dental Reviews (Last Chance)** – College Faculty

WEB-BASED COURSES:

<http://www.dentistry.uiowa.edu/ce>

- ☛ *Infection Control, Meth Mouth, and Child and Elder Abuse Mandatory Training*
- ☛ *Article Reviews*

NOTE LOCATIONS FOR EACH COURSE

GENERAL INFORMATION

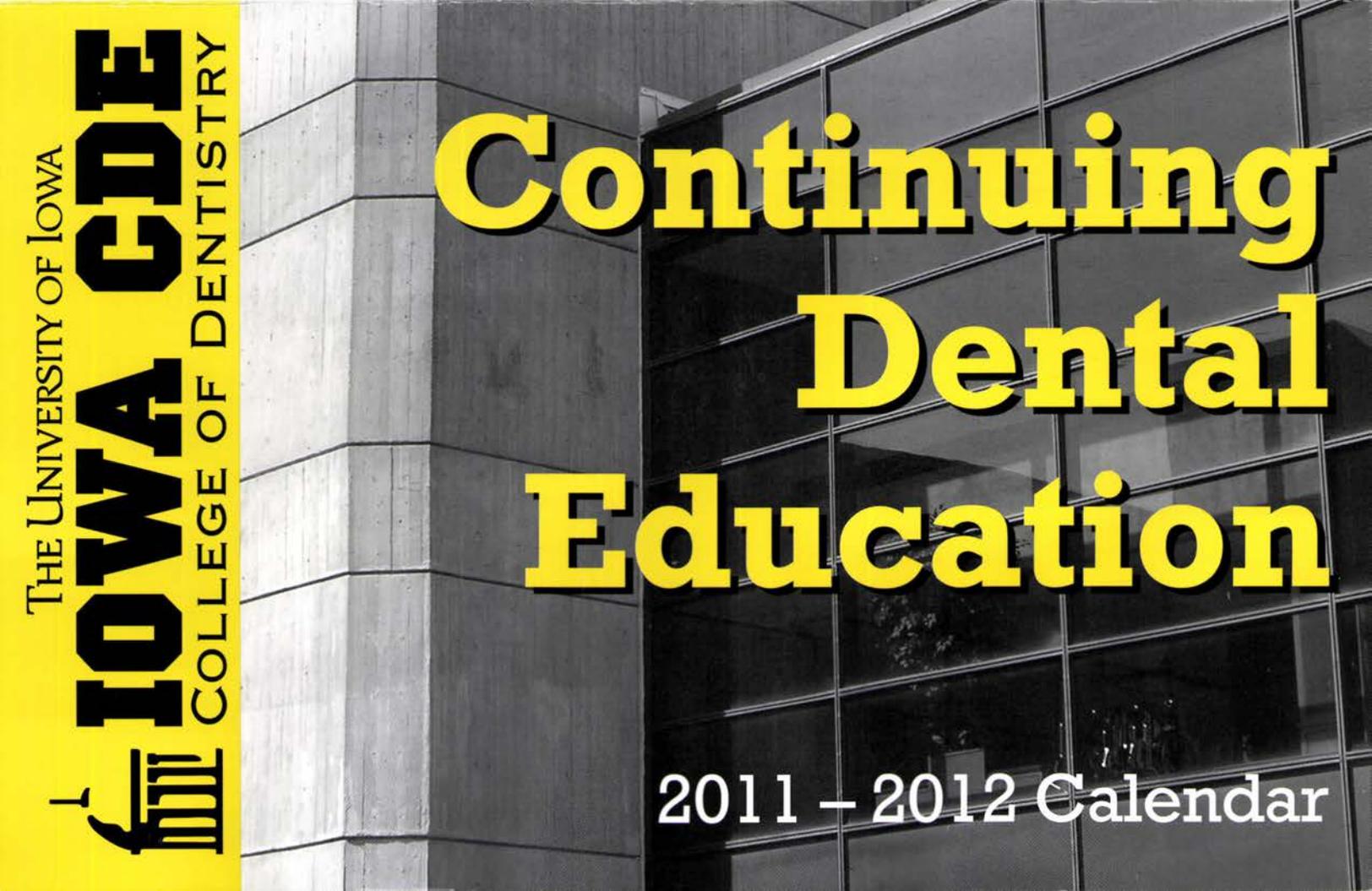
This is a preliminary announcement to assist you in planning your Continuing Education. Individual course brochures will be mailed approximately 8-10 weeks prior to course dates. Watch "Preview of Courses" for announcements of additional courses. For further information about Continuing Education programs, please contact Penni Ryan, Director of Continuing Education, The University of Iowa, 348 Dental Science Building N, Iowa City, IA 52242-1010, 319-335-7166, www.dentistry.uiowa.edu/ce or penni-ryan@uiowa.edu

Continuing Dental Education
THE UNIVERSITY OF IOWA
346 Dental Science N
Iowa City, Iowa 52242-1010

Nonprofit Organization
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University of Iowa

Continuing Dental Education
IOWA CDE
2011 – 2012 ANNUAL CALENDAR
<http://www.dentistry.uiowa.edu/ce>

THE UNIVERSITY OF IOWA
IOWA CDE
COLLEGE OF DENTISTRY



Continuing Dental Education

2011 – 2012 Calendar

All courses will be held at the College of Dentistry

****NEW: Online Registration. Go to: www.continuetolearn.uiowa.edu/UIConferences/ and click on available course.**

JULY 2012

- 28 **Implant Overdenture Therapy – Hands-On Course** – Drs. Clark Stanford, David Gratton, Christopher Barwacz and Steven Clark
(Supported by an unrestricted educational grant from Astra Tech AB, Molndal, Sweden)

AUGUST 31–SEPTEMBER 2

- 31-2 **Bus trip to Chicago for the Northern Illinois game.**
For trip information, please go to:
<http://www.dentistry.uiowa.edu/public/alumni/index.shtml>

SEPTEMBER

- 7 **AM: Xerostomia, Recurrent Herpes Simplex Virus Labialis, Aphthous Ulcers, Lichen Planus, and Burning Mouth Syndrome** – Dr. Susan Zunt
PM: Drug Induced Oral Diseases and Management of Common Oral Mucosal Diseases – Professor Karen Baker
- 8 **Pregame Professional Program (ISU)**
Helping Your Dry Mouth and Sjogren's Patients – Dr. Susan Zunt
- 14 **Clinical Decision Making in Endodontics: New Technology and Timeless Principles** – Dr. Robert Roda
(Supported by an unrestricted educational grant from Dentsply Tulsa)
- 15 **Pregame Professional Program (UNI)**
Current Cases from Iowa Oral Pathology – Dr. Michael Finkelstein
Local Anesthetics and Cardiac Issues – Dr. Jeanine Abrons
- 21 **Alumni Day** – Presented by the Class of 1982 – Drs. Paul Olin, Byron Wall and John Christensen
- 22 **Pregame Professional Program (Central Michigan)**
Special Clinical Techniques for the Geriatric and Special Needs Patient – Drs. Howard Cowen and Lindsey Cosper
- 28 **Creating Predictable Esthetics for Your Challenging Implant Patient** – Drs. Christopher Barwacz, David Gratton, Julie Holloway, Clark Stanford and Mr. Henry Husemann
(Supported by unrestricted educational grants from Astra Tech, Kerr Corporation and Brasseler USA)
- 29 **Pregame Professional Program (Minnesota)**
When to Order a CBCT? Dose Considerations in CBCT – Dr. Trishul Allareddy
Evidence-Based Dentistry and Joint Prophylaxis For Dental Procedures – Dr. John Hellstein
(Supported by an unrestricted educational grant from Professional Solutions Insurance)

OCTOBER

- 19 **Nowak Visiting Professorship**
A Robust Round-Up of Common and Not So Common Oral Lesions in Children and Adolescents – Dr. Catherine Flaitz
- 20 **Pregame Professional Program (Penn State)**
An Update of Biomaterials-Based Ridge Augmentation – Dr. Satheesh Elangovan
Dental Pharmacotherapeutics Update – Dr. Cindy Marek

NOVEMBER

- 9 **Olin Visiting Professorship** – Dr. Paul Olin
- 10 **Pregame Professional Program (Purdue)**
Oral Pathology, Clinical Pathology Conference – Dr. Sherry Timmons
Infection Prevention Update – Dr. Carrie McKnight
(Supported by an unrestricted educational grant from Professional Solutions Insurance)
- 23 **Pregame Professional Program (Nebraska)**
Diagnosis and Pharmacotherapeutic Management of Maxillofacial Disease – Professor Karen Baker and Dr. Steven Vincent

FEBRUARY

2013

- 8 **Program To Be Announced**
(A Distance Learning CE Program)
- 15 **Program To Be Announced** – Professor Karen Baker
(A Distance Learning CE Program)

MARCH

- 1 **Program To Be Announced**
(A Distance Learning CE Program)

APRIL

- 12 **Program To Be Announced**
(A Distance Learning CE Program)
- 26 **CSI: Forensic Oral Pathology and Clinical Pathology Conference** – Drs. Harvey Kessler, Michael Finkelstein, John Hellstein and Steven Vincent

JUNE

- 14 **Iowa Dental Reviews (Last Chance)** – College Faculty

WEB-BASED COURSES:
www.dentistry.uiowa.edu/ce

- ☛ *Infection Control, Meth Mouth, and Child and Elder Abuse Mandatory Training*
- ☛ *Article Reviews*

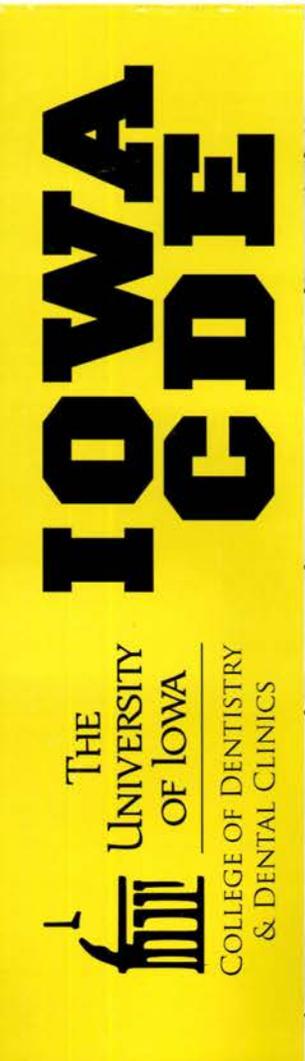
GENERAL INFORMATION

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Continuing Dental Education
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The background of the cover is a black and white photograph of a modern building with a prominent glass facade. The building's structure is composed of dark, rectangular panels, creating a grid-like pattern. The lighting is dramatic, with strong highlights and deep shadows, emphasizing the architectural details.

Continuing Dental Education

2012 – 2013 Calendar

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <i>Western Iowa Tech Community College</i>		
Contact Person: <i>Teri Peterson</i>		
City: <i>Sioux City</i>	State: <i>Iowa</i>	Zip: <i>51102</i>
Phone: <i>712 274-8733 x 1421</i>	Fax: <i>712-274-6429</i>	
Email: <i>teri.peterson@witcc.edu</i>	Website Address: <i>witcc.edu</i>	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. Terry Murrell President 4647 Stone Ave Sioux City
712-274-8733 x 1217

Dr. Juline Albers Vice-President 4647 Stone Ave
712 274 8733 x 1488 Sioux City Ia

Number of courses offered in 2013: 7

Number of courses offered 2014*: 2
*To date

Average number of attendees: 27

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

13/FY & 14/FY Dental Continuing Education
Western Iowa Tech Community College

Date	Course Title	Instructor	Location	CE Hours
8/27,29/13	Orthodontic Expanded Function	Joni Miller	WITCC Sioux City, IA	4.0
7/01/12 – 12/31/12	13/FY-CPCE-1004-640 Radiology Update	Joni Miller	WWW	2.0
7/01/12 – 12/31/12	13/FY-CPCE-1071-640 Infection Control Update	Joni Miller	WWW	2.0
1/01/13 - 6/30/13	13/FY-CPCE-1004-641 Radiology Update	Joni Miller	WWW	2.0
1/01/13 - 6/30/13	13/FY-CPCE-1004-641 Infection Control Update	Joni Miller	WWW	2.0
7/01/13 – 12/31/13	14/FY-CPCE-1004-641 Radiology Update	Joni Miller	WWW	2.0
7/01/13 – 12/31/13	14/FY-CPCE-1004-641 Infection Control Update	Joni Miller	WWW	2.0
1/01/14 – 6/30/14	14/FY-CPCE-1004-640 Radiology Update	Joni Miller	WWW	2.0
1/01/14 – 6/30/14	14/FY-CPCE-1004-640 Infection Control Update	Joni Miller	WWW	2.0

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



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Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: Impact Dental Training, LLC		
Contact Person: Lisa Swett, RDH		
City: Johnston	State: IA	Zip: 50131
Phone: 515-270-1851	Fax:	
Email: info@impactdentaltraining.com	Website Address: impactdentaltraining.com	

Name of Current Officer(s), Title(s), Address, Phone: *Physical Address of Company - 5965 Merle Hay Road Suite D, Johnston*
Alan Swett DDS Owner 5453 NW 72nd Place Johnston, IA
Correspondence address 50131 Home 515-270-1851
Lisa Swett, RDH, BS, MS, Owner address + phone as above

Number of courses offered in 2013: 11
Average number of attendees: 15

Number of courses offered 2014*: 7
*To date

- Education Methods:**
- Demonstration
 - Discussion
 - Lecture
 - Participation
 - Self-study (e.g. reading, online courses, etc.)
 - Other: _____

- Course Subject Matter: (check all that apply)**
- Clinical Practice *Laser Dentistry*
 - Risk Management
 - OSHA Regulations/Infection Control
 - Patient Record Keeping
 - Communication
 - Other: *Radiology - Dental Assistant*
Jurisprudence Remediation

Continuing Education Sponsor Recertification Application

Impact Dental Training, LLC

2013	Course Title	Instructor	Location	CE Hours
3/7 & 3/8	Soft Tissue Diode Non Surgical Periodontal Techniques	A. Swett L. Swett	Johnston	12
4/5	Soft Tissue Diode Laser: An Introduction to Laser Dentistry	A. Swett	Lincoln, NE U of Neb. College of Dentistry gave CE's	(6)
4/23	Laser Safety Training for the Dental Team	A. Swett	Johnston	1.5
5/16	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
6/5	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
6/19	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
6/21	Laser Safety Training for the Dental Team	A. Swett	U of Iowa College of Dentistry gave CE's	(1.5)
6/25	Infection Control Update, Radiology Update, Jurisprudence, Clinical Chairside Dental Assisting	T. Deal	Ankeny	9
7/3	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
8/16	Infection Control in the Dental Setting	T. Deal	Urbandale	2
8/16	Dental Radiology Update	T. Deal	Urbandale	2
2014	Course Title	Instructor	Location	CE Hours
1/24 & 1/25	Soft Tissue Diode Laser Certification Course	A. Swett	U of Iowa College of Dentistry gave CE's	(12)
3/10	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
4/15	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
5/22	Radiology Home Study Course	T. Deal	Ankeny/Johnston	0
6/19	Dental Assisting Remediation: Infection Control, Radiology & Jurisprudence	T. Deal	Ankeny	3
6/16	Integrating Advanced Technology into Clinical Dental Practice	A. Swett	U of Iowa College of Dentistry gave CE's	(12)
6/30	Radiology Home Study Course	T. Deal	Ankeny/Johnston	0

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD
400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the *non-refundable* fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: IOWA LAKES COMMUNITY COLLEGE		
Contact Person: Rosemary Coleman		
City: Emmetsburg	State: Iowa	Zip: 50536
Phone: 712-852-5227	Fax: 712-852-5324	
Email: rcoleman@iowalakes.edu	Website Address: www.iowalakes.edu	

Name of Current Officer(s), Title(s), Address, Phone:

Number of courses offered in 2013: 1

Number of courses offered 2014*: 0

*To date

Average number of attendees: 30

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: Radiology Renewal

Name of Sponsor: IOWA LAKES COMMUNITY COLLEGE

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
10/17/12	Dental Asst Radiology Renewal	Jody Miller	Emmetsburg	.2
10/17/12	Dental Asst Infection Control	Cathy Van Winkel	Emmetsburg	.2
10/18/13	Dental Asst Infection Control	Cathy Van Winkel	Emmetsburg	.2
10/18/13	Radiology Renewal-Dental Asst	Jody Miller	Emmetsburg	.2

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Rosemary Coleman
 Address: 3200 College Dr. - Emmetsburg, IA 50536 Phone: 712-952-5227
 Signature: [Handwritten Signature] Date: 7-1-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

CONTINUING EDUCATION SPONSOR RECERTIFICATION APPLICATION



IOWA DENTAL BOARD

400 S.W. 8th Street, Suite D, Des Moines, Iowa 50309-4687
Ph. (515) 281-5157 <http://www.dentalboard.iowa.gov>

Include the **non-refundable** fee of \$100. Payment may be made by check or money order made payable to the Iowa Dental Board. Complete each question on the application. If not applicable, mark "N/A."

The information provided in the section below will be posted to the website following board approval.

Official Name of Sponsor: <u>Ultradent Seminars</u>		
Contact Person: <u>Christalee Durrant</u>		
City: <u>South Jordan</u>	State: <u>Utah</u>	Zip: <u>84095</u>
Phone: <u>801-553-4589</u>	Fax: <u>Christalees@gmail.com</u>	
Email: <u>Christalee.durrant@ultradent.com</u>	Website Address: <u>www.ultradent.com</u>	

Name of Current Officer(s), Title(s), Address, Phone:

Dr. Dan Fischer, DDS., CEO
Ms. Christalee Durrant, Senior Manager; Education, B.S., CMP.

Number of courses offered in 2013: 225

Number of courses offered 2014*: 114
*To date

Average number of attendees: 25-30
per class

Education Methods:

- Demonstration
- Discussion
- Lecture
- Participation
- Self-study (e.g. reading, online courses, etc.)
- Other: _____

Course Subject Matter: (check all that apply)

- Clinical Practice
- Risk Management
- OSHA Regulations/Infection Control
- Patient Record Keeping
- Communication
- Other: _____

Name of Sponsor: Ultradent Seminars

List all education programs or courses conducted during the preceding 24-month compliance period. If additional space is needed, please attach a separate listing.

Date:	Course Title:	Instructor:	Location:	CE Hours:
-	Please see attached			

Sponsors must be formally organized and adhere to board rules for planning and providing continuing education. When courses are promoted as approved continuing education courses that do not meet the requirements as defined by the board, the sponsor will be required to refund the registration fee to participants. Sponsors may offer non-credit courses provided participants are informed that no credit will be given. Failure to meet this requirement may result in loss of approved sponsor status. Subjects, which are NOT acceptable for continuing education credit include, but are not limited to: personal development, business aspects of practice, personnel management, government regulations, insurance, collective bargaining, and community service presentations.

I understand and agree to follow the board rules for planning and providing continuing education.

Name of person completing this application: Christalle Durant

Address: 505 W. 10200 SO. South Jordan, UT 84095 Phone: 801-553-4589

Signature: Christalle Durant Date: 7-8-14

Please note: The biennial renewal fee of \$100 must accompany this recertification application.

IOWA DENTAL BOARD
 400 S.W. 8th Street, Suite D
 Des Moines, IA 50309-4687

**Ultradent Seminars
Program List 2013 - 2014**

Instructor	Date	Location	CE Hours	Course Title
Dr. Hal Stewart	11/8/2013	Puerto Rico	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Carlos Ramos	11/8/2013	Milwaukee, WI	6	Minimally Invasive Concepts in Endodontics
Dr. Dan Fischer/Carol Jent	11/15/2013	Fort Collins, CO	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Steven Glassman	11/15/2013	Miami, FL	6	Minimally Invasive Techniques for Maximum Smile Enhancement and Health
Dr. Hal Stewart	11/15/2013	Pasco, WA	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Fischer/Neil Jessop/Dr. Renato Leonardo/ Dr. Stephen Lampl	11/23/2013	South Jordan, UT	16	Ultradent Summit - Positioning for the Future; Dentistry for the Masses, The Relationship Between Conservative Dentistry and Bond Strengths, Technological Resources and Biological Concepts in Minimally Invasive Dentistry, Moving to the Next Level of Esthetic Adhesive Dentistry
Dr. Richard McLaughlin	12/12 - 12/13/2013	University of Alabama - Tuscaloosa, AL	10	Inter-Arch Treatment Mechanics, Part 1
Dr. Hal Stewart/Shannon Pace/Daniel O'Rourke	01/27 - 01/30/2014	Cancun, Mexico	16	Pre-Fabricated Resin Veneer Techniques /Minimally Invasive Smile Preview/Alternative Composite Resin Techniques For Direct Resin Veneers
Dr. Jaimee Morgan	3/21/2014	Escondido, CA	6	Following the Cosmetic Dental Pyramid for Esthetic Results Bleaching, Gingival Recontouring, and Composit Resin Bonding
Dr. Nasser Barghi	3/28/2014	Minneapolis, MN	6	Achieving Predictable Esthetic Results with Direct Anterior and Posterior Composites
Dr. Hal Stewart	4/11/2014	Monterey, CA	4	Composite Resin Veneer Techniques
Dr. John Flucke	4/11/2014	Bend, Oregon	7	Using Adhesive Dentistry & Technology for Better and More Conservative Outcomes
Carol Jent	5/9/2014	Boise, ID	4	Putting an End to Dental Caries
Carol Jent	6/6/2014	Milwaukee, WI	4	Putting an End to Dental Caries
Dr. John Flucke	6/6/2014	Dana Point, CA	7	Using Adhesive Dentistry & Technology for Better and More Conservative Outcomes
Dr. Nasser Barghi	6/21/2014	Sacramento, CA	6	Achieving Predictable Esthetic Results with Direct Anterior and Posterior Composites
Dr. Dan Fischer/Carol Jent	6/27/2014	Bismark, ND	8	Close to Home: What Expert Marriage Advice can Teach Us About Creating Succesful, Long-Lasting Dentistry/ Improving your Effectiveness as a Dental Professional
Dr. Hal Stewart	6/27/2014	Ogden, UT	4	Composite Resin Veneer Techniques
Dr. Jaimee Morgan	07/11 - 07/18/2014	Alaska	12	Following the Cosmetic Dental Pyramid for Esthetic Results Bleaching, Gingival Recontouring, and Composit Resin Bonding

**Ultradent Seminars
Program List 2013 - 2014**

Instructor	Date	Location	CE Hours	Course Title
Dr. John Fluke/Dr. Jaimee Morgan	01/28 - 01/31/13	Cancun, Mexico	16	The Science of Curing and Esthetics/Following the Cosmetic Pyramid for Optimal Esthetic Results
Dr. Robert Miller	03/01 - 03/02/2013	Park City, UT	8	Efficient Class II Mechanics
Dr. Nasser Barghi	3/15/2013	Scottsdale, AZ	6	Achieving Predictable Esthetic Results with Direct Anterior and Posterior Composites
Dr. Richard McLaughlin	03/22 - 03/23/2013	Atlanta, GA	10	Diagnosis, Treatment Planning and Treatment Mechanics
Dr. Jaimee Morgan/Dr. Hal Stewart	09/28 - 10/05/2013	Western Caribbean	12	Conservative Cosmetic Dentistry: The Beauty and Simplicity of Direct-Placed Composite Resins/Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Richard McLaughlin	10/18 - 10/19/2013	Boston, MA	10	Diagnosis, Treatment Planning and Treatment Mechanics
Dr. Christy Fortney	10/4 - 10/5/2013	San Diego, CA	12	The Efficient Class II Mechanics
Dr. Robert Miller	11/01 - 11/02/2013	Coral Gables, FL	8	Efficient Class II Mechanics
Dr. Richard McLaughlin	11/08 - 11/09/2013	Las Vegas, NV	10	Diagnosis, Treatment Planning and Treatment Mechanics
Dr. Dan Fischer/Carol Jent	4/5/2013	Gaithersburg, MD	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Terry McDonald	04/19 -04/20/2013	Portland, OR	16	McLaughlin Mechanics & Treatment Planning
Dr. Dan Fischer/Carol Jent	4/19/2013	Morgantown, WV	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Hal Stewart	4/19/2013	Atlanta, GA	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Dan Fischer/Carol Jent	5/3/2013	Mohwah, NJ	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Dan Fischer/Carol Jent	5/4/2013	Brooklyn, NY	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Steven Glassman	5/17/2013	Melville, NY	6	Minimally Invasive Techniques for Maximum Smile Enhancement and Health
Dr. Mark Colonna	5/17/2013	Richmond, VA	6	A Biomimetic Approach to Minimally Invasive Endodontics
Dr. Robert Miller	05/24 - 05/25/2013	San Diego, CA	8	Efficient Class II Mechanics
Dr. Dan Fischer/Carol Jent	6/7/2013	Fajardo, PR	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Richard Tuttle	6/20/2013	Wright-Patterson AFB	4	Current Concepts in Dental Adhesives, Curing Lights Composites and Cements
Nancy Hyman	6/20/2013	Alhambra, CA.	6	Extraordinary Service - A Dental Necessity
Dr. Jaimee Morgan	6/21/2013	Pasadena, CA	6	Conservative Cosmetic Dentistry
Dr. Richard Tuttle	6/21/2013	Centerville, OH	6	A Biomimetic Approach to Minimally Invasive Endodontics
Dr. John Flucke	6/28/2013	Boise, ID	7	The Science of Curing and Esthetics
Dr. Hal Stewart	6/28/2013	Salem, OR	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success

**Ultradent Seminars
Program List 2013 - 2014**

Instructor	Date	Location	CE Hours	Course Title
Dr. Cynthia Green	7/18/2013	Clarksville, TN	2	An In Depth at Orthodontic Sealants - The How's and Whys
Dr. Hal Stewart	7/26/2013	Chicago, IL	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Dan Fischer/Carol Jent	8/9/2013	Knoxville, TN	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Mark Colonna	8/9/2013	West Harrison, NY	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. Richard Tuttle	8/9/2013	South Jordan, UT	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. Dan Fischer/Carol Jent	8/16/2013	Little Rock, AR	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Stephan Lampl	8/29/2013	Virginia Beach, VA	4	Minimally Invasive Direct Veneer & Composite Course
Dr. Stephan Lampl	8/30/2013	Columbia, MD	4	Minimally Invasive Direct Veneer & Composite Course
Dr. Richard Tuttle	8/30/2013	Puerto Rico	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. John Flucke	9/20/2013	Green Bay, SC	7	The Science of Curing and Esthetics
Dr. Hal Stewart	9/20/2013	Cleveland, OH	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Richard McLaughlin	09/20 - 09/21/2013	St. Louis University	10	Diagnosis, Treatment Planning and Treatment Mechanics
Dr. Dan Fischer/Carol Jent	9/27/2013	Napperville, IL	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional
Dr. Steven Glassman	9/27/2013	Los Angeles, CA	6	Minimally Invasive Techniques for Maximum Smile Enhancement and Health
Dr. Mark Colonna	10/4/2013	Glendale, CA	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. John Flucke	10/11/2013	Honolulu, HI	7	The Science of Curing and Esthetics
Dr. Jaimee Morgan	10/11/2013	Manchester, NH	6	Conservative Cosmetic Dentistry
Dr. Richard Tuttle	10/17/2013	Honolulu, HI	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. Hal Stewart	10/18/2013	Albuquerque, NM	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Mark Colonna	10/18/2013	Irving, TX	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. Richard Tuttle	10/18/2013	Kona, HI	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. Fischer/Neil Jessop/Dr. Renato Leonardo/ Dr. Stephen Lampl	10/18/2013	South Jordan, UT	16	Ultradent Summit - Positioning for the Future; Dentistry for the Masses, The Relationship Between Conservative Dentistry and Bond Strengths, Technological Resources and Biological Concepts in Minimally Invasive Dentistry, Moving to the Next Level of Esthetic Adhesive Dentistry
Dr. Mark Colonna	10/25/2013	Iselin, NJ	6	A Biomemetic Approach to Minimally Invasive Endodontics
Dr. Hal Stewart	11/1/2013	NY, NY	4	Function and Beauty: Mastering the Art and Science of Composite Resins for Functional and Esthetic Success
Dr. Dan Fischer/Carol Jent	11/8/2013	Whitefish, MT	8	Positioning for the Future; Dentistry for the Masses/ Improving your Effectiveness as a Dental Professional