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PDAP Report
11/07/2025

New York Dental Hygienists' Association Annual Empire Conference and
New York State Dental Hygiene Educators' Association Annual Meeting and Dinner
Friday, Oct. 24 – Saturday, Oct. 25, 2025

Conference Summary

The NYDHA Annual Empire Conference brings dental hygienists from around the state for a weekend of professional networking, continuing education, and exhibitions by a variety of dental product/services representatives. The same weekend as the Empire Conference, the NYSDHEA holds its annual meeting and dinner. This meeting allows dental hygiene educators from around New York State to network, share best practices, and always includes an educational session. This year, the conference and meeting were held in the Marriott Downtown Syracuse, 100 E. Onondaga St. Syracuse, NY.

Courses Attended

<u>Continuing Education Courses offered by the NYDHA:</u>

- *Stop the Watch: Treat Early Carious Lesions with Guided Enamel Remineralization*, Friday 1-3 p.m. 2 CE credits.
  Presented by: Adriana Forino, CRDH, Oral Science Liaison, Vvardis AG

This course focused on an innovative new approach to caries management – remineralization of early demineralized lesions using a biomimetic process. The first part of the course reviewed the American Dental Association's classification system for radiographic carious lesions. At SUNY Broome, we use and teach a different caries classification system, so it was beneficial to learn the ADA's system. Next, the presenter demonstrated how new AI software can help classify radiographic lesions to help the clinician make the decision whether a lesion would benefit from biomimetic remineralization, or if it has progressed beyond early intervention requiring a filling instead.

The presenter then focused on a specific product used to promote repair and remineralization of tooth enamel. The product is marketed under the trade name Curodont and is an oligopeptide that bonds to the base layers of demineralized enamel forming a protein matrix. This matrix attracts calcium and phosphate from the patient's own salvia to form hydroxyapatite crystals, mimicking the body's own process of enamel mineralization, repairing the incipient lesion and arresting the process that would lead to a cavitated lesion. Indications for use and application technique was also taught.

The course also included a review of the literature and discussion of the scientific basis for the guided remineralization process. Case studies were presented, and the course ended with a lengthy question and answer session.

- *Artificial Intelligence in Dentistry: Friend, Not Foe*, Friday 3:30-5:30 p.m. 2 CE credits.
  Presented by: Maureen Howes, MS RDH, Dental Hygiene Consultant for DentiAI

The second course I attended at the NYDHA Conference explored new AI technologies and the application of AI in dental and dental hygiene practice. The presenter opened by reviewing different types of AI and giving examples of each: analytical, predictive, prescriptive, and hybrid. Examples of AI used in dental practice that were discussed include voice activated periodontal charting, appointment note recording and transcription, teledentistry, auto dental charting, clinician calibration, dental robotics, predictive analytics in research, and radiographic analysis.

Next, the course examined the pros and cons of AI in dentistry. There are several benefits to using AI in dental hygiene practice: increased efficiency, better ergonomics, earlier stage discovery of disease, improved patient outcomes, decrease in insurance resistance and denials, better patient engagement, and risk mitigation. While AI can increase accuracy, clarity, and efficiency, while removing operator bias and fatigue, it does have limitations. The presenter discussed the continued need for the human factor -- sound clinical judgement and personalization of the patient experience. AI is also limited by the financial cost of AI systems, specific IT requirements, and the potential for hallucinations and misdiagnosis. Finally, the course focused on points to ponder when considering adopting AI technology into dental hygiene practice.

<u>NYSDHEA Meeting CE Course:</u>

- *Artificial Intelligence in Dental Hygiene Education*, Friday 6-8pm, 2 CE credits.
  Presented by: Maureen Howes, MS RDH, Dental Hygiene Consultant for DentiAI

The course offered during the New York State Dental Hygiene Educators' Association meeting was a perfect complement to the AI course I took earlier in the day. This course examined how AI can be used in dental hygiene education. It was very helpful having attended the earlier course, learning how hygienists can apply AI in practice, and then to learn how we as educators can use AI in our teaching and incorporate dental AI technologies into our DH program.

The presenter opened by demonstrating how AI can aid in meeting accreditation standards, specifically calibration against an objective standard. We then learned how AI can assist in practical ways, like managing clinical rotation schedules. One of the most exciting AI technologies presented was radiographic analysis. This was discussed in the earlier course in the context of patient treatment, but in this course, we learned how radiographic analysis can help students learn radiographic interpretation with the aid of AI software. We also learned how AI can help solve staffing problems. Dental hygiene programs are required to have supervising dentists, but recruitment and retention of dentists is difficult for DH programs. The presenter discussed how teledentistry can ease the burden of staffing by allowing dentists to supervise from remote sites.

Finally, the course explored AI simulation in dental hygiene education. Simulation is present in other medical education programs, and is increasingly used in dentistry and dental hygiene. Applications

for simulators and different types of simulation were presented. The course ended with break-out sessions where educators in attendance formed small groups to share how AI was being used or considered in their programs, and then ideas from the small groups were shared with all attendees.

Applications of Course Material

I chose these courses because the topics relate directly to material I teach in my courses at SUNY Broome. I was particularly interested in the AI courses because of the emphasis that the college as an institution is placing on AI. I came away with a better understanding of advancements in the research and application of new technologies, and seeing how I can use what I learned to update my course material.

- In DEN 201 - Dental Hygiene III, I teach caries management for the dental hygienist. In the first course, I learned the ADA's classification system for dental caries. This is different from the classification system I've been teaching. After seeing how the ADA system is being used in caries research today, I've decided to included it in my curriculum along with the internation classification system I've been teaching. Also, my course material has focused on fluoride for caries management, but new materials are being researched to rival fluoride in the prevention and now treatment of dental caries. Seeing how far the science has progressed, I think these new approaches should be included in my course so graduates from our DH program enter the field with a background knowledge of new caries prevention and treatment options. They should be familiar with evidence-based alternatives or adjuncts to fluoride for caries management.

- I also teach DEN 106 - Dental Radiography and Advanced Radiographic Interpretation in DEN 201. I could see how AI radiographic analysis could be used in a lab setting in DEN 106 as students are first learning to interpret radiographs, and again in DEN 201 Clinic as students advance their interpretation skills. Even if I don't have the AI software to use, I will be including a discussion of radiographic analysis software in DEN 106 when I talk about the future of dental imaging, and I'll go more in depth in DEN 201 in my advanced radiographic interpretation unit.

- In DEN 201, I also teach comprehensive periodontal charting and electronic dental charting. While it would be amazing to have AI software to use in Clinic with students, I think the technology would be cost prohibitive at this point. However, I will be teaching students about these available technologies and the advantages/disadvantages to using them in practice. With the rate that AI assistance is catching on in dental hygiene practice, especially for periodontal charting, there is a good chance that our graduates will be encountering the technology early in their careers.

Additional Conference Notes

While at the NYDHA Empire Conference, I visited the exhibition hall where I networked with representatives from Colgate, Butler/GUM, Crest, NYU School of Dentistry/Dental Hygiene, Vvardis, and Itero Digital Scanners. I was able to learn about new products, collect samples and educational materials on their products and services that I can share with students and colleagues.

At the NYDHEA Dinner, I was the sole representative from SUNY Broome. Our DH department is taking on the leadership position for NYSDHEA for a two-year term, beginning now through Oct. 2027. I met with the outgoing leadership from SUNY Orange to discuss the transition, and to collect NYSDHEA records and materials to bring back to our department as we assume the leadership mantle.