



AI IN DENTISTRY: Building Capacity and Confidence

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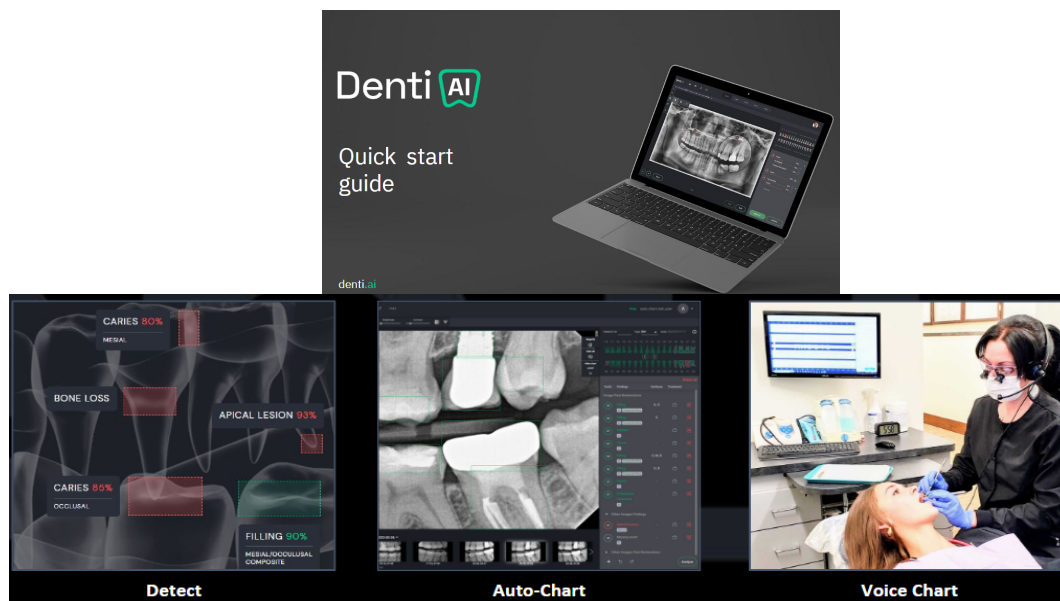
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In this Workshop We Will :

- Define AI
- Answer the question 'Why use AI?'
- Discuss the benefits of AI in Dentistry
- Review the Expectations and Realities of AI
- Provide a hands on experience using AI



What is AI?

- AI is the mathematical science of training machines to imitate or reproduce human tasks.
- At its simplest form, artificial intelligence is a field, which combines computer science and robust datasets, to enable problem-solving.



WHY USE AI in DENTISTRY?

- Call Management
- Automated Dental Charting
- Voice Activated Periodontal Charting
- Predictive Models for Dental Research
- AI generated Clinical Notes
- Patient Monitoring
- Identification of Radiographic Pathology

Questions I have so far...

Advantages of Artificial Intelligence

**Accuracy and
Efficiency**

**Calibration of
Clinicians**

**Independent
Second
Opinion**

**Clarity in
Patient
Education**

**Increase in
Early Detection
of Pathology**

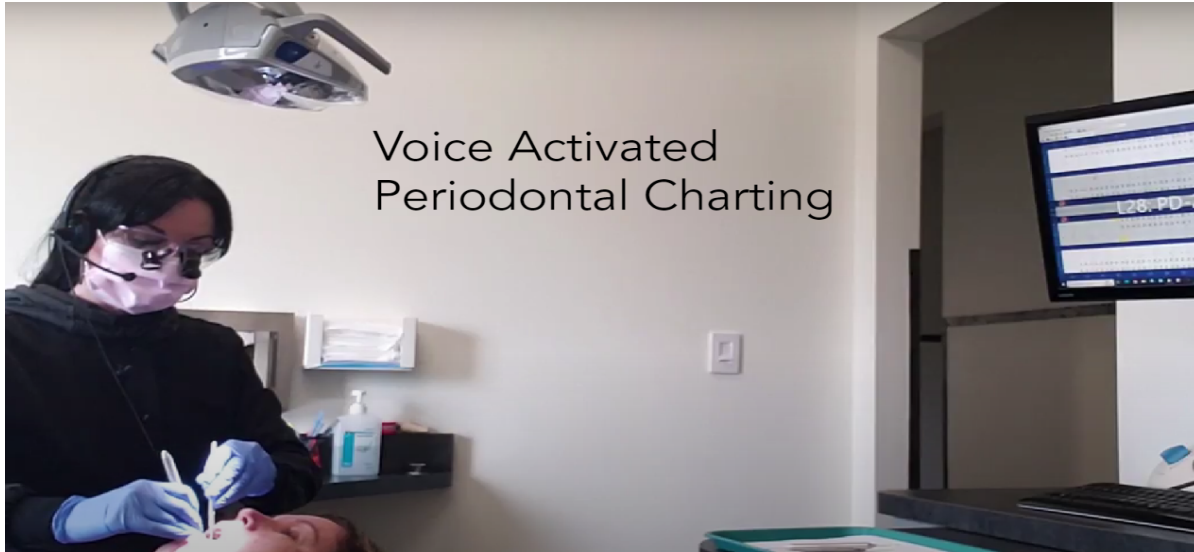
**Improved Case
Acceptance**

**Access to Care
for
Underserved
Patients**



***According to our FDA study,* a DDS's **clinical judgment plus AI** will yield **15-30%** more accurate findings.**

- **Expands** capacity by increasing time to educate and treat patients
- **Aids** to assist the clinician
- **Supports** the clinician's diagnosis
- **Elevates** the standard of care for the detection of caries and apical radiolucencies
- **Increases** patient confidence in treatment plan
- **Confirms** existing mesial and distal bone levels
- **Calibrates** multiple clinicians
- **Improves** case acceptance



Standard of Care for a Complete Perio Chart

- Full-mouth periodontal charting, including the following data points reported by location, severity, quality, written description, or numerically: probing depths, bleeding points, suppuration, mucogingival relationships/defects, recession, attachment level/attachment loss
- Presence, degree, and distribution of plaque and calculus
- Gingival health/disease
- Bone height/bone loss
- Mobility and fremitus
- Presence, location, and extent of furcation involvement

Remember, in the eyes of the law, if it's not recorded in the chart, IT NEVER HAPPENED!

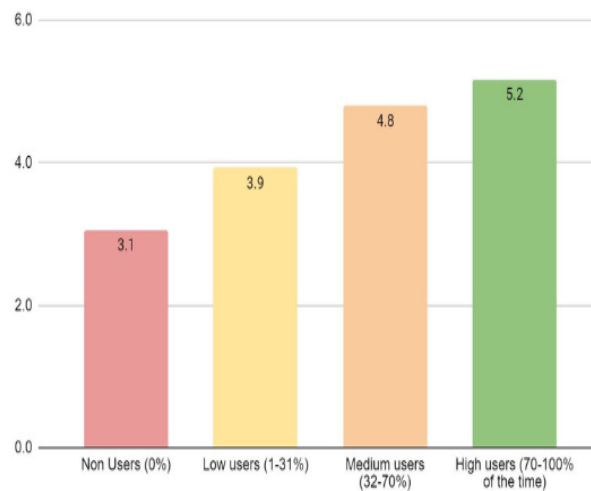
Beyond Efficiency: Denti.AI Voice can significantly impact production

12

"I usually have to decide if I do an FMX or a perio chart. Now I don't need to make choices like that." -RDH, 42N

- >50% increase in number of perio charts per day on average
- High users do about 70% more perio charts than Non users
- 15-20% increase in Hygiene code related production (and revenue)

2.2 more perio charts per day on Average by providers who use Voice at least 70% of the time



Significant correlation between using Voice and completing more perio charts each day!

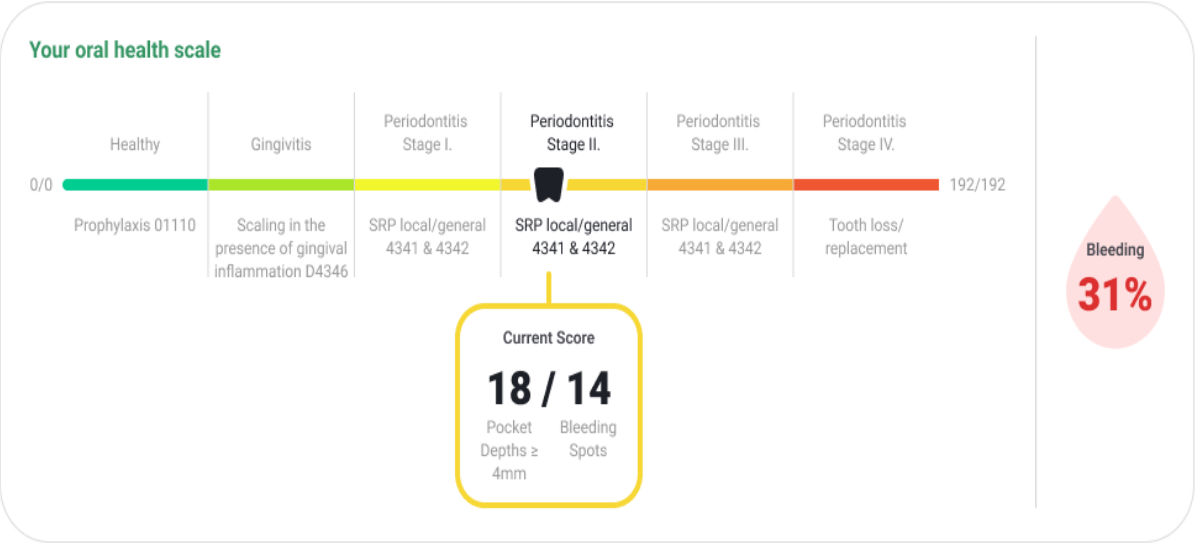
AI Builds Tools to educate patients

Oral Health Status - PHI

Denti AI



The Periodontal Health Index equals the number of deep pockets over the number of bleeding points. The maximum on a full dentition with no missing teeth is 192/192.



Suggested Treatment

Adjunctive therapies:

Start typing...

AI Generated Clinical Notes

Generalised SRP:

Start typing...

Notes

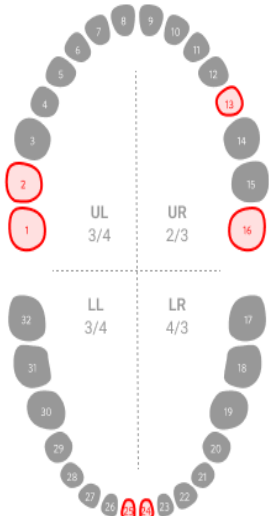
Dear Tom,

During your recent dental examination, we have found that your periodontal health has changed since your last visit six months ago. Your Periodontal Health Index (PHI) score is now 18/24, with four sites measuring above 5mm. This indicates that you have experienced some degree of bone loss under your gums.

If you do not address the problem areas with regular brushing and flossing, the disease will progress and the bacteria will eat more of your gum tissue and further reduce your bone levels. This will eventually cause your teeth to loosen and move, affecting your ability to eat and live pain free. Periodontal disease cannot be reversed but it can be stopped. In order to treat this condition and stop the disease from progressing a 4month recall is strongly advised as well as strict adherence to the home care instructions provided.

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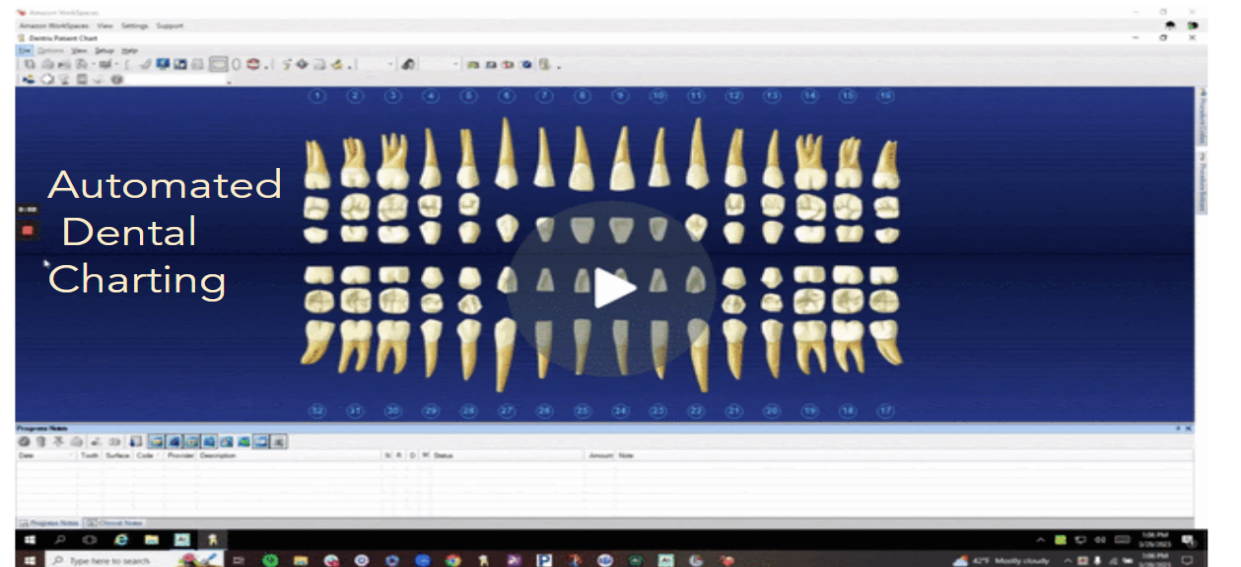
Where are the problem areas located?



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Send as email

AI Assists in Charting and Treatment planning



AI Provides Precise Feedback, Saving chair time

Patient Monitoring

They enable us to create more robust algorithms, train the AI that powers our solutions and help you provide more precision care for diverse dental cases.

A 2x4 grid of eight intraoral photographs showing various dental conditions and treatments. The top row shows four different views of a patient's upper teeth, including a close-up of a single tooth, a full arch view, and two views of a patient with orthodontic braces. The bottom row shows four different views of a patient's lower teeth, including a close-up of a single tooth, a full arch view, and two views of a patient with orthodontic braces.

Limitations of Artificial Intelligence



AI does NOT replace clinical judgement and decision making



Potential for Misdiagnosis/Dependence on Quality Data



Decreased Personalization of Patient Experience



Organization and Clinician must be open to change management



IT Infrastructure and Support must have bandwidth for integration



Cost

EXPECTATIONS and REALITIES OF AI

- AI pulls the data from the existing PMS imaging software. It is not meant to replace the current imaging system.
- AI is not intended to replace a Clinician's review or clinical judgment
- It is intended to be used as a second opinion.
- May produce false positives (10 % or less)
- May produce false negative results (10 % or less)
- Potential for decreased personalization of the patient experience
- IT infrastructure and support must have bandwidth for integration
- ***Organization and clinicians must be open to CHANGE!***

AI CHANGES THINGS for the BETTER!



43% increase in number
of periocharts

- ✓ Flexible, user-friendly, and convenient
- ✓ Adaptable to anyone's unique voice
- ✓ Directly charts patient data into your PMS

**Learn how Voice is helping
our customers succeed!**



Contact us:

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70% cut from patient charting time

- ✓ Approve findings and chart to your PMS with one-click!
- ✓ Easy adoption throughout your organization
- ✓ 10/10 Dentists and Dental Hygienists find it useful and love it!

Learn how Auto-Chart is helping our customers succeed!



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