HOW TO UP YOUR CARIES DETECTION GAME

Establishing a caries detection protocol that works for you, your patients and your practice.

by RENEE KNIGHT

The CariFree system from Oral BioTech assesses patient risk factors and offers treatment options.

Dr. Kelly Blodgett doesn’t play the waiting game with his patients.

He and his staff practice by the philosophy caries is diagnosable, treatable and even preventable. They know how important it is to detect this complex biofilm disease before physical symptoms begin to surface, and having an established caries detection protocol is vital to making that happen. As a CAMBRA (Caries Management by Risk Assessment) practice, his team focuses on understanding each individual patient’s caries risk, the driving force behind the team’s caries detection protocol.

“It is of significantly greater value to understand the risks involved for each patient than to just look for symptoms, which has been our profession’s traditional approach,” Dr. Blodgett said. “By understanding each patient’s risk, we may actually treat the caries infection before it leads to cavitation and the necessity of surgical care.”

Bottom line, understanding these risks makes it possible to prevent disease, which is why—if you don’t already have one—you might want to consider establishing a caries detection protocol of your own.

A different way of thinking

This shift in thought can be difficult for some clinicians to embrace, but is essential as dentistry moves from the surgical model (“drill and fill”) to a medical model (managing risk factors), Dr. Blodgett said. It’s no longer enough to simply wait for something to show up on an x-ray; these days, it’s all about measuring and treating bacterial biofilm diseases.

Establishing an effective protocol also entails changing the way you think about caries, says Carri Cady, RDH and VP of Sales and Marketing for Oral BioTech’s CariFree (carifree.com). There is a difference between caries detection and cavity detection. The methods and technologies used for cavity detection, such as digital radiography and high-resolution loupes, don’t detect bacterial infection.

“This is one of the first struggles when establishing a caries detection protocol,” Cady said. “Every dentist and hygienist learns in school that dental caries is a bacterial infection, and...
Laurence’s Protocol:

1. Calibrate the DIAGNOdent.
2. Clean the patient’s teeth of any debris and then dry.
3. Get a baseline read using an anterior tooth that is free of restorations.
4. Record the tooth number and the baseline reading.
5. Scan the Class I and V pits and grooves, using a rocking motion in the pits and grooves.
6. Record the tooth number scanned and the highest reading for that tooth.
7. Re-set to zero and scan the next tooth.
8. Repeat steps 5 through 7. It only takes a few seconds per tooth to give you a baseline on all teeth recorded, and you and your dentist can choose which to continue to monitor and which to treat.

When Tracy Laurence, RDH, was first introduced to the DIAGNOdent in 2002, she was intrigued by the technology. The more she used it, the more she liked what it could do—and she often sees the same reaction from the patients she works with at Dr. Fred Wigand’s practice in Topsham, Maine. As someone who uses this caries detection device two to five times a day, Laurence, who has been practicing for more than 15 years, has an established caries detection protocol.

Offering a hygienist’s perspective of early caries detection, Laurence outlines what she sees as the ideal protocol to follow when using the DIAGNOdent. Many of the steps listed at right can be translated to other caries detection devices. Remember, with any instrument you bring into your practice, it’s important to use it correctly, consistently and to record results.

### What it means

The guidelines for DIAGNOdent readings are:
- **0 to 10** — No treatment recommended.
- **11 to 20** — Outer 1/2 caries-incipient.
- **21 to 30** — Inner half caries.
- **Over 30** — The decay is in the dentin.

### Fitting it in

Dental offices are busy places, so finding the time to fit caries risk assessment into the daily routine might be challenging, Dr. Blodgett said. Regardless of how excited you and your team are about establishing such a protocol, it doesn’t do much good if you can’t fit it into your schedule and make it a profitable endeavour.

Deciding how to fit additional caries-detection services into your fees can also be challenging, but you have options. Some dentists charge a separate fee for the CAMBRA assessment, which brings more revenue into the practice but also gives patients the opportunity to skip this part of the exam. If you want to make assessment a standard of care in your practice, Dr. Blodgett recommends raising your exam and x-ray fees to cover the additional costs.

“Explaining to patients that this incredible new technology is complementary to them as part of the level of care we practice is a great ‘feel good’ selling point,” Dr. Blodgett said. “And when it’s included in their fee, patients can’t say no to the caries risk assessment.”

### Getting your staff on board

You can’t be the only one excited about establishing a protocol for caries detection; your staff has to be enthusiastic too. Hygienists have to buy-in to this philosophy of care because they’re going to be the ones delivering treatments and preventive care solutions, said Dr. Len Litkowski, Director of Clinical Research and Education for Dentply Professional (dentply.com).

To help get them there, it might be a good idea to have manufacturer
representatives come into the practice for training, Cady says. This gives staff members the opportunity to learn about the product and how to talk to patients about its benefits.

“It is imperative that your team fully believe in the power of caries risk assessment,” Dr. Blodgett said. “For the person who has had a lifelong struggle with decay, lowering their caries risk level can literally be life-altering. And that is something to really get excited about.”

Adding such detection products to your list of services also can lead to more aggressive treatment, Dr. Litkowski said.

“It’s looking at breaking it down to the least intervention to the most aggressive intervention,” Dr. Litkowski said. “You might recall the patient every three months, recommend more frequent cleanings and more frequent application of fluoride varnishes. That all goes back to detection. The better you can detect, the better you can decide where to place those patients.”

The Midwest Caries I.D. from Dentsply Professional detects mineral loss in enamel and finds carious lesions earlier in the process.

KaVo’s DIAGNOdent (kavo.com) makes it possible for clinicians to scan through the enamel to gain objective information about the quality of the dentin underneath, Dr. Blodgett said. Carious dentin will cause fluorescent light to reflect back to the tip where sensors read the amount of fluorescence. The higher the reading, the more severe the decay, although many factors can cause false positives.

Dentsply Professional’s Midwest Caries I.D. (cariesid.com) detects mineral loss in enamel, Dr. Litkowski said, so it finds carious lesions earlier in the process. This allows for more aggressive treatment. This device actually measures the changes or visualizes the changes in the enamel itself on occlusal and interproximal surfaces.

It comes down to patient care
No matter what challenges your practice faces when transitioning to this type of care and implementing these types of products, Cady said it’s important to stick with it and not give up. Remember the hour your patients spend in your office is their hour, not yours.

“Most of us got into the dental profession to help people,” Cady said. “Talk to your team about providing the type of care they would want in their mouths or for their families. We took an oath to protect patients and give them the best care possible. We’ve moved beyond the drill and fill stages.”

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Want more?
For more on caries detection, check out our Technology Editor Dr. John Flucke’s article, “The new standard in caries diagnosis,” on p. 52.