Co-Diagnosis is changing dentistry

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Have you ever wondered what your dentist is looking at? More and more dental patients no longer have to wonder. With the increasing use of new digital technologies, 21st century dental patients have access to much of the same information as their dentist. This new technology sounds intimidating and expensive but it is really neither. Virtually all of these systems pay for themselves in efficiency so in my practice, we haven’t had to charge extra for any of these services. The old saying “A picture is worth a thousand words.” is as true today as it was a hundred years ago. These pictures save us a great deal of time explaining things to our patients along with the huge time savings compared with managing physical records and mailing x-rays.

Co-diagnosis sounds like a new innovation but it is really a very old concept. When the first healer pointed at a rash on a patient’s arm and said “I think this is what it is because…” he (or she) was engaging their patient in co-diagnosis. It is simply having your patient look at what you are looking at and discussing it with them. Physicians have been doing this for years when they clip an x-ray film up on a light box and go over it with their patient.

Engaging patients in co-diagnosis has been a lot harder for dentists. When we took x-rays using regular film, we were able to produce very clear images that were about the size of a large postage stamp. That was a great medium for me because I look at dental radiographs all day long. My patients struggled with these small images. I spent years pointing at x-ray films with a very sharp pencil trying to explain to my patients what I was seeing. Most would nod politely and their eyes would slowly glaze over as I persisted in trying to help them see the cavity in their tooth or the infection in their bone.

I’ll never forget when we first brought digital radiography (digital x-rays) to our practice in 2005. We had just installed the system and we were doing some training when one of my receptionists told me we had a patient who really needed to see a dentist. She said he appeared to be pretty uncomfortable and asked if there was anything we could do. We rarely shut down our clinic for this very reason. Patients don’t care if you need to train or field new equipment—they need you when you need you. I told the gentleman that if he would agree to help us train on the new system, I’d have my assistant take an X-ray and I’d perform the exam free of charge. He readily agreed since he was obviously in pain. This worked out great for us because we had some less than perfect teeth to evaluate with the new technology.

I put the X-ray up on a computer monitor right in front of my new patient. He just looked at me and said “Well, anyone can see that tooth needs to go.” He pointed directly at his broken tooth. I was astounded at how quickly this patient who was clearly not a frequent visitor to dental clinics was able to co-diagnose his problem. Of course that was a very easy diagnosis to make. Most of my patients are
able to recognize the problem once I help them understand what they are looking at. I mostly act as an interpreter to help them understand this foreign language of dentistry and dental radiographs.

These days my patients also have the benefit of intraoral cameras. These are specially designed cameras that we can use to take a full color, close up image of a single tooth or inflamed gums. Intraoral cameras are a great complement to digital radiography because some problems don’t show up on X-rays. That is why your dentist is doing a lot of looking and probing when they perform a dental examination for you. Often, a dental problem will present clearly to me both clinically and on an X-ray, but the color photo really helps my patient understand some problems that are difficult to see on x-rays. Most dentists have looked at tens of thousands of x-rays so something that is obvious to us may not jump out at someone who doesn’t read X-rays for a living. The intraoral cameras really help in these situations.

These technologies have really changed my interactions with my patients. Instead of “pushing” foreign and intimidating information on them, I spend a lot more time just answering questions. My patients are “pulling” information out of me so they can better understand what they are looking at and what their options are. In most cases, if I can help my patient understand what they are seeing, they come to the same clinical conclusions I do. It makes my job a lot more fun because I get to have an informed discussion with my patient rather than lecturing to them. It is more like two colleagues discussing treatment options than a doctor just telling a patient what they should do.

Co-diagnosis doesn’t mean we always agree. Sometimes my patients decline my recommendations. This is fine as long as they are making an informed decision. There are risks and rewards associated with any clinical action or inaction. In health care, we are usually balancing the probability of bad things happening if we don’t act vs. the limited risks of pursuing treatment. Sometimes I might be recommending a specialist but my patient prefers that I perform the procedure even though they can see it isn’t going to be easy. I sleep a lot better at night confident that my patients understand their clinical situation and the balance of risks and benefits. In the past, I often felt that my patients didn’t pursue treatment because they just couldn’t understand what I was talking about. Now, they can clearly see what I’m concerned about and it is real to them. Knowledge is power and we all feel much more in control when we understand what is going on. Life is better for all of us. I really love my job.

Annette Dusseau is a practicing general dentist and the President of Family Dental Group in Missoula, Montana. She’s practiced dentistry for 26 years. Dr. Dusseau spent her first 13 years of practice on active duty in the United States Army before moving to Missoula to become an independent dentist in private practice. Her credentials include a Doctor of Dental Surgery (D.D.S.) from Indiana University, Mastership in the Academy of General Dentistry (M.A.G.D.) and she is also certified by the American Board of General Dentistry (A.B.G.D.).
Co-diagnosis in action. Dr. Dusseau pointing to a filling on a digital x-ray.
“Anybody can see that tooth needs to go”. Image of a broken tooth (center). The patient could easily see that this tooth has lost a great deal of structure and may not be restorable.
Intraoral camera image of a healthy tooth. X-rays aren’t great for finding small cavities on the biting surface. Since dental x-rays are normally a two dimensional side view they have severe limitations when evaluating the top of a tooth. Imagine trying to play chess with the board up at eye level. You can’t tell what is behind many of the chess pieces.
Most digital radiography software has a wide range of tools that allow the dentist to change an image to make certain characteristics more visible.