

What's Your Number



A Perio Protect Article: How to focus on simple data points to improve periodontal health

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How to focus on simple data points to improve periodontal health

It's not a cleaning. That three or six-month dental visit patients schedule and appreciate for their clean and polished teeth is so much more important than they realize. That visit is an integral part of their health and wellness. Let's pause for a moment and recall that 47% of American adults (over age 30) have periodontitis – that's 64.7 million Americans – which means they have chronic infected ulcerations. The situation is so pervasive that hygiene departments can legitimately be renamed "Chronic Oral Wound Care Centers."

Our unacceptably high rates of disease contrast with our conviction that treatment is essential. Gum disease is the number one cause of tooth loss in adults. Chronic gingival infections and inflammation also play a large enough role in chronic systemic inflammatory conditions that treating periodontal disease indicates positive effects on patient general health. Diseased-induced halitosis, a quality of life issue, is alone important enough for treatment to be considered.

So, it is not for lack of information or concern for patient health that prevent us from more effective outcomes. We need two things: 1) a simple approach to focus on the disease that will sustain our attention and capture patient interest and 2) more effective homecare.

In his book *Better: A Surgeon's Notes on Performance*, Atul Gawande discusses the greatest difficulty that the hospital infection control team has in the prevention of infections being spread: getting clinicians to wash their hands. The infection control team searched – for years – for a solution to the problem, made worse by the spread of antibiotic resistant bacteria. Top-down approaches, telling people what to do did not work. Infection rates stayed high. Patients died. It was only when the team began to look at the capabilities people had and sat down with health care workers at every level, focusing their consistent attention on the problem and requesting their input on solutions, that the situation finally improved. Their spread of infection rate dropped to zero.

To apply these lessons to improve periodontal health, a first step should be focused attention on bleeding scores. Bleeding on probing (BOP) data is readily available to the dental team, and years

- [1] This idea originated with Dr. Duane Keller, Chief Scientific Officer at Perio Protect LLC, who describes the treatment for periodontal disease as chronic wound care.
- [2] Albert et al. An examination of periodontal treatment and per member per month (PMPM) medical costs in an insured population. *BMC Health Serv Res.* 2006 Aug 16;6:103. doi: 10.1186/1472-6963-6-103. Jeffcoat et al. Impact of Periodontal Therapy on General Health. *Am J Prev Med.* 2014;47(2):166-74. Cheng et al. Effect of comprehensive cardiovascular disease risk management on longitudinal changes in carotid artery intima-media thickness in a community-based prevention clinic. *Arch Med Sci.* 2016 Aug 1;12(4):728-35. Significant barriers to designing randomized controlled trials to support the indications prevent stronger statements, yet the individual and public health concerns are important enough that even a small positive effect of periodontal treatment on systemic disease risk like CVD or DM is relevant.
- [3] Gawande, Atul. *Better: A Surgeon's Notes on Performance*. New York: Metropolitan Books, 2007.

of research has shown that continuous absence of bleeding on probing is a reliable predictor for the maintenance of periodontal health or, stated differently, for no further periodontal damage.[1]

If we accept that bleeding on probing is an important clinical assessment for periodontal health and maintenance, sustaining attention to the number of bleeding points gives us an easy number, quickly calculated from data that is already collected, to raise awareness on this silent epidemic. [2] Imagine doctors asking hygienists at every appointment for the patient's number. It would focus attention to help determine what to evaluate next so that you can educate the patient and plan for treatment. Patients already know the acceptable range for numbers relating to blood pressure, blood sugar, A1C, and cholesterol to name but a few. Why not a simple number to understand how acute their periodontal condition is in real time?

A simple number will not determine severity or diagnosis, but it will be useful. Severity is best determined with the American Academy of Periodontology's revised classifications for the staging and grading of periodontitis. Based on clinical attachment loss, bone loss, tooth loss and pocket probing depths, these revisions also don't help diagnose disease but "clarify extent, severity, and complexity of the patient's condition" as well as the need for surgery, "difficulty of treatment, prognosis for the dentition and expectations during maintenance therapy." [3] These welcome revisions address new understandings of disease and allow for nuanced, multidimensional documentation of its complexity. The complexity in disease is reflected in the classification itself, necessitating overviews and published FAQs to understand. [4] In short, it is not easy to use the classification in everyday practice.

Simplicity will help. Gawande's discussion suggests that to do better we need mundane diligent attention to the problem (high rates of infection, inflammation and disease) and that we should look to the capabilities that people have, the assessments they are already using, to focus our attention. It does not mean that we ignore complex classification. The goal with a simple number like BOP is to direct our attention to 1) diagnose disease, 2) educate patients about it, and 3) treat it at the earliest stage possible.

The next logical question is what is your number? How much bleeding is acceptable in your practice? Turn the BOP number into a gum score. If you have a number that serves as a threshold, or standard of health, you know that every score above it requires more attention, diagnosis, education and treatment. It's not realistic that every patient will get to zero bleeding points. Focus groups of >500 dental professionals agreed on 10 BOP as a good threshold for new or maintenance patients.[5]

- [1] Joss A, Adler R, Lang NP. Bleeding on probing. A parameter for monitoring periodontal conditions in clinical practice. *J Clin Periodontol.* 1994;21(6):402-408. Lang NP, Adler R, Joss A, Nyman S. Absence of bleeding on probing. An indicator of periodontal stability. *J Clin Periodontol.* 1990;17(10):714-721.
- [2] Benjamin RM. Oral health: the silent epidemic. *Public Health Rep.* 2010;125(2):158-159.
- [3] [Perio.org/2017wwdc](https://www.perio.org/2017wwdc). Grading documents the rate of disease progression and risk for future progression.
- [4] The guidelines are complicated enough that the American Dental Association provides a FAQ page: [https://www.ada.org/~media/JCNDE/pdfs/Perio_Disease_Classification_FAQ.pdf?la=en](https://www.ada.org/~/media/JCNDE/pdfs/Perio_Disease_Classification_FAQ.pdf?la=en). Other authors offer overviews to help (professionals,) patients, and insurers understand the new guidelines. <https://www.perioimplantadvisory.com/clinicaltips/article/16412257/the-new-classification-of-periodontal-disease-that-you-your-patient-and-your-insurance-company-can-understand>.
- [5] Unpublished focus group data collected in 2019-2021 by Perio Protect, LLC, St. Louis, MO USA.

When you have your healthy gum score as a baseline, say 10 bleeding points, then you and your entire team know that patients with higher scores than 10 need Perio Protect: because it's important to treat infections. Perio Tray™ therapy from Perio Protect gets medication deep below the gums to fight the infections that toothbrush, rinse or floss can't reach. When this targeted delivery is combined with scaling or surgery, it effectively reduces bleeding, inflammation, pocket depths, and gram-negative bacterial loads more than scaling or surgery alone. [1]

There are times when everything advocated – initial treatment, surgery, maintenance, homecare – fails, but we can do better and our patients deserve better. Periodontal disease is one of the most under-diagnosed diseases in North America. It is always easier to address disease at the earliest stages. Help your patients make the hygiene paradigm shift away from cleaning to health. Combining a simple number like BOP to focus attention on gingival health with effective, non-antibiotic homecare strategies is an excellent first step.[2]

The next step is presenting to patients. In addition to focusing on the comfort and efficacy of this convenient treatment, especially for patients with co-morbidities, and on its cosmetic benefits, you should also consider sharing these talking points on value:

- Our goal is to get your gums so healthy that you don't lose any bone.
- Our goal is to help you avoid another round of scaling in the future.
- Our goal is to help you avoid surgery and additional loss of teeth.
- Our goal is to keep you implants (crowns, etc) as healthy as possible so that they will last your lifetime.
- Our goal is to give you confidence with a healthy beautiful smile and fresh breath.

The point is that health has a lasting financial value and improves our quality of life.

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[1] Perio Gel® with 1.7% hydrogen peroxide and Perio Tray®, Perio Protect LLC, St. Louis, MO, USA. Putt MS, Mallatt ME, Messmann LL, Proskin HM. A 6-month clinical investigation of custom tray application of peroxide gel with or without doxycycline as adjuncts to scaling and [root planing for treatment of periodontitis. *Am J Dent.* 2014;27(5):273-284. Putt MS, Proskin HM. Custom tray application of peroxide gel as an adjunct to scaling and root planing in the treatment of periodontitis: a randomized, controlled three-month clinical trial. *J Clin Dent.* 2012;23(2):48-56. Putt MS, Proskin HM. Custom tray application of peroxide gel as an adjunct to scaling and root planing in the treatment of periodontitis: results of a randomized controlled trial after six months. *J Clin Dent.* 2013;24(3):100-107. Cochrane RB, Sindelar B. Case Series Report of 66 Refractory Maintenance Patients Evaluating the Effectiveness of Topical Oxidizing Agents. *J Clin Dent.* 2015;26(4):109-114. Keller DC and Cochrane B. Composition of Microorganisms in Periodontal Pockets. *JOHD* 2019;2(2):123-36. [1] Want to test drive the idea? Contact the author and join the dental teams across the continent who are sitting down together to determine their acceptable number and their homecare options.