

THE READERS' CORNER

JOHN J. SHERIDAN, DDS, MSD

(Editor's Note: The Readers' Corner is a quarterly feature of JCO in which orthodontists share their experiences and opinions about treatment and practice management. Pairs of questions are mailed periodically to JCO subscribers selected at random, and the responses are summarized in this column.)

1. In what percentage of your patients do you see white-spot lesions (WSLs) of varying severity during treatment?

Forty-four percent of the respondents reported seeing WSLs with no cavitation in 10-20% of their patients; about 30% found them in fewer than 10% of their patients, and 18% in 21-30% of their patients. Only 6% saw WSLs without cavitation in more than 30% of their patients, while one respondent reported encountering virtually no WSLs without cavitation.

WSLs with minor cavitation had not been routinely observed by 38% of the clinicians; another 58% reported minor cavitation in 20% or fewer of their patients. Only one practitioner reported minor cavitation in the 30% range.

More than 70% of the respondents had observed virtually no deep cavitation during treatment, while 20% had observed it in as many as 10% of their patients. No clinicians reported seeing WSLs with deep cavitation in more than 20% of their patients.

Specific remarks included:

- "My practice is in an area that does not add

fluoride to the drinking water. We seem to have a much higher rate."

- "Ten to 20 percent of the patients had WSLs before treatment."
- "The only time we see cavitation is when a patient has not kept appointments and has not been seen for awhile. Otherwise, we check closely and correct hygiene and diet issues (usually soft drinks) or stop treatment."

In what percentage of your patients do you see WSLs immediately after debonding/debanding?

Nearly all respondents reported seeing some WSLs with no cavitation after debonding. Forty-four percent reported post-debonding WSLs in 10-20% of their patients, 24% in fewer than 10%, and another 24% in 21-40%.

Minor cavitation had not been observed by 43% of the respondents, but 34% did see such lesions less than 10% of the time. An additional 20% noticed minor cavitations in 10-20% of their patients.

Deep cavitation was virtually never observed by 73% of the respondents, while 20% noticed it less than 10% of the time. A few practitioners did report deep cavitation in as many as 20% of their patients, but no one had seen deep cavitation in more than 20% of post-debonding patients.

How do the frequency and severity of WSLs under bands compare with those under brackets?

There was no definite consensus on this question. Although most clinicians (72%) reported seeing fewer lesions under bands, that may be attributable to fewer tooth surfaces being banded than bracketed. Of the remaining respondents,



Dr. Sheridan is an Associate Editor of the *Journal of Clinical Orthodontics* and a Professor of Orthodontics, Jacksonville University, 2800 University Blvd. N., Jacksonville, FL 32211.

9% had noticed more WSLs under bands, and 19% had found the same frequency and severity of WSLs under both brackets and bands.

Comments included:

- “They’re about the same. Poor hygiene is a patient issue, not an appliance issue.”
- “I see virtually none under bands due to the fluoride-containing cement.”
- “If they are present under bands, they seem a bit larger.”
- “Rarely do I see lesions on carefully banded posterior teeth.”
- “I don’t see WSLs under bands or brackets. More are seen around the gingival margin.”

If you regularly use Invisalign or other clear plastic aligners, do you see a significant difference in the number or severity of WSLs in those patients compared with your banded/bracketed patients?

Among the 70% of all respondents who reported using Invisalign or other aligner therapy, 90% noted significantly fewer WSLs. Only three practitioners found no difference. In addition to the obvious advantage of superior oral hygiene with removable appliances, respondents also noted that they are used primarily on adult patients, who are generally more disciplined with home care.

How frequently do you see new WSLs during retention with bonded lingual wires?

Nearly all the respondents had observed no new WSLs or cavitation associated with bonded lingual wires. Only a few respondents reported seeing WSLs in more than 10% of their retention patients.

Representative comments included:

- “I have seen WSLs associated with bonded lingual retainers, but only with completely terrible hygiene. There is no excuse.”
- “I don’t think I have ever seen a WSL with a lingual bonded retainer. Ever.”
- “Patients with hygiene issues are encouraged to use Essix retainers at night only in order to minimize this issue.”

Do you analyze white-spot-lesion risk factors prior to orthodontic treatment (e.g., analysis of salivary flow, diet, history of enamel caries)?

Thirty-three percent of the respondents regularly analyzed WSL risk factors prior to treatment, but 28% did not. A plurality (38%) said it would depend on the patient.

Please rank the influence of factors contributing to WSLs.

As would be expected, all respondents considered “poor patient hygiene” to be of great importance. “Diet” and “lack of saliva flow” were assigned great importance by 78% and 39% of the clinicians, respectively. Several factors were ranked moderately important by a majority of respondents: “immature enamel formation” (73%), “health issues causing erosion, such as gastroesophageal reflux disease and bulimia” (65%), “enamel coverage by brackets and bands” (62%), and “acid etching for placement of appliances” (58%). Two of the categories, “enamel coverage” and “acid etching”, were found to be of little or no importance by more than a third of the respondents. Other areas widely considered unimportant were “chemical content of brackets and bands” (72%) and “interproximal enamel stripping” (62%).

One orthodontist remarked: “Inadequate diet and oral hygiene are the principle factors in the etiology of white-spot lesions . . . whether the patient is wearing braces or not.”

What products and techniques do you typically use to help prevent decalcification under orthodontic appliances?

All respondents said they used patient hygiene instructions. Other reported methods, in decreasing frequency of usage, were: over-the-counter home fluoride rinse (68%), power toothbrush or flosser (64%), enamel remineralizing paste (51%), fluoride-releasing composite bonding resin (46%), in-office fluoride varnish (44%), prescription home fluoride rinse (44%), fluoride-releasing enamel sealant (37%), water irrigation device (31%), and in-office fluoride gel (24%). Only a few practitioners used chlorhexidine-releasing enamel sealants, and no one reported

using laser irradiation.

Some individual remarks:

- "I initiate heightened oral-hygiene measures with instructions, demonstrations, supervised brushing, and Peridex usage. I discontinue treatment when there is ongoing lack of cooperation."
- "We utilize fluoride impregnated into varnish sealant bonding material and rinse, with careful monitoring of oral hygiene at each appointment, and we give the patient and parent a toothbrushing grade."
- "Phos-Flur rinse is recommended for daily use when fixed appliances are in place; also a Sonicare toothbrush. I recommend GC America MI Paste when lesions are detected."
- "We have the patients use MI Paste at home to brush with each evening. We also use Icon enamel restorative."
- "We use Opal Seal, a filled sealant that has been shown to last at least six months and can be visualized under a black light. We test the patient at the progress pano appointment (usually six to eight months into treatment), and reapply Opal Seal as needed. This is especially important in oral-hygiene-program patients."
- "At banding, we dispense Prevident 5000 booster toothpaste along with a prescription for additional tubes. We also recommend a power toothbrush and a Waterpik. At wire-change appointments, we place fluoride varnish around the brackets (children only)."
- "Since using Reliance ProSeal, WSLs have been reduced significantly."
- "Most WSLs I see tend to fade over time, so I do not recommend any restorative for right after appliances are removed unless it is cavitated. I recently started using the remineralizing paste on several patients, and it seems to be working. Parents seem positive about doing something, rather than waiting and watching."
- "I had almost no success with WSLs until I began using recalcifying paste about one year ago. Since then, I have seen good results in most cases, unless the marks are particularly dramatic or with poor compliance using the paste."

Under what circumstances do you treat WSLs:

... by leaving them to self-correct through remineralization?

The majority of respondents said they would leave the WSLs to self-correct in cases where there was no cavitation and the lesions were not conspicuous.

... by acid-pumice abrasion?

A few clinicians employed this technique, but they generally confined the treatment to lesions on the maxillary anterior teeth.

... by stripping with hydrochloric acid?

Only one respondent reported using hydrochloric acid for minor lesions.

... by grinding?

Responses were fairly evenly split between never doing any grinding and limiting the procedure to minor WSLs.

... by performing restorative procedures?

Most clinicians said they would refer such procedures to restorative dentists. Many, however, said they would initiate restorative procedures in cases of deep cavitation or particularly noticeable WSLs.

... by prescribing a remineralizing paste?

Remineralizing paste was used by three-quarters of the respondents for control and treatment of WSLs, but another 20% rarely or never recommended such therapy.

... by treating WSLs with a low concentration of fluoride?

A clear majority of respondents used low concentrations of fluoride in various forms, such as fluoride-containing varnishes, rinses, and prescription toothpastes. On the other hand, 20% of the clinicians never or rarely prescribed low concentrations of fluoride.

... by other techniques?

Two clinicians had tried Icon, a new infiltrant resin that arrests cavitation by changing the refraction of light; both noted a limited improvement. Nearly all the remaining respondents indicated that they depend on general dentists to monitor WSLs.

Are you ever unable to remove WSLs?

Thirty-seven percent of the respondents said they were frequently unable to remove WSLs; in most cases, they could reduce the intensity of the lesions, but could not completely eliminate them. This difficulty was generally associated with deep penetration into the enamel, often necessitating referral to a restorative dentist. One-third of the clinicians reported that they were occasionally unable to remove WSLs; 15% were rarely unable to remove WSLs, and only 11% reported that they never had difficulty removing WSLs.



2. How severely has your practice been affected by the recession that started in 2008?

A vast majority of the respondents reported that the recession had negatively affected their practices, either significantly (29%) or somewhat (60%). Only a handful indicated that their practices had not suffered (5%) or had experienced an upturn (7%).

Most attributed the negative financial consequences to a combination of factors, with the obvious main element being the overall effects of the economy. This situation was amplified by increased competition from general dentists treating patients with Invisalign appliances. Also noted was a reduction in referrals from general dentists who were also struggling with the recession. A few clinicians reported increased competition from new orthodontists in their communities.

Some typical remarks:

- “People are not sure if they will keep their jobs; orthodontics is not a disease, so they will wait.”
- “The worst was the last quarter of 2008 and all of 2009. 2010 was a better year overall, while 2011 has started slower but is showing mild signs of improving.”
- “This is the perfect storm: many new orthodontists coupled with an economic recession.”
- “I have not been affected by the downturn because of aggressive internal marketing, and my reputation in the community is excellent.”

By when do you expect your practice to return to pre-recession levels?

Sixty-three percent of the respondents believed that their practices would return to pre-recession levels, but that it would take some time. Sixteen percent estimated a three-to-12-month recovery, while a more skeptical 47% thought it might take one to five years for the rebound. No clinician thought the recovery would take more than five years, but 12% believed they might never return to pre-recession levels. Nineteen percent reported having already rebounded to their pre-recession levels, and a few practitioners had already surpassed them.

One follow-up comment: “I hope that the rate of new starts is back to the 2008 levels as soon as possible, but guess that it may take two years to get there, since it took two years to get where we are now. At that point, total active cases and therefore income may take an additional year to catch up due to carrying past lower levels.”

Compared to four or five years ago (pre-recession), how has your practice been affected in terms of new-patient exams, referrals, child case starts, and adult case starts?

Compared to pre-recession levels, a handful reported an increase of 10-30% in new-patient exams, 10% had increased slightly, and 10% had stayed the same. A decline of 10-30% was reported by 40% of the respondents, while another 12% indicated decreases of more than 30%. Referrals, child case starts, and adult case starts followed the same general pattern.

Have you seen an uptick in these areas during the past three to six months?

There was a faint glow of optimism in the answers to this question: most of the respondents thought there was a slight (48%) or definite (14%) improvement in the factors that had negatively affected their practices, while 20% at least felt things hadn't gotten any worse. Only 18% of the clinicians said their economic picture was slightly worse, and no one reported being significantly worse off.

How do the following situations compare to pre-recession conditions: fee payment problems, patient pressure for more limited treatment, patient pressure for reduced fees, and patients not responding to observation recall appointment reminders?

A majority of the respondents reported that fee payment problems had increased either significantly (12%) or slightly (50%), while 33% reported that they had stayed the same; only 5% reported a slight reduction in fee payment problems.

Patient pressure for limited treatment had stayed the same for 60% of the respondents, but had increased somewhat for 35%. Similarly, patient pressure for reduced fees had stayed the same for 51% of the respondents, though others reported that it had increased either significantly (16%) or somewhat (33%).

The number of patients not responding to observation recall reminders had stayed the same for 42% of the respondents; the same percentage reported a slight increase, and 12% a significant increase. A few reported a slight decrease.

Most respondents said they dealt with these situations primarily by instituting more flexible payment plans. Significant efforts were also reported in internal and external marketing, with more emphasis on telephone recalls for younger patients on observation lists.

Comments included:

- “We have increased our communication with patients and have tried to make adjustments for individual situations. In my opinion, a one-size-fits-all collections policy will not work when everyone is suffering. You have to work with people and stay in touch with them.”
- “We are not doing any more than we were doing before, since we are a mature practice and have always considered our recall system the lifeblood of our practice. Most of all, the 7- and 8-year-olds who are placed on a six-month recall may not be treated for three or four years, so it is extremely important to maintain a viable, multi-pronged recall system.”

Are more GPs doing orthodontics in your area since the beginning of the recession? Do you attribute an increase in GPs doing orthodontics to

the economic situation or just to a general trend?

Most respondents (77%) indicated that there were at least slightly more GPs doing orthodontics in their area since the beginning of the recession; the rest thought the level had stayed about the same. No one thought there were fewer. Responses strongly indicated that GPs practicing orthodontics was part of an ongoing trend that has been accelerated by the downturn in the economy.

Some pertinent remarks:

- “GPs are hurting, so they are expanding their services. Pedo offices are doing the same.”
- “I attribute this to the economy. Many GPs would skip the ortho/Invisalign if there was more restorative dentistry for them. I also see them doing much more perio and a greater number of extractions.”
- “The recession and the general trend are intertwined, with the result that we definitely see the GP doing more orthodontics. It may be just anterior alignment with Invisalign, but that’s a referral source that is evaporating.”

If you have experienced a downturn, how have you responded?

The practitioners listed a variety of techniques used to lessen the impact of the recession: increased promotion of dentist referrals (53%), canceled or delayed plans to purchase or upgrade major equipment (50%), reduced staff hours (39%), reduced staff (34%), increased advertising budget (32%), agreed to more limited treatment objectives (21%), started external advertising (16%), reduced fees (13%), canceled or delayed plans for new office (8%), and charged separately for more services or offered additional services that could be billed separately (6%).

Individual comments included:

- “I downsized my staff by two, increased cross-training, and am trying to be lean and mean while maintaining my capacity to effectively treat patients.”
- “I reduced overhead in any way I could, including dropping office cleaning service (it’s now done by the staff), using less expensive brackets, and reducing staff hours.”

- “We actually increased our technology and major equipment purchases by adding an iCAT and SureSmile during the downturn. This gave us an opportunity to come up to speed during this slower time and to be ready when things pick up.”

Have you seen anything positive resulting from the recession and recovery?

Many responses indicated an effort to accentuate the positive. On the other hand, there was a sizable group that did not see any positive or even neutral consequences of the recession.

Specific remarks included:

- “I have had more time to focus on and revise internal procedures and policies.”
- “I use the time to focus on quality care for my existing patients.
- “There is definitely a silver lining. I now take more days off and spend more time with the family. I have also increased the number of continuing education courses that I take.”
- “I am babysitting my granddaughters three days a week and loving it!”

Some final remarks on the economy:

- “I feel truly blessed to have made it this far through the recession. I know so many who have not been so fortunate.”
- “People are much more careful with voluntary health-care costs and will remain so for the foreseeable future.”
- “I think the effects are temporary, since my area experienced the recession of 1984-1989 and we rebounded stronger after that than before.”
- “Fees cannot be raised due to competition from managed-care clinics, while the cost of supplies is going up. That erodes the orthodontist’s net earnings. This is not a transitory effect; it’s here to stay.”
- “We have become McDonalds, treating volume at a lesser cost to maintain the practice at a profitable level.”
- “We bailed out the banking industry, and now that they have recovered, they have not reciprocated by allowing our patients to finance their treatment.”
- “I realize that this is a difficult time for the new

practitioner, but patience and due diligence will be rewarded. The desire for orthodontics is always increasing, and as the economy recovers, this pent-up demand for our services will return.”



JCO would like to thank the following contributors to this month’s column:

- Dr. David Adame, Edinburg, TX
- Dr. Daniel A. Avant, Colorado Springs, CO
- Dr. Rick Battistoni, La Grange, IL
- Dr. Jared Blacker, Concord, NC
- Dr. Keith Blalock, San Antonio, TX
- Dr. Kathleen Burr, South Windsor, CT
- Dr. John Christensen, Durham, NC
- Dr. Richard Crowder, Wichita, KS
- Dr. Daniel M. DeAngelo, Boardman, OH
- Dr. Guy A. Favalaro, LaPlace, LA
- Dr. G. Russell Frankel, Wyoming, OH
- Dr. Robert Gange, Windsor, CT
- Dr. Mark S. Geller, Plano, TX
- Dr. Daniel George, Holland, MI
- Dr. Wyland W. Gibbs, Grand Rapids, MI
- Dr. Andrew Hass, Conover, NC
- Dr. Ron Heiber, Lancaster, OH
- Dr. Barbara Hershey, Chapel Hill, NC
- Dr. Erik Hrabowy, Columbus, OH
- Dr. Marcel Korn, Boston, MA
- Dr. Valmy Kulbersh, Sterling Heights, MI
- Dr. Richard Lang, Elmhurst, IL
- Dr. Ernest McCallum, Greenwood, SC
- Dr. Tammy Meister, St. Paul, MN
- Dr. Gary Mundy, El Paso, TX
- Dr. Robert Nisson, Cameron Park, CA
- Dr. Pat Ohlenforst, Irving, TX
- Dr. Phillip R. Parker, Norman, OK
- Dr. Robert S. Portenga, Traverse City, MI
- Dr. Steve Ricci, Johns Creek, GA
- Dr. Robert Ritucci, Plymouth, MA
- Dr. Ralph Robbins, Niles, IL
- Dr. W. Scott Robinson, Columbia, MO
- Dr. David Simon, Wellington, FL
- Dr. Arthur Stein, Lansdale, PA
- Dr. Mark Thomson, Plattsburgh, NY
- Dr. John White, Hudson, OH
- Dr. Jim Williams, Austin, TX