Prehabilitation involves anticipating needed care for oral issues surrounding cancer

BY KRIS POTTS, RDH, FAADH

"It's cancer." It is difficult to think of another phrase that strikes dread so universally in the soul. Almost everyone has been affected by cancer in some way, at some point in their lives. What about the patients in your office? Have they also been impacted in some way by the path of this disease? Our first thought in dentistry goes to oral cancer. But what about the other cancers that occur in the human body? Breast, skin, lung, kidney, colon, and blood disorders are just a few of the many cancers affecting those around the world.

The dental provider team is in a unique position to make a difference for those affected. Whether the patient is a warrior, a survivor, a friend, or family member of someone who is, you can be a part of a collaborative care team having a positive impact for this ever growing community.

Prehabilitation is comprehensive, anticipatory care for oral issues surrounding cancer before debilitating side effects of the disease or treatment develop.[1,2]

We don't always know that a patient is facing this journey until they are in the midst of it. But when we do, prevention is preferred rather than an oral overhaul once all is said

and done. Let your patients know how important prehabilitation can be. Mentioning the concept to them as you are performing their oral abnormality screening will let them know your office is "on top of it."

Patient education and communication are critical to success. If individuals know what to expect—and has materials on hand to deal with issues that may arise or prevent their occurrence altogether—their quality of life can be greatly improved. Understanding these things can help their trek down this road be less frightening.

Developing an anticipatory treatment plan is essential. If custom delivery trays will be needed, why not have them fabricated *now*, rather than in the midst of issues? Infection in the mouth can be counterproductive to treatment they may receive. Frequent recare visits reduce the likelihood of oral infection from normal or abnormal flora, help minimize trauma-induced mucosal tissue injury, and promotes comfort. Nutritional counseling should also be offered.

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HELPFUL PRODUCTS

We've all seen the obvious effects of cancer treatment—dry mouth, increased decay, and mucositis, so let's tackle those first.

Dry mouth—Some cancer treatments totally shut down the production of saliva that most likely will never return to previous levels. These patients need salivary substitutes in their arsenal. These products normally contain a mixture of buffering agents—cellulose derivatives (to increase stickiness and moistening ability) and flavoring agents. However, they do not contain the digestive and antibacterial enzymes or the salivary proteins present in natural saliva. They mimic natural saliva but do nothing to stimulate salivary production.[5] Aquoral, Caphosol, Salagen, NeutraSal, and SalivaMAX are a few examples available by prescription.

Other individuals experience changes in consistency, the level of salivary proteins available, and a change in pH. Products that stimulate salivary flow, brings on protective benefits of saliva, and returns oral pH back to neutral in a short period of time are more common.

Helping the oncology team

Some patients can be expected to become significantly immunosuppressed because of their cancer therapies. Mouth care is an integral part of care from the oncology team. However, nursing staff receive conflicting advice and form subjective conclusions on

how to proceed. They are not taught by experts in oral care in the classroom and the care itself is often delegated to the most junior staff members. Informing the patient that you are available for consultation with the oncology providers can be invaluable as well.[3,4]

There are many newcomers to the market in this arena, and providers are encouraged to read labels carefully for recommended usage and ingredients. Do they contain citric acid? Do they contain sweeteners that the body metabolizes similar to sugar, thus promoting decay? Are they best used at night? How often can they be used? Is their purpose to raise pH, stimulate the salivary flow, or soothe irritations? Are there contraindications?

XyliMelts, BasicBites, Spry, Salese, and MouthKote are examples that are available over the counter in lozenge, gum, spray, gel, or rinse form.

A common misconception about xerostomia is a suggestion to drink more water. Water is necessary to hydrate the body, of course, but can dilute the salivary mucins necessary for oral health and still not alleviate the symptoms. These necessary mucins are significant in defending against *Streptococcus mutans.*[6] Bottled waters have varying pH levels depending on the brand and can have a detrimental effect on the tooth structures. Water does nothing to improve taste sensation or aid digestion; salivary enzymes are necessary for that.

Dental decay—The increase in decay can be attributed to the decrease or complete absence of salivary flow, nausea and vomiting, acid reflux, and the consumption of high sugar nutritional supplements. Nutrition is extremely important during treatment for cancer, and many individuals turn to foods that may not be the best options for oral health. They tend to choose foods that require little chewing or that can negatively affect the teeth due to the altered salivary composition. Certain medications can create cravings for high sugar fermentable carbohydrates.

OHI including basic oral care with an extra soft toothbrush and regular replacement of the toothbrush are common sense to oral health providers, but not to everyone. Using xylitol in meal preparation, alternative relief products for dry mouth with therapeutic doses of xylitol, or use of a 100% xylitol sweetened product after a meal can counteract those 0choices.[7,8]

Oral mucositis—Not everyone experiences this and each individual's experience with it is different. It is extremely painful, can aggravate the patients' condition, and increases the risk of infection. Mixed medication mouthwashes—commonly consisting of topical coating, anesthetic, and possibly other agents—have little or no direct impact on the pathogenesis of mucositis and are simply palliative in nature. Oral rinses known to have specific biological activity, such as the antimicrobial property of chlorhexidine, do not affect the primary pathways involved in mucositis pathogenesis and are not recommended.[9]

Xylitol has been proven to be beneficial in healing wounds and has a soothing, cooling effect on the oral mucosa.[10] MuGard when used consistently and regularly beginning before treatments commence has been shown to be effective in preventing mucositis.[11]

There is not one single product on the market today that can solve all the oral issues a cancer patient faces, but there are many that can be carried in your repository to benefit the patient. What works well for one does not necessarily work well for another. Patient's needs change during the course of treatment. Many existing therapies are unpalatable or difficult to use, making compliance a giant obstacle. Availability and expense factor into the equation as well.

A wide variety of medications, products, and rinses are available that can benefit your patients. By becoming familiar with them, you can lessen the frequency, the severity, and may even prevent occurrence of many oral issues associated with a cancer diagnosis altogether. Many oncologists and care center staff are not aware of the existence of oral side effects. This is where the interdisciplinary collaboration comes into play.

EMOTIONAL WELL-BEING

An often overlooked aspect of the cancer patient's care and those around them is emotional well-being. Care must include concern for them as a person, not just treatment of the tumor or disease. The moment of realization something is amiss, before the doctor has even been called or a single test has been done, often transforms a person's life from one of general contentment and confidence to one of enormous anxiety and uncertainty about the future.

This pervasive sense of uncertainty for many characterizes the period of waiting between hearing the diagnosis—the dreaded words, "You have cancer"—and the start of treatment. They often consider it as the worst time during their illness.

Going through the stress of cancer treatment is enough to make anyone sad, irritable, and frustrated. At times, a patient may not have control of emotions, and may cry about minor things. They can have trouble remembering things, struggle reading books and newspapers, and have difficulty concentrating on work. They may suffer from fatigue, depression, a distorted self-image, and a form of PTSD (post traumatic stress disorder) from surgeries, treatments, and invasive procedures.

Individuals vary enormously in how much they can verbalize powerful emotions under the stress of advancing illness. There are three phases that most experience once they are diagnosed. The first phase is surviving the treatment; the second is beginning to return to normal life; and the third is the long-term adjustment during which the cancer comes to be viewed as an episode in the bigger context of one's life. Compassion is fundamental.[12]

This is applicable to their caregivers and family members as well. Many find that they are always asked, "How is Mary doing?" and no one inquires about how they are coping with the stress or level of fatigue.

Cancer is a significant concern in our society. As better detection and screening processes become available, the incidence is expected to increase. Dental providers can become an integral part of an oncology care team, making this undesirable journey more comfortable. Having a variety of products at our disposal makes our impact even larger. Prehabilitation in oral care is fundamental.

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