

CARING FOR YOUR PATIENTS WITH XEROSTOMIA.....

YOU CAN MAKE A DIFFERENCE!!!

Presented by:

Shannon M. Nanne, RDH

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Introduction:

This lecture will cover the causes and problems associated with xerostomia, guidelines for care, clinical observations, patient management and state of the art oral care products by Laclede, Inc.

The term “xerostomia” refers to the patient’s perception of oral dryness. Xerostomia is not usually a solitary symptom. There is a wide variety of oral and non oral symptoms associated with this condition.

I. Oral and Non Oral Symptoms Reported By Xerostomics

A. Oral Symptoms

- | | |
|---------------------------------|------------------------------------|
| >Halitosis / mouth odor | >Desires constant moisture |
| >Need of fluids at bedside | >Difficulty with speech |
| >Complaints of dry mouth | >Difficulty with swallowing |
| >Fissures, sores at lip corners | >Sleep interruptions due to thirst |
| >Difficulty in chewing dry food | >Sips water while eating |
| >Tongue: burning, tingling | >Problems with taste |
| >Difficulty in swallowing pills | >Difficulty in wearing dentures |

1. Biotene Denture Grip

B. Non Oral Symptoms

- | | |
|--|-----------------------------|
| >Dry throat | >Blurred vision |
| >Dry eyes | >Burning sensations in eyes |
| >Sandy, gritty feeling in eyes | >Daily use of eye drops |
| >Dry skin | >Mouth breather |
| >Dry nose | >Change in sense of smell |
| >Constipation | >Heartburn |
| >Vaginal itching, burning, dryness, a history of fungal infections | |

1. Refresh Preservative Free Eye Drops

II. Functions of Saliva

A. Protective Functions of Saliva

<u>Functions</u>	<u>Salivary Components</u>
Lubrications	Mucins, proline-rich proteins, water
Antimicrobial	Salivary proteins: lysozyme, lactoferrin, lactoperoxidase, mucins, cystatins, histatins, secretory Iga: proline-rich glycoproteins
Remineralization	Calcium, phosphate, statherin, anionic protein-rich proteins
Cleansing	Water
Buffering	Bicarbonate, phosphate ions
Mucosal integrity	Mucins, electrolytes, wate

B. Food and Speech Related Functions of Saliva

<u>Functions</u>	<u>Salivary Components</u>
Food Preparation	Water Mucins
Digestion	Amylases, lipase, ribonuclease, proteases water, mucins
Taste	Water, gustin

III. Salivary Constituents

“Whole Saliva” refers to a mix of oral fluids, which also contains a number of constituents of non-salivary origin. It primarily consists of the secretions of the major and minor salivary glands.

Examples: Crevicular fluid, serum and blood cells, bacteria and bacterial products, desquamated epithelial cells, cellular components, viruses, fungi, food debris, and bronchial secretions.

A. Proteins

Albumin, Amylase, B-glucuronidase, Carbohydrases, Cystins, Epidermal growth factor, Esterases, Fibronectin, Gustin, Histatins, Immunoglobulin A, Immunoglobulin G, Immunoglobulin M, Kalikrein, Lactoferrin, Lipase, Lactic dehydrogenase, Lysozyme, Mucins, Nerve growth factor, Parotid aggragins, Peptidase, Phosphatases, Proline-rich proteins, Ribonucleases, Salivary peroxidases, Secretory component, Serum proteins (trace), Tyrosine-rich proteins, and Vitamin-binding proteins

B. Small Organic Molecules

Creatinine, Glucose, Lipids, Nitrogen, Sialic acid, Urea, Uric acid

C. Electrolytes

Ammonia, Bicarbonate, Calcium, Chloride, Fluoride, Iodide, Magnesium, Non-Specific buffers, Phosphates, Potassium, Sodium, Sulphates, Thiocyanate

IV. Enzyme Activities

A. Lactoferrin, Lysozyme and Lactoperoxidase

- >Lactoferrin is an iron binding protein secreted by salivary glands and gingival fluid.
- >Lactoferrin inhibits pathogenic bacteria by depriving them of iron, which the bacteria requires for growth.
- >Lysozyme is an enzyme which splits the cell wall of pathogenic bacteria.
- >Lysozyme can kill pathogenic bacteria without disturbing healthy oral flora (thus helps to stabilize the oral environment).
- >Lysozyme is also known to have an effect on oral yeast.
- >The goal is to avoid the negative manifestations of xerostomia by maintaining the balance of key enzymes and proteins.
- >Lactoperoxidase has been shown to be bacteriostatic against gram

positive organisms and exhibits pH dependent bacteriocidal action against gram-negative organisms in the presence of thiocyanate and hydrogen peroxide.

>Lactoperoxidase offers the following benefits:

- Antimicrobial properties
- Resistant to proteolysis (Digestion of proteins)

B. Glucose Oxidase

>An enzyme which acts upon glucose produced from food ingestion.

Used in the production of hydrogen peroxide, it helps to recreate the salivary peroxidase system.

>Enzymes in saliva activate a reaction between thiocyanate (a substance found in saliva), hydrogen peroxide (produced by bacteria in the mouth and oxygen. This reaction creates hypothiocyanate, a natural anti-bacterial agent found in healthy saliva!

>Hypothiocyanate, when combined with Lactoferrin, Lacto-peroxidase, and Glucose Oxidase, inhibits the growth and development of the bacteria which can lead to the deterioration of oral health. In a healthy mouth this continuous, vital cycle is always present and helps to contribute to and maintain good oral health.

>The lactoperoxidase system has an effect on Gram (+) bacteria, Gram (-) bacteria, Yeasts and Viruses when concentration is above 100 micromolar.

V. Clinical Observations

A. Clinical signs associated with xerostomia and salivary gland hypofunction

- >Loss of moist, glistening of the oral mucosa
- >Dryness of the oral mucous membranes
- >Oral mucosa appears thin and pale
- >Fissuring and lobulation, dorsum of the tongue
- >Angular cheilosis / cheilitis
- >Gingivitis
- >Cracked, bleeding tissue
- >Inflammation
- >Difficulty wearing dentures
- >Mucositis
- >Candidiasis: especially on the tongue and palate
- >Dental Caries: increase in prevalence: located in sites generally not susceptible to decay
- >Thicker, more stringy, whole saliva
- >Difficulty with milking saliva from the ducts of the major salivary glands

1.) Tongue Scraping

a.) Tongue Sweeper (Metal vs. Plastic)

B. Sodium Lauryl Sulfate

>Some people suffer from recurrent aphthous ulcers, commonly known as fever blisters or canker sores, inside the mouth. There is a possibility that recurrent aphthous ulcers may be due to an allergic reaction to a common foaming agent in toothpaste known as sodium lauryl sulfate.

>A recent report suggests that some people get fewer canker sores when they switch to a toothpaste that doesn't contain SLS.

>Researchers speculate that SLS dries out the protective mucous lining in the mouth...making it vulnerable to irritants that lead to canker sores.

>SLS is a detergent that is in almost all toothpastes, dishwashing soaps and body washes.

People prone to canker sores should try an SLS-free toothpaste such as, Biotene or Rembrandt Natural Toothpaste.

C. Debacterol

>A dark brown, semi viscous liquid that contains sulfonated phenolics, which are antiseptic agents with topical analgesic properties. It also contains sulfuric acid, which is a tissue denaturant and sterilizing agent.

D. Rincinol and Aloclair™ Gel & Mouthrinse

Fast, pain-free relief from canker and mouth sores
Forms a thin, invisible, protective coating that promotes healing
Prevents irritation of sensitive nerve endings for hours
No numbing benzocaine
No stinging hydrogen peroxide – No burning alcohol
Aloe Vera helps soothe, hydrate and heal
Swish for 60 seconds

E. Viroxyn

>A unique approach to treating Cold Sores. Applied topically and works by acting directly on the mature virus.

F. Duraphat

>5% Sodium Fluoride Varnish that is released over 28 weeks.

G. OMNII Vanish

> 5% Sodium Fluoride Varnish, white.

H. Ultradent Flor-Opal

> 5% Sodium Fluoride Varnish, white, syringe delivery system.

I. Why Xylitol?

>Xylitol is a naturally occurring sweetener found in berries, fruits and mushrooms. It also occurs in small quantities in the human body during its normal metabolism of glucose.

>Xylitol is typically manufactured from birch trees, or other natural xylan-rich sources.

>It reduces caries because xylitol alone actually inhibits the growth of streptococcus mutans, thereby reducing caries susceptibility.

>Xylitol's pleasant sweet taste stimulates salivary flow, which in turn increases plaque pH and neutralizes acids produced from other fermentable carbohydrates.

>The increased flow of saliva will also promote the remineralization of early caries lesions.

>Plaque that forms when using xylitol products is less sticky than sucrose-induced plaque. This type of plaque is less adhesive enabling easier removal when brushing and flossing.

>Including xylitol in a fluoride toothpaste results in a 12% reduction in decay filled surfaces after three years, compared with the fluoride only toothpaste.

>It is the natural sweetener found in Biotene, Oralbalance, Tom's of Maine and Mouth Kote.

- The Xylitol causes dogs to secrete insulin so their blood sugar drops very quickly. The second thing that happens is liver failure.
- Induce vomit, give a charcoal drink to absorb the toxin, then they would start an iv with dextrose.
- Blood sugar has been known to drop from 90 to 59 in 30 minutes.

J. Sorbitol and Mannitol

>Other sugar alcohols that occur naturally in fruits and vegetables.

VI. Causes of Xerostomia

A. Known and Suspected Causes Associated with Xerostomia

<u>Disease / Condition</u>	<u>Examples</u>
Drugs / Medications	Anorectics ,anticholinergics antidepressants, smoking cessation, sedatives, hypnotics, antihistamines, antiparkinsonian drugs, antihypertensive agents, and diuretics
Irradiation	Therapeutic radiation (for cancer) to the head and neck.

Oral Cancer

- >Accounts for 3.6% of all cancers diagnosed.
- >30,000 new cases reported annually.
- >Men twice as likely to develop Oral Cancer usually over 45 years.
- >Roughly 9,000 deaths annually.
- >Fewer than ½ cases cured because of late diagnosis.
- >Causes: Tobacco, Alcohol, betel nut, excessive sun exposure, HPV, or genetically inherited.
- >Warning signs include, red, white or discolored lesions, patches lumps in or around the mouth, or consistent bleeding from the mouth or throat.
- >Typically painless, although when it spreads, lesions become painful.
- >Oral CDX

Psychogenic Disease	Depression, anxiety
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Decreased Mastication	Animal and limited human data indicate that intake limited to liquid or soft foods lead to a decrease in flow of saliva. Contribution to the feeling of oral dryness is not known.
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Aging	Some investigations maintain salivary flow declines with age; postmenopausal women may demonstrate a reduced rate.
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Organic Diseases

Sjogren's Syndrome:

- An autoimmune disease that causes dryness. It can occur in two forms:
- Primary : By itself and not associated with any other disease.
- Secondary : In association with other forms of arthritis, such as rheumatoid arthritis, lupus or scleroderma (hard skin).
- The lymphocytes invade and damage the moisture-producing glands, such as tears and saliva.

*Diagnosing Sjogren's Syndrome (Schirmer test or blood tests)

Diabetes mellitus

Hypertension

Cystic fibrosis: Decreases flow in mucus-secreting minor salivary glands

Neurologic disorders

Bell's palsy

Cerebral palsy

Trauma

Additional Conditions

Dehydration: impaired water intake; loss of water through the skin (fever, burns, excessive sweating)

Blood loss, vomiting, diarrhea

Renal water loss, polyuria, osmotic diuresis

Respiratory complications, intubation

Salivary gland surgical removal

Mouth breathing

B. Saliva Check

- >During normal flow, salivary glands secrete about 2 to 4 pints of spit into your mouth every day.
- >We can test saliva for Quality, pH and buffering capacity.

VII. Management

A. Tips for Consulting Xerostomia Patients

- >Purchase a Sonicare Toothbrush, with fluid dynamic cleaning action, new FlexCare.
 - 95% Patients improved overall oral hygiene.
 - 92% Patients improved periodontal status.
 - 93% Patients were satisfied with Sonicare Elite.
 - 2 out of 3 dental professionals noted improvement in their oral health.
 - 98% of dental professionals would recommend Sonicare Elite to their patients.
 - Removes Over 80% of Coffee, Tea and Tobacco stain!
- >Review patient's current medications and xerostomic effect.
- >Advise patient to conduct a daily mouth exam: check the inside of the cheeks, the roof of the mouth, the gums, and the tongue daily for red, white or dark patches and ulcers, and report them to their doctor.
- >Visit your dentist regularly for prophylactic maintenance. Request fluoride treatments.
- >Maintain meticulous oral hygiene using SLS-free , fluoridated toothpaste.
- >Moisten your mouth with artificial saliva as needed.
- >Apply lip lubricants or balms without menthol as required.
 - *Palmer's Cocoa Butter Stick
- >Drink liquids with meals and use gravies, sauces, yogurt, broth, margarines and mayonnaise to make food easier to swallow.
- >Puree foods or try soft foods.
- >Avoid dry foods, or soften them with liquids before eating.
- >If it is too difficult to eat a full meal, try eating smaller, more frequent meals.

- >Carry a small water bottle so you can take frequent sips during the day.
- >Chew sugarless gum and suck sugarless hard candies.
- >Avoid alcoholic, carbonated, citrus and caffeine-containing drinks.
- >If acidic juices irritate your mouth, try fruit flavored drinks or milk.
- >Avoid overly salty foods.
- >Avoid chewable vitamin C tablets and acidic, sugared lozenges.
- >Avoid alcohol or peroxide based mouthwashes.
- >Use of Periostat and Arestin if needed for periodontally involved patients.

VIII. Dry Mouth Treatment That Really Works!!

A. Biotene Dry Mouth Toothpaste

- >Contains three salivary enzymes- Lactoperoxidase, Glucose oxidase, and Lysozyme- that boosts and replenishes saliva's own defenses.
- >Clinically proven to inhibit harmful microorganisms associated with gingivitis and oral irritations.
- >Promotes healing of bleeding gums and inflammation.
- >Fights both the cause and the effects of Halitosis.
- >Formulated for the bedridden patient or the handicapped that may have difficulties maintaining good oral hygiene.
- >Sodium Lauryl Sulfate free formula is extra gentle to dry tissues and prevents cold sores and ulcers.

B. Biotene PBF Plaque Dissolving Toothpaste

- >Contains MUTANASE and DEXTRANASE, plaque dissolving enzymes to dissolve and control plaque build-up.

C. Biotene Sensitive Toothpaste

- >Contains Enzyme LP3 Complex.
- >5% Potassium Nitrate.
- >SLS Free.
- >Delicious Flavor!

D. MI Paste / MI Paste Plus

- >Water-based, sugar free crème which contains Recaldent Technology.
- >Combines Calcium and Phosphate (ACP) and a natural milk protein (CPP) that promotes REMINERALIZATION by binding to dental plaque.
- >Releases Calcium and Phosphate ions for over 3 hours!!
- >Promotes the uptake of Fluoride ions that are in the environment.
- >Safe to swallow.
- >Perfect for Dry Mouth Patients, High decay issues, Root sensitivity, Bleaching and white spot lesions from ortho.
- >Can use the 9910 code as a desensitizing agent.

USE regular MI Paste

- After tooth whitening
- For pregnant mothers
- For children six years and under
- During and/or after orthodontics
- For desensitizing
- To provide extra protection for teeth

USE MI Paste Plus

- + For white spot lesions
- + For desensitizing
- + During and/or after orthodontics
- + For medically compromised patients
- + Salivary dysfunction / dry mouth
- + For patients with acidic oral environment
- + For erosion and gastric reflex
- + For patients with poor plaque control
- + For high caries risk patients
- + To provide extra protection for teeth

E. Tom's of Maine Natural Anticavity Dry Mouth Toothpaste

- >Sweetened with xylitol.
- >Uses glycerin for moistening.
- >Uses the natural ingredient [glycyrrhizin](#) (from purified licorice root) to create a patent-pending natural foaming experience for ingredient

dispersal without SLS.

F. Colgate Privident 5000 1.1% Sodium Fluoride Prescription Toothpaste

G. Sunstar / Butler Alcohol FREE Chlorhexadine

*The efficacy of non-alcohol CHX rinses is supported by a number of clinical and in vitro studies.

*Studies in the US and Europe have shown that a non alcohol CHX rinse is equally as effective as one with alcohol.

*The FDA approved the new GUM CHX rinse as therapeutically equivalent to currently available CHX rinses - all which contain alcohol.

*"The GUM® brand oral rinse is unlike all the other chlorhexidine gluconate rinses on the market," remarked Michael G. Bava, President of Sunstar Butler. "It is important to note that alcohol does not make CHX more effective; it's not necessary for any patients, not appropriate for many, and not desirable for most."

*All other chlorhexidine gluconate rinses sold in the US contain 11.6% alcohol by volume.

H. Biotene 100% Alcohol -Free Mouthwash (GALLON SIZE AVAILABLE)

>Contains three antibacterial enzymes that kill bacteria found in gingivitis and oral infections.

>Contains Aloe Vera to heal damaged and irritated tissues.

>Specially formulated to actually soothe as it cleans.

> pH 5.0 – 5.5, close to pH of the mouth.

>Acts quickly to help neutralize mouth odors.

>Promotes gingival health without detergents, strong flavors, CPC and the stinging of alcohol.

>Works without staining.

>Sweetened with xylitol.

> CPC becomes ineffective when it comes in contact with Fluoride. (JCP Volume 30, issue 3, page 255, 3/03)

0.05% CPC is a category III drug and has not be reclassified to a class I drug to a lack of data to support it's safety and effectiveness. (59 Fed Reg. 6084) (Feb 9, 1994)

Alters Oral Microflora

>**Hydrogen Peroxide**

>Patients believe the bubbling effect is beneficial.

>Agent is antibacterial, but intraorally it breaks down rapidly to water.

>Chronic use of H₂O₂ may cause oral lesions or even malignant changes.

>**Branemark** published data stating hydrogen peroxide in concentrations greater than 3% will delay wound healing in the first week.

I. Biotene PBF Mouthwash

> Plaque is a biofilm created by bacteria to hide within. If not controlled, plaque can lead to hard to remove tartar and excessive bacteria growth, gum disease, tooth decay and bad breath.

>Biotene PBF *BREAKTHROUGH* chemistry dissolves excessive plaque-biofilm on teeth, exposing hidden bacteria and allowing the body's natural antibacterial system to be more effective!

> Contains two new enzymes, mutanase and dextranase plus Biotene's patented LP3 salivary enzyme system for a healthier mouth

>Provides longer lasting fresh breath

>100% Alcohol-FREE

>100% SLS-FREE

>Sweetened With Xylitol to help fight cavities

J. Oasis 100% Alcohol-Free Mouthwash

>Uses glycerin for moisturizing.

>pH 6.0

>Contains Cetylpridinium Chloride.

>Uses Sorbitol for a sweetener.

>Contains FD&C Blue no. 1 dye.

>Contains Sodium Saccharin that feeds harmful bacteria.

K. Tom's of Maine 100% Alcohol-Free Mouthwash

>Sweetened with xylitol.

>Uses glycerin for moistening.

L. Oxyfresh Mouthrinse

>Contain the exclusive proprietary ingredient Oxygene®, which safely and completely destroys odors that cause bad breath at their source!

Oxygene® literally dissolves odor-causing microorganisms by attacking volatile sulfur compounds (VSCs), neutralizing their odorous by-products and the harmful effect they have in the mouth.

>This formula has been carefully designed to contain no flavoring or sweeteners of any kind.

M. Crest Pro-Health 100% Alcohol-Free Mouthwash

>Contains CPC.

>Contains FD&C Blue no. 1 dye.

>Contains glycerin.

>Contains Sodium Saccharin that feeds harmful bacteria.

N. Oralbalance- Long lasting Moisturizing Gel

- >A new type of oral lubricant specially formulated to actually help promote healing as it moistens.
- >Soothes and protects dry oral tissues from minor irritations, itching and burning sensations.
- >Provides up to eight hours of comfort.
- >Contains Biotene antibacterial enzymes to help neutralize odors and unpleasant taste.
- >Non-drying formula also helps mouth breathers.
- >Improves retention under dentures.
- >Aloe Vera based because it is a tissue moisturizer, and anti-inflammatory agent and an enhancer of normal cell proliferation and epithelialization.
 - *The fresh gel from the aloe vera plant has been used internally and externally since at least 400 B.C.
 - *The benefits of aloe vera have been confirmed by research in medical schools, independent laboratories, and by a large number of clinical cases.

O. BioXtra

- >Lactoperoxidase, Lactoferrin, Lysozymes and immunoglobulins which are all extracts of natural salivary components
- >Other ingredients include Xylitol, Fluoride, Whey Extract, Aloe Vera, Glucose Oxidase and moisturiser

P. Oralbalnce Liquid

- >Contains Bio-Active enzymes with Essential Amino Acids to recreate the natural protection found in the mouth.
- >Enhanced by pampering textures and a soft flavor to relieve burning sensations.

Q. Biotene Dry Mouth Spray

- >Triple Enzyme Protection, All Natural,
- >Portable, Soothes on contact, Xylitol, Great taste

R. GC America Dry Mouth Gel

- >Has a neutral pH
- >Sugar-free and alcohol free
- >Pleasant tasting – comes in five delicious flavors, fruit salad, lemon, mint, orange and raspberry

S. Tom's of Maine Dry Mouth Soother

- > SLS-free

- >The foaming properties of glycyrrhizin (from purified licorice root) replace the need for SLS (which may, for some people, occasionally be irritating) or an SLS alternative.
- >Soothing brushing experience
- >We've added xylitol (from birch trees or corn), gentle glycerin, and organic aloe for their soothing properties.
- >Prevents cavities
- >Naturally sourced fluoride remineralizes soft spots on teeth before they turn into cavities.
- >Mild non-mint flavor
- >Delicious natural flavor oils leave your mouth feeling clean and fresh.

T. Orajel Dry Mouth Moisturizing Gel

- >Uses glycerin as a moisturizer.
- >Contains a patented antioxidant complex to provide relief of dry mouth symptoms. (Thione)

U. Salivart

- >Gentle, aerosol spray.

V. Mouth Kote

- >Sweetened with xylitol.
- >Lemon-lime taste.
- >Contains natural mucopolysaccharides which mimic glycoproteins in saliva by holding the aqueous component in contact with the epithelial cells, which protects moisture.

W. Rain Dry Mouth Spray

- >Xlear, makers of Spry
- >*Ingredients:*
Purified Water, Xylitol, Aloe Vera Concentrate, Vegetable Glycerin, Natural Spearmint Flavoring, Calcium Glycerophosphate, Cellulose Gum, and Grapefruit Seed Extract as a preservative.

X. Numoisyn

- > Lozenges and Liquid RX

Y. TheraSpray

- > Xylitol, Microdent, Alcohol-Free

Z. Stoppers 4 Dry Mouth Spray

- >Water (Deionized), Glycerin, Xylitol, Hydroxyethyl Cellulose, Lysozyme, Lactoferrin, Glucose Oxidase, Spearmint Flavor (Natural), Sodium Benzoate

AA. Pilocarpines (Salagen and Evoxac)

- >A cholinergic drug that mimics the effects of the chemical acetylcholine, which is produced by nerve endings.
- >Acetylcholine acts as a messenger between nerve cells and the organs they control.
- >For example, acetylcholine is responsible for causing the salivary glands to make saliva, and the lacrimal glands to make tears to lubricate the eyes.
- >Side effects include:
 - *Excessive sweating, chills, dizziness, tremor, increase in urination, visual disturbances, diarrhea, difficulty swallowing, abdominal pain, nausea, vomiting and slow heart rate.

BB. Biotene Supersoft Toothbrush

- >Extra soft 0.003 bristles, assure a gentle cleaning without irritating inflamed or unhealthy tissues.
- >Tapered bristles safely and effectively remove plaque and food debris from gumline.
- >Over 4,000 hair-like bristles comfortably massage extra sensitive areas.

CC. Biotene Dental Chewing Gum

- >Reduces mouth sugars.
- >Stimulates saliva.
- >Does not stick to dentures.
- >Sweetened with xylitol
- >Contains salivary enzymes.

TIPS FOR CONSULTING XEROSTOMIC PATIENTS

- > Review patient's current medications and xerostomic effect.
- > Advise patient to conduct a daily mouth exam: check inside mouth for red, white or dark patches and report them to their doctor.
- > Visit your dentist regularly for prophylactic maintenance.
Request fluoride treatments.
- > Maintain meticulous oral hygiene using fluoridated, SLS free toothpaste.
 - > Moisten your mouth with artificial saliva as needed.
 - > Have your doctor prescribe a pilocarpine if necessary.
 - > Apply lip lubricants without menthol as required.
- > Drink liquids with meals, and add sauces or gravies to make food easier to swallow, try to avoid dry foods.
 - > Try eating smaller, more frequent meals.
 - > Carry a water bottle with you during the day.
- > Chew sugar FREE gum and suck sugar FREE hard candies.
 - > Avoid alcoholic, carbonated, citrus and caffeine drinks.
 - > Avoid alcohol or peroxide based mouthwashes.

Products Guide
Xerostomia Lecture, Shannon M. Nanne, RDH
1-216-288-3232, snanne@laclede.com

Laclede, Inc.

Biotene, Oralbalance (Gel and Liquid), Denture Grip, Fl Foam, First Teeth

1-800-922-5856

www.laclede.com

GC America

Saliva Check, MI paste

1-800-323-7063

www.gcamerica.com

Lexi-Comp (A Patient's Guide To Periodontal Disease, by: Shannon M Nanne, RDH)

<http://www.lexi.com>

Colgate

Prevident 5000 Plus 1.1% Sodium Fluoride Toothpaste (Rx) **Contains less than 1% SLS

Prevident Brush on Gel (Rx) **SLS Free

Duraphat 5% Sodium Fluoride Varnish

1-800-821-2880

www.colgateprofessional.com

Debacterol (Chemical curettage of oral mucosa for apthous ulcers)

1-888-884-4675 (Melissa for special pricing) www.epien.com

Viroxyn (Effective for HSV 1 and 2 lesions) 3 single dose treatments per box

1-888-437-7374

www.ColdSoreGone.com or contact Shannon Nanne, RDH for special pricing.

Sonicare

1-800-676-7664

www.sonicare.com

Crest Pro-Health Rinse

www.dentalcare.com

Xylitol info: www.xylitol.org / <http://www.DRGreen.com> / www.xylitolinfo.com

Animal Poison Control Center (888) 426-4435 or visit www.asPCA.org/apcc

Refresh Eye Drops

<http://www.allergan.com>

Tongue Sweeper, Biocurv Medical Instruments

(1-800-589-3043) Brian

www.tonguesweeper.com

Periostat

1888-339-5678 or <http://www.periostat.com>

Oasis (GSK) 1-800-652-5625

Arestin (Developed by OraPharma, acquired by Johnson & Johnson 11/13/02)

1-866-273-7846 or <http://www.Arestin.com>

Palmer's Lip Balm

<http://www.etbrowne.com/>

Tom's of Maine

<http://www.tomsofmaine.com>

Salivart

<http://www.gebauerco.com> or 1-800-321-7178

MouthKote

<http://www.parnellpharm.com> or 1-800-457-4276

Salagen

<http://www.mgipharma.com> or 1-800-562-5580

Evoxac (Daiichi Pharmaceutical)

<http://www.evoxac.com> or 1-888-727-2500

Ultradent Flor-Opal

www.ultradent.com or 1-800-552-5512

Vanish, TheraMints, TheraSpray, TheraGum

OMNII Oral Pharmaceuticals

www.omniipharma.com

Sunstar / Butler

1-800-528-8537 <http://www.jbutler.com>

Omni 3M

1-800-445-3386 <http://www.omniipharma.com/>

Xlear (Spry, Rain Spray) 1-877-599-5327 <http://spry dental.com/>