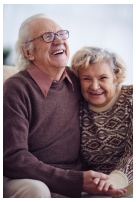
Interprofessional Geriatrics Training Program

Oral Health for the Older Adult



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Acknowledgements

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Oral Health in Older Adults

- Over 50% of adults over 65 are edentulous
- Over 25% of 65- to 74-year-olds have severe periodontal disease
- Individuals living in long-term care (LTC) facilities are likely to receive inadequate dental care
- Oral pharyngeal cancers are primarily diagnosed in the elderly
- Most elderly individuals take prescription and OTC medications which cause xerostomia [not in narration]

(U.S. Department of Health & Human Services, 2000)

Learning Objectives

Upon completion of this module, learners will be able to:

1. Describe the unique oral health needs of the older adult
2. Identify the oral health needs of the severely medically compromised older adult
3. Discuss the utilization of oral hygiene maintenance therapies for older adults with dentures
4. Describe assessment and management of common oral health problems including xerostomia, stomatitis, dysphagia, aspiration pneumonia, candidiasis, and oral cancers

Oral Health Strategic Framework, 2014-2017

- Total health and wellness are inextricably linked to oral health
- Oral disease has an impact on physical, psychological, social, and economic health and well-being, often resulting in pain, diminished function, and reduced quality of life

(U.S. Department of Health & Human Services, n.d.)

Interview with Expert: Robert Rada, DDS, MBA

Expert Interviewee: Robert Rada, DDS, MBA
Impact of Oral Health on Overall Health

Listen to Our Expert Discuss:

- Impact of oral health on overall health
  - Oral health contributes to overall quality of life
  - Poor oral health can impact a patient's ability to:
    - Smile
    - Chew
    - Interact with others
    - Communicate

Other Medical Conditions and Oral Health

- Older adults are more likely than any other age groups to have medical conditions, such as diabetes and cardiovascular disease, that worsen their oral health, and vice versa

Expert Interviewee: Robert Rada, DDS, MBA
Impact of Oral Health on Overall Health

Listen to Our Expert Discuss:

- Oral health has implications for diabetes
- Poor gum disease and abscesses in the mouth can have a negative impact on glycemic control and diabetic health
- Many areas of association with poor oral health and systemic illnesses

Other Medical Conditions and Oral Health

- Approximately 1 in 5 people in all age groups has untreated dental caries
- Not all can find adequate coverage for care, as Medicare does not provide oral health services
- The percentage of adults (age 65 and older) who reported they did not obtain dental care because they could not afford it doubled from 3.5% in 2001 to 7.0% in 2011

(U.S. Department of Health & Human Services, n.d.)

Expert Interviewee: Robert Rada, DDS, MBA
Affording Oral Health Care

Listen to Our Expert Discuss:

- Affording oral health care
  - Medicare does not cover oral health unless the individual is in the hospital and it is required for a procedure
  - Dental care is among the top five costs that elderly individuals incur

Expert Interviewee: Robert Rada, DDS, MBA
Affording Oral Health Care

Listen to Our Expert Discuss:

- Other options for affording care
  - Many plan in their retirement savings for dental care
  - Medicaid is an option for others, but in some states it does not cover adult care at all
    - Illinois Medicaid has limited coverage for dental care with low reimbursements

Expert Interviewee: Robert Rada, DDS, MBA
Affording Oral Health Care

Listen to Our Expert Discuss:

- Other options for affording care (continued)
  - Federally Qualified Health Centers, public health clinics, and dental schools are options for receiving care at a reduced cost
  - Incurred medical expenses are also an option in a nursing home setting
    - Nursing home fees can pay for dental care and be reimbursed by Medicare

Expert Interviewee: Robert Rada, DDS, MBA
Affording Oral Health Care

Listen to Our Expert Discuss:

- Due to to the high costs associated with dental care, many elderly people go without dental care
- Many patients have had good dental care because they had dental insurance throughout their lifetime, but when they reach retirement age, many are unable to receive quality care

Goals of the Oral Health Strategic Framework, 2014-2017

1. Integrate oral health and primary health care
2. Prevent disease and promote oral health
3. Increase access to oral health care and eliminate disparities
4. Increase the dissemination of oral health information and improve health literacy
5. Advance oral health in public policy and research

(U.S. Department of Health & Human Services, n.d.)

As We Age, So Do Our Teeth and Oral Soft Tissues

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This is Not Just "Getting Older"

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Denture Sore

Oral Cancer

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Assessment Question 1

Which of the following is incorrect?

a) Over 25% of 65- to 74-year-olds have severe periodontal disease
b) Over 50% of adults over 65 are edentulous
c) Oral pharyngeal cancers are rarely diagnosed in the elderly
d) Individuals living in long-term care facilities are likely to receive inadequate dental care

Assessment Question 1: Answer

Which of the following is incorrect?

a) Over 25% of 65- to 74-year-olds have severe periodontal disease
b) Over 50% of adults over 65 are edentulous
c) Oral pharyngeal cancers are rarely diagnosed in the elderly (Correct Answer)
d) Individuals living in long-term care facilities are likely to receive inadequate dental care

Xerostomia (Dry Mouth)

Xerostomia (Dry Mouth) Outcomes

- Constant thirst
- Dysphagia
- Altered speech
- Difficulty wearing dentures
- Oropharyngeal infections
- Difficulty moving food around the mouth
- Mucous accumulation
- Food retention
- Plaque accumulation
- Changes in oral flora
- Mucosal tissue changes
- Taste alterations
- Dental caries

What Does Dry Mouth Look Like?

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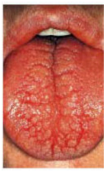
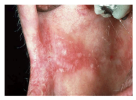


Photo courtesy Peri-Products UK



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Severe Tooth Decay

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Expert Interviewee: Robert Rada, DDS, MBA
Dry Mouth and Older Adults

Listen to Our Expert Discuss:

- How dry mouth impacts the older adult
  - When the mouth is dry, there is less saliva
  - Saliva has a number of protective factors that are valuable to the oral cavity
  - When a patient has a dry mouth, tissues do not feel comfortable and are not lubricated well, causing food and the tongue to move poorly around the mouth
  - When the mouth becomes dry, teeth can rub against the cheeks, mucosa, or lips, causing redness and pain

Expert Interviewee: Robert Rada, DDS, MBA
Dry Mouth and Older Adults

Listen to Our Expert Discuss:

- How dry mouth impacts the older adult (continued)
  - Discomfort in chewing their food
  - Dry mouth can limit an individual's ability to taste food
  - Saliva has protective factors that protect against cavities
    - With less saliva, the potential for cavities increases

Expert Interviewee: Robert Rada, DDS, MBA
Dry Mouth and Older Adults

Listen to Our Expert Discuss:

- How dry mouth impacts the older adult (continued)
  - Older adults frequently have some recession on their teeth, meaning the roots are showing
  - Roots are prone to decay, and the root can be destroyed in a matter of months without the enzymes and saliva that will protect against cavities

How the Provider Can Counsel the Patient

- As a clinician, dry mouth is a common issue that needs to be addressed in all older adults, but there are management techniques to combat the side effects of xerostomia
- Advise patients to:
  - Avoid sugary snacks between meals
  - Consider using oral lubricants
  - Ask their dentist about prescription fluoride toothpastes

Expert Interviewee: Robert Rada, DDS, MBA
Combatting Xerostomia

Listen to Our Expert Discuss:

- Best way to combat xerostomia
  - Variety of artificial saliva products and substitutes, such as glycerin

Denture Care

Denture Adhesives

- As over 50% of adults over 65 are edentulous, dentures and denture adhesives are a widely-used solution
- Sales for denture adhesives alone are in excess of $200 million
- However, there are issues that accompany the use of dentures, such as denture sores

Denture Adhesives

Two Categories of Denture Adhesive

- Insoluble:
  - Pads and wafers
  - Useful for very atrophic jaw bones
- Soluble:
  - Creams, pastes, and powders
  - More difficult to clean, easy to apply
  - Apply in modest amounts
  - Often swell by 50%-150% to cover the needed surface area to create a comfortable wear

Expert Interviewee: Robert Rada, DDS, MBA
Dentures

Listen to Our Expert Discuss:

- Common problems older adults experience related to dentures
  - Dentures present challenges because, when a patient has dentures, the patient does not have the same chewing power that they would with even a few teeth in the mouth
  - An upper denture often fits well, while lower dentures are frequently mobile and present more challenges
  - Dental implants are now available, which allow the denture to be anchored

Expert Interviewee: Robert Rada, DDS, MBA
Dentures

Listen to Our Expert Discuss:

- Common problems older adults experience related to dentures (continued)
  - The looseness common in lower dentures can be remedied in many patients
  - Some patients fear dental implants because of the surgery involved, but it is often a fairly non-invasive procedure
  - Even patients with complex medical histories can receive dental implants to remedy their dentures

Expert Interviewee: Robert Rada, DDS, MBA
Dentures

Listen to Our Expert Discuss:

- Common problems older adults experience related to dentures (continued)
  - For patients with dentures that have some mobility, denture adhesives are a good option
  - Denture adhesives are used to cushion the denture and to provide retention for the individual
  - However, the denture should be examined by a dentist to see if it is properly fitting

Expert Interviewee: Robert Rada, DDS, MBA
Dentures

Listen to Our Expert Discuss:

- Common problems older adults experience related to dentures (continued)
  - If the denture is properly fitting and the adhesive is used as an adjunct, that is an appropriate solution
  - However, if the denture is ill-fitting and the adhesives are being used to hold a poor-fitting denture in place, then the person could develop problems with sores, infections under the denture, and difficulties in keeping the denture clean

Denture Stomatitis: Causes

- Denture stomatitis, or denture sore mouth, is also a common problem
- Can be caused by:
  - Fungal infection (*C. albicans*)
  - Poor denture hygiene, denture fit, nutrition
  - Immunosuppression
  - Wearing dentures continuously day and night

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(U.S. Department of Health & Human Services, 2000)

Denture Stomatitis: Treatment

- Daily denture cleaning with a modified brush
- Wear dentures only during the day
- Rinse mouth with nystatin
- Soak dentures in nystatin mixed with water
- Address denture fit (relining as needed) and systemic issues

Modified Brushes

Photos Not in Film

Photos courtesy of Dr. Rada

Expert Interviewee: Robert Rada, DDS, MBA
Denture Stomatitis

Listen to Our Expert Discuss:

- How a caregiver can help with an older adult's denture stomatitis
  - Many older adults do not take their dentures out at night, or rarely remove them at all, which can lead to a buildup of plaque
  - Important for the caregiver to take the denture out, brush the denture under simple soap and water, place the denture in denture cleaners and rinse before placing back in the mouth

Expert Interviewee: Robert Rada, DDS, MBA
Denture Stomatitis

Listen to Our Expert Discuss:

- How a caregiver can help with an older adult's denture stomatitis (continued)
  - It is also important for the caregiver to go into the person's mouth with a simple wet gauze or moist washcloth to wipe the tissues
  - This is done to ensure that everything is smooth, that the person will not get a buildup of food, and to reduce the potential for discomfort

Management: Mucositis and Stomatitis

Chemo- and Radiation Therapy:

- Lidocaine viscous 2%
- Lidocaine spray 10%
- Diphenhydramine hydrochloride 5% and loperamide in equal parts* (dyclonine 0.5% may be added to increase potency*)
- Dyclonine hydrochloride* 0.5% or 1%
- Magic mouthwash
- Sucralfate suspension 10 mL 4 times a day, swished and swallowed or expectorated
- Benzydamine* 15 mL 3-4 times/day, rinsed and expectorated
- Morphine 2%
- Reduction of potential localized factors
- *Off-label use, not FDA approved for stomatitis

Expert Interviewee: Robert Rada, DDS, MBA
Chemotherapy and the Mouth

Listen to Our Expert Discuss:

- How chemotherapy affects the mouth
  - Several problems are associated with chemotherapy because it is a generalized therapy that affects all the tissues in the body
  - Some types of chemotherapy can cause canker sores in the mouth
  - Not all types of chemotherapy cause problems in the mouth, but many do

Expert Interviewee: Robert Rada, DDS, MBA
Chemotherapy and the Mouth

Listen to Our Expert Discuss:

- What products are recommended for these issues
  - Some products are available to help manage the sores caused by chemotherapy
  - The physician can prescribe a rinse, often called a magic mouthwash, which can include magnesium hydroxide and diphenhydramine
  - The magic mouthwash works as a general pain reliever and reduces inflammation

Expert Interviewee: Robert Rada, DDS, MBA
Radiation Therapy and the Mouth

Listen to Our Expert Discuss:

- How radiation therapy affects the mouth
  - Radiation therapy only presents oral cavity challenges if it is head and neck radiation
  - Radiation therapy damages the salivary glands to the point where they no longer produce saliva, which explains why radiation therapy causes dry mouth
  - This makes a patient highly susceptible to dental caries and dental decay

Expert Interviewee: Robert Rada, DDS, MBA
Radiation Therapy and the Mouth

Listen to Our Expert Discuss:

- How radiation therapy affects the mouth (continued)
  - Patients undergoing head and neck radiation often receive fluoride trays for daily at-home use
  - This allows the patient to continuously keep the teeth mineralized and reduce the potential for cavities

Assessment Question 2

Stomatitis can be caused by poor denture hygiene, denture fit, and nutrition. Patients wear dentures continuously throughout the day and night.

a) Both statements are true
b) Both statements are false
c) The first statement is true; the second statement is false
d) The first statement is false; the second statement is true

Assessment Question 2: Answer

Stomatitis can be caused by poor denture hygiene, denture fit, and nutrition. Patients wear dentures continuously throughout the day and night.

a) Both statements are true
b) Both statements are false
c) The first statement is true; the second statement is false (Correct Answer)
d) The first statement is false; the second statement is true

Oral Care for Patients with Dementia

Clinical Tips When Treating Dementia Patients

- Brush teeth from behind the patient with the patient seated in front of a mirror, if possible
- Approach slowly, and be patient
- Reduce external noise
- Keep sessions as short as possible
- Ask caregiver to remain in the operatory (exam room)
- Consider using a mouth moisturizer
- If the patient becomes agitated, the session is over; try again later

Clinical Tips for Patients with Disabilities

- For elderly patients or patients with disabilities, use chlorhexidine (CHX) spray, which is easy to apply and chemically controls plaque
- Applying 0.2% CHX spray once daily is effective in reducing plaque accumulation and gingival inflammation in institutionalized elderly patients

(Clavero et al., 2003)

Dysphagia

Dysphagia: Symptoms and Treatment

- Delayed swallowing, drooling, dysphonia, or coughing within one minute of swallowing
- Adjust the consistency of food when necessary by:
  - Thickening liquids (add gels, purees, etc.)
  - Thinning foods and liquids (add water, juice, etc.)
- Help the patient maintain an upright position, as near 90 degrees as possible, whenever eating or drinking

Dysphagia: Educate Your Patients

- Take small bites and eat slowly
- Avoid talking while eating
- If one side of the mouth is weak, place food into the stronger side of the mouth
- At the end of the meal, check the inside of the cheek for any food that may have been pocketed

Assessment Question 3

You have an appointment with a patient who has dementia; to make this appointment productive and comfortable for the patient, you should do all of the following EXCEPT:

a) Reduce external noise
b) Ask the caregiver to remain in the exam room
c) Make the session longer than usual
d) Approach him/her slowly and be patient
e) Brush teeth from behind the patient with the patient seated in front of a mirror, if possible

Assessment Question 3: Answer

You have an appointment with a patient who has dementia; to make this appointment productive and comfortable for the patient, you should do all of the following EXCEPT:

a) Reduce external noise
b) Ask the caregiver to remain in the exam room
c) Make the session longer than usual (Correct Answer)
d) Approach him/her slowly and be patient
e) Brush teeth from behind the patient with the patient seated in front of a mirror, if possible

Assessment Question 4

Which of the following statements is true with regard to managing patients with dysphagia?

a) Put the patient in a supine position and tell her/him to take small bites and eat slowly

b) Put the patient in an upright position (as near 90 degrees as possible) and tell her/him to take small bites and eat slowly

c) If one side of the mouth is weak, ask the patient to place food in the weaker side of the mouth to build resistance

d) All of the above

Assessment Question 4: Answer

Which of the following statements is true with regard to managing patients with dysphagia?

a) Put the patient in a supine position and tell her/him to take small bites and eat slowly

b) Put the patient in an upright position (as near 90 degrees as possible) and tell her/him to take small bites and eat slowly (Correct Answer)

c) If one side of the mouth is weak, ask the patient to place food in the weaker side of the mouth to build resistance

d) All of the above

Aspiration Pneumonia

Aspiration Pneumonia

- Approximately 1 in 10 cases of death from pneumonia in elderly long-term care residents may be prevented by improving oral hygiene
- Oral biofilm, the plaque that forms on your teeth and causes tooth decay and periodontal disease, can become colonized by respiratory pathogens and serve as a reservoir for lung infection
- Good oral hygiene results in significantly fewer interventions for pneumonia

(Scannapieco, 2015)

Aspiration Pneumonia

- Pneumonia is the most common cause of death from nosocomial infection in the elderly (Yoneyama et al., 2002)
- Aspiration pneumonia in nursing home residents occurs 10 times more frequently than in elderly community dwellers (Quagliarello et al., 2005)

Aspiration Pneumonia

- Oral bacteria from dental plaque are carried to the lower respiratory tract in saliva (Abe et al., 2008)
- Bacteria carried in saliva have been linked to pathogens involved in pneumonia (Abe et al., 2008)
- These bacteria are also linked to other systemic diseases
- One study suggests that 70% of patients with a history of pneumonia aspirated during their sleep (Kukuchi et al., 1994)

Assessment Question 5

Aspiration pneumonia occurs from oral bacteria from dental plaque being carried to the lower respiratory tract in saliva. Good oral hygiene results in significantly fewer interventions for pneumonia.

a) True
b) False

Assessment Question 5: Answer

Aspiration pneumonia occurs from oral bacteria from dental plaque being carried to the lower respiratory tract in saliva. Good oral hygiene results in significantly fewer interventions for pneumonia.

a) True (Correct Answer)
b) False

Candidiasis

Management: Candidiasis

- Soak dentures in bleach solutions
- Use a nystatin suspension intervention
- Nystatin suspension can be:
  - Used topically
  - Swished and swallowed 3 to 5 times a day
  - Frozen in a sugarless fruit juice
  - Used in a vaginal suppository

Topical
Nystatin suspension, 200,000-500,000 IU, swished and swallowed 3-5 times a day
Nystatin suspension frozen (200,000-500,000 IU) in sugarless fruit juice

ENGAGE - IL

Management: Candidiasis

- Clotrimazole is another treatment for candidiasis, and can be used as a cream applied to dentures 3 to 4 times a day for seven days

ENGAGE - IL

Oral Cancer

ENGAGE - IL

Oral Cancers

- Oral cancer is the eighth most common malignancy in the world, and the incidence rate of oral cancer increases with age
- Oral squamous cell carcinoma accounts for 90% of all oral cancers
- Early carcinomas often go undetected because pain usually is not a factor until the lesion is large
- 65% of oral cancers are not diagnosed until advanced stages
- The most common locations are the tongue and floor of the mouth

(Haumschild et al., 2012)

Oral Cancers

- Leukoplakia, the most common premalignant lesion, is characterized as a white patch that cannot be removed by scraping
- Erythroplakia, or red lesions, should be viewed with a high degree of suspicion
- Erythroleukoplakia, having both a red and white component, is more likely to undergo malignant change
- Any lesion lasting more than two weeks should be suspicious for oral cancer

(Haumschild et al., 2012)

Oral Cancer Screenings

- Early diagnosis is the most important consideration for improving patient survival
- Oral cancer screenings are often omitted during physical assessments, although older adults visit their primary care provider 5-7 times more often than their dentist (Haumschild et al., 2012)
- More older adults consult their medical provider about oral lesions than their dental professionals, as Medicare does not cover dental visits (Haumschild et al., 2012)

Oral Cancer Screenings

- The American Cancer Society recommends that primary care providers examine patients at risk for oral cancer as part of a routine checkup because this would give providers the opportunity to detect oral cancer at an early stage
  - This is important because the 5-year survival rate is 83% for patients diagnosed with localized lesions, compared to a 63% survival rate for all stages combined

(American Cancer Society, 2016)

Oral Cancer Screenings

- Oral cancer screening includes:
  - Comprehensive head, neck, and oral examinations, which include direct extraoral observation, palpation, and intraoral measurements of ulcerations, lumps, swellings, or growths
  - These screenings are easy to perform, take 5 minutes to complete, and can be done bedside or chairside (Haumschild et al., 2012)

Assessment Question 6

Which statement regarding oral cancers is true?

a) The incidence rate of oral cancer decreases with age
b) The most common locations are the tongue and floor of the mouth
c) Early carcinomas are detected from the pain associated with the lesion
d) Erythroplakia is the most common premalignant lesion

Assessment Question 6: Answer

Which statement regarding oral cancers is true?

a) The incidence rate of oral cancer decreases with age

b) The most common locations are the tongue and floor of the mouth (Correct Answer)

c) Early carcinomas are detected from the pain associated with the lesion

d) Erythroplakia is the most common premalignant lesion

SMILE

- **S**creen for oral cancer, beginning with history and the extraoral examination by palpating the head and neck
- **M**ention abnormalities to the patient to solicit further information
- **I**nspect the intraoral area for raised lesions and red or white patches
- **L**ocalize abnormalities by inspection and palpating of the lips, mucosa, palate, tonsillar area, floor of the mouth, and tongue
- **E**valuation, measurement, description, documentation, and referral when indicated

(Haumschild et al., 2012)

Expert Interviewee: Robert Rada, DDS, MBA
Neglected Populations

Listen to Our Expert Discuss:

- Neglected populations
  - Dentists are especially good at treating patients who can come to their office
    - Dentistry is lacking in the ability to go to the patient
    - Access is a considerable challenge for people who are homebound or cannot get to the dentist
    - It is important for caregivers and providers to have an idea of the older adult's oral health because so often that area is not examined by any provider but a dentist

Expert Interviewee: Robert Rada, DDS, MBA
Neglected Populations

Listen to Our Expert Discuss:

- Neglected populations (continued)
  - Some corporations go into nursing homes, but their services are very limited
    - The oral health of nursing home populations is very neglected
    - Very important for other health providers to pay attention to the general oral health care of their homebound older adult patients and to possess some understanding of the mouth

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