Geriatric Oral Health Case

Moderator Version

**Learning Outcomes:**[[1]](#endnote-1)

* Domain: Risk Assessment
* Domain: Oral Health Evaluation
* Domain: Preventive Intervention
* Domain: Communication and Education
* Domain: Interprofessional Collaborative Practice

**Interprofessional Outcomes** [[2]](#endnote-2)

* Value/Ethics for Interprofessional Practice
* Roles Responsibilities
* Interprofessional Communication
* Teams and Teamwork

**Patient Population:** Older adults

**Case Presentation:**

* Patient demographics
	+ MS, is a 63 year old African-American female. She is married to DS who is a 77 year old African-American male who is edentulous and had oral surgery for oral cancer 6 years ago.
* Chief Complaint: “I want my teeth pulled.”
* Patient’s description of the problem (Remember to allow the patient to finish describing the problem before you interrupt with specific questions): “I check my sugar. It is pretty good, only above 200 every once in a while. I have not seen it below 100, or even 150. I feel bad if it gets that low. I know you aren’t a dentist, but I wish you could help me with my teeth. I really want them all pulled, I think that would help, but even if I could afford the dentist bills, I am sure I couldn’t afford any dentures, and then what would I eat? Not that it would make much difference. My teeth hurt so much now all I can eat is bread, noodles and cheese. I drink Cranberry juice because I figure I need nutrition from somewhere. At least it’s a fruit. What I wouldn’t give for a nice, crisp apple. Anyway, my gums bleed every time I brush, and they ache sometimes. I think I could just pull out some of the teeth myself. The last time I went to the dentist, he pulled 4 teeth, but that only helped for about 6 months. And that was before my husband’s cancer surgery, 6 years ago. Is there anything you can do?”
* Medical History (e.g., medical, dental, medications, social, family, etc.)
	+ Diabetes Mellitus that is uncontrolled, HgbA1c has been chronically above 9. Today the HgbA1c is 10.6.
	+ HTN, Hypothyroid, Chronic renal disease stage 3, Obesity, Depression, Dyslipidemia, postmenopausal
	+ Chronic tendonitis in wrists and elbows which ultimately allowed patient to successfully file for disability/early retirement at age 52.
	+ Chronic complaints besides oral issues include constipation, vaginal irritation, strong urine odor (hence the cranberry juice that she says she also drinks to prevent urinary tract infections).
	+ Raising 3 nephews who have had various social issues (behavior issues, drug use, poor school performance). She states her religion is Roman Catholic.
	+ Medications: Lantus, levothyroxine, lisinopril, hydrochlorothiazide, amlodipine, pravastatin, aspirin, glyburide, metoprolol. She takes no vitamins and avoids NSAIDs due to her kidney disease. She will sometimes take acetaminophen for pain.
	+ Social: Smokes ½ ppd, used to smoke more. Former heavy alcohol user but has not consumed alcohol in 10 years, denies history of illicit drug use. Husband unable to have intercourse so she has not had sex in 10 years. Patient’s diet is unfortunately not good, for example, one day she was very proud of the fact that she was eating a better breakfast, most recently watermelon. Patient is a retired welder and receives a small disability/retirement payment. She and her husband mow yards in the summer to help make ends meet.
		- Patient states her insurance drug plan constantly changes resulting in higher costs for medications that may take months to figure out and get changed. She quips, “Why do they make the insurance so difficult to understand?!”
	+ Family history: Positive for DM, CAD, HTN and substance abuse and other mental disorders.
	+ Dental: No dental insurance since age 52 when she had to retire early due to work related injuries. She has had poor oral care since that time which has led to her current oral state. She went to a free dental clinic and had 4 teeth pulled 6 years ago, but that was her last exposure to a dentist.
* Physical Examination:
	+ Friendly with an easy smile, but several teeth missing.
	+ Obese with a BMI of 41. VS: BP 123/68 P 57 RR 20 afebrile
	+ Heart and lung exams within normal limits.
	+ Patient has excess abdominal girth but no tenderness noted.
	+ No edema.
	+ Onychomycosis of her toenails
	+ Normal pedal pulses, normal sensation and no lesions noted in her feet
	+ Recent eye exam negative for retinopathy
	+ Patient has 9 upper teeth and 11 lower teeth. 4 upper incisors have been removed as have all 4 wisdom teeth, 3 lower molars, and one upper molar.
		- No bridge or partial at this time.
		- Restorations in 3 of her remaining teeth, but also active decay in several remaining molars.
		- Periodontitis present throughout the gingiva (generalized chronic periodontitis). Several of her teeth are mobile.
		- No other soft tissue abnormality of the tongue, palate, floor of the mouth, buccal mucosa, lips or tonsillar area.
		- Mucosa appears minimally moist
* Lab results: HgbA1c 10.6 today,
	+ Recent labs: Creatinine of 1.18, Liver tests normal, TSH 1.24

**Oral Risk Assessment:**

* What are the patient’s medical and oral related diagnoses?
* Which medical diagnoses can impact oral health?
* Which oral diagnoses impacts overall medical health?
* List patient behaviors that can potentially improve patient’s health. This may be a long list of healthful behaviors, some of which will be specific to this particular patient and case.
* List behaviors that can negatively impact this patient’s health.
* List socioeconomic issues that impact this patient’s health.
* Does the patient have a medical or dental home?
* Does the patient have active dental disease that would benefit from treatment?
* **MS Oral Risk Assessment**:
	+ Medical Assessment:
		- Poorly controlled diabetes
		- Chronic renal disease related to diabetes
		- HTN, controlled
		- Obesity
		- Dyslipidemia, hypothyroidism, controlled/treated
		- Musculoskeletal disability
		- Smoker
	+ Oral Assessment:
		- Periodontitis/loose teeth
		- Untreated caries
		- Xerostomia
		- Pain with chewing
		- Loose teeth
		- Desires dentures
	+ Behaviors that adversely affect health: Smoking, poor diet, poor dental hygiene
	+ Social Assessment
		- Economic needs barely met
		- No dental insurance
		- Deals with complexities of medical insurance, including changing formularies that require medication.
		- Chronic tobacco use
	+ Current dental home: No
	+ Current medical home: Yes
	+ Past dental disease: Yes
	+ Current dental disease: Yes

**Questions:**

1. What are the primary patient/family concerns and needs?
	1. Patient wants her teeth extracted. She would rather be edentulous than have to deal with the pain and inflammation due to periodontitis and untreated caries.
	2. Main oral concerns are inability to chew and the need for a partial or denture.
	3. Overall health concerns center more on symptoms, probably related to uncontrolled diabetes: pruritus, rash and dysuria.
	4. Patient connects diabetes control with symptom relief, not with long term health or future disease prevention such as heart disease, stroke, & renal failure.
2. What are the oral-systemic health issues?
	1. Patient’s oral state is exacerbated by her diabetes and dietary choices. Her oral disease is also increasing her HgbA1c.
	2. Patient continues to smoke tobacco, which is worsening her periodontitis and likely accelerating her systemic complications.[[3]](#endnote-3)
	3. Patient’s medications likely increase her dry mouth which, in turn, exacerbates her untreated caries, periodontitis, and chewing difficulties.
3. What are the priority issues (e.g., medical, dental, pharmacological, functional, psychosocial, etc.) to consider in patient’s plan of care?
	1. Patient’s oral health is a priority for her, and a good segue into other health behavior changes. Focusing on the dietary and habit changes that improve oral health, with similar messages from the medical provider, RN, Behavioral Health provider, pharmacist and dentist, will reinforce overall health these messages.
	2. Patient needs a dentist to help manage her complex oral health issues. This will require support from her Primary Care provider to locate a dental provider and complete a referral.
		1. Referral to a dental provider that accepts a payment plan
		2. Assessing eligibility for Medicaid and assisting with registering for these benefits
		3. Locating a dentist that accepts Medicaid
		4. What are her other options for dental access or referral?

**Management:**

1. What expertise do you want to assemble to manage this patient’s complex health needs? (medical, dental, behavioral, social work, nutrition, education, pharmacy, etc?)
2. How can you engage the patient in their own care? (Think “patient centered” or “chronic care model” with the patient at the center of the care plan)
3. What education would be useful for the patient?
4. How can medical providers engage dental colleagues in the care of their patients?
5. What community resources could be utilized for this patient’s care?

**Plan of Care:**

* Multidisciplinary treatment with extensive education (RN, Pharmacist, Behavioral Health, Group meetings through the Health Department)
	+ Smoking cessation counseling and support
	+ Diet, exercise counseling
	+ Group diabetes class (e.g. Community health center or local Health Department)
	+ Fluoride varnish and oral hygiene instruction (by primary care MD)
	+ Periodontitis treatment (free dental clinic or dental school)
	+ Caries management (free dental clinic or dental school)
	+ Full upper plate after remaining teeth removed (free dental clinic or dental school)
	+ Partial denture for lower teeth (free dental clinic)
	+ Insulin adjustment by medical provider with pharmacist (medical clinic)
* Dental hygiene and oral health education
	+ Ask what the patient can do to improve her oral health and to help fill in knowledge gaps that may be present
	+ Process involves motivational interviewing and includes helping the patient decide upon and set “self-management goals.” Self-management goals might include:
		- Reducing sugar containing beverages to 1 serving a day or less (Cranberry tablets instead of juice?)
		- Brushing teeth with fluoride toothpaste twice a day
		- Flossing daily
		- Visit a dentist before the next clinic appointment (Patient needs assistance with this goal)
		- Eat more fruit and vegetables with meals (Will need to assess patient’s ability to comply with this considering her current issues with dental pain)
		- Other ideas?
* Referral for dental care (In this case, to a free dental clinic that will provide comprehensive dental care and even dentures and partials is indicated and preferred by patient)
	+ Should include communication with dentist as to the patient’s plan of care and progress, much like a referral to a cardiologist for a patient with angina or atrial fibrillation.
		- A request for referral should includes the patient’s medical conditions, medications, and what is being asked of the specialist (routine cleaning, periodontitis treatment, care of untreated caries).
		- A return note from the dentist that includes a plan of action and recommended follow up plan with the dental specialist.
	+ Options for dental care in a community, especially for a low income elderly patient
		- College of Dentistry programs/College of Dental Hygiene programs
		- Dental vouchers/contractual arrangements with private dentists
			* Private dentists may see patients for a set fee for routine care. The set fee is paid by the clinic, a Community Health Center, or by the patient, if such an arrangement was prearranged with the dental and medical provider.
		- Community Health Center Dental clinics
		- Public Health Departments that offer dental services
		- Free dental clinics
		- The above list emphasizes the need to have dental collaborators arranged prior to a patient presenting for care so these options can be shared with the patient
* Oral cancer prevention education
	+ Patient has some familiarity with this due to her husband’s oral cancer, however, continued surveillance, particularly in a patient who does not see a dentist regularly, continues to smoke, and who is older is recommended.[[4]](#endnote-4)
	+ Tobacco Treatment / Interventions
		- Nicotine patches for smoking cessation
		- 1-800-QUIT NOW

**Patient’s Response to Treatment/Interventions**

* Patient is very pleased with her new denture and lower partial. Her dietary choices have improved. She enjoys the diabetes classes because she can now eat some of the foods they suggest. She is cleaning her dentures daily and brushing her remaining teeth twice a day. She tries to floss when she thinks about it but still has some bleeding and sensitivity of her remaining teeth. Overall, though, she is happy with her oral outcome. She has no dental follow up scheduled.
* Patient’s diet is better, though she still drinks juice in the morning (to prevent bladder infections)
* Patient goes to the Health Department classes regularly
* Patient is taking her medication as prescribed and sees the Pharmacist to review every 2 or 3 months.
* Current oral exam:
	+ Patient has 6 remaining teeth but is very pleased with the function and appearance of her teeth. As far as she is concerned, her oral health needs have been met and she sees no reason to return to the dentist. She does, however, have some gum recession on her lower anterior teeth which is likely contributing to her sensitivity, and there is plaque formation in that area. She was encouraged to return to the dentist for routine maintenance and surveillance of her oral disease and encouraged to continue to brush and floss as instructed in the past.
* Medical Assessment:
	+ Currently, her HgbA1c is 8.7. Though there has been improvement, the diabetes remains poorly controlled.
	+ Obesity: BMI 40, slight improvement, but still morbidly obese.
	+ Patient continues to smoke cigarettes
	+ Patient asked about her risk of oral cancer. She is relieved to know that she has been screened for it by both her medical clinician and her dentist. She is aware that smoking cigarettes and older age increases her risk, but she has heard about HPV and oral cancer. Is that a concern for her? [[5]](#endnote-5)

**Outcome:**

* Oral Assessment:
	+ Periodontitis/loose teeth: Improved, still at risk with remaining teeth
	+ Untreated caries: Currently all have been treated but at risk for root caries with gum recession. Fluoride varnish may help to prevent this.[[6]](#endnote-6)
	+ Xerostomia (dry mouth): Uses an oral saliva substitute (perhaps list the one preferred ie. Oralbalance® Gel (Glaxo Smith Kline) regularly and has curtailed her sugary beverage use. Medication use is regularly monitored.
	+ Pain with chewing: Currently oral pain free
	+ Loose teeth: None
	+ Desires dentures: Has obtained an upper full denture and lower partial denture and is pleased with these.
* Medical Assessment:
	+ Poorly controlled diabetes: Improved HgbA1c
	+ Chronic renal disease related to diabetes: Stable
	+ HTN, controlled: Stable
	+ Dyslipidemia, hypothyroidism, controlled/treated: Stable
	+ Morbid obesity: Slight improvement.
* Social assessment
	+ Economic needs: Patient was able to access dental care with the limited resources she has.
	+ No dental insurance: Not resolved
	+ Medical insurance concerns: Continues to be an issue though the medical home that has helped her navigate some of the complexities.
* Case Conclusion

**Discussion Questions:**

1. How did the interdisciplinary team contribute to improving the patient’s experience of care?
2. How did the interdisciplinary team contribute to improving the patient’s clinical outcomes?
3. Discuss the importance of the interdisciplinary team in addressing the unique oral and systemic health care needs of this patient population.

**Discussion:**

Key points illustrated by this case:

* Oral-systemic links, particularly with conditions such as diabetes and periodontitis
	+ Diabetes is only one example of a systemic disease that has oral consequences. Poor glycemic control can exacerbate periodontitis and likewise, the chronic infection in active periodontitis can lead to higher glucose levels, which can accelerate the complications seen with uncontrolled diabetes.
* Team approach to care
	+ The primary care provider may take the lead in coordinating a patient’s diabetes management; however, other team members can also play major roles in improving this patient’s outcomes.
		- Dentist/RDH: Needs to provide specialty and ongoing dental disease management
		- Pharmacist: Review medications and look for side effects such as xerostomia (dry mouth) and drug interactions
		- RN: Health education, goal setting
		- Behavioral Health: Motivational Interviewing, lifestyle management (smoking cessation)
		- Group meetings/educator: Community support, education
* Patient involvement and goal setting (oral hygiene, diet, tobacco use, medication compliance): Motivational Interviewing[[7]](#endnote-7), Patient centered medical home (PCMH)[[8]](#endnote-8)
* Address social/economic needs
	+ Alternative delivery systems such as free clinic.
* Focus on patient’s perceived needs. She will likely be more successful in therapy and self-management if she feels the clinician is addressing her acute needs. (Such as pain with chewing, dry mouth, body aches, other systemic complaints rather than elevated sugar or high blood pressure).
* Recognize that this patient presented to her “medical provider” for help with her oral conditions. This process can, and should, originate in the medical home. Many low income patients struggle to access dental care, so the medical provider has the responsibility to be aware of oral health problems their patients face and to know how to address them.

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**Appendix:**

HRSA Oral Health Competencies (2014)

* Domain: Risk Assessment
* Identifies factors that impact oral health and overall health.
	+ Competencies:
	+ Primary care providers
		- Conduct patient-specific, oral health risk assessments on all patients.
		- Identify patient-specific conditions and medical treatments that impact oral health.
		- Identify patient-specific, oral conditions and diseases that impact overall health.
		- Integrate epidemiology of caries, periodontal diseases, oral cancer, and common oral trauma into the risk assessment.
* Domain: Oral Health
* Evaluation: Integrate subjective and objective findings based on completion of a focused oral health history, risk assessment, and performance of clinical oral screening.
	+ Competencies:
	+ Primary care providers
		- Perform oral health evaluations linking patient history, risk assessment, and clinical presentation.
		- Identify and prioritize strategies to prevent or mitigate risk impact for oral and systemic diseases.
		- Stratify interventions in accordance with evaluation findings.
* Domain: Preventive Intervention
* Recognizes options and strategies to address oral health needs identified by a comprehensive risk assessment and health evaluation.
	+ Competencies:
	+ Primary care providers
		- Implement appropriate patient-centered preventive oral health interventions and strategies.
		- Introduce strategies to mitigate risk factors when identified.
* Domain: Communication and Education
* Targets individuals and groups regarding the relationship between oral and systemic health, risk factors for oral health disorders, effect of nutrition on oral health, and preventive measures appropriate to mitigate risk on both individual and population levels.
	+ Competencies:
	+ Primary care providers
		- Provide targeted patient education about importance of oral health and how to maintain good oral health, which considers oral health literacy, nutrition, and patient’s perceived oral health barriers.
* Domain: Interprofessional Collaborative Practice
* Shares responsibility and collaboration among health care professionals in the care of patients and populations with, or at risk of, oral disorders to assure optimal health outcomes.
	+ Competencies:
	+ Primary care providers
		- Exchange meaningful information among health care providers to identify and implement appropriate, high quality care for patients, based on comprehensive evaluations and options available within the local health delivery and referral system.
		- Apply interprofessional practice principles that lead to safe, timely, efficient, effective, equitable planning and delivery of patient and population-centered oral health care.
		- Facilitate patient navigation in the oral health care delivery system through collaboration and communication with oral health care providers, and provide appropriate referrals.

Interprofessional Collaborative Practice (IPEC, 2011). [[9]](#endnote-9)

* Value/Ethics for Interprofessional Practice
	+ VE1. Place the interests of patients and populations at the center of interprofessional health care delivery.
	+ VE2. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care.
	+ VE3. Embrace the cultural diversity and individual differences that characterize patients, populations, and the health care team.
	+ VE4. Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions.
	+ VE5. Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services.
	+ VE6. Develop a trusting relationship with patients, families, and other team members (CIHC, 2010).
	+ VE7. Demonstrate high standards of ethical conduct and quality of care in one’s contributions to team-based care.
	+ VE8. Manage ethical dilemmas specific to interprofessional patient/ population centered care situations.
	+ VE9. Act with honesty and integrity in relationships with patients, families, and other team members.
	+ VE10. Maintain competence in one’s own profession appropriate to scope of practice.
* Roles Responsibilities
	+ RR1. Communicate one’s roles and responsibilities clearly to patients, families, and other professionals.
	+ RR2. Recognize one’s limitations in skills, knowledge, and abilities.
	+ RR3. Engage diverse healthcare professionals who complement one’s own professional expertise, as well as associated resources, to develop strategies to meet specific patient care needs.
	+ RR4. Explain the roles and responsibilities of other care providers and how the team works together to provide care.
	+ RR5. Use the full scope of knowledge, skills, and abilities of available health professionals and healthcare workers to provide care that is safe, timely, efficient, effective, and equitable.
	+ RR6. Communicate with team members to clarify each member’s responsibility in executing components of a treatment plan or public health intervention.
	+ RR7. Forge interdependent relationships with other professions to improve care and advance learning.
	+ RR8. Engage in continuous professional and interprofessional development to enhance team performance.
	+ RR9. Use unique and complementary abilities of all members of the team to optimize patient care.
* Interprofessional Communication
	+ CC1. Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function.
	+ CC2. Organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible.
	+ CC3. Express one’s knowledge and opinions to team members involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions.
	+ CC4. Listen actively, and encourage ideas and opinions of other team members.
	+ CC5. Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others.
	+ CC6. Use respectful language appropriate for a given difficult situation, crucial conversation, or interprofessional conflict.
	+ CC7. Recognize how one’s own uniqueness, including experience level, expertise, culture, power, and hierarchy within the healthcare team, contributes to effective communication, conflict resolution, and positive interprofessional working relationships (University of Toronto, 2008).
	+ CC8. Communicate consistently the importance of teamwork in patient-centered and community-focused care.
* Teams and Teamwork
	+ TT1. Describe the process of team development and the roles and practices of effective teams.
	+ TT2. Develop consensus on the ethical principles to guide all aspects of patient care and team work.
	+ TT3. Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem-solving.
	+ TT4. Integrate the knowledge and experience of other professions— appropriate to the specific care situation—to inform care decisions, while respecting patient and community values and priorities/ preferences for care.
	+ TT5. Apply leadership practices that support collaborative practice and team effectiveness.
	+ TT6. Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among healthcare professionals and with patients and families.
	+ TT7. Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care.
	+ TT8. Reflect on individual and team performance for individual, as well as team, performance improvement.
	+ TT9. Use process improvement strategies to increase the effectiveness of interprofessional teamwork and team-based care.
	+ TT10. Use available evidence to inform effective teamwork and team-based practices.
	+ TT11. Perform effectively on teams and in different team roles in a variety of settings.
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