NIH Pain Consortium
Centers of Excellence in Pain Education

CoEPEs
CENTERS OF EXCELLENCE IN PAIN EDUCATION

Margaret Andersen: An Older Adult With Limited Communication

Printable Text Version

THE UNIVERSITY OF IOWA

University of Iowa CoEPE

NATIONAL INSTITUTES OF HEALTH

Table of Contents

National Institute of Health (NIH) Consortium Centers of Excellence in Pain Education (CoEPE)

In September 2015, the University of Iowa was named as one of eleven NIH Centers of Excellence in Pain Education (CoEPE) (NIDA contract #: HHSN271201500050C). In the 2011 Institute of Medicine (IOM) Report Relieving Pain in America, an urgency related to improving pain education for undergraduate and graduate students was established as one strategy to address the healthcare system's deficiencies in managing pain. The creation of CoEPE's addresses this national need to improve pain education. According to NIH Director Dr. Francis Collins, "Virtually all health professionals are called upon to help patients suffering from pain. These new centers will translate current research findings about pain management to fill what have been recognized as gaps in curricula so clinicians in all fields can work with their patients to make better and safer choices about pain treatment."

NIH CoEPE Link:
https://painconsortium.nih.gov/NIH_Pain_Programs/CoEPES.html

Disclaimer

This curriculum resource was supported with funding from the NIH Pain Consortium, which approves the educational value of the information provided. The authors listed on this resource are responsible for its content, and questions may be directed to their Center of Excellence in Pain Education. The NIH Pain Consortium provides these evidence-based curriculum resources on pain management as a service to academic medical, dental, nursing, pharmacy, and other health professional schools.

This resource is for educational purposes and is not intended as medical practice guidelines. Evidence-based practices may have changed since the publication of the resource.

THESE ARE DRAFT STATEMENTS AND ARE SUBJECT TO APPROVAL PRIOR TO PUBLICATION OF THE RESOURCE.

Overview

University of Iowa's CoEPE Objective

To synergize the pain educational activities at the University of Iowa by bringing together faculty expertise, clinical experiences, coursework, and

formal and informal educational opportunities and activities to inform, improve, and infuse education on pain assessment, measurement, and treatment into both collegiate curricula and clinical practice at Iowa.

University of Iowa CoEPE Main Activities

- To develop enduring e-learning pain modules as training and educational resources for medicine, dentistry, nursing, mental health, physical therapy, pharmacy, social work and other health professions.
- To advance the assessment, diagnosis and safe treatment of pain.
- To implement, evaluate and disseminate educational advancements

University of Iowa CoEPE Link: https://uiowa.edu/coepe/

Course Goal

The goal of this course is to provide an interactive learning experience about a 85-year-old woman, Margaret Andersen, with limited communication who demonstrates changes in behavior two weeks after entering a nursing care facility.

Intended Audience

The intended audience for this course is pre-licensure students in the fields of medicine, dentistry, nursing, physical and occupational therapy, pharmacy, and social services.

Length

The length for this course is approximately 60 minutes depending on the individual user. Upon completion of the course, you will get a certificate of completion.

Competencies Addressed

Competencies for Pain Management

Domain Two: Pain Assessment and Measurement

- **Use** valid and reliable tools for measuring pain and associated symptoms to assess and reassess related outcomes as appropriate for the clinical context and population.

Domain Three: Management of Pain

- **Identify** pain treatment options that can be accessed in a comprehensive pain management plan.

Domain Four: Clinical Conditions

- **Describe** the unique pain assessment and management needs of special populations.

Learning Objectives

At the end of this module, you will be able to:

- **Apply** valid and reliable tools for pain assessment in an older adult with limited communication.
- **Describe** the important elements of oral health potentially impacting oral pain and dental examination in an older adult with limited communication.
- **Create** a treatment plan for an older adult with dental/oral pain with limited communication and memory.

Certificate of Completion Requirements

A Certificate of Completion is awarded on successful completion of this course. In order to successfully complete this course, you MUST: Score 70% or higher on the posttest. If you do not receive 70% on the posttest, you may review the material and re-take the posttest.

Acknowledgements

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- JC Luxton as Joe the grandson
- Cloie Myers as CNA (Aide)
- Scott Wittenkeller as Nurse
- Chris Mann as Nurse Practitioner

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Pretest

The Pretest contain 10 questions with multiple choice answers.

Scenario 1*: Margaret is an 85-year-old female recently admitted to a long-term nursing care facility. She has a diagnosis of dementia and has limited communication. She is oriented to herself and follows one and two step directions. You will be completing an initial assessment for pain and cognition.*

Test question 1

What is the initial approach in gathering information about the presence of pain an older adult with limited communication?

a. Proxy reporting
b. Behavior observation
c. Self-report
d. Medication review

Answer Question 1: **c. Self-report**

Test Question 2

In older adult with moderate to severe dementia and receptive aphasia, what valid and reliable tool would you recommend using in this to obtain information about the presence of pain?

a. PAINAD
b. Pain Faces Scale
c. Pain Body Diagram
d. PainVAS

Answer Question 2: **a. PAINAD**

Test Question 3

In pain assessment in an older adult with limited communication, what pain assessment observations might best assist you in your assessment?

a. Facial expression during movement
b. Posture when in chair
c. Interaction with staff and others
d. Breathing pattern at rest

Answer Question 3: **a. Facial expression during movement**

Scenario 2: *Gerald is a 78-year-old male with dementia and limited communication. He has been in the long-term nursing facility for two years and is demonstrating decreased participation in self-care, especially oral care. You are concerned about his oral and dental health.*

Test Question 4

Poor oral health can contribute to oral pain. What is the most common symptom of poor oral care in older adults?

a. Increased drooling
b. Decreased bruxism
c. Decreased tongue mobility
d. Increased dental caries

Answer Question 4: **d. Increased dental caries**

Test Question 5

What signs are most indicative of dental or oral pain in an older adult with limited communication?

a. Increasing fluid intake
b. Decreasing social activities
c. Pulling at cheek or lip
d. Increasing confusion

Answer Question 5: **c. Pulling at cheek or lip**

Test Question 6

What is the most common factor contributing to a decline in oral health in an older adult with dementia and limited communication?

a. Co-morbidities
b. Medication
c. Nutrition
d. Toothbrush

Answer Question 6: **b. Medication**

Test Question 7

Dental examination and treatment for oral health and oral pain in older adults who are in long term care are most limited by which of the following?

a. Access to a dentist
b. Lack of transportation
c. Cognitive decline
d. Limited physical mobility

Answer Question 7: **a. Access to a dentist**

Scenario 3: *Since being admitted to a Long Term Care facility two weeks ago, Margaret shows increasing combativeness, weight loss, decreased eating, and decreased self-care. Following a care conference, Margaret's nurse and grandson review the results of the nursing assessment and treatment recommendations for Margaret.*

Test Question 8

Select the most likely diagnosis you suspect in a case like Margaret's.

a. Urinary tract Infection
b. Advancing dementia
c. Knee osteoarthritis
d. Mouth pain

Answer Question 8: **d. Mouth pain**

Test Question 9

What is the most difficult component when using an interdisciplinary treatment plan for pain management for Margaret?

a. Prevalence of multiple co-morbidities
b. Coordinating communication
c. Range of strategies for maximizing pain reduction
d. Improving health-related quality of life

Answer Question 9: **b. Coordinating communication**

Test Question 10

When considering treatment options for oral pain in an older adult with limited communication, which treatment strategy would be the best recommendation?

a. Non-steroidal anti-inflammatory drug (NSAID)
b. Hot pack or cold pack to the affected area
c. Improved oral care
d. Transition to dentures

Answer Question 10: **c. Improved oral care**

Introduction

Welcome

Hello. Welcome to the interdisciplinary pain management module for the consortium of excellence in pain education. Our scenario will be an interactive case presentation about a 85-year-old woman with limited communication who demonstrates changes in behavior two weeks after entering a nursing care facility. Please type in your name and then click BEGIN when you are ready.

Introduction - Instructions for Navigations

As you go through the module, we want you to be able to move through the module as you would like by using the table of contents menu on the left side or you may use the “event” buttons at the top of the screen that begin with introduction through conclusion. You can also move through the module using the navigation buttons at the bottom of the screen. The bottom buttons allow you to go forward, backward, and play or pause as you might wish to do. You can also click on no 3 to see what each level of evidence means.

For evidence-based practice, we have included a grading of evidence – strong, moderate, and weak. We have given some guides as to how we rated the evidence.

Strong Evidence: Meta-Analysis, or Systematic Reviews, or Randomized Clinical Trials.

Moderate Evidence: Cohort Studies to help answer questions about prognosis, etiology or harm.

Weak Evidence: Case Series, Case Reports, Case Control Study.

Introduction - Course Overview

The goal of this course is to provide an interactive learning experience about an 85 year-old woman who has limited communication living at a nursing homes who has difficulty with activities daily living due to her limited verbal communication.

The intended audience for this course is pre-licensure students in the fields of dentistry and nursing. Other healthcare pre-licensure student may benefit from the module.

The length for this course is approximately 60 minutes depending on the individual user. Upon completion of the course, you will get a certificate of completion.

Introduction - Learning Objectives

At the end of this module, you will be able to:

- **Apply** valid and reliable tools for pain assessment in an older adult with limited communication.
- **Describe** the important elements of oral health potentially impacting oral pain and dental examination in an older adult with limited communication.
- **Create** a treatment plan for an older adult with dental/oral pain with limited communication and memory.

Event 1: Meet Margaret

In this module, you will learn about Margaret Andersen, and how her case progresses through a series of events at the Meadow Lane Nursing Facility. To begin, please click on the button on the screen to learn more about Margaret. This information was collected at her admission to the nursing home. When you have reviewed Margaret's history, please click to continue to the next slide.

History

Margaret Background and Admission Information

Name: Margaret Andersen

Demographics

85 years old, female, widow

Height 5 feet 4 inches Weight upon admission 142

Social History: Church member – very active until 2 years ago, hobbies were cooking, painting and reading, walking her dog, visits with friends and church members, playing bridge

Occupation/Employment: Retired librarian – retired at age 68

Living Environment: Prior to nursing home, she lived at home alone; single family residence with help from her grandson.

Location: Small town in Iowa – Nursing Home placement was the only option – no assisted living or memory care units available.

Family History: has one son and daughter in-law who travel 6 months of the year (November to April) to Texas. Adult grandson lives in town and visits once per week at nursing home.

Functional Status/Activity Level: Ambulates independently – has fallen 1 time in the last 2 weeks in the bathroom at nursing home with bruising to her left arm and leg. Ambulatory in facility, minimal assistance w/ADL activities. Interacts with residents and other staff.

Communication: She is able to speak however has dysphagia; answers to questions but answers do not make sense or answer the question asked.

Past History

Past Medical History: Cardiovascular disease with hyperlipidemia, atrial fibrillation, rheumatoid arthritis, osteoporosis, dementia diagnosis 5 years ago, dentures.

Admission to Nursing Home: Patient had been living at home with assistance of grandson. Two weeks ago, she wandered away from home and was unable to be found for 8 hours. She was eventually found wandering in the park 2 miles from home. Due to safety concerns, she was admitted to the nursing care facility.

Review of Systems

Vital Signs: 112/72 60 18 T97.0

Admission Weight 142 lb; height 5 ft 4 inches BMI 24.4

Orientation: Is alert and responsive, laughs and giggles throughout the exam, easily distracted and confused, but pleasant and cooperative. In no acute distress.

HEENT: Normocephalic, skin intact, no lesions visible. Unable to assess EOM d/t distractibility, PEARLA, conjunctiva clear. CN not tested. Hearing intact to normal speaking voice. No lesions observed. Thyroid palpable without nodules, trachea midline. No lymphadenopathy or tenderness.

Chest: lung sounds CTA bibasilar, no wheeze, cough, rales or rhonchi

Heart: RRR, S1S2, no murmur Gallup or rub. No JVD or carotid bruit. Radial pulse 2/4+.

Abdomen: soft, non-distended, non-tender, bowel sounds normoactive

GU: deferred, nurses report no concerns or skin issues. Incontinent, wears briefs.

MS: no concerns noted. Uses walker for mobility.

Skin: reported to be intact, nurses report no pressure ulcers or lesions. Braden 17. Uses static air SS in wheelchair.

Physical Exam

Alert, oriented to self only. Good appetite. Slightly hard of hearing.

Endocrine: Neck is supple. Pupils equal and reactive to light. Throat is normal. No nodes in neck. No goiter. No JVD. Sinuses nontender to palpation.

Lung: no difficulty

Heart sounds S1, S2 normal; no S3, no S4, no murmurs. Chest clear to IPPA with good air entry bilaterally and no adventitious sounds heard. Abdominal exam reveals positive bowel sounds, soft, nontender to palpation all quadrants, no masses, no organomegaly, no guarding and no rebound.

Genitourinary and rectal exams deferred.

Musculoskeletal exam unremarkable. Moving all limbs well. No untoward joint swelling.

Neurologic exam: moving all limbs well, cranial nerves unremarkable, oriented to person only. Significant loss of short term memory noted.

Medication

Aspirin 81 mg 1 tablet orally daily

Calcium carbonate 600 mg 1 tablet orally three times per day

Vitamin D3 400 units one tablet orally twice daily

Donepezil 10 mg one tablet orally daily at bedtime

Memantine 10 mg one tablet orally twice daily

Metoprolol 50 mg one tablet orally twice daily

Simvastatin 20 mg one tablet orally daily in the evening

Quetiapine 50 mg one tablet orally daily

Acetaminophen 325 mg two tablets orally every 4 hours as needed

Senna-S 8.6-50 mg one tablet orally twice daily as needed

Tools at Admission

Pain Assessment in Advanced Dementia (PAINAD) Score: 0
Mini-Cog™ is attempted but didn't complete it due to Margaret's limited communication.

Current Problems

On this screen, there are two videos, one at the admission, and the second is two weeks after admission to the facility.

1a. Meet Margaret-Behavior upon admission

Margaret Andersen is an 85-year-old widow admitted to Meadow Lane Nursing Facility 2 weeks ago. She had been living at home with the assistance of her grandson, Joe. She has fallen at home and wasn't able to care for herself at home anymore.

Upon admission, Margaret appeared oriented to herself. She was cooperative and friendly with staff and was able to walk with contact guard of one person. She likes to hold onto the rail if it's available. She had a regular appetite for snacks and meals and was willing to brush her teeth.

1b. Meet Margaret-Behavior After 2 weeks

Two weeks after admission, Margaret has lost weight and her behavior has changed from when she was first admitted to the facility. She is easily distracted and often can be seen pulling at her cheek. She does not want her teeth brushed. She refuses to eat even just a snack and is combative and agitated when interacting with staff. When given the opportunity to walk, Margaret declines.

PAINAD and Mini-Cog™ Tools

When Margaret was admitted to the facility she was assessed for pain and cognition. Due to her dementia and limited communication, the Pain Assessment in Advanced Dementia assessment (PAINAD) was used for pain and her score was a 0. The Mini-Cog™ was attempted for cognition but was unable to be completed due to her limited communication.

At two weeks following admission, the PAINAD was repeated. Her PAINAD score had changed to 2, indicating pain. Margaret is unable to communicate her pain or a pain location. On the PAINAD tool, all other elements were scored as a zero with normal breathing, no negative vocalizations, and inexpressive facial expression.

As you saw in the last video, Margaret is easily distracted by voice or touch, combative and agitated when interacting with staff.

Let's Practice 1a: Recognize Behavior Changes

In these next three slides, you will have the opportunity to practice recognizing behavior changes in adults with limited communication. Being able to recognize the possible source of behavior change might be useful in helping you to make a treatment plan for Margaret. Read the scenario and select the answer for the behavior changes in each case.

A 76 year old male was recently placed in nursing home care 4 days ago. In the last 3 days, he has refused to eat. What might be the source of his behavior change? [Select all that apply]:

- Nursing home placement
- Pain
- Dementia

Answer: All of the choices: nursing home placement, pain or dementia
Feedback: Refusal to eat may come from a variety of reasons: not liking the food, frustration with eating, pain, changes in environment or people with nursing home placement, or changes in dementia.

Let's Practice 1b: Recognize Behavior Changes

In the last 5 days, a nursing home resident has started pulling on her check and lip. She does this at different times during the day. What might be the source of her behavior change? Select the best answer below:

- Nursing home placement
- Pain
- Dementia

Answer: Pain
Feedback: Pulling on the cheek and lip can be signs of dental pain or problems in persons with dementia.
Signs of dental pain problems in a dementia patient may also include:

-Rubbing of the face
-Moaning/yelling/crying
-Flinching when face is touched or when eating
-Inability to eat/drink hot and/or cold items
-Increased irritability
-Not wearing removable dental appliances

Let's Practice 1c: Recognize Behavior Changes

An 83 year old female was placed in a nursing home in the last week. She has begun being combative with caregivers and nursing staff. What might be the source of her behavior change? Select the best answer below:

- Nursing home placement
- Pain
- Dementia

Answer: Dementia
Feedback: Combativeness is a sign of agitation in persons with dementia. Agitation is associated with emotional distress and may increase with changes in environment, such as nursing home placement; pain or advances in stages of dementia.

Event 2: Primary Care Providers Communication

Let's watch the video of the care conference between the nurse and Margaret's grandson, Joe.

Care Conference With Nurse, Grandson

Nurse: Hey, Joe.

Joe: Hi.

Nurse: Scott.

Joe: Scott. Pleased to meet you.

Nurse: You too.

Nurse: I've been helping with the transition for your grandmother, for Margaret, since she was admitted two weeks ago. We're tracking and then the care conference here is to talk about her transition and, in her case, talk about some things that aren't going as well as we'd like. What can you tell me about what you've seen? I know you've been visiting and you know your grandmother very well.

Joe: Well, I mean, I guess she just seems not as alert as she was two weeks ago. It looks to me like she has lost some weight and she definitely seems more agitated. Last week, we were walking around and she was disoriented but she did seem like her usual self. So, I guess I'm just wondering what you've seen or how you think she is doing.

Nurse: She has lost weight. We've got a 6 pound weight loss in two weeks and that's significant. Additionally, we are assessing our residents when they arrive. She's lost a little ground. She's a little more confused then she was at admission. We've had some reports from some of the aides that she's become - I won't say combative - but she has been resistant to care and these are things that are we call Activities of Daily Living or ADLs: getting up in the morning, getting dressed, getting bathroom figured out, grooming, and oral care, and this type of stuff has actually become more difficult. We have been concerned because we expect some changes transitioning from her relatively independent life now to long term care, but we want to watch that this isn't just a little bit of adjustment but to see what else is going on. We use something called PAINAD to assess pain. In her case, she is non-verbal. She is not able to tell me exactly what's going on, but she has expressed that she is having pain. I can't identify exactly where. That tool uses facial expressions, verbalization, vocalizations which is not something we've seen a lot of and then body movements: if she were guarding something. So, additionally, though, we want to watch her behavior, see if she is exhibiting any pain with her other activities and there's a concern that, if she's having unrecognized pain or untreated pain, that that could actually be causing some of these reductions into her mental status, agitation, and even the difficulties working with staff getting through her basic day-to-day activities. At this point, we'd like to get in touch with our nurse practitioner who will be here on site next week and have her do a deeper evaluation and assessment of your grandmother's conditions just to see if we can figure out, identify if there's something going on.

Joe: Okay.

Nurse: Any questions about having her seen or what that means?

Joe: Let me just make sure I've got it straight so when I talk to my parents... So, you were saying that she has lost weight.

Nurse: Yes.

Joe: And she's had behavior changes since she was admitted to the nursing home. You were concerned that she could be in pain, but not sure where the pain is, right?

Nurse: Exactly.

Joe: Okay. Huh... and so you think the nurse practitioner can get to the bottom of this?

Nurse: I sure hope so. They'll do a little deeper assessment and we'll be looking at seeing to figure out if we can identify the pain and then also address the weight loss. We'll be consulting with our dietary consultant and, if we need to make changes in dietary, we'll have the nurse practitioner put those orders through, as well.

Joe: Okay. Okay.

Nurse: So, with your ok we'll move forward with that and let you know about that assessment when it comes through.

Joe: Okay.

Nurse: Thank you for coming in.

Joe: No - thank you.

Care Conference Follow-Up

Following the care conference, the nurse carries out the plan of care he discussed with Joe. He sent a fax to the Nurse Practitioner to request a dietitian consultation, requested recommendations (appendix 1) for medication, and assessment for Margaret at the next Nurse Practitioner next regular visit to the facility.

Let's Practice

Below is a list of the diagnoses that may be contributing to the changes we are seeing with Margaret. Select the most likely diagnosis for Margaret and click on the button to check your answer.

Diagnosis	Signs/Symptoms
Urinary Tract Infection	Incorrect! A Urinary Tract Infection (UTI) in older adults with dementia, the primary sign of a UTI may be a change in cognitive status as the patient is not able to tell you about the typical signs of a UTI such as those seen in younger adults. The typical signs of a UTI are (1) pain or a burning sensation upon urinating; (2) the urge to urinate more frequently; (3) lower abdominal pain, and (4) fever. In addition, there may be no fever in an older adult. In Margaret's case, her changes in behavior may have some signs of a UTI however; she also had a change in functional activity and weight loss, not typical of a UTI.
Nursing Home Placement	Incorrect! Individuals with dementia may experience changes in behavior with initial admission to a nursing care facility with a change in environment and routine. However, those behavior changes are more immediate and occur upon admission rather than over a period of days or weeks. The changes in behavior with Margaret were gradual and worsening over a 2 week time frame.
Delirium	Incorrect! Delirium is an acute onset, state of confusion that results in disruptions in thinking and behavior, including changes in perception, attention, and mood and activity level. Delirium may be the result of an acute medical illness, stroke, brain injury, or an adverse medication reaction. Often in delirium, the state of confusion can vary within the day and may appear to come and go. In Margaret's case, her changes in behavior have been gradual over a 2 week period and also involved weight loss and decreases in functional activities.
Advanced Dementia	Incorrect!

Diagnosis	Signs/Symptoms
	Dementia is a progressive condition with expect changes in memory and communication, physical activity and functional abilities that occur over time. Each person progresses at a different rat, depending on the source of the dementia: vascular, dementia with Lewy bodies, frontotemporal dementia, or Alzheimer's. In addition, other factors such as age, comorbidities such as stroke, diabetes, side effects of medication and repeated infections may influence the progression of dementia. In Margaret's case the changes we are seeing have occurred more quickly than expected due only to change in dementia.
Other	Correct! Another diagnosis may have a better fit for the likely diagnosis for Margaret than UTI, Nursing Home Placement, Delirium, or Advanced Dementia. The other diagnoses listed above fit part of the changes we have seen in Margaret's case, but don't fit all her symptoms exactly. As an additional consideration, Margaret is having pain based on her PAINAD score that is in an unknown location. Further investigation and examination is warranted for a more likely diagnosis for Margaret.

Event 3: Assessment by PCP

Nurse With Aides Care Conference

Following the care conference, the aide who works with Margaret pulls the nurse aside to share her concern about Margaret. Let's watch the conversation between the aide and the nurse.

Nurse: Hey, Cloie. What can you tell me about that care conference with Margaret?

Aide: I think it went well. Joe seems to understand that she is in pain, but we don't know where yet. I was trying to think of activities she does that seem to be more painful. I know when she goes to the bathroom, she gets very irritated.

She doesn't want to wash her face. She doesn't want to brush her teeth. When she does brush her teeth, there's a lot of blood. I thought maybe she was just brushing too hard, but maybe there's something else going on.

Nurse: Okay.

Nurse: I will let the NP know and we'll go from there, and thank you so much for paying attention to that stuff so we can give the best care possible.

Aide: Yeah.

Assessment by Nurse Practitioner

The facility's Nurse Practitioner has come to visit Margaret and perform an examination. She has completed an exam and is finishing up with an oral assessment for Margaret. Let's watch the oral assessment by the nurse practitioner.

NP: Good morning, Margaret. My name's Chris. I'm a nurse practitioner. I hear that you're having some difficulty eating.

Are you having pain?

Kind of on that side.

Can you just look at me? I'd like to feel along your jaw.

Kind of swollen there. Alright, can you open and close your mouth for me?

Okay. That's painful. I'm just feeling for some lymph nodes.

Sometimes, when we have an infection, we get some enlarged lymph nodes.

I'd like to take a look inside your mouth.

I have a penlight. I need you to open your mouth, stick out your tongue, and say "ahhh."

Open as wide as you can.

Okay...

Got some red gums, a little bit of bleeding there. It looks like, in the back on the right, you have a cracked tooth... could be infected. We're gonna refer you to dentistry.

Conference between NP and Nurse

NP: So, I just saw Margaret. Has she been non-verbal for you?

Nurse: Yeah, she's expressive, but doesn't use her words.

NP: Okay. Her PAINAD score does indicate she has pain. I think she's got a cracked tooth in the bottom right side of her mouth and I think it could be

infected. So, she'll need to see a dentist. Does she have one listed in her chart?

Nurse: She was seeing someone at home but now that she's moved here, I would like to get a local assessment if we can.

NP: Okay. I can put in a referral for that. She'll need to go with a family member...

Nurse: I will be in touch with Joe.

NP: Okay. I think that the tooth is what's contributing to the loss of appetite, the weight loss, and behavior changes.

Nurse: Okay.

NP: So, once she's been to the dentist, we'll re-evaluate.

Nurse: Alright. We'll get an appointment made, see what they think, and get that assessment to you.

NP: Alright, sounds good. Thanks.

Hierarchy of Pain Assessment

In older adults with limited communication, pain assessment is challenging. Incorporating a hierarchy of pain assessment is a systematic method of pain assessment and allows consistency among caregivers for assessment and progression of treatment for pain reduction.

1. Self-Report
   - Try to get a self report even for the patient with moderate to severe dementia.
   - Yes/no
   - Vocalizations or gestures – hand grasp or eye blink
   - Use of simple pain rating tool such as verbal descriptor scale.
2. Search for Potential Causes of Pain
   - A change in behavior requires careful evaluation of possible sources of pain
   - Pathological conditions – surgery, trauma, wounds, history of persistent pain, osteoarthritis
   - Procedural pain
   - Physiological compromise
   - Other causes- infection, constipation, other
3. Observe Patient Behaviors

- In the absence of self-report, observation of patient behaviors is a valid approach to pain assessment but may not reflect intensity or another source of distress
- Behaviors indicating pain
- Pain Assessment tools for non-verbal individuals
- Comparison of present to past behaviors

4. Proxy Reporting
   - May include family members, parents, caregivers
   - Proxy reporters should be consistent in frequency of interaction
   - Combine with other evidence (Above 1 to 3)
5. Attempt an Analgesic Trial
   - In general, if mild to moderate pain is suspected, non-pharmacologic approaches and non-opioid analgesics may be given initially; if pain improves, assume pain was the cause; continue analgesic and combine with non-pharmacological interventions.
   - If there is no change in behavior, rule out other potential sources of pain or discomfort. Doses may then be carefully adjusted until a therapeutic effect is seen, bothersome or worrisome side effects occur, or lack of benefit is determined.

Treatment Plans

Following the Nurse Practitioner examination, read her treatment plan for Margaret. (Appendix 2)

Social Work

The facility social worker meets with Margaret's grandson. Topics discussed during the meeting include:

- Informed consent for dental visit and procedures
- Transportation to and from the dentist; family member to accompany Margaret to Dentist
- Financial and insurance concerns
- Education regarding pain and communication in dementia
- Long term planning for Margaret

Let's Practice

The following is the hierarchy of pain assessment techniques from 1 to 5, from where you would begin and the steps of progression on the hierarchy.

- Attempt first to elicit a self-report from patient and, if unable, document why self-report cannot be used.

- Identify pathologic conditions or procedures that may cause pain.
- List patient behaviors that may indicate pain. A behavioral assessment tool may be used.
- Identify behaviors that caregivers and others knowledgeable about the patient think may indicate pain.
- Attempt an analgesic trial.

Follow Up Nurse and Grandson

Nurse: Joe.

Joe: Hey.

Nurse: Good to see you again. Thanks for coming in.

Joe: Sure, no problem.

Nurse: Just wanted to get in touch from our last meeting. We did have our nurse practitioner assess your grandmother.

Joe: Okay.

Nurse: And she did identify a few things. She actually appears to have a tooth that is cracked and possibly infected.

Joe: Oh.

Nurse: So, clearly, she's having some pain.

Joe: Yeah, I guess so.

Nurse: We want to follow up on it. Have you noticed anything with her eating? Anything that's been going on recently? Any changes?

Joe: No, I mean... I guess I haven't, but I'm not sure I would know what to look for.

Nurse: Okay. Understandable. How about a dental appointment?

Do you know when her last assessment was? The last time she saw a dentist?

Joe: I do not know. I mean, my wife might know, but I don't.

Nurse: Okay. Well, if it's okay with you, what we would like to do is make an appointment. We can make it locally.

Joe: Okay.

Nurse: At a time when you can bring your grandmother, that way she has that support system. Figure out what the dentists see. See if we can get to the bottom of this and help her get back on her way.

Joe: Yeah, that would be fine. I am available towards the end of the week, so, if you can just tell me when and where, I can get her there.

Nurse: Will do. I will make the appointment and then get back to you.

Joe: Okay, that sounds great. Thank you.

Event 4: Dental Assessment and Treatment

Joe Took Margaret to Dentist

Joe, Margaret's grandson, was able to take Margaret to the dentist for a dental examination and treatment. Having a family member take Margaret to the appointment allowed for communication of her health status, provide answers to questions, and to reassure Margaret with a familiar face in an unfamiliar situation.

Components of Dental Exam

During a dental exam, the dentist will:

1. Evaluate your overall health and oral hygiene

2. Evaluate your risk of tooth decay, root decay, and gum or bone disease - Look for plaque and calculus. Check for bleeding and swollen gums; Check for dry mouth.

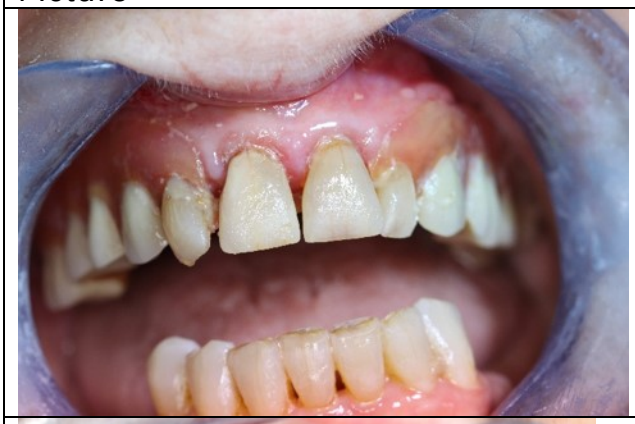
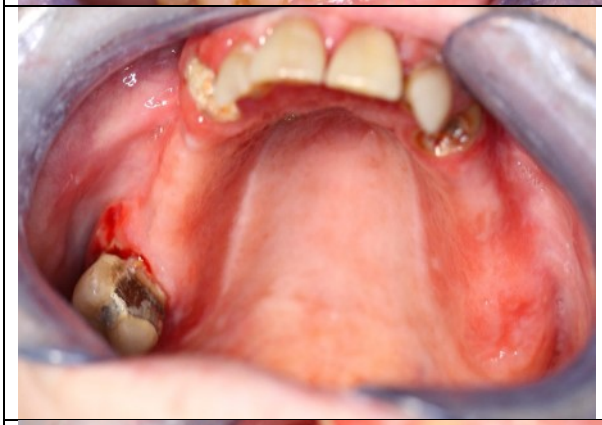
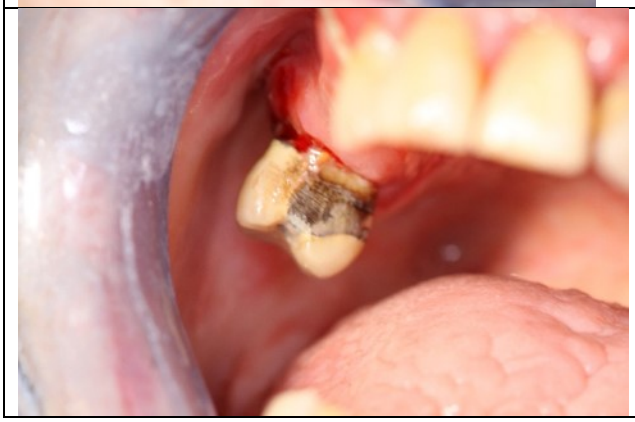
3. Evaluate your need for tooth restoration or tooth replacement; review bridges or dentures - Look for enamel wear, fractured teeth, denture fit at rest and with movement

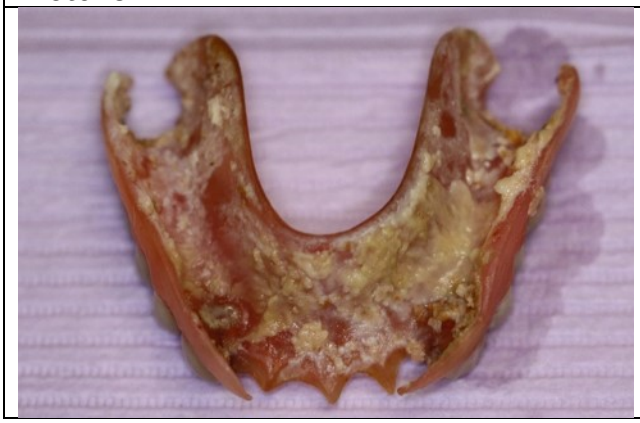
4. Check your bite and jaw for problems - Check temporal mandibular joint for crepitation with open/close or mandible glide, or clicking of joint with chewing.

5. Assess your need for fluoride

6. Take dental X-rays or, if necessary, do other diagnostic procedures

Dental Examination Results

Picture	Examination Results
	Patient is wearing an upper removable partial denture. Oral hygiene was poor with gross soft deposits.
	Soft tissue underneath the denture was inflamed. Two broken teeth with decay were found underneath the denture.
	The last tooth had a deep cavity, and the nerve was exposed. There was a large painful ulcer on the buccal gum tissue, which may be painful while chewing.

Picture	Examination Results
	The denture had large amount soft deposits covering the denture base, indicating the denture had not been clean for a long time.

Dental Treatment Plans for Margaret

The dentist recommends the following for dental treatment plan for Margaret:

- Improve oral hygiene
- Prevent dental caries
- Treat fungal infection
- Extract hopeless teeth
- Replace missing teeth to improve chewing function
- Remake the denture
- Provide guidance for Oral Health at Meadow Lane Nursing Facility

Elements of Good Oral Health

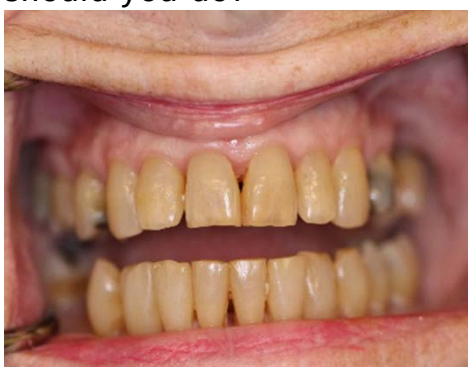
The World Health Organization (WHO) lists the following characteristics for the elements of good oral health:

- Free from mouth and facial pain
- Free from oral and throat cancer
- Free from oral infection
- Free from tooth and gum disorders
- Free from oral functional limitations

Let's Practice 4a

To promote dental health by non-dental providers in long term care an important tool is being able to recognize what action should be taken when examining the residents' oral and dental health. In the next four slides, look at the picture, and make a recommendation for a treatment plan. Feedback will be provided once you submit your answer.

1. What should you do?



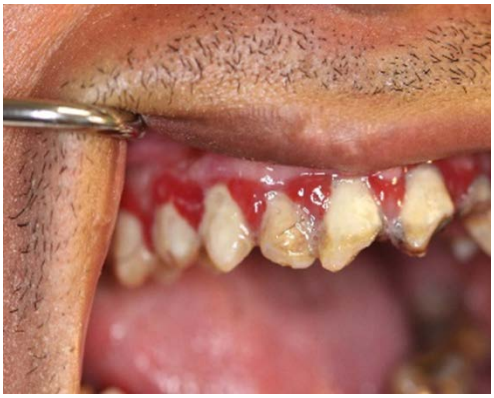
- Improve Oral Care
- Continue Oral Care
- Refer to Dentist

Correct answer: Improve Oral Care

Feedback: This picture shows no cavities, but gums are slightly inflamed by change in color, which can be improved through better mouth care.

Let's Practice 4b

2. What should you do?



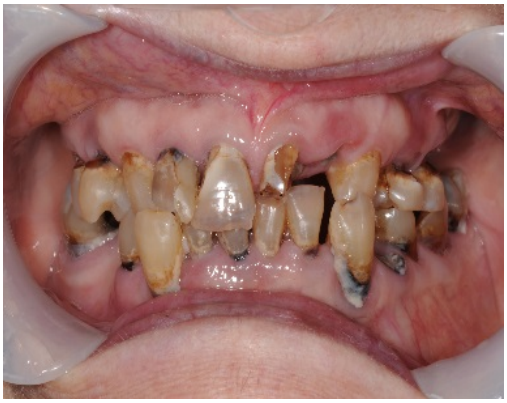
- Improve Oral Care
- Continue Oral Care
- Refer to Dentist

Correct answer: Refer to Dentist

Feedback: This picture shows multiple broken teeth. Gums are also severely inflamed with darker red color. Refer to dentist for further assessment and treatment.

Let's Practice 4c

3. What should you do?



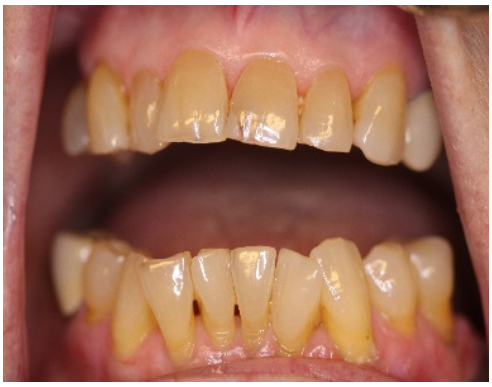
- Improve Oral Care
- Continue Oral Care
- Refer to Dentist

Correct answer: Refer to Dentist

Feedback: This picture shows multiple broken teeth, which may be sensitive. Refer to dentist for further assessment and treatment

Let's Practice 4d

4. What should you do?



- Improve Oral Care
- Continue Oral Care
- Refer to Dentist

Correct answer: Continue Oral Care

Feedback: This picture shows good oral hygiene. No cavities. No inflammation on the gums. Continue oral care.

Event 5: How's Margaret Doing

One Month

It has been one month since Margaret's dental procedure. She is still avoiding using one side of her mouth when eating and brushing her teeth, and occasionally pulls on her cheek. Although she has some confusion and occasional irritability, she is more cooperative with staff. She is willing to walk with her walker, though she has to stop to rest.

Margaret is pacing less, smiling more. PAINAD score 0 and Mini-Cog™ attempted but unable to be completed due to communication deficits. She requires assist with flossing and initiating brushing her teeth. She has not been combative. She is eating 75% of all her meals in the dining room with other residents of the nursing home. She occasionally pulls at her lip and cheek, but mostly after meals or oral care. She has regained 3 pounds.

After 6 Month

Six months after the dental procedure Margaret seems to be back to her normal self that she was when she was first admitted to Meadow Lane nursing facility she shows no signs of irritability when interacting with staff. She eats regularly and participates in oral health care with tooth brushing and assists for flossing she is back to walking confidently with her walker.

Margaret is participating in some activities with other residents when she is able. PAINAD score 0. She has not been combative. She is eating 100% of all her meals in the dining room with other residents of the nursing home. She will request a snack 2-3 times a week. She has regained 6 pounds. She has been able to go on outings with her grandson to church once a month and has visitors 1-2 times a week.

Oral Health Promotion

Review the elements listed on the screen that are important to oral health promotion. We have listed the level of evidence for each strategy.

- Brush teeth at least once a day if possible (strong evidence)
- Clean between teeth once a day if possible (strong evidence)

- Remove and clean dentures at bedtime and then soak them in water (strong evidence)
- Keep mouth moisturized (Moderate evidence)
- Visit dentists regularly (Moderate evidence)

Let's Practice

Margaret has completed her dental treatment until her next recommended dental exam. She has regained her lost weight, decreased agitation, and decreased pain with PAINAD assessment.

Let's practice creating a treatment plan for Margaret that can be implemented at this time. For practice, complete your recommendation below for Margaret's treatment plan in the areas of Functional Mobility/Cognition, and Ongoing Assessment. For each section, recommend a goal and an intervention. Click on the "show me" button to check your answer.

Oral Care

- Goal: Margaret will improve her oral hygiene with assist as needed for tooth brushing as part of an oral health program with periodic examination by a dentist.
- Intervention: Assist with toothbrushing, periodic examination as recommended by a dentist.

Functional Mobility and Cognition

- Goal(s): Margaret will be as independent as possible in functional mobility with assist as needed. Margaret will participate in daily self care with assist as needed.
- Intervention: Activity planning for cognitive stimulation and physical activity to promote functional mobility.

Ongoing Assessment

- Goal: Margaret will be monitored for pain, cognition, functional mobility, oral health and other health concerns as needed.
- Intervention(s): PainAD, Mini-Cog™, multidisciplinary team assessments by primary care provider, dietitian, pharmacist, social work, rehabilitation therapies and dentist. A formal review of status will be completed every 90 days with a family conference.

Conclusions

Summary of Evidence

Let's take a close look at each tool or intervention that was covered in Margaret's case and how it's ranked according to the level of evidence.

PAINAD is a tool that can be used in adults with limited communication to assess pain. It is a tool that utilized five indicators to assess pain: breathing, negative vocalization, facial expression, body language and consolability. There is moderate evidence supporting the use of PAINAD as a tool in adults with limited communication skills.

The Mini-Cog™ is a tool that assesses cognition in adults. The Mini-Cog™ which consists of two questions. The questions consist of delayed three word recall and the clock drawing test. The score ranges from 0 to 5. A score of 0, 1, or 2 suggests cognitive impairment and a score of 3, 4 or 5 suggests a lower likelihood of cognitive impairment.

Oral health promotion in older adults with limited communication has strong and moderate evidence. This population may have behavior changes that do not always indicate the problem. Regular oral assessment and dental examination is an important step in health promotion. In addition, daily activities of brushing teeth, removing dentures and keep the mouth moist all contribute to good oral health.

Behavior changes with dementia related to dental or oral pain is challenging to study due to limited communication. The evidence is rated as weak due to a lack of evidence due to the difficulties completing more rigorous studies in this population.

Take Home Messages for Older Adults with Limited Communication

Pain Assessment: Utilize a valid and reliable pain assessment for older adults with limited communication; reassess over time; utilize the hierarchy of pain assessment as a guide. Oral pain can go unrecognized due to the individual's limited communication.

Behavior Changes: Behaviors can change in adults with dementia and a comprehensive assessment is needed to assist in identification of a cause

Oral Care: Oral care is an important part of a treatment plan in older adults with limited communication. Daily care is needed with support of caregivers with periodic assessment by a dentist.

Caregiver Education: Caregivers and family members may need education regarding behavior, pain, oral care and the needs of individuals with dementia.

Multidisciplinary Treatment Plan: A multidisciplinary treatment plan is needed to assist in providing care for individuals with dementia.

Coordinating Communication:
One of the challenges in providing interdisciplinary care is coordinating communication between caregivers, the patient and family. In the module you saw examples of written and oral communication between caregivers as well as between caregivers and family.

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- Warden V., Hurley AC., Volicer L.. Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) scale. *Journal of the American Medical Directors Association.* 4:9-15, 2003
- Whitlatch CJ., Orsulic-Jeras S., Herr K., Zwakhalen S., Swafford K.. Meeting the Informational, Educational, and Psychosocial Support Needs of Persons Living With Dementia and Their Family Caregivers.

Resources

Pain in Older Adults

- https://geriatricpain.org/

Oral Health/Oral Hygiene

- https://www.geron.org/images/gsa/documents/gsa2017oralhealthwhitepaper.pdf
- http://www.who.int/oral_health/en/
- https://www.cdc.gov/oralhealth/basics/adult-oral-health/adult_older.htm
- https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIMDS30TrainingMaterials.html

Dementia

- https://www.alz.org/what-is-dementia.asp

Congratulations

Congratulations! You have completed Margaret Andersen: An Older Adult with Limited Communication. Please take the posttest by clicking the “Go to Posttest” button.

Posttest

The Posttest contain 10 questions with multiple choice answers (this is the exact same questions as the pretest). For the posttest, we have included the answers and a short discussion for each question.

Scenario 1: *Margaret is an 85-year-old female recently admitted to a long-term nursing care facility. She has a diagnosis of dementia and has limited communication. She is oriented to herself and follows one and two step directions. You will be completing an initial assessment for pain and cognition.*

Test Question 1

What is the initial approach in gathering information about the presence of pain an older adult with limited communication?

a. Proxy reporting
b. Behavior observation
c. Self-report
d. Medication review

Answer Question 1: **c. Self-report**

Discussion Question 1:

For older adults who have limited communication, a clinical recommendation for pain assessment is to utilize the hierarchy of pain.[6, 7] The hierarchy begins with eliciting a self-report of pain. The hierarchy of pain is a general recommendation for clinical practice in adults who unable to self-report. It is important to begin with the attempt at self-report and progress through the hierarchy as appropriate. Additional steps include searching for potential causes of pain, observe patient behaviors, proxy reporting, and attempt a trial of an analgesic.

Test Question 2

In an older adult with moderate to severe dementia and receptive aphasia, what valid and reliable tool would you recommend using in this case to obtain information about the presence of pain?

a. PAINAD
b. Pain Faces Scale
c. Pain Body Diagram
d. PainVAS

Answer Question 2: **a. PAINAD**

Discussion Question 2:

In older adults with limited communication, there is no standardized pain assessment tool. Ther are several pain assessment tools that include observation of behavior as recommended in the hierarchy of pain. We chose the Pain Assessment in advanced dementia (PAINAD)[12] based on Margaret's diagnosis of dementia and her limited communication. Older adults with

limited communication are typically unable to use the faces scale, pain visual analog scale or complete the body diagram.

Test Question 3

In pain assessment in an older adult with limited communication, what pain assessment observations might best assist you in your assessment?

a. Facial expression during movement
b. Posture when in chair
c. Interaction with staff and others
d. Breathing pattern at rest

Answer Question 3: **a. Facial expression during movement**

Discussion Question 3:

In pain assessment, timing can be very important. For example, pain at rest may be different compared to pain with movement or activity. Posture sitting in a chair may not be representative of pain as it is a resting position. Interaction with staff and others is also not a reliable measure of pain assessment. Facial expression with movement is the best selection as it is an assessment of pain with movement. The American Geriatrics Society has guidelines for behavioral pain indicators. Behavioral pain indicators include facial expressions, verbalizations, body movements, changes in interpersonal reactions, changes in activities and mental status changes.[9]

Scenario 2: *Gerald is a 78-year-old male with dementia and limited communication. He has been in the long-term nursing facility for two years and is demonstrating decreased participation in self-care, especially oral care. You are concerned about his oral and dental health.*

Test Question 4

Poor oral health can contribute to oral pain. What is the most common symptom of poor oral care in older adults?

a. Increased drooling
b. Decreased bruxism
c. Decreased tongue mobility
d. Increased dental caries

Answer Question 4: **d. Increased dental caries**

Discussion Question 4:

In poor oral health, increased dental caries including decayed teeth, periodontal disease, ill-fitting dentures, neglect of oral hygiene and inflammation or infection.[10, 3, 4] Drooling, bruxism, and tongue mobility are not typically symptoms of poor oral care but may contribute to changes in oral health.

Test Question 5

What signs are most indicative of dental or oral pain in an older adult with limited communication?

a. Increasing fluid intake
b. Decreasing social activities
c. Pulling at cheek or lip
d. Increasing confusion

Answer Question 5: **c. Pulling at cheek or lip**

Discussion Question 5:

For dental or oral pain in an older adult with limited communication, they may frequently be seen pulling at the cheek or lip. Often, these adults may decrease food and fluid intake. Confusion and social activity changes may be more related to change in mental status.

Test Question 6

What is the most common factor contributing to a decline in oral health in an older adult with dementia and limited communication?

a. Co-morbidities
b. Medication
c. Nutrition
d. Toothbrush

Answer Question 6: **b. Medication**

Discussion Question 6:

In an older adult with dementia and limited communication, oral health may be significantly impacted by medication. Side effects of medications such as diuretic, antipsychotics and antidepressants can lead to decreased saliva and dry mouth.[11] Dry mouth can cause difficulty with chewing, speaking and swallowing.[11] Co-morbidities may be increased in older adults, but the changes in oral health are more directly seen due to medication side effects. The answers for nutrition and toothbrush are less likely to be the most common factor contributing to a decline in oral health.

Test Question 7

Dental examination and treatment for oral health and oral pain in older adults who are in long term care are most limited by which of the following?

a. Access to a dentist
b. Lack of transportation
c. Cognitive decline
d. Limited physical mobility

Answer Question 7: **a. Access to a dentist**

Discussion Question 7:

For older adults in long term nursing care facilities, many have limited access to a dentist.

Scenario 3: Since being admitted to a Long Term Care facility two weeks ago, Margaret shows increasing combativeness, weight loss, decreased eating, and decreased self-care. Following a care conference, Margaret's nurse and grandson review the results of the nursing assessment and treatment recommendations for Margaret.

Test Question 8:

Select the most likely diagnosis you suspect in a case like Margaret's.

a. Urinary tract Infection
b. Advancing dementia
c. Knee osteoarthritis
d. Mouth pain

Answer Question 8: **d. Mouth pain**

Discussion Question 8:

UTI: A Urinary Tract Infection (UTI) in older adults with dementia, the primary sign of a UTI may be a change in cognitive status as the patient is not able to tell you about the typical signs of a UTI such as those seen in younger adults. The typical signs of a UTI are (1) pain or a burning sensation upon urinating; (2) the urge to urinate more frequently; (3) lower abdominal pain, and (4) fever. In addition, there may be no fever in an older adult. In Margaret's case, her changes in behavior may have some signs of a UTI however; she also had a change in functional activity and weight loss, not typical of a UTI.

Advancing Dementia: Dementia is a progressive condition with expect changes in memory and communication, physical activity and functional abilities that occur over time. Each person progresses at a different rate, depending on the source of the dementia: vascular, dementia with Lewy bodies, frontotemporal dementia, or Alzheimer's. In addition, other factors such as age, comorbidities such as stroke, diabetes, side effects of medication and repeated infections may influence the progression of dementia. In Margaret's case the changes we are seeing have occurred more quickly than expected due only to change in dementia.

Knee osteoarthritis is an unlikely diagnosis.
Mouth pain is the best fit for the likely diagnosis for Margaret than UTI, advancing dementia or knee osteoarthritis. The other diagnoses listed above fit part of the changes we have seen in Margaret's case, but don't fit all her symptoms exactly. As an additional consideration, Margaret is having pain based on her PAINAD score that is in an unknown location. Further investigation and examination is warranted for a more likely diagnosis for Margaret.

Test Question 9:

What is the most difficult component when using an interdisciplinary treatment plan for pain management for Margaret?

a. Prevalence of multiple co-morbidities
b. Coordinating communication
c. Range of strategies for maximizing pain reduction
d. Improving health-related quality of life

Answer Question 9: **b. Coordinating communication**

Discussion Question 9:

In this case of interdisciplinary care, the caregivers and the patient and family are in multiple physical locations. Coordinating communication is the most difficult component. In this case communication is completed via fax, face to face, during examination by the nurse practitioner and dentist. and during care conferences. Sharing information is more challenging than co-morbidities, pain reduction strategies and quality of life.

Test Question 10:

When considering treatment options for oral pain in an older adult with limited communication, which treatment strategy would be the best recommendation?

a. Non-steroidal anti-inflammatory drug (NSAID)
b. Hot pack or cold pack to the affected area

c. Improved oral care
d. Transition to dentures

Answer Question 10: **c. Improved oral care**

Discussion Question 10:

Based on Margaret's diagnosis of oral pain and changes in oral health, the best answer is improved oral care. As part of good oral health, every attempt is made to retain teeth, thus eliminating transition to dentures as an answer. The non-pharmacological option of an NSAID or use of hot/cold pack may be viable options for pain reduction, but the greatest relief of pain most typically occurs with dental repair or extraction.

Acknowledgments:

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- Evelyn Stansde as Margaret Andersen

- JC Luxton as Joe, Margaret's grandson
- Cloie Myers as CNA (Aide)
- Scott Wittenkeller as Nurse
- Chris Mann as Nurse Practitioner

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A special thanks to Oak Knoll Retirement Center, Iowa City, Iowa for providing space, time and actors for video recording. In addition, actors were recruited from the Carver College of Medicine Patient Simulator Group.

Appendix 1

http://dementiapathways.ie/_filecache/04a/ddd/98-painad.pdf

Appendix 2

http://mini-cog.com/wp-content/uploads/2018/03/Standardized-English-Mini-Cog-1-19-16-EN_v1-low-1.pdf

Appendix 3

Meadow Lane Nursing Facility

26 Meadow Lane, Sunnyvale, IA 5111

319-123-4567 | 319-456-7890 | Nursing@MeadowLane.net

fax

To: C. Smith, NP

From: College of Nursing

Fax: 319-562-9812

Phone: 319-562-9813

Re: Patient Status

Pages: 2

Date: 10.15.17

- o Urgent
- o For Review
- o Please comment
- o Please reply

Resident Name: Margaret Anderson DOB: 06-15-1935_____

Physician/ARNP: C. Smith, NP,ARNP_Nurse: _Scott_____

Allergies: _____NKA_____ Vitals: ____NA_____

Situation:__Weight loss 6# in 2 weeks_____

_____Taking 20-30% general diet; fluids ok_____

_____Resistance to am cares_____.

Sunnyvale Family Practice
26 Meadow Lane, Sunnyvale, IA 5111
319-562-9812| 319-562-9813| SmithS@sunnyvalefm.net

Recommendations/New Orders PCP:

Order:

Dietician to see for caloric needs,

Calculate BMI,

Will see next regular visit

Appendix 4

*Prescriber Sig/Date : C. Smith, NP, ARNP*_____10.15.17

Prescriber Print Name: C. Smith NP, ARNP

Meadow Lane Nursing Facility
26 Meadow Lane, Sunnyvale, IA 5111
319-123-4567 | 319-456-7890 | Nursing@MeadowLane.net

Resident Name: Margaret Anderson

Orders:

1. Oral care bid
2. Schedule Dental Appointment
3. No dentures until evaluation by dentist
4. Soft foods, dietician to recommend protein supplement
5. APAP 1 gm tid x 2 weeks, hold prn APAP x 2 week
6. Tramadol 50 mg po, 1 tab 18h prn x 2 weeks, severe pain not relieved by APAP

Physician/ARNP: C. Smith, NP, ARNP_____10.29.17_____