NIH Pain Consortium
Centers of Excellence in Pain Education

CoEPEs
CENTERS OF EXCELLENCE IN PAIN EDUCATION

Betty Miller: An Older Female with Right Shoulder Pain

Instructor Guide

THE UNIVERSITY OF IOWA

University of Iowa CoEPE

NATIONAL INSTITUTES OF HEALTH

Contents

Course Overview

This is an interactive multimedia presentation designed to focus on acute pain of the shoulder in an older adult. The presentation has a Pretest and Posttest, interactive activities and videos to help meet the learning objectives in pain education. The presentation demonstrates best practice and evidence based practice in the care of Betty Miller.

There are video and audio integrated in this learning module, please make sure your computer is equipped with speaker or headphone.

Navigation

As you go through the case scenario of Mrs. Miller, you will go through 6 events to help you understand Mrs. Miller and her situation. On the bottom right of the page, there are buttons that take you to the next item or previous item. You can navigate by clicking on one of the two buttons.

National Institute of Health (NIH) Consortium 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). 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

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 medical, dental, nursing, mental health, physical therapy, pharmacy, 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/

Case Development

At the University of Iowa CoEPE, our case was developed by an interdisciplinary team from nursing, physical therapy, pharmacy, medicine, nursing, psychology, social work and College of Public Health curriculum experts. The case learning objectives, competency review and activities were developed as a team.

Module Core Competencies

In the development of our interactive module, we focused on competencies which would reflect the interdisciplinary nature of the case. These competencies are taken from the Core Competences for Pain Management [1] and the Interprofessional Communication Competencies [2].

A. Core Competencies for Pain Management

Domain 2.4: Demonstrate empathic and compassionate communication during pain assessment.

Domain 3.4: Develop a pain treatment plan based on benefits and risks of available treatments.

Domain 4.4: Implement an individualized pain management plan that integrates the perspectives of patients, their social support systems, and health care providers in the context of available resources.

B. Interprofessional Communication Competencies

Domain 4: Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-/population-centered care that is safe, timely, efficient, effective, and equitable.

Learning Objectives

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

1. **Apply** valid and reliable tools for measuring pain and associated symptoms to assess and reassess related outcomes as appropriate for the older adult with shoulder pain.
2. **Identify** the value and contribution of each team with respect to evaluation and treatment, communication and pain management for the older adult with shoulder pain.
3. **Compare** evaluation and pain treatment plan of a patient with shoulder pain within and between different healthcare professions.

Intended Audience

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

Length of Course

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

Case Summary

Betty Miller is a 77 year old female who has had right shoulder pain for 4 weeks. Through the case study, you will follow Betty through a visit to her primary care provider and pharmacist; a home health services for nursing, social services and physical therapy; and a primary care provider follow-up visit. You will learn about pain assessment, pain education, and physical exam for the shoulder, home safety and communication among health care providers.

Presentation Options

This interactive module is designed to be presented in multiple ways. It is able to be presented as best suits the needs for your course. Options include:

1. Independent learning – having the students work through the case independently; anticipating it will take approximately 60 minutes to complete.

2. Course presentation – it is able to be presented as an instructor led course, anticipating it can be taught in a 60 minute session, two 30 minute sessions or even be taught one event at a time, taking up to 8-10 minutes per event.
3. There are places in the instructor guide for you to write notes after the Pretest/Posttest questions and with the activities and videos.

Pretest

Test question 1

Betty moves her right arm in the primary care provider's office, and she grimaces. When asked about her pain, she states she is not experiencing pain. Choose the most empathetic and compassionate response by the clinician that could improve assessment.

a. "You look as if you have pain. Tell me what you are feeling."
b. "I understand it hurts but you need to be up and moving."
c. "You clearly have pain; let's look at your treatment plan."
d. "You have been suffering so much; it's amazing you came today"

Answer Question 1: a. "You look as if you have pain. Tell me what you are feeling."

Test Question 2

1. What tools would you use to best monitor Betty and her right shoulder pain and its impact?
   a. Pain inventory, grip strength in the right hand
   b. Numeric rating scale, range of motion
   c. Visual analog scale, ability to drive
   d. Iowa Pain Thermometer, PEG (Pain, Enjoyment, General Activity)

   Answer Question 2: d. Iowa Pain Thermometer, PEG (Pain, Enjoyment, General Activity)

Test Question 3

2. For Betty's home health evaluation by Nursing, Social Services and Physical Therapy, what areas of assessment would be covered by all three but in different ways?
   a. Food preparation
   b. Financial concerns
   c. Medication security
   d. Pain in daily activities

   Answer Question 3: d. Pain in daily activities

Test Question 4

3. A home health nurse is going to complete pain education with Betty regarding her right shoulder pain, which topic is most important to discuss with Betty to improve her pain?
   a. Exercise
   b. Nutrition
   c. Bathing
   d. Coping

   Answer Question 4: a. Exercise

Test Question 5

4. The top priority for a home health physical therapy evaluation regarding her right shoulder pain is:
   a. Psychosocial concerns
   b. Arm strength
   c. Home safety
   d. Range of motion

   Answer Question 5: c. Home safety

Test Question 6

5. Betty is an older adult who lives in alone in a farmhouse in rural Iowa. Her closest neighbor is one mile away. What is the greatest barrier for access to medical care for Betty's right shoulder pain?
   a. Distance to her neighbors
   b. Difficulty driving due to arm pain
   c. Lack of medical resources close to home
   d. Family's work schedule

   Answer Question 6: c. Lack of medical resources close to home

   Test Question 7

6. In Betty's pain assessment, she describes the location of her pain is in her right arm, that it is dull and achy and averages a 6-7 on a 0-10 scale. In addition, she notes some reduction in pain with over the counter medications. What other information would be most helpful to know about Betty's shoulder pain?
   a. Pain in her left shoulder
   b. Pain interference with activity
   c. Pain cycle in 24 hours
   d. Pain reducing factors

   Answer Question 7: a. Pain interference with activity

Test Question 8

7. What of the following is a true statement regarding risk/benefit of NSAID use for an older adult?
   a. Older patients are less likely to receive pain relief from use of NSAIDs
   b. NSAIDs are safe to use in older patients with cardiac disease
   c. Older patients have a higher risk for renal concerns with use of NSAIDs
   d. Older patients are likely to develop delirium with use of NSAIDs

   Answer Question 8: a. Older patients have a higher risk for renal and hepatic system concerns with use of NSAIDs

Test Question 9

8. Betty is presenting to her primary care provider for a recheck after 4 weeks of home health services for Nursing, Physical Therapy and Social Services. She has now had pain for 8 weeks, and she reports her pain is the same. What medication changes should the primary care provider make to her medications?
   a. Change to an Opioid medication for shoulder pain
   b. Change the NSAID medication she has been taking
   c. Change the dosage of her NSAID medication
   d. Steroid injection to the right shoulder

   Answer Question 9: d. Steroid injection to the right shoulder

Test Question 10

9. As a primary care provider, what outcomes would you use to assess Betty's progress and readiness for discharge from her home health services?
   a. Motion and strength
   b. Medication usage
   c. Function and pain
   d. Level of assistance

Answer Question 10: c. Function and pain

Course Content

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 78-year-old woman who experiences pain in her right shoulder and difficulty with everyday activities. Please type in your name and then click BEGIN when you are ready.

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 next button or previous button located on the bottom right of the screen.

Course Overview

The goal of this course is to provide an interactive learning experience about a 78-year-old woman who experiences difficulty with everyday activities due to her right shoulder pain

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

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.

This case incorporates the Core Competencies for Pain Management and Inter-professional Communications Competencies.

Learning Objectives

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

Apply valid and reliable tools for measuring pain and associated symptoms to assess and reassess related outcomes as appropriate for the older adult with shoulder pain.

Identify the value and contribution of each team with respect to evaluation and treatment, communication and pain management for the older adult with shoulder pain.

Compare evaluation and pain treatment plan of a patient with shoulder pain within and between different healthcare professions.

Events

In this module, you will learn about Betty Miller and her evaluation and treatment for right shoulder pain. Begin by following her through the events below. You can move through the module by clicking the next button located on the bottom right of the screen.

Primary Care Visit

The following is Betty's information during her primary care visit.

Primary Care Visit - Intake

Name: Betty Miller
Age: 78
Gender: Female
Height: 63 years
Weight: 118 pounds
Blood pressure: 120/78
Pulse: 72, regular
Temperature: 98.6 F
Problem: Right shoulder pain, pain medication takes the edge off, general ache in the right shoulder, difficulty sleeping due to pain, pain with activity like dressing, driving, activities including quilting, cooking, bathing.

Medication review:

- Metoprolol XL 50 mg daily
- Aspirin 81 mg daily
- Tamsulosin 0.4 mg daily
- Acetaminophen 650 mg every 6 hours as needed

Primary Care Visit – Body Diagram

Betty complains about having pain on her right shoulder, stiffness in the right shoulder even at night: and difficulty with dressing bathing, driving, lifting arm, and lifting objects. She drew in the area that hurts on the body diagram shown. The pain is on the front of the shoulder, the back of the right should and over the right shoulder joint as seen in red in the pictures.

Primary Care Visit – History

More information for Betty's history is as follows.
Medical History - Hypertension, Pre-diabetes, Bladder Issues, Osteoarthritis, Slightly hard
Of hearing.

Psychosocial - Betty lives alone. She is a recent widow after caretaking for her spouse for several years. In her home, she has 3 stairs to get into the house and 12 stairs to the basement, where her laundry is located. Both sets of stairs have a side handrail. Her garage is not attached to the house and is located 30 feet from the house. She has

reported difficulty in steering her car due to her right shoulder pain, resulting in minor bumps and scraps with her vehicle.

Support -

Family: Betty has 2 daughters, one lives close by and another lives 2 hours away. She has good relationships with her daughters. She has 4 grandchildren between the ages of 8 and 22 years of age.

Social Support: Betty has many friends through her community and church. She has lived in this community for many years, she is engaged in a quilting group, engaged in church group and activities at church.

Location - Betty lives in a farmhouse located in rural Iowa. She rents her farmland to a neighbor who lives 1 mile away. She lives 20 minutes from the nearest community but there is no health care available in that community. Her primary care provider and the nearest hospital is located in a community that is a 45 minute drive away.

Hobbies - Betty belongs to a quilting group at church and enjoys quilting at home. She has stopped quilting since the onset of her right shoulder pain. She enjoys spending time with family and friends but she has limited this activity since onset of shoulder pain.

Primary Care Provider – Pain Assessment Tools

At her primary care provider visit, Betty completes two assessment tools: (1) Iowa Pain Thermometer Revised (IPT-R) for pain severity and (2) Pain Enjoyment and General activity (PEG) for a multidimensional assessment of her pain and function. Many older adults prefer use of a verbal descriptor scale with thermometer to express their pain intensity. Each tool provides different information about pain severity and pain impact. More information follows about the assessment tool.

Iowa Pain thermometer scale (Revised) - IPT-R

Betty gave her pain a 6-7 out of 10 on the Iowa Pain Thermometer.

Pain Intensity and Interference- PEG

On the Pain Intensity and Interference Scale, or PEG, Betty scored a 7 on average pain intensity, an 8 on interference with enjoyment of life, and a 7 on interference with general activity, giving her an overall PEG of 7.3 out of 10, or the average of the three individual scores.

For more information on the Iowa Pain Thermometer or the PEG, click on the respective green button that reads “Click for More”.

Primary Care Provider – Interview

After reviewing Betty's information, the primary care provider has few questions.
PCP: "Hello, Betty. What brings you in today?"
Betty: "It's my shoulder it- it just really hurts. I can hardly move it. I kept thinking about a month ago when it started that I slept on it wrong, or I had done too much work the day before. It just kept getting worse and worse, and now it's waking me from sleep with the pain. My right shoulder hurts and is getting hard for me to move. I'm having difficulty with almost anything you can name: with driving, I can't brush my hair, I can't put a sweater on, getting clothes off like T-shirts one handed it's really hard. I tend to move in my sleep and every time I move this shoulder kills me. I used to always sleep on my stomach and put my arms over, I can't do that. So now I'm trying to sleep on my left side entirely or on my back. That's not comfortable so I wake up. But the pain alone wakes me sometimes. When I'm even still."

PCP: "What makes your pain better?"
Betty: "The only thing that seems to make it better is if I don't use my shoulder at all."
PCP: "What makes it worse?"
Betty: "Moving it, in any direction, for anything. Even when I'm not lifting."
PCP: "That sounds difficult. How are you managing?"
Betty: "Well I have a daughter who lives close by, and she has been coming over I don't know 2 or 3 times every week. She helps me with groceries, she helps me get the laundry up form downstairs, and she helps with housekeeping. There's just so much I can't do."

Primary Care Provider – Physical Exam

After reviewing Betty's information, the primary care provider has few questions.

Observation and Palpation

Dr. Ram: "Hi Betty"
Betty: "Hi"
Dr. Ram: "I'm Dr. Ram a nurse practitioner and I will be doing your exam"
Betty: "Oh it's nice to meet you"
Dr. Ram: "Nice to meet you too I understand that you have quite a bit of pain here."
Betty: "Yes"
Dr. Ram: "ok well I am going to do start with a general exam first just to make sure that there is nothing else going on with you ok"

Dr. Ram: “ok I'm checking you here lymph nodes feel fine and then along here and right along there good and now I'm going to palpate or feel your thyroid gland I'm going to have you swallow good very good ok.”

Lungs and Heart

Dr. Ram: “And I'm going to listen to your lungs so I'll have you take some deep breaths. Take a deep breath.”
Betty Deep Breathes
Dr. Ram: “Lungs sounds good I'm going to listen in the front ok take a deep breath.”
Betty Deep Breathes
Dr. Ram: “Good I'll let you recover from all that breathing. Light headed at all?”
Betty: “No”
Dr. Ram: “ok alright I'm going to listen to your heart sounds and I'm going to be moving the stethoscope around your chest but first I want to listen to the rate ok and just breathe normal.”
Dr. Ram listens to heart
Dr. Ram: “ok your rate sounds good now I'm going to check your valves here on your heart.”
Dr. Ram listens to heart
Dr. Ram: “ok then up here.”
Dr. Ram listens to heart
Dr. Ram: “good and then over here.”
Dr. Ram listens to heart
Dr. Ram: “and then right under here”
Dr. Ram listens to heart
Dr. Ram: “very good very good”

Abdomen

Dr. Ram: “I'm just going to lift up your gown here a little bit there and I'm going to listen to your bowl sounds take my stethoscope here.”
Dr. Ram listens
Dr. Ram: “ok thank you sounds good.”
Dr. Ram palpates
Dr. Ram: “no pain at all? Is there any pain here when I’m doing this?”
Betty: “No”
Dr. Ram: “How about here?”

Dr. Ram palpates
Betty: “Nope”
Dr. Ram: “Nothing?”
Betty: “No pain”
Dr. Ram: “No pain, alright.”
Dr. Ram: “How about right up in here?”
Betty: “Nope, that's good”
Dr. Ram: “And take a deep breath”
Betty Breathes Deeply
Dr. Ram: “and let it out”
Betty exhales
Dr. Ram: “very good, ok”

Lower Extremities

Dr. Ram: “So I am just going to check you lower extremities and I am first just going to feel your legs and you tell me can you feel me touch you?”
Betty: “Yes”
Dr. Ram: “And all the way down here?”
Betty: “Yes”
Dr. Ram: “you’re not ticklish?”
Betty: “No”
Dr. Ram: “Now I am going to have you lift your leg up like this and I'm going to push against. There we go. And here. Good. And then I'm going to have you spread your legs out like that and I'm going to push against it for resistance. And then pull them together. Good. And kick out, both at the same time and pull them in. Good. And then toes up, so I want you to just kind of flex your ankle. Op there we go. And then down. Ok. And now I'm just going to check your reflexes. Ok get this one up, there we go. Alright. Wew that's a good reflex. Ok. There we go here, and just relax your leg, let them dangle. Good. And then here. Alright. And then I'm just going to check your pulse. Let me help ya. Alright.”
Dr. Ram Checks Pulses
Dr. Ram: “Good Pulse”
Dr. Ram Checks Pulses
Dr. Ram: “Good”
Dr. Ram Checks Pulse
Dr. Ram: “And here”

Dr. Ram Checks Pulses
Dr. Ram: “Ok”

Shoulder Exam

Dr. Ram: “Now I know you’re going to have some pain here and I will try to be very gentile. Ok but you communicate with me how it feels.”
Betty: “Ok”
Dr. Ram: “When I am lightly touching you any pain at all?”
Betty: “No”
Dr. Ram: “Check there, I am going to have you turn your head that way. This way. Can you go down? Can you go up? Good. Now I am going to put my hand on your forehead and I am just going to”
Betty: “Oh that feels good”
Dr. Ram: “Ya, you get a massage while you get an exam. Alright there you go. ok good. And I'm just going to palpate under the skull here. Any pain there?”
Betty: “No”
Dr. Ram: “On the other side?”
Betty: “No”
Dr. Ram: “No. Ok. And then how about right along in here?”
Betty: “Yes”
Dr. Ram: “A lot of pain. I am going to come around on the other side and start there first.”
Betty: “I think it is just tight”
Dr. Ram: “Any pain at all here?”
Betty: “No, none.”
Dr. Ram: “Alright I am just going to feel the muscle groups right down the shoulder blades here. Right along the edge of the shoulder blade. You are doing fine there.”
Betty: “Oh ya, that feels so good”
Dr. Ram: “And not flaring up. Ok. Any pain at all here when I am pushing on ya?”
Betty: “Nope”
Dr. Ram: “How about here?”
Betty: “Nope”
Dr. Ram: “How about here?”
Betty: “No”

Dr. Ram: “Ok, I'm just going to take your hand and I am just going to move your arm, just straighten it, I am going to move your arm up. Is that ok?”
Betty: “Yes, yes it's fine”
Dr. Ram: “And then down and go up. There you go. Good. And then I am going to have you bend and I am just going to move your hand forward. No pain at all?”
Betty: “Nope.”
Dr. Ram: “and you are not flaring up there so that's good. Put your arm next to your body. And there we go. And how far can you go on your back? Oh my gosh look at that, mid thoracic. Ok, good.”
Dr. Ram: “Now, this is going to be a little trickier.”
Betty: “I know.”
Dr. Ram: “You just tell me that doesn't hurt you but the little bit of palpation does. Anything there, ok. Pain there? Yes, ok. Pain there? So sorry.”
Betty: “You really are being gentle so thank you.”
Dr. Ram: “Ok, thank you. Don't want to hurt ya. Ok any pain at all here? You do pretty well there and you are able to move and then do this range.”
Betty: “My wrist is fine but oh”
Dr. Ram: “Ya, in the elbow. ya you feel like the elbow is fine?”
Betty: “My elbow is ok.”
Dr. Ram: “Doing ok there? Ok. Let's just see if you can extend out”
Betty: “That's hard”
Dr. Ram: “That does not look good does it? And how about forward. Ok. Ok, alright. And touching your back?”
Betty: “Oh for god sake no”
Dr. Ram: “I was going to say”
Betty: “No way”
Dr. Ram: “Alright, I am going to check strength and compare them though I am betting that this is going to be a lot less and I apologize don't even try if it is going to hurt too much. Ok there you go. Can you go out like this? Ya that one. And then go up with. See if you can go up with this one.”
Betty: “Oh geesh”
Dr. Ram: “No. Ok”
Betty: “I mean I can”
Dr. Ram: “No, no reason. Ok. So squeeze really hard. Squeeze. Harder Harder Harder. Ok. Good. So you have good strength. Are you right handed or left?”
Betty: “Right”

Dr. Ram: “And you are able to write ok?”
Betty: “Emmmmm”
Dr. Ram: “How about typing”
Betty: “ah I have been actually I tried it and I end up one finger”
Dr. Ram: “One finger and no pain”
Betty: “No, no pain”
Dr. Ram: “ok.”
Dr. Ram: “I do want to check your reflexes. Let's start over here. So with this you put your arm out like this and let your forearm just be real limp. Ok, there we go. There. Alright. I should try that again. There we go. And then here. See you got it there. And this is going to be a little harder. I am just going to.”
Betty: “esh”
Dr. Ram: “Are you ok? I don't think that I can get you into position to do that. I'm so sorry.”
(Betty gestures to right shoulder and rubs the front, top, back and upper arm. PCP palpates right shoulder. Betty raises her left arm forward, out to the side, behind her head and behind her back while measurements are taken with goniometer)
Right shoulder motion: Forward 30 degrees extension (reaching behind) 0, out to the side 20 degrees; adduction 5, ER 15, IR 15 degrees.

Written Summary of Exam is as follows.
Posture: Increased forward head, increased thoracic kyphosis and increased internal rotation of right shoulder
Neurological: Conversant appropriately. Light touch sensation normal, upper extremity reflexes normal.
Lymph: no palpable nodes, neck supple,
Endocrine: thyroid gland palpable, no nodules.
Lungs: clear bilateral, no wheezes or rhonchi.
Heart: S1, S2 present, no murmurs, no irregular beats.
Gastrointestinal: Abdomen soft, nontender, no hepatosplenomegaly, and bowel sounds present
Lower extremities: Good strength to abduction, adduction, flexion, extension. Plantar flexion, dorsiflexion equal and strong.
Range of Motion
Neck: limited range of motion, limited with rotation to left, side bending left
Left upper extremity within functional limits.

Right shoulder with limitations in range of motion for shoulder flexion, abduction, internal and external rotation. Right elbow and wrist within functional limits.
Strength: Neck, Left shoulder strength within functional limits, right shoulder difficulty to assess due to pain.
Palpation: Moderate guarding in muscle groups surrounding the right shoulder.

Primary Care Visit – Review of Systems – Results

1. Musculoskeletal:
- Neck- pain on the right present, thoracic back pain, no lower back pain.
- Legs- mobile, no significant report of weakness, no falls
- Feet- no complaints
2. Alert, oriented, glasses for vision correction. Good appetite. Swallow fine, slightly hard of hearing.
3. Endocrine: Pre-diabetes, blood sugars tested by patient at home. No temperature changes or weight gain.
4. Lung: no difficulty
   Heart: no chest pain
   Gastrointestinal: no reflux nor dyspepsia, bowels with constipation, takes over the counter medication for this once a week
   Gynecological: Post menopause with no signs/symptoms of concern

Differential Diagnosis

What is Betty's differential diagnosis you would make after Betty's primary care provider visit and exam? Each tab will show the primary clinical signs for that diagnosis. The diagnoses below determines the correct and incorrect answers.
Muscle spasm: Incorrect! Betty has additional symptoms that are not explained only by muscle spasm. Below are the primary expected sysmptoms for muscle spasm.
History: may or may not have a previous injury.
Physical Exam: Scapulohumeral dyskinesia; Muscle guarding/spasm upon palpation
Pain: Achy at rest and sharp with movement.
Frozen shoulder: Correct! Below are the primary expected sysmptoms for frozen shoulder.
History: May or may not have previous injury.
Physical Exam: Limited in all directions with capsular pattern (external rotation abduction then internal rotation).
Pain: Dull, achy, global pain, and stiffness.

Nerve injury spine: Incorrect!
Betty has referred pain that is fully not explained only by a nerve injury and Betty has not had a nerve injury. Below are the primary expected symptoms for nerve injury.
History: Previous injury or history of degenerative joint disease.
Physical Exam: Decreased cervical range of motion: Reflex changes: complaints of numbness, tingling or paresthesia.
Old fracture: Incorrect!
Betty does not have a history of fracture or injury. Below are the primary expected symptoms for a history of fracture.
History: Previous fracture in the humerus, clavicle and scapula.
Physical Exam: Pain upon palpation of the fracture site.
Pain: Deep pain, localized to fracture site.
Tendon injury: Incorrect!
History: Usually in the middle aged adults; pain at night and with rolling onto involved joint.
Physical Exam: Muscle and tendon specific discomfort; positive impingement signs.
Pain: Pain with specific motions and activities; burning type pain.

Medication Review with Pharmacist

Betty's primary care provider has prescribed Naproxen to assist Betty in her pain management. The pharmacist is able to come and counsel Betty on Naproxen. The following is the session with Betty and the pharmacist.
Dr. Jones: "Hi Betty, I'm Dr. Jones the pharmacist that works here in the clinic. The doctor has told me that you have injured your shoulder and you may need some medications to help manage your pain."
Betty: "Yes. Oh that would be wonderful my shoulder really hurts and I want the pain to diminish and I want to be independent again and I want to get some sleep."
Dr. Jones: "well that's our goal as well I spoke with the doctor and we're going to have you try a medication called Naproxen. Have you ever heard of that before?"
Betty: "No. Is it a narcotic?"
Dr. Jones: "No actually I brought a pamphlet here for you. Naproxen is a type of pain reliever that also has anti-inflammatory affects it's like ibuprofen which is another commonly used medication."
Betty: "Oh. And I have heard of ibuprofen"
Dr. Jones: "Naproxen is in the same family of medications and works the same way. We will ask you take Naproxen two times a day with breakfast and your evening meal taking

it with meals helps prevent against stomach upset it may take a few days for it to work but we will make sure to get in touch with you to see how you are doing."
Betty: "Ok. That sounds good. Are there things that I should be concerned about taking this med?"
Dr. Jones: "That is a great question. Generally most people tolerate Naproxen quite well but there are a few things I want to share with you about it. It's important that you notice and report any change in your bowels particularly if they are darker than normal. If you feel light headedness or dizzy please let us know as well. I looked at your other medications and I would like to review those briefly since we are adding in Naproxen. I see you are Amlodipine for your blood pressure, Naproxen may affect blood pressure so we need to make sure it is monitored on a regular basis. We may ask your doctor to monitor other indicators such as kidney and liver function as well. Do you have any questions I can answer for you?"
Betty: "I don't think so I just hope it helps"
Dr. Jones: "Ok and if you think or have any concerns you just give us a call."
Betty: "Oh good."
Dr. Jones: "Thank you."

Pharmacy – Practice Exercise

Please answer the following question: What is the potential risk of using naproxen in a 78 year-old woman? The potential risk for each system is as follows.
Cardiovascular: Variety of effects including potential for myocardial infarction, strike, or heart failure especially in those with pre-existing disease.
Hepatic: Elevations in serum transaminases.
Hematologic: NSAIDs can cause inhibition of platelets placing people at higher risk of bleed; combination with other anticoagulants or antiplatelet may increase the risk.
Gastrointestinal: may cause dyspepsia, peptic ulcer disease, and risk for GI bleed.
Renal: May cause acute kidney due to vasoconstriction, electrolyte and fluid abnormalities such as hyperkalemia, hyponatremia, and edema; potential worsening of hypertension.
Central Nervous System (CNS): May be associated with cognitive impairment in older patients, psychosis, and tinnitus.
General risk of NSAIDs are dependent on underlying patient conditions, dose of NSAID used, and length of the treatment. The primary mechanism tied to NSAID toxicity is related to their mechanism of action which is inhibition of prostaglandin synthesis.
Follow-Up Care Order

Which services would be the best for Betty for follow-up care – outpatient physical therapy or home health services?

1. Outpatient Physical therapy: Incorrect!
   The primary care provider chose Home Health Services for Betty due to her transportation limitations. She is not able to drive alone and has reported difficulty in steering her car due to her right shoulder pain, resulting in minor bumps and scrapes with her vehicle. Distance of the nearest outpatient physical therapy clinic is 45 minutes away. Her family and friends are not able to transport her to the nearest outpatient at this time.
2. Home Health Services: Correct!
   Primary care providers order home health because Betty needs to drive in daylight, and the therapy outpatient clinic too far to drive safely along in order to establish homebound status, lives alone, driving difficulty due to right arm pain.

Guidelines for home care eligibility

Home Care Eligibility – Medicare

- Medicare Eligibility: Part A and /or Part B
- Patient needs to be under the care of a doctor
- You must need one or more of the following:
    1. Intermittent skilled nursing care
    2. Physical therapy, speech-language pathology or occupational therapy services which requires skilled services of a qualified therapist.
    3. Must be homebound and doctor certifies you are homebound
- You may leave home for medical treatment or short, infrequently absences for non-medical reasons
  Source: https://www.medicare.gov/coverage/home-health-services.html

Outpatient Services

- Medicare Part B (Medical Insurance) 20% copay for services
    1. Nursing outpatient services are not a covered Medicare service
    2. Social Services outpatient services are covered when they are provided by a health care provider who accepts assignment.
    3. Physical Therapy: Medicare helps pay for medically necessary outpatient physical therapy, speech-language pathology or occupational therapy. There are limits on these services. The therapy cap limits for 2017 are:
        a) $1,980 for physical therapy (PT) and speech-language pathology (SLP) services combined
        b) $1,980 for occupational therapy (OT) services

  Source:

- https://www.medicare.gov/coverage/outpatient-mental-health-care.html
- https://www.medicare.gov/coverage/pt-and-ot -and-speech-language-pathology.html

Primary Care Provider – Additional Orders

After Betty's visit, the primary care provider has ordered:

- Medication: Naproxen. A proton pump inhibitor was not added as the time frame for the Naproxen is expected to be limited.
- Home Health Services for Nursing, Social Services and Physical Therapy
- Follow-up visit with primary care provider.

Select which additional orders you feel would be appropriate for Betty at this time.

- Imaging
- X-ray
- Other
- None

Answer: None

Follow-up visit with primary care provider

- 2 weeks
- 4 weeks
- 6 weeks

Answer: 4 weeks

Explanation: Imaging is not recommended at this time based on the differential diagnosis. Four weeks is the most correct answer in order to see a significant difference in benefit from the anti-inflammatory and additional services ordered on the next page.

Home Health Nursing

Betty's first home health service is nursing. She is seen in her home by the nurse and you will see two snippets from the home health nursing assessment: Pain education and home safety. The conversation during the nurse visit is as follows.

Pain Education Checklist

- Acute pain vs. Chronic pain

  Acute Pain: Acute pain occurs as a direct result of tissue damage or potential tissue damage and is a symptom. It serves as a warning of disease or a threat to the body.

  Chronic Pain: Pain that outlasts the normal healing time, the impairment is greater than would be expected from the physical findings or injury and/or it occurs in the absence of identifiable tissue damage. It is typically pain that has lasted more than 3 months.

- Pain management tools
  Pain management tools allow you to help manage your pain. They may include using hot packs, cold packs, balancing activity and rest, modifying how you do things to decrease your pain – such as changing the height of items, changing the weight of items, changing your posture at rest or with activity.
- Self-monitoring
  Self-monitoring involves keeping track of your pain with rest and activity as well as monitoring your general health, sleep, nutrition, water intake. In addition self-monitoring includes keeping track of your emotional and spiritual health along with your physical health. Rating your pain with a tool like the Iowa Pain Thermometer (IPT-R) can be a guide for recording pain levels.
- Stress management and coping skills
  Stress management and coping skills can include Practicing relaxation exercises or meditation exercises, utilizing your support network, engaging in your spiritual practices, engaging in enjoyable activities despite experience of pain (reading, watching a movie, something fun), talking to a friend or professional about stress and concerns related to your pain and the impact it is having on your life.
- Pacing and prioritizing
  Pacing and prioritizing involve alternating you level of activity and rest so that you don't overdo or underdo. It is working on the balance of activity and rest that allow you to accomplish more. It can include alternating high energy consuming activities and low energy consuming activities; or alternating physical postures, prioritizing your activities so you do not become overwhelmed.
- Problem Solving
  Problem Solving skills allow you to identify a problem, develop possible solutions to the problem, try a solution, set a goal and then evaluate the success of the solution. It is an important skill in self-management for pain. Developing problem solving skills leads to better resiliency in managing your pain.
- Here's a list of resources for pain education:
  Pain Education Resources for Betty: Here is a list of internet resources for more information about pain education and pain resources for you and your patients.

Pain Education Review

After the pain education session, the nurse has some question for Betty to help summarize Betty's impressions about home safety. The following is Betty's response to each question.

Nurse: “Betty you have learned some important things about pain today. Which of these things were memorable for you?”
Betty: “well the first one was that I am having acute not chronic pain and it is limiting my movement that was sort of hopeful for me and the second one was to use the Iowa pain thermometer and I think that is going to be helpful I'll do it like once a day to see if I'm making progress or on days that I'm slipping back I might even go to the point where I'm trying to keep track of what I did that day to make it go up or down if I did anything.”
Nurse: “I am curious about what tools you plan to use to decrease pain in addition to your new medication.”
Betty: “well I plan to use some things I have never use before a hot pad and a cold pack at the appropriate times on my shoulder I think that's going to be helpful and I also learned to vary my activities before on a good day I tried to get as much done as possible and on a bad day I did almost nothing and now I realize it is better for me to alternate activity with rest in shorter periods of time everyday so that was really helpful another thing I learned was to alternate the height of things and the weight of things and that's going to make a big difference in things like carrying the laundry upstairs I also learned that I can use my own posture sort of square my shoulders and pay attention to the position of my arm and that that could help sometimes I think that sometimes I just tend to let my shoulder slump.”
Nurse: “Of the things you’ve learned which ones surprised you? “
Betty: “well I really dislike being so dependent on my daughter but I also don't like not going to my quilting grout not going to my church group and what I have learned is that it helps with pain if you do things you enjoy so I am going to go to quilting group and church group even if I can't do very much that day and it might help with my dependence on my daughter if I tend to do smaller loads of laundry so I can carry them upstairs if I cook in smaller pans and only cook single servings at a time rather than trying to cook for the week so I can have a lot of leftovers and use every pan I'm thinking of ways I can do things so that my daughter only needs to take me grocery shopping when she goes once a week and we can go back to being mother and daughter again and then another thing I learned that was really an eye-opener for me is that doing things that are distracting like watching a movie on TV or relaxing like reading or sleeping also help with pain and I never thought of it that way so I think that my days will look a lot different so I'll do a little activity a little rest throw in a little pleasure a little movie and a book and I think I can imagine that will lower my awareness of pain oh I am still kind of hesitant to drive my poor car I put so many dents in it trying to drive one handed and finally my daughter said "mom this is not safe"”

Interactive – Home Safety

Instructions: Home safety will be evaluated by nursing and physical therapy. For this scenario, nursing focused on overall safety, flooring and recognizing hazards. Physical therapy will focus on walkways and stairclimbing, bathrooms and lighting.
A review of each room for home fall prevention is as follows.

Living Room:

- Chairs and sofas are sturdy and secure
- Chairs and sofas are not too low or soft to get in and out of easily
- Chairs and sofas have arms to aid in sitting or rising
- Leave enough space to walk through the room easily
- Furniture is steady and does not tilt if used for support

Kitchen:

- Keep the items you use most often in easy reach – at waist or shoulder height
- If you use a step stool, make sure it has a handle to hold
- A single lever faucet is easier to use
- Keep hot pads near the stove
- Unplug small appliances when not in use
- Keep cupboards and drawers closed

Floors:

- Create a pathway of 36 inches
- Pull up floor rugs or add a non-slip backing to keep the rugs from slipping
- Pick up objects off the floor
- Coil or tape cords and wires next to the wall so you do not trip on them

Bathrooms:

- Put a non-slip rubber mat or stick strips on the floor of the tub or shower
- Have grab bars put in next to the tub, shower and toilet
- Single lever faucets are easier to use
- Bath or shower doors have safety glass or plastic

Stairs & Steps:

- Check stairs or steps outside and inside the house
- Pick up things on the stairs; keep the stairs picked up
- Fix loose or uneven steps
- Check that lighting is enough over stairs and landings
- Check the carpet on stairs or add non-slip rubber treads to stairs
- Check handrails are secure or if not handrails install handrails for safety

Bedrooms:

- Make sure lighting is enough and in easy reach from the bed
- Make sure lighting from bedroom to bathroom is enough
- Nightlights can help light up the pathways
- Keep plenty of room to walk around the bed
- Keep a sturdy chair with arms for dressing

Prevention:

- Do exercises for balance and leg strength
- Home safety will be evaluated by nursing and physical therapy. For this scenario, nursing focused on overall safety, flooring and recognizing hazards. Physical therapy focused on walkways and stairclimbing, bathrooms and lighting.
- Regular eye checkups
- Wear shoes inside and outside the house
- Keep the lighting bright inside your home
- Paint a contrasting color on the edge of steps to see the stairs better
- Keep emergency numbers near each phone
- Think about wearing an alarm to bring help in case you fall.

Home Health Nursing - Home Safety

Following are Betty's response to the nurse's questions.

Nurse: "I would like to walk around your home to go over safety in some areas. Let's walk through to look at lighting, flooring, and walkways in your home before we talk about them. The physical therapist will also look at some additional areas when they come to the house.

As we went around your house, what are some of the highlights you learned about safety in your home?"

Betty: "Well, one of the things was about lighting I tend to skimp on lighting. As it gets dusk I try to get from one room to the other even though it's kind of grey. And I'm going to stop doing that. I'm going to get night lights for hallways so that things are visible, even at night. And as I walk into a room even if it's in the middle of the night turn the light switch on and I just hadn't done that it's a bad habit."

Nurse: "What about flooring?"

Betty: "well as we walked around the house I noticed that there are some places where the carpet is uneven and in the basement there are places where the linoleum has curled up boy that's a tripping hazard and so I'm going to have somebody come in and fix both of those and I am such a fan of throw rugs so there are throw rugs in kitchens and bathrooms and laundry room and I just don't ever put any non-skid padding underneath them so I'm going to go around and get rid of the ones I really don't need

and then also put non-skid pads under the ones that I really want to keep so I can step out of the shower onto a rug but the rug will stay there."
Nurse: "Were there any other hazards you noticed?"
Betty: "I tend I have two sets of stairs and I tend to put things on the stairs to carry either up or down in the future which is a real hazard I mean it is easy to trip over anything that is left on a stair so I'm going to stop doing that that means going up and down stairs a little more but there is nothing wrong with my legs so I noticed that and just clutter in hallways in general I tend to leave piles of stuff around and oh I'll get to that later and I'm going to stop doing that Oh and then there is the ironing board and the iron was set up with the cord over a walk way now that is an accident waiting to happen so I won't be doing that anymore."

Home Health Social Services – Interview

Betty's next home health service is from social services. The review of the topics that were covered in the interview is as follows.
Social Services: "Can you tell us about your family and their involvement with your medical care? What do they know about your pain?"
Betty: "Well I have two daughters and one lives in Illinois and she is a school teacher and has two little kids; so we have a weekly phone call but that is all she knows. But, Ellen - her sister - lives really close by and oh my goodness I don't know what I would do without her. I mean she has been coming many times a week to help me with laundry and grocery shopping and any appointments I have she has been driving me. She, she's done a lot. She is very very involved and knows the most about how I feel and what's been going on."

Social Services: "How has your pain impacted your ability to participate in daily activities? Are there certain things you wish you could do but can't due to your pain?"
Betty: "I am so frustrated with this arm. I would like to able to just wake up and see what I want to wear that day and be able to put it on. I can't. I mean I have to put this arm in first and have it be roomy enough that I can get it around with one hand. That's. I can't brush my hair in the back. It's, I'm right handed and doing my hair on my right side with my left arm. That just doesn't work. So from very basic things like that to participating in groups that I just really enjoy. I have a quilting group that I love and a church group and I really like to go to both of those but I haven't been participating because I can't quilt. I am right handed. And, and I can't do much. And my church group is in the evening and I don't dare try to drive myself and I just don't want to drag Ellen

away from her kids to do that so I have been limiting that. Oh I don't know, almost anything any aspect of my life you can name has been affected by this. I feel more isolated. Oh, I driving. So I tried I mean I kept thinking, I can drive with one hand. Well I can't put a seat belt on with one hand. I can pull the seat belt over but I can't attach it without this hand. And I can't move this hand backwards. So I have been driving it without my seat belt on. And one-handed I just can't as easily turn the wheel. I can't gauge where the front of a car is as well, so I've got lots of dents in the car that weren't there. Finally Ellen said "Mom it's just not safe for you to drive I'll do it". I feel like I have lost my independence, I just don't feel like an independent person any more I feel like I am dependent on everybody."

Social Services: "Besides your family, what types of support systems do you have? How aware are they about your shoulder pain?
Betty: Well, my church group and my quilting group understand that I am having trouble but, I live out of town and so it is not easier for them to just stop by and there are renters on the property they live in their own house but they live on the farm and they are close but I don't want to bother them so I haven't asked for help I just think that it would be invading their space if dressing and ordinary self-care is difficult and then doing anything around the house it just takes away from your sense of accomplishing things and your sense of being an independent person who takes care of herself I feel exactly that I feel handicapped I feel as though I am dependent on other people I feel as though I am no longer a whole human being and that's silly over a shoulder but it's the way I feel."

Social Services: "Can you describe for me what moments when you notice more pain or moments when you notice less pain?"
Betty: "Well if I have good days I get up and the pain isn't so bad and it seems on good days that I can move my arm a little bit more and on those days I just do as much as I can do. I try to cook ahead. I try to get some housekeeping done. I even drive the car into town so I can do some errands so on those days I am really, really active, as active as I can be. On a day when the pain is really swamping me, I don't get much at all done. I don't even eat well on those days because it is just too hard. I tend to just sit and do basically nothing. I can't get involved even in a TV on days like that because the pain hurts and I am constantly aware of it and just nothing seems pleasurable and nothing seems worth it and it just stretches - the future just stretches before me and it's pretty bleak so I - on bad days it's bad both physically and emotionally."

Social Services: “Many individuals I work with are concerned about the price of pain medications. Can you share with me a little bit about your insurance coverage?”
Betty: “Yes I have Medicare and then I also have a Welmark Blue Cross Blue Shield Medicare supplement policy and a drug prescription policy and usually nothing is too difficult to pay for I am worried about pain medications that might be a little more expensive and I am worried about having that expense be chronic but you know I just have to pay it every month I worry about how long I would have to take pain medication I mean am I going to be on this stuff forever? Or will someday I have the use of my arm back and be healthy.”

Social Services – Key Elements Review

Key elements of each social service interview topic Betty and the Social Services Provider discussed is as follows.

Family Involvement

- Family knowledge about pain
- Family knowledge of medical needs
- Family involvement in medical care

Pain in Daily Activities

- Impact of pain on daily activities
- Functional limitations due to pain.
- Emotional response to pain.
- Pacing of activities, stress management and coping skills, monitoring moments when you notice more pain, moments when I notice less pain.

Support systems

- Support systems outside the family
- Support system knowledge of problem
- Support system involvement in providing assistance

Financial Concerns

- Price of medications
- Insurance coverage
- Financial worries/needs

Home Health Physical Therapy

In this Home Health Physical Therapy's event, you will look at two snippets which include: physical exam and home safety with physical therapist. You will also have a chance to work on an interactive activity for physical therapy services.

Therapist: "Betty, I would like to take a look at your shoulder – check your motion, your ability to move your shoulder and go over some functional tasks with your shoulder."
Therapist: "So show me where your shoulder hurts"
Betty: "it hurts in the back in the front and then deep inside in it's hard to point to that "

Therapist: "Any pain over here"
Betty: "No that's fine"

Therapist: "Alright, we are going to do neck range of motion next. Let me see you bring your chin towards your chest. And come on back up. And look towards the ceiling. And come on back down. Good. I'm going to have you tilt to the side. And then to the other side. Nice job. Then I will have you look over your left shoulder. And then over your right. Any pain with any of those? No, ok good. Next we are going to do left shoulder range of motion. I will have you reach your left arm up. Good and come on down. And now out to the side. And come on back down. Good. Now I'll have you turn and face that way. And let me see you reach behind your head. Nice job. And then reach behind your back. Great. Come on back toward me. Next are bicycle signals. You're going to go up like this and then hand down. Any problems with, you can relax your arm, any problems with that? Ok. Next we are going to check the motion in your right shoulder. You let me know if it is painful as you do it. Alright. We are going forward first. And then come on back down. Next I will have you come out to the side towards me. Great. And back down. You doing ok?"
Betty: "ya I'm fine."

Therapist: "I'll have you bend your elbow and go backward. Breathe. And come on back. You need to rest a minute?"
Betty: "no it's ok."
Therapist: "alright I'll have you bend your elbow and bring your hand out towards me. Perfect. And then towards your belly. Nice job. And then let me see what you are comfortable with just reaching across your chest. About right here. Ok. Then arm back down."

Therapist: “Alright, so next we are going to test strength in your left arm I will have you hold your arm straight out in front of you. Hold. Don’t let me push down. Good. Off to the side towards me and hold, don't let me push. Nice job. And bend your elbow and hold, don't let me push it down. Good and hand down toward the floor and don't let me push it down. Nice job. Last one, elbow back and don't let me push it forward. Good.”

Therapist: “so we're going to do I'm going to have you move your arm show me what you can do and then I'm going to help you move your arm and see if there's a difference there but if it's painful you let me know okay.”
Betty: “okay”

Therapist: “so let's show me how you can lift your arm up up straight yep who's that and come on back down good and then out to the side towards me okay and backed up have you bend your elbow and let me have you bend your hand toward your belly and then toward me good nice job next I'm going to hit let you mistreat your elbow and lift your arm up come back up off to the side towards me now you bend your elbow.”

Therapist: “so I want you to show me how you take your sweatshirt on and off well you know”
Betty: “it's pretty one-handed I mean I do everything but take my sleeve in my teeth it's just it's really hard to get this other one out but once it's out then it's then this is not so hard and then getting it back on I put it on this. I'm first moving it a little as possible and down to get this part is really tricky around the house I tend to kind of just throw it over the top of the shoulders what happened so it's really truly a problem okay”

First I want you to show me where it hurts and then I want to just feel how your muscles are doing around your neck and shoulders.
I will have you move your neck for me – looking up, down, side to side and tilting your head. I will have you move your left arm now – just follow me. Now move your right arm – just follow me.
Now I will have you lay down and see how your shoulder moves in that position – P/AA/AROM of the right shoulder.
Next I want to see how the small movements of your shoulder are doing. Let me show you on the left shoulder what we will do and then check it on the right.
Can you show me how you put on a shirt, sweater or coat?

Betty: Shows where it hurts, then completes neck, shoulder AROM of the left, then AROM/PROM of the right shoulder sitting and supine. GHJ joint testing by therapist on the left then the right.

The following is the summary of the Physical Therapy Exam
Pain: Pain in lateral neck, right thoracic region, right shoulder as in body diagram.
Palpation: Right upper extremity: Pain over acromioclavicular joint, bicep tendon, deltoid, scapular muscles painful to palpation. Trigger points in upper trap, deltoid, pectoralis. Shoulder shrug normal.
Range of Motion: Cervical range of motion: Within functional limits except left rotation and left side bending limited to 50% of normal and pain at end range. Both elbows and wrists within normal limits.

Table: Details for range of motion and strength of bilateral shoulders are in the table below.

Shoulder Exam	**Range of motion (Degrees)** **AROM=active range of motion and PROM=passive range of motion**		
	Left Shoulder	Right Shoulder	Normal Active = passive
Flexion	162/168	30/53	180
Extension	40/45	0/10	60
Abduction	148/155	20/38	180
Adduction	34	5/5	40
ER	82	15/22	90

Shoulder Exam	Range of motion (Degrees) AROM=active range of motion and PROM=passive range of motion		
IR	68	15/18	70

Shoulder Strength 0 to 5 scale (0=no strength; 5=normal strength)		
Left Shoulder	Right Shoulder	Normal Strength
5- of 5	Not tested due to pain	5
5- of 5	Not tested due to pain	5
5- of 5	Not tested due to pain	5
5- of 5	Not tested due to pain	5
5- of 5	Not tested due to pain	5
5- of 5	Not tested due to pain	5

Home Health Physical Therapy – Physical Exam

Elements of Betty's physical therapy exam is as follows.

Physical Therapist: “I know the nurse looked at a few things when she was here and I wanted to follow-up with safety with stairs, your bathroom, and using your right arm in preparing meals and getting dressed. Let’s go look at those areas and then we can talk about what you think. Can you tell me what you learned after walking through your house?”

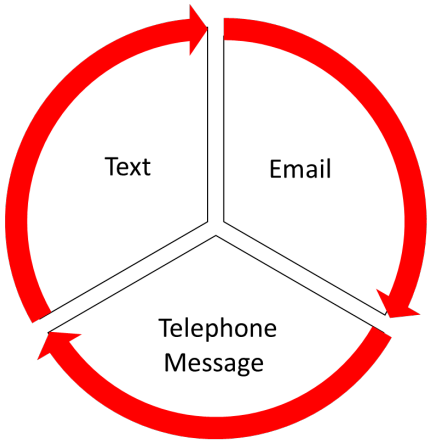
PT: “First tell me about stairs.”
Betty: “well I learned that sometimes I have a rail only on one side and I it's the right side usually and so I need to have one on the other side so that you know what I'm using my left hand more and I need to make sure that they're really securely fastened to the wall in case I really need to use them for support I also learned that I need to make sure that the carpet is securely fastened on every single one of the treads.”

PT: “and bathrooms?”
Betty: “On the bathroom I have lots of great ideas. Um. A grab bar near the toilet would help me get on and off the toilet much more easily. And a grab bar in the shower would be helpful just for security purposes. And a hand-held shower because it is flexible. It can be stationary or be held in my left hand is a little bit safer for me so that was a great idea. And the large throw run I have in front of the shower which I really want to keep because you don't want to walk onto a floor when your all wet but it needs a non-skid pad underneath it.”

PT: “…and the rest of the house?”
Betty: “I have to be much better about lighting, so I am going to get permanent night lights in the hallways and in the bathroom. But, still I need to get into the habit of turning on lights when I enter a room because I have been really guilty of trying to walk around in the dark.”

Communication among Healthcare Providers

If you were the nurse, social service worker or the physical therapist – how would you choose to communicate between each other as well as to the primary care provider? Would you choose texting, emailing or a telephone/voicemail message?
Communication between healthcare providers is an essential component of healthcare. In some settings, the type of communication utilized may be based on provider preference, health system preference, availability, or time.
We have provided three examples of communication that may occur with Home Health Services for Nursing, Social Services and Physical Therapy. These include text, email or telephone message. Each form of communication has benefits and/or challenges and will vary with healthcare institutions for facility. Proceed to the next page to review the samples of communication for each home health provider for each method.



Slide 32: Communication - Text

Communication sample of nursing, physical therapy or Social Services is as follows.

Nursing: Betty is having a great deal of pain in right shoulder. Able to demonstrate good understanding of pain, medications, and home safety. Nursing concerns about driving due to safety and limited function in the right upper extremity. Recommend Social Services and Physical Therapy.

Physical Therapy: Betty M. has limited range and strength of right shoulder and significant functional limitations with right shoulder for dressing, activities around the house and driving. Recommend PT 2x week for 4 weeks.

Social Services: Betty has allowed her pain to limit her engagement in social, leisure, and home activities. Pain isn't limiting her, she is allowing pain to limit her engagement in her life.

Communication - Email

Communication sample of nursing, physical therapy or Social Services is as follows.

One frequently used technique for communication is situation, background, assessment and recommendation.

Reference: Institute for Healthcare Improvement – SBAR

http://www.ihi.org/resources/Pages/Tools/SBARToolkit.aspx

S- Situation

Home health nursing assessment was completed with Betty M in her home. The assessment was completed for pain, pain management, medication, home safety and review of support within the home. Pain education was completed with the client in order to assist her in pain management.

B- Background

Patient with a history of right shoulder pain of four weeks. Past history includes hypertension, borderline diabetes diet controlled, Osteoporosis, Osteoarthritis and decreased vision at night. Patient is a widow living along in a rural area.

A- Assessment

Patient with high pain level of 6-7 on IPT-R and PEG average of 7.3 of 10 indicating right shoulder pain is interfering with activities at home and that she typically enjoys. Patient's daughter is assisting with groceries, transportation, laundry, and other needs.

R- Recommendation

Home health nursing 11 times per week for 4 weeks to include medication monitoring, pain management and reassessment

Communication – Phone

Communication sample of nursing, physical therapy or Social Services is as follows.

Nursing - This is the nurse who saw Betty Miller at home regarding her right shoulder pain. We were able to review her past medical history, medical status, complete pain medication review, home safety and pain education. She is having a high degree of pain and is unsafe to drive at present and qualifies for home health services. I would recommend nursing follow-up weekly with Betty for the next 4 weeks. I would recommend Social Services and Physical Therapy for her at home.

Physical Therapy - This is the physical therapist who saw Betty Miller at home regarding her right shoulder pain. She has limited range of motion, limited strength, difficulty with daily activities and difficulty with driving. She would benefit from physical therapy services to address pain management, motion, strength and functional activities. I would recommend 2x a week for 4 weeks.

Social Services - This is a message for Betty Miller's primary care provider. I was able to interview Betty at home and we discussed her concerns regarding her right shoulder pain, pain during daily activities, family resources, and social support. She and I developed a plan to utilize her family and social support as well as address her financial concerns. I will follow up with her in the next week.

Primary Care Provider Recheck

Betty has returned to her primary care provider after 4 weeks of Home Health Services. These are the four questions the primary care provider is concerned about asking. The questions include:

1. How are you doing with your right shoulder?
2. Tell me about the pain in your right shoulder
3. Compare your right shoulder pain and function to 4 weeks ago?
4. How are the home health services going for you?

You find out the answers to the primary care provider's questions for each scenario. At the end of each scenario, you will have a chance to review the recommendations for the plan of care for Medications, Imaging, Follow-up Services, Follow-up visit with Primary Care, and additional Services.

Primary Care Recheck – Interview "Better"

You will learn Betty's response to each question.

PCP: "Hi, Betty! It is nice to see you. How are you doing with your right shoulder?"
Betty: "Hi. It is nice to be back. I can't believe how much better my shoulder is. It seems like forever since I could scratch my back. My pain is still there but better and much more manageable – I was even able to quilt for an hour a couple of times this week. And I even drove myself to the appointment this morning and could put on my seatbelt!"

PCP: "Tell me about the pain in your right shoulder?"
Betty: "Well it is dull and achy but my motion is better. I am sleeping through the night so the pain isn't waking me up so much anymore."

PCP: "How would you compare your right shoulder pain and function compared to 4 weeks ago?"
Betty: "Well I can lift a gallon of milk and carry in the groceries – I couldn't do that a month ago. I don't dread getting dressed or driving because of my pain. I feel like I am getting back to normal with my right shoulder."

PCP: "How are the home health services going for you?"
Betty: "The girls have been great coming to the house but I wondered if I could start to get out more now that driving is better and I am more confident driving myself."

- ❑ Medications
  - ❑ Continue with naproxen
  - ❑ Anti-inflammatory injection right shoulder
  - ❑ Other
- ❑ Imaging
  - ❑ X-ray
  - ❑ No Imaging

- ❑ Followup Services
  - ❑ Remain on home health services
  - ❑ Progress to outpatient physical therapy services
- ❑ Followup Visit Primary Care
  - ❑ 2 weeks
  - ❑ 4 weeks
  - ❑ 6 weeks
- ❑ Additional Services
  - ❑ Orthopedic Consultation
  - ❑ Transcutaneous Electrical Nerve Stimulation (TENS)

The correct answer,

Continue with naproxen, anti-inflammatory injection right shoulder; no imaging, progress to op PT services, follow-up 4 weeks, TENS.

Primary Care Recheck – Interview "Same"

You will learn Betty's response to each question.

PCP: "Hi, Betty! It is nice to see you. How are you doing with your right shoulder?"

Betty: "Hi, doc. Well my shoulder is about the same – hurts all the time. I have trouble sleeping and moving my arm in general. The therapist thinks things are a little better but I don't see it."

PCP: "Tell me about the pain in your right shoulder?"

Betty: "It is still there all the time – I use that pain thermometer to rate my pain but it doesn't budge much on the thermometer."

PCP: "How would you compare your right shoulder pain and function compared to 4 weeks ago?"

Betty: "About the same. Maybe a little looser but it still hurts and I am having my daughter come to help me every other day."

PCP: "How are the home health services going for you?"

Betty: "The girls are great – they are patient and working me hard to get my shoulder to move."

- ❑ Medications
  - ❑ Continue with naproxen
  - ❑ Anti-inflammatory injection right shoulder

- ❑ Other
- ❑ Imaging
  - ❑ X-ray
  - ❑ No Imaging
- ❑ Followup Services
  - ❑ Remain on home health services
  - ❑ Progress to outpatient physical therapy services
- ❑ Followup Visit Primary Care
  - ❑ 2 weeks
  - ❑ 4 weeks
  - ❑ 6 weeks
- ❑ Additional Services
  - ❑ Orthopedic Consultation
  - ❑ Transcutaneous Electrical Nerve Stimulation (TENS)

The correct answer,
Continue with naproxen, anti-inflammatory injection right shoulder; no imaging, progress to op PT services, follow-up 4 weeks, TENS.

Primary Care Recheck – Interview "Worse"

You will learn Betty's response to each question.

PCP: "Hi, Betty! It is nice to see you. How are you doing with your right shoulder?"
Betty: "Well, I have been taking my medication and doing my therapy but I don't see any change in my shoulder – in fact it hurts more now than it did a month ago. I still can't do things around the house or drive. I think my shoulder is worse than it was a month ago."

PCP: "Tell me about the pain in your right shoulder?"
Betty: "It hurts all the time, morning, noon, and night. The pain in my right shoulder is constant all the time."

PCP: "How would you compare your right shoulder pain and function compared to 4 weeks ago?"
Betty: "Worse. Just thinking about moving my arm hurts. Now even rest doesn't seem to help my pain in my shoulder."

PCP: "How are the home health services going for you?"
Betty: "They are all right – I don't really see any change in my shoulder so I am not sure they are helping."

PCP: "I received the reports from you and home health about your shoulder and here's what I think we should do."

- ❑ Medications
  - ❑ Continue with naproxen
  - ❑ Anti-inflammatory injection right shoulder
  - ❑ Other
- ❑ Imaging
  - ❑ X-ray
  - ❑ No Imaging
- ❑ Followup Services
  - ❑ Remain on home health services
  - ❑ Progress to outpatient physical therapy services
- ❑ Followup Visit Primary Care
  - ❑ 2 weeks
  - ❑ 4 weeks
  - ❑ 6 weeks
- ❑ Additional Services
  - ❑ Orthopedic Consultation
  - ❑ Transcutaneous Electrical Nerve Stimulation (TENS)

The correct answer,
Continue with naproxen, anti-inflammatory injection right shoulder, hold physical therapy, follow up 2 weeks, TENS, and determine additional services in 2 weeks; if no change orthopedic consultation

Take Home Messages

1. Adhesive capsulitis (frozen shoulder) is a common painful condition of the shoulder resulting from contraction of the glenohumeral joint capsule. In an older adult, nonsurgical treatments may include analgesics (e.g., acetaminophen, nonsteroidal anti-inflammatory drugs), and intra-articular corticosteroid injections. Home exercise regimens and physical therapy are often prescribed.
2. Many older adults prefer a visual representation of pain for rating pain severity or impact such as the Iowa Pain Thermometer or PEG.
3. The Beers Guide is a source for medication review for older adults.

Evidence Review.

You have concluded the case. Now let's review the level of evidence. 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 for strong, moderate and week.

Strong Evidence: Meta-Analysis or Systematic Reviews, 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

Summary of Evidence

Let's summarizes the evidence presented in this module.

For shoulder injections in adhesive capsulitis, there is strong evidence for use of shoulder injections in the treatment of adhesive capsulitis. In addition, there are references for a clinical practice guideline for adhesive capsulitis.

The Iowa Pain Thermometer Revised allows for a visual rating of pain severity and shows moderate evidence.

Strong Evidence is present in the literature for the use of SBAR: Situation, Background, Assessment and Recommendation

The PEG is a multidimensional pain impact tool and shows moderate evidence for use in older adults.

TENS has also shown moderate evidence for use in individuals with shoulder pain.

Take Home messages

- Adhesive capsulitis (frozen shoulder) is a common painful condition of the shoulder resulting from contraction of the glenohumeral joint capsule. In an older adult, nonsurgical treatments may include analgesics (e.g., acetaminophen, nonsteroidal anti-inflammatory drugs), and intra-articular corticosteroid injects. Home exercise regimens and physical therapy are often prescribed.
- Many older adults prefer a visual representation of pain for rating pain severity or impact such as the Iowa Pain Thermometer or PEG.
- The Beers Guide is a source for medication review for older adults.

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Congratulations

Congratulations! You have completed Betty Miller: Older Female with Right Shoulder Pain. Please take the posttest.

Posttest

The Posttest contain 10 questions with multiple choice answers. We have included the questions, answers and a short discussion for each question.

Test question 1

Betty moves her right arm in the primary care provider's office, and she grimaces. When asked about her pain, she states she is not experiencing pain. Choose the most

empathetic and compassionate response by the clinician that could improve assessment.

e. "You look as if you have pain. Tell me what you are feeling."
f. "I understand it hurts but you need to be up and moving."
g. "You clearly have pain; let's look at your treatment plan."
h. "You have been suffering so much; it's amazing you came today"

Answer Question 1: a. "You look as if you have pain. Tell me what you are feeling."
Discussion Question 1: During the assessment there is a difference between Betty's behavior (a grimace) and her response (minimal pain. The answer to question demonstrates both empathy and compassion. Empathy is the ability to put aside your own thoughts and beliefs and see the perspective of the other person. Compassion is the awareness of another in combination with a desire to help the other person. The other answers demonstrate a perception of Betty's discomfort and pain but do not express a desire to help during the assessment.

Test Question 2

10. What tools would you use to best monitor Betty and her right shoulder pain and its impact?
    e. Pain inventory, grip strength in the right hand
    f. Numeric rating scale, range of motion
    g. Visual analog scale, ability to drive
    h. Iowa Pain Thermometer, PEG (Pain, Enjoyment, General Activity)

    Answer Question 2: d. Iowa Pain Thermometer, PEG (Pain, Enjoyment, General Activity)
    Discussion Question 2: The answer to the question involves two tools that have been found to be a valid and reliable and helpful in older adults for measuring the multidimensional aspects of pain. The Iowa Pain Thermometer is tool that can be used in older adults for self-report of pain intensity [3]. The thermometer has both a visual component and verbal descriptors. The thermometer helps with abstract thinking, sometimes a problem in older adults. The PEG is a multidimensional scale with components of addressing pain interference [4]. The PEG questions include pain intensity, enjoyment of activity and general activity. The measures in the other answers may be used for assessment of pain and function but are not the best for a representation of pain and the impact of pain for Betty as an older adult.

Test Question 3

11. For Betty's home health evaluation by Nursing, Social Services and Physical Therapy, what areas of assessment would be covered by all three but in different ways?
    e. Food preparation

f. Financial concerns
g. Medication security
h. Pain in daily activities

Answer Question 3: d. Pain in daily activities

Discussion Question 3: The answer of pain in daily activities is covered by all three disciplines in home health services. The other answers may be covered by one or two of the disciplines but are not typically covered by all three disciplines. There is overlap of the assessment of pain in daily activities between the three disciplines. In this scenario, nursing focuses on pain assessment and pain education, social services on pain impact and physical therapy addresses pain assessment and pain with function. Coordination of the assessments between team members could reduce replication or provide reinforcement of patient reports of pain and its impact.

Test Question 4

12. A home health nurse is going to complete pain education with Betty regarding her right shoulder pain, which topic is most important to discuss with Betty to improve her pain?
    e. Exercise
    f. Nutrition
    g. Bathing
    h. Coping

    Answer Question 4: a. Exercise

    Discussion Question 4: The answer of exercise is the most important topic to discuss with Betty to improve her pain. Exercise has been shown to reduce pain more than nutrition, bathing or coping alone [5].

Test Question 5

13. The top priority for a home health physical therapy evaluation regarding her right shoulder pain is:
    e. Psychosocial concerns
    f. Arm strength
    g. Home safety
    h. Range of motion

    Answer Question 5: c. Home safety

    Discussion Question 5: For physical therapy, home safety is the top priority for Betty regarding her shoulder pain. Since Betty lives alone, she needs to be safe to continue living on her own. Her psychosocial concerns, arm strength and range of motion may impact her pain and function but safety is the top priority.

Test Question 6

14. Betty is an older adult who lives in alone in a farmhouse in rural Iowa. Her closest neighbor is one mile away. What is the greatest barrier for access to medical care for Betty's right shoulder pain?
    e. Distance to her neighbors
    f. Difficulty driving due to arm pain
    g. Lack of medical resources close to home
    h. Family's work schedule

    Answer Question 6: c. Lack of medical resources close to home

    Discussion Question 6: Betty's greatest barrier for access to medical care is the lack of medical resources close to home which is necessary to engage independently in physical therapy or other treatment options. Her closest care provider is 45 minutes away by car. Her neighbors and daughter are able to assist but have time restrictions due to the length of the drive to medical care. Prior to her difficulty with her shoulder, she was independent at home and able to drive independently to her primary care provider or medical care. She also has limited alternatives for accessing care with family or social support. Finding a solution to address the lack of local medical care resources is the priority.

Test Question 7

15. In Betty's pain assessment, she describes the location of her pain is in her right arm, that it is dull and achy and averages a 6-7 on a 0-10 scale. In addition, she notes some reduction in pain with over the counter medications. What other information would be most helpful to know about Betty's shoulder pain?
    e. Pain in her left shoulder
    f. Pain interference with activity
    g. Pain cycle in 24 hours
    h. Pain reducing factors

    Answer Question 7: a. Pain interference with activity

    Discussion Question 7: The answer for the question is pain interference with activity. In the question descriptor, pain quality (dull, achy), pain location (right arm) and pain reducing factors (over the counter medication) are listed. Pain interference with activity will reveal more about function, functional impairments as well as aggravating and relieving factors for pain, more so than the pain 24 hour cycle.

Test Question 8

16. What of the following is a true statement regarding risk/benefit of NSAID use for an older adult?
    e. Older patients are less likely to receive pain relief from use of NSAIDs

f. NSAIDs are safe to use in older patients with cardiac disease
g. Older patients have a higher risk for renal concerns with use of NSAIDs
h. Older patients are likely to develop delirium with use of NSAIDs

Answer Question 8: a. Older patients have a higher risk for renal and hepatic system concerns with use of NSAIDs

Discussion Question 8: The answer is the risk for renal system concerns with the use of non-steroidal anti-inflammatory drugs (NSAIDs). Renal and hepatic system complications are legitimate concerns. NSAIDs have risk for cardiac complications and do not have increased risk for delirium in older adults. Older adults are as likely to receive pain relief from NSAIDs as younger adults.

Test Question 9

17. Betty is presenting to her primary care provider for a recheck after 4 weeks of home health services for Nursing, Physical Therapy and Social Services. She has now had pain for 8 weeks, and she reports her pain is the same. What medication changes should the primary care provider make to her medications?
    e. Change to an Opioid medication for shoulder pain
    f. Change the NSAID medication she has been taking
    g. Change the dosage of her NSAID medication
    h. Steroid injection to the right shoulder

    Answer Question 9: d. Steroid injection to the right shoulder

    Discussion Question 9: According to clinical practice guidelines and evidence based practice recommendations, a steroid injection for adhesive capsulitis is the most appropriate treatment option at this time [5-8]. Opioid medications are not indicated for Betty due to her diagnosis of adhesive capsulitis. Evidence shows a steroid injection to address inflammation of the glenohumeral joint capsule directly through use of an injection would better address the inflammation and pain [9] and changing the NSAID or the dosage of the NSAID would not be recommended.

Test Question 10

18. As a primary care provider, what outcomes would you use to assess Betty's progress and readiness for discharge from her home health services?
    e. Motion and strength
    f. Medication usage
    g. Function and pain
    h. Level of assistance

    Answer Question 10: c. Function and pain

Discussion Question 10: The answer for question 10 is function and pain. Betty's primary complaints upon seeking health care were focused on pain and function. Level of assistance is important in clinical decision making, however provides limited information about progress and not enough information about function in relation to homebound status. Medication usage, motion and strength are important considerations in Betty's progress, but do not determine readiness for discharge or homebound status.

Supplemental Materials and Resources

Pain Information

- There are several internet websites where you can learn more about pain:
- International Association for the Study of Pain: http://www.iasp-pain.org/
- American Pain Society: http://americanpainsociety.org/
- American Academy of Pain Management: http://www.aapainmanage.org/
- American Academy of Pain Medicine: http://www.painmed.org/
- American Chronic Pain Association: https://theacpa.org/
- National Fibromyalgia & Chronic Pain Association: http://www.fmcpaware.org/

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Institute of Medicine

In 2011, the Institute of Medicine (IOM) released a report regarding pain as a public health problem in the United States. The IOM recommended relieving pain become a national priority [22]. IOM Link: http://www.nationalacademies.org/hmd/Reports/2011/Relieving-Pain-in-America-A-Blueprint-for-Transforming-Prevention-Care-Education-Research.aspx

National Pain Strategy

The U.S. Department of Health and Human Services, in 2016, outlined the nation's first coordinated plan for reducing chronic pain The National Pain Strategy (NPS). It was developed by a diverse team of experts from around the nation, the National Pain Strategy is a roadmap toward achieving a system of care in which all people receive appropriate, high quality and evidence-based care for pain [23]. NPS Link: https://iprcc.nih.gov/National_Pain_Strategy/NPS_Main.htm

CDC Guideline for Prescribing Opioids

In 2016, the Center for Disease Control released the guideline for prescribing opioids for chronic pain [9]. Article Link:
http://jama.jamanetwork.com/article.aspx?articleid=2503508

Assessment Tools

Many assessment tools are available for use in individuals with acute pain, chronic pain or acute on chronic pain. We have used two pain assessment tools in our module and here is a brief summary with further information in Appendix A and B.

Disclaimer

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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.

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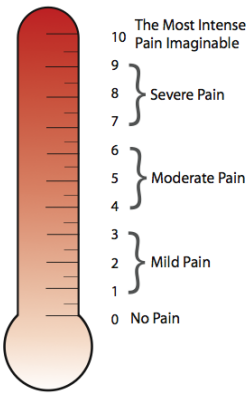
Appendix

Appendix A: Iowa Pain Thermometer Revised (IPT-R)

Circle a number on the Pain Thermometer below that best represents the intensity of your pain right now.



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Appendix B: Pain, Enjoyment and General Activity (PEG)

1. What number best describes your pain on average in the past week?

0	1	2	3	4	5	6	7	8	9	10
No pain										Pain as bad as you can imagine

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely interferes

3. What number best describes how, during the past week, pain has interfered with your general activity?

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely interferes

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