

Geriatric Pain Management Guide: Chest Pain

Definition: Pain located in the chest region.

- Chest pain associated with cardiac disease increases with age.
- Differentiating cardiac versus non-cardiac pain is essential.
- Key discriminators between cardiac and non-cardiac pain are its description, whether the pain is associated with exercise, radiating pain or pain relieved by oxygen.
- Nurses should be vigilant about the onset of pain and determine triggers that may contribute to the pain, i.e., exercise, a large meal, lifting heavy objects, or straining during bowel movements.
- Cardiac and non-cardiac pain are described differently.
 - cardiac pain as pressure and squeezing.
 - non-cardiac pain as sharp or burning.
 - older adults and specifically females do not present in the typical manner. They report pain in their lower chest area, in the back and often have nausea and extreme fatigue.
- Changes in vital signs, such as hypo or hypertension, tachycardia, or body temperature changes.

Cardiac Causes

Potential Causes	Conditions	Key Signs and Symptoms	Management
Decreased oxygenation due to increased demand or blockage of the coronary arteries	Angina Myocardial Infarction	<ul style="list-style-type: none"> • History of MI or angina – Substernal location, onset with exercise or increased oxygen demand, c/o severe fatigue, pain radiating to arms (more common in males), pain relieved with rest. • Classically described as heaviness or pressure, squeezing and radiating down left arm. • Associated with diaphoresis, weakness, tachycardia, and hypo or hypertension. • Improved or relieved with additional oxygen, rest or nitroglycerine may be cardiac-related. 	<ul style="list-style-type: none"> • Initiate oxygen immediately and increase head of the bed. • If ordered, administer nitroglycerine; • Monitor vital signs. • Administer other pain medication per orders. • Treat as an emergency. EKG may be ordered.
Inflammation of the pericardium	Pericarditis	<ul style="list-style-type: none"> • Causes sharp, intense pain that originates in the abdomen or back, can radiate to thigh or scrotum or asymptomatic. • NOT relieved by oxygen. • May or may not be associated with fever. • Heart rate is typically elevated. 	<ul style="list-style-type: none"> • Cause may be viral or bacterial and guides treatment options.
Heart pain	Valvular disorder/ Abnormal heart rate	<ul style="list-style-type: none"> • Occasionally associated with chest pain, but usually asymptomatic. • Older adult may report heart is racing or they can feel their heart beating. 	<ul style="list-style-type: none"> • Treatment of cause with medication.

Non-Cardiac Chest Pain

Potential Causes	Conditions	Key Signs and Symptoms	Management
Pulmonary	Pleurisy Pneumonia Pulmonary Embolism Pneumothorax	<ul style="list-style-type: none"> • Described as sharp, intermittent pain, can be worse with breathing. • May be associated with shortness of breath and tachycardia. 	<ul style="list-style-type: none"> • Obtain accurate description of pain, complete vital signs. • Oxygen may or may not be helpful. • If ordered, administer a NSAID or Tylenol for pain. • Monitor vital signs.
Gastrointestinal	Reflux Esophagitis Peptic ulcer Pancreatitis Cholecystitis	<ul style="list-style-type: none"> • Often causes a sharp, intense pain NOT relieved by oxygen. • May or may not be associated with fever. • Heart rate is typically elevated. 	<ul style="list-style-type: none"> • Medication is typically needed at time of initial pain. • May be viral or bacterial.
Musculoskeletal	Costochondritis Muscle strain Rib fracture Fibromyalgia	<ul style="list-style-type: none"> • Pain onset is usually sudden and localized; can be associated with trauma to muscle, severe cough. • Pleuritic pain is worse with deep breath. 	<ul style="list-style-type: none"> • Ice or heat may be helpful. • Imaging for potential fracture.
Chest wall pain	Muscle strain Rib fracture	<ul style="list-style-type: none"> • Pain onset is usually sudden and localized; could be associated with trauma to muscle, severe cough. • Pleuritic pain is worse with deep breath. 	<ul style="list-style-type: none"> • Ice or heat may be helpful. • Imaging for potential fracture.
Psychogenic/Emotional pain/behavioral pain	Anxiety Depression	<ul style="list-style-type: none"> • Symptoms do not fit with physiologic signs. 	<ul style="list-style-type: none"> • Relaxation • Oxygen • Massage • Accurate diagnosis

Physical & Exam:

- Vital signs with an apical pulse for 1 minute to identify irregular beats or onset of cardiac murmur
- Listen to lungs for pulmonary abnormality
- Palpate chest site for increased pain with palpation over a specific site
- Presence of heart murmur or irregular heartbeat is important

Initial Nursing Care: Starts with good assessment to identify the cause of the pain.

- Regardless of cause of pain, starting oxygen is indicated and may relieve or reduce pain.
- Full set of vital signs, including apical heart rate, and good assessment of heart and lung sounds.
- Palpation of any localized area of pain to determine if pain worsens.
- Administer nitroglycerine, if ordered.
- If no relief, administer antacid, if ordered.

Communication: (SBAR to Provider)

- **Situation:** Description of pain, level of pain, indicate if patient currently unstable. Specific onset of pain important as well as exact symptoms. Current status of level of pain and whether pain relieved with oxygen or medications.
- **Background:** History of similar episodes important; history of previous myocardial infarction or other cardiac versus non-cardiac episode. Was there trauma?
- **Assessment or Appearance:** Report physical exam results, vital signs. How uncomfortable is patient, how unstable? Presence of specific symptoms such as diaphoresis, pallor, nausea or vomiting.
- **Request/Recommend:** Big concern is whether patient should be sent to hospital – knowledge of advance directives is important. If no medications have been given, request orders for nitroglycerine and possibly antacid.

Typical Treatments/Medications:

- **Angina:** Oxygen and nitroglycerine are key; reassurance and comfort. Stay with the individual.
- **Epigastric Pain:** Antacids may be helpful or treatment for peptic ulcer or GERD.
- **Chest Wall:** repositioning, heat and/or ice to site.
- **Arrhythmias:** Calcium channel blockers, beta blockers or anticoagulants may be ordered.

Revised February 2023

References:

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