

Back Pain

Aliases

None

Patient Care Goals

1. Improve patient discomfort.
2. Identify life-threatening causes of back pain.

Patient Presentation

Inclusion Criteria

Back pain or discomfort related to a non-traumatic cause or when pain was due to non-acute trauma (e.g. chronic pain conditions)

Exclusion Criteria

1. Back pain from spinal trauma [see Trauma guidelines]
2. Back pain due to sickle cell pain crisis [see Sickle Cell Pain Crisis guideline]
3. Back pain from suspected labor [see OB/GYN guidelines]

Patient Management

Assessment

1. Perform airway assessment and management, per the Airway Management guideline.
2. Obtain vital signs including pulse, respiratory rate, pulse oximetry, and blood pressure.
3. Provide evaluation and management of pain, per the Pain Management guideline.
4. Obtain vascular access [*AEMT*] as necessary to provide analgesia and/or fluid resuscitation.
5. Assess for life-threatening causes of back pain, which may include:
 - a. Spinal cord compression (e.g. from spinal epidural abscess, malignancy, spinal epidural hematoma for patients on anticoagulants)
 - i. Urinary and/or bowel incontinence
 - ii. Inability to walk due to weakness
 - iii. New neurologic deficits in extremities
 - iv. Loss of sensation in saddle distribution
 - b. Aortic dissection or ruptured abdominal aortic aneurysm
 - i. Unequal femoral or distal lower extremity pulses
 - ii. "Pulsatile" abdominal mass
 - iii. Associated abdominal pain and/or chest pain
 - iv. Known history of abdominal aortic aneurysm or dissection
6. Assess for signs of shock. If shock is present, provide treatment per appropriate Shock guideline.
7. Assess for other non-life threatening causes of back pain
 - a. Pyelonephritis
 - i. Fever
 - ii. Nausea, vomiting
 - iii. Urinary frequency/urgency
 - iv. Dysuria
 - v. Hematuria
 - vi. Abdominal pain
 - vii. Costovertebral angle tenderness to percussion
 - b. Kidney stone
 - i. Unilateral flank pain
 - ii. Nausea, vomiting
 - iii. Possible hematuria
 - iv. History of kidney stones

Treatment and Interventions

1. Medication administration
 - a. Provide analgesia, per Pain Management guideline.
 - b. Administer antiemetics, per Nausea-Vomiting guideline.
 - c. Provide transport to an appropriate receiving facility
 - Suspected Spinal Cord Compression: Transport to facility with neurosurgical capabilities
 - Suspected Aortic Dissection or Ruptured Aortic Aneurysm: Transport to facility with vascular or general surgery capabilities
 - d. Reassess vital signs and response to therapeutic interventions throughout transport.

Patient Safety Considerations

No recommendations

Notes and Educational Pearls

Key Considerations

- Assess for life-threatening causes of back pain.
- Provide appropriate treatment for pain, vomiting, and shock.
- Consider transport to appropriate specialty center if aortic emergency or spinal cord compression is suspected.
- Consider that back and abdominal pain can often coexist with similar disease processes.
- Identify patients on anticoagulants since they are higher risk for spinal epidural hematoma or retroperitoneal hemorrhage which can present as back pain.
- Identify patients with IVDA history and/or impaired immune system since they are higher risk for spinal epidural abscess.
- Identify patients with a history of cancer or with one suspicious for cancer—spinal metastases can cause spinal cord compression.

Pertinent Assessment Findings

- Midline back tenderness
- Back erythema or swelling
- Motor and/or sensory loss in arms or legs
- Loss of perianal sensation
- Absence of or significant inequality of femoral or distal arterial pulses in lower extremities
- Hyper or hypothermia
- Rectal bleeding or hematemesis

Quality Improvement

Associated NEMESIS Protocol(s) (eProtocol.01)

- 9914051—General-Back Pain

Key Documentation Elements

- Assessment of back and abdomen to include findings on palpation/percussion including presence or absence of masses and presence and nature of tenderness/pain
- Assessment of initial and changes in neurologic status
- Assessment of initial and changes in perfusion/pulses

Performance Measures

- Assessment for life-threatening etiology
- Mitigation of pain, per the [Pain Management guideline](#)