

E06: Non-Traumatic Back Pain

Christiana Gregory and Marc Gessaroli

Updated: December 07, 2020

Reviewed:

Introduction

Approximately 84% of adults will experience back pain at some point in their lives. Episodes of non-traumatic back pain are mostly self-limited, and are most often not indicative of a serious medical condition. Acute non-traumatic back pain, as defined by an episode of pain less than four weeks in length, can generally be managed in the primary care setting. However, a small percentage of patients will have serious, potentially life-threatening causes of back pain; careful history taking and physical examination are required to identify conditions such as cauda equina syndrome, abdominal aortic aneurysmal leak, vertebral infections, and spinal fractures.

Essentials

- Paramedics must rule out life-threatening causes of back pain. Foremost among these is cauda equina syndrome, but conditions that can produce back pain as a symptom must be considered as well, particularly leaking aortic aneurysms and peritoneal bleeding.
- Patients should receive analgesia wherever possible.

Additional Treatment Information

- Acetaminophen is considered safe and effective pain management. Nitrous oxide, methoxyflurane, fentaNYL, and ketAMINE may facilitate transport in cases of severe pain and discomfort.

Referral Information

Patients who are ambulatory, and who, in judgment of paramedics, have non-acute causes of their back pain may be referred to a physiotherapist or general practitioner for further assessment or treatment. Non-ambulatory patients will require transport.

General Information

- The most serious cause of back pain is *cauda equina syndrome*. This is a condition where the nerve roots in the lower spinal cord become compressed. Cauda equina syndrome can develop quickly; it can also come on more slowly. Signs and symptoms of cauda equina include:
 - "Saddle" anesthesia (an altered sensation around the groin and inner thigh, as would be in contact with a saddle while riding a horse).
 - Leg weakness or numbness (can affect either leg or both).
 - Bowel and bladder incontinence (considered a late finding).
- Infections of the vertebrae should be considered if the patient has a history of fever or recent infection, is immunocompromised, or has used intravenous drugs.

Interventions

Primary Care Paramedic – All FR and EMR interventions, plus:

- Provide appropriate analgesia:
 - → [E08: Pain Management](#)

Evidence Based Practice

[Mechanical Back Pain](#)

References

1. Alberta Health Services. AHS Medical Control Protocols. 2020. [\[Link\]](#)
2. Ambulance Victoria. Clinical Practice Guidelines: Ambulance and MICA Paramedics. 2018. [\[Link\]](#)

