

# E08: Pain Management

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## Introduction

The relief of pain is one of the most significant and meaningful interventions paramedics perform in the prehospital setting. It is expected that paramedics will provide timely and effective pain management to all patients in their care. Controlling pain can calm patients and assist in assessment and management of other clinical problems. The demeanor and language used by paramedics can dramatically influence the efficacy of any analgesic strategy: even narcotic analgesia will not work if patients do not trust their providers.

## Essentials

- Use a step-wise approach to controlling pain, moving from the simplest to more invasive. Never neglecting the basics in favour of more complicated approaches.
- Typical measures should always include reassurance, gentle handling, control of temperature, positioning of the patient or limbs and splinting of injured limbs.
- As interventions are applied, continue to assess and record their effects.
- An inability to report or rate pain should not preclude analgesia. Where discomfort is evident in the setting of possible painful stimuli, consider options for analgesia.

## Additional Treatment Information

- When combined with positive reinforcement, nitrous oxide (Entonox) is an effective analgesic. It is the agent of choice in many countries for use in childbirth. The contraindications to the use of nitrous oxide are the result of the pathophysiology of gas exchange and absorption (primarily the trapping of gas and development of hypoxia).
- Nitrous oxide can cause rebound hypoxemia due to the displacement of oxygen from the alveoli as it diffuses out of the blood stream. Supplemental oxygen following the use of nitrous oxide will prevent the development of this hypoxemia, and should be provided to all patients.
- Fentanyl is an opioid analgesic. It is generally less prone to causing hypotension than morphine, though a drop in blood pressure is likely once adequate analgesia is achieved due to a reduction in overall sympathetic stimulation. Fentanyl does not provide a greater degree of analgesia than morphine.
- Ketamine provides excellent analgesia, sedation, and dissociation depending on dose. As an analgesic, ketamine has significant advantages in the prehospital setting: it allows the patient to breathe spontaneously, maintain many of their own protective airway reflexes, and tends to elevate blood pressure through the release of catecholamines. Ketamine has an extensive record of use in austere environments and military medicine, and its effectiveness has been recently demonstrated within BCEHS.

## General Information

- Approach each call with a view to assessing a patient's pain, and exploring ways to help alleviate it.
- Every intervention and medication has important side effects. Some of these may actually worsen a patient's pain or experience. Use those predicted to help.
- As interventions are applied, continue to assess and document the effects of the interventions by measuring the patient's pain. In cases where patients are unable to describe their pain effectively (because of language barriers, altered levels of consciousness, age, or dementia), other signs of pain must be monitored. Consider the use of facial expressions, the guarding of limbs, tears or crying, moaning, restlessness, heart rate, and blood pressure – all may provide clues and allow paramedics to manage pain more effectively.
- In special populations, specific pain assessment tools may be useful. Consider the FLACC scale in children, or the Abbey scale in adults with dementia.

## Interventions

**First Responder**

- Keep the patient at rest and in position of comfort
- Splint/support any injured extremity

**Emergency Medical Responder – All FR interventions, plus:**

- Nitrous Oxide (Entonox):
  - Patient self-administered – inhaled to effect

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

- [Acetaminophen](#) (Tylenol)
- [Ibuprofen](#) (Advil)
- [KetAMINE](#) (restricted to PCPs trained and approved)

**Advanced Care Paramedic – All FR, EMR, and PCP interventions, plus:**

- [FentaNYL](#)
- [KetAMINE](#)
- [MORPHine](#) is reserved for the management of pain in patients receiving palliative care.
- Nausea associated with the administration of fentaNYL and ketAMINE is rare, and there is no need to administer anti-emetics prior to analgesia. They may be considered if nausea develops after administration:
  - [DimenhyDRINATE](#)

**Evidence Based Practice**

[Analgesia](#)

