

PARAMEDIC CRITICALLY APPRAISED TOPIC

Title: Treatment Options in Prehospital Analgesia

Report By: Stephen Leadlay

Clinical Scenario: A 75 year old female has a fall from standing height several hours earlier, family help her to bed and call EMS when they find they cannot get her out to go to the hospital. Paramedics arrive and find a fracture in the upper femur/ pelvis area. Patient is immobilized for extrication by backboard and medicated with Morphine prior to movement. How often would this patient be premedicated and at what dosage regime?

PICO (Population- Intervention- Comparison- Outcome) Question:

In patients presenting to EMS with extremity trauma (P), are they usually premedicated (I) and are there any differences(C) in treatment based on perceived severity of injury, age or injury location (O).

P – Elderly extremity trauma in prehospital setting

I – EMS administration of analgesia prior to movement

C- moving/immobilizing patients prior to analgesia

O – dose of morphine given, age of patients, type of injury

“In elderly patients presenting with extremity trauma to EMS, does administration of analgesia prior to movement, versus after moving or immobilizing the patient lead to differences in the amount of drug given (secondary outcomes – predict the severity of injury, location of injury, time to pain relief, amount of pain reduction)?”

Search Strategy

PubMed: prehospital analgesia AND extremity trauma

Search Outcome

This search yielded 71 hits. Two papers were relevant to this PICO question.

Relevant papers

Author	Sample	Design	Outcomes	Results	Weakness
McEachin, C. McDermott, J. Swor, R 2002	124 patients	Retrospective study	Pain relief	Older patients and patients with hip fractures are less likely to receive prehospital analgesia	Patients transported to a single facility. May have been contraindications to medication admin
White, L. Cooper, J. Chambers R.	1,073 patients	Observational Retrospective	Pain relief	Administration of prehospital	2 tier ALS/BLS system.

Gradisek, R 2000				analgesia for suspected fractures was rare	Unknown if analgesia was offered and refused. Supply issues within the service
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Comments

From the results of these studies, although Paramedics often have the ability to provide prehospital analgesia it is infrequently supplied. Several explanations are provided from an inability to properly assess pain in patients, patient refusals or contraindications, supply problems etc.

Clinical Bottom Line

Although prehospital analgesia is not new to paramedic practice, it appears to be infrequently applied.

References

McEachin, C. McDermott, J. Swor, R. Few emergency Medical services patients with lower extremity fractures receive pre-hospital analgesia. Prehospital Emergency Care, October 2002.

White, L. Cooper, J. Chambers R. Gradisek, R. Prehospital use of analgesia for suspected extremity fractures. Prehospital Emergency Care July 2000.