

Improvement in the Time to Analgesia in Suspected Long Bone Fractures in the Emergency Department (ED)

Produced by | Dr S.Arshad, Dr A.Sullivan Supervised by Dr A.Yasin
Case Study Date | 14/04/26

REASON WHY?

Patients in ED with suspected long bone fractures should have pain assessed and receive an appropriate analgesic according to their pain score and analgesic ladder (NG38 & RCEM pain management guidance).

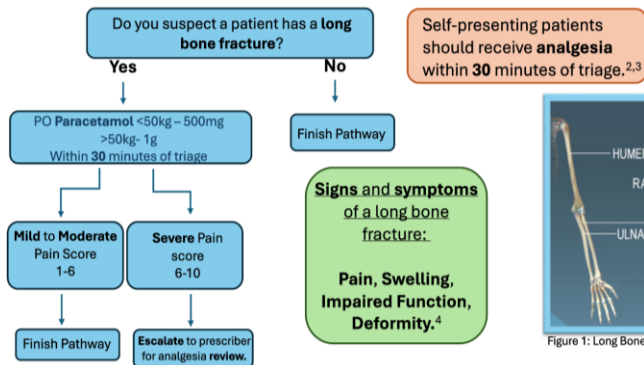
PLAN

To increase the percentage of patients presenting with suspected long bone fractures receiving appropriate analgesia within 30 mins of arrival to ED by implementing a poster with a pain score assessment flow diagram.

DO

Poster placed in triage assessment room and minors' area for quick reference during assessments.
During the intervention department was reconfigured due to construction and minors poster moved.

Time to Analgesia in Suspected Long Bone Fractures.



The Shrewsbury and Telford Hospital NHS Trust

Authors: Dr S.Arshad, Dr A.Sullivan
Supervised by Dr A.Yasin.

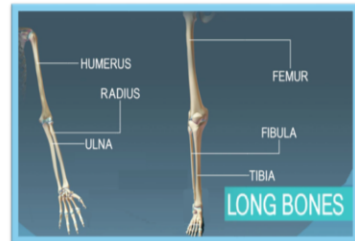


Figure 1: Long Bones of the Skeletal System.¹

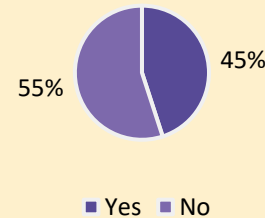


AIM

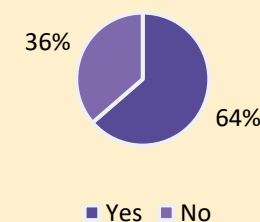
Achieve a reduction in the time from registration to analgesics being administered within a 30-minute target in ED over 6 weeks. This will improve pain scores whilst waiting to see a clinician to review their pain and escalate according to the analgesic ladder.

STUDY

Before: Analgesia <30 Minutes of Arrival

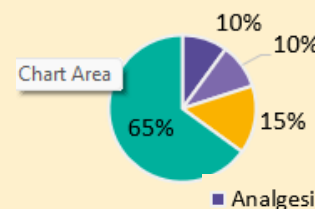


After: Analgesia <30 Minutes of Arrival

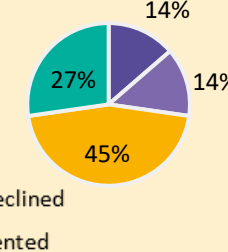


- 1) 18.6% increase in pain being assessed and analgesia prescribed within 30 minutes.
- 2) 38% decrease in undocumented cases.

Before



After



ACT

ADOPT: analgesia reminder reference poster

ADAPT

1. Include documentation reminder
2. Consider creating comprehensive pathway and change physical environment to improve the efficiency of administering analgesia.

Next Steps:

1. Increase sample size.
2. Increase the length of the observation period.
3. Repeat PDSA cycle

ACKNOWLEDGEMENTS & REFERENCES

1. National Institute for Health and Care Excellence. Overview | Fractures (non-complex): assessment and management | Guidance | NICE [Internet]. Nice.org.uk. NICE; 2016 [cited 2026 Jan 19]. Available from: <https://www.nice.org.uk/guidance/ng38>
2. Bannister T. Management of Pain in Adults - Guideline - RCEMLearning [Internet]. RCEMLearning. RECM; 2024 [cited 2026 Jan 19]. Available from: <https://www.rcemlearning.co.uk/foamed/management-of-pain-in-adults-guideline/>