

Audit on effectiveness of an intervention in Those with a Fractured Neck of Femur in Line with the NICE Standards



Background

- In the United Kingdom, an average of 65,000 patients attend hospital with hip fractures each year, with 87% of these patients > 70 years. (1) (2)
- Effective pain management is associated with significantly improved outcomes.
- Pain is known to be a significant trigger for delirium which itself greatly increases 1 year mortality and morbidity.

Aims and Objectives

We aimed to improve analgesia, pain assessment and x-ray time in line with NICE (National Institute of Clinical Excellence) standards. (Figure 1) (3)

Methods



Intervention: The neck of femur (NOF) pre-alert form in the Emergency Department (ED) was amended to include a section on pain scoring and whether an x-ray had been requested.

Standard	Figure 1
1	Pain score is assessed within 15 minutes of arrival
2	Patients in moderate (score 4-6) or severe pain (score 7-10) should receive appropriate analgesia ; 100% within 60 minutes of arrival or triage
3	75% of patients should have an x-ray within 120 minutes of arrival or triage
4	90% of patients with moderate or severe pain should have evidence of re-evaluation and action within 30 minutes of receiving the first dose of analgesia

Results

Standard 1 (Figure 2)

- Exclusions: no time recorded x1
- Average time until assessment: 2hrs 6 minutes
- Range 13 hrs 23 mins (max 13 hrs 30, min 7 minutes)

Standard 2

- Exclusions – no pain relief x1, pain recorded after analgesia was given x1, incomplete prescriptions x2, no pain score x3
- The average time to wait for pain relief, regardless of severity was 3hr 33 minutes.
- The average time in those with moderate- severe pain was 3hr 2 minutes with a range of 7 hr 46 (min 20 minutes, max 8 hr 6 mins).
- 16 of 48 patients received a fascia iliaca block (FIB) on admission. 10 of those were included as 6 did not include times/ dates of prescription/ administration. Out of those 10, only 2 were done within 60 minutes.
- The average time to FIB dropped from 250 minutes to 237 minutes

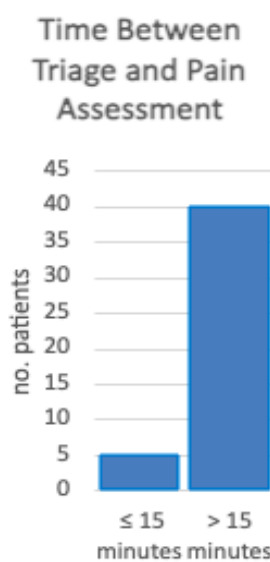


Figure 2

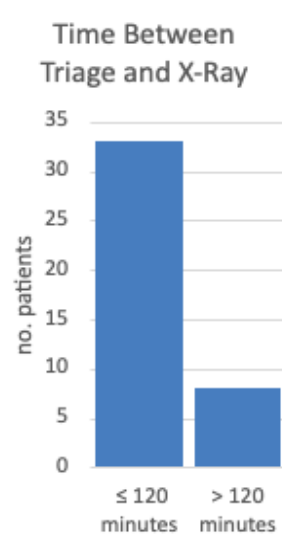


Figure 3

Standard 3 (Figure 3)

- Exclusions -CT done rather than X-Ray x2, repeat x1, x-ray done at GP x1, request time not known x1, patient discharged home prior to x-ray x1
- Average time between triage and X-ray request dropped from 89 minutes to 53

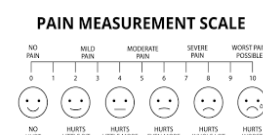
Standard 4

- Exclusions: no repeat pain score recorded x9, no pain relief was given/ no time x5, declined analgesia x1.
- 27 % had pain re-assessed but none were actioned

Standard	1st Data Collection	2nd Data Collection
1	14%	11%
2 (100%)		9%
3 (>75%)	62%	93%
4 (>90%)	0%	0%

Conclusion

Standards met?



However, no records from ambulance sheets so we are unsure what analgesia or observations patients received whilst awaiting a space in the ED.

Next Steps

- Increase FIB training in the ED as only 33% received on admission
- Increasing the number of FIB's should increase the frequency of repeat observations
- Additional pain scoring could be added into NOF booklet

References

1. Dixon, J. et al. (2018) 'Assessment and early management of pain in hip fractures: The impact of Paracetamol', Geriatric Orthopaedic Surgery & Rehabilitation, 9, p. 215145931880644. doi:10.1177/2151459318806443.
2. Royal College of Emergency Medicine (2022) Fractured Neck of Femur, National Report 2020/21. Available at: https://res.cloudinary.com/studio-republic/images/v1635410710/Fascia_iliaca_Block_in_the_Emergency_Department_Revised_July_2020_v2/Fascia_iliaca_Block_in_the_Emergency_Department_Revised_July_2020_v2.pdf?_i=A (Accessed: 01 June 2023).
3. Overview: Hip fracture in adults: Quality standards (2012) NICE. Available at: <https://www.nice.org.uk/guidance/qs16> (Accessed: 01 June 2023).1880644.