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Comparing pain management in children presenting with sickle cell acute painful crisis in emergency settings with National guidelines CG143 at Luton and Dunstable Hospital

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Objectives

National guidelines CG143 recommends the treatment of any acute painful sickle cell episode as a medical emergency in all age groups. It outlines that to control pain, *analgesia should be administered to patients within 30 minutes* of *presentation* to the hospital, that parents or carers should be regarded as experts in picking up pain cues in their children as well as the use of age-appropriate pain scores and frequent monitoring of vital signs such as heart rate and blood pressure.

OUR AIM: to ensure compliance with these guidelines locally with the goal of reducing hospital admission and improving health care experience in these children.

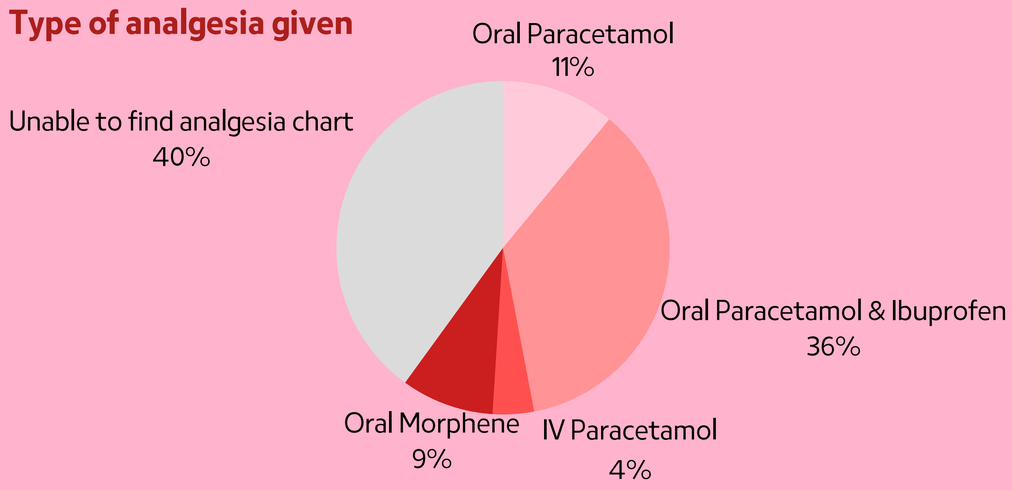
Methods

We looked retrospectively at the number of acute presentation of children with painful crisis to the Children's assessment unit or emergency department from January to December 2022 and focused our data to answer 5 important questions:

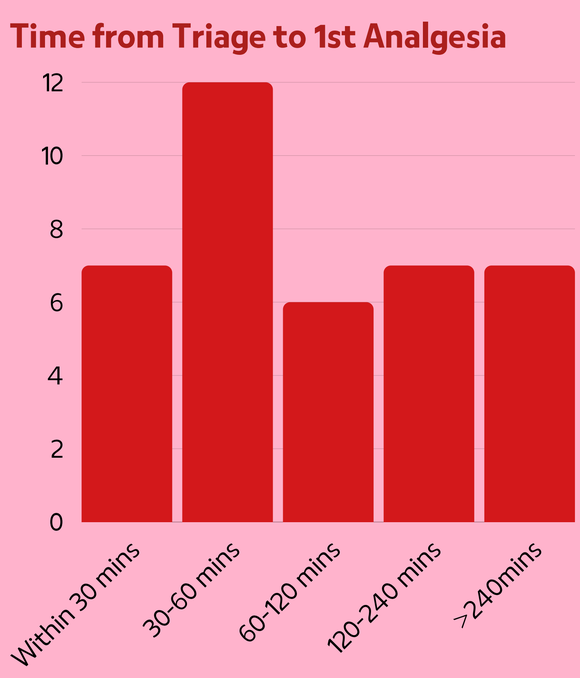
1. Time from presentation to triage
2. Time from triage to analgesia
3. Time from presentation to analgesia
4. The type of analgesia given
5. Pain assessed and documented every 30 minutes and if regular observation of vital signs were completed.

With the help of data collected from the above questions we would be able to assess if medical and nursing staff had adequate training and knowledge in managing painful crisis and were aware of the local sickle cell painful crisis protocols.

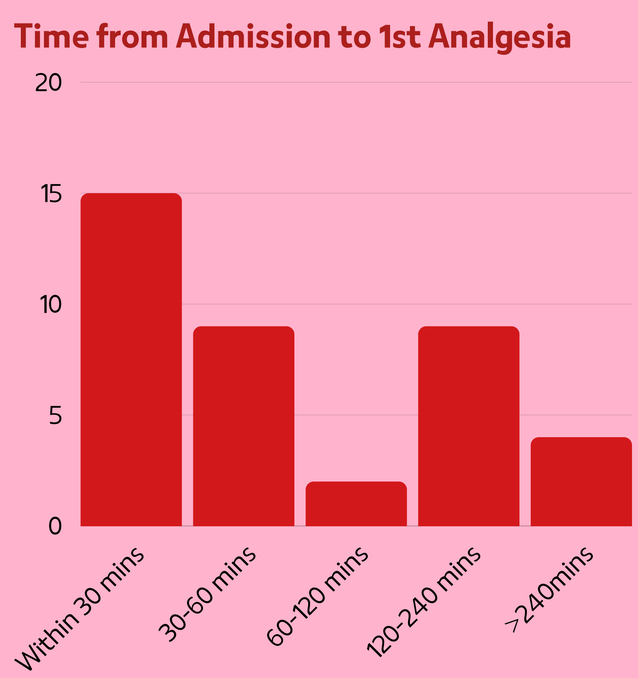
Type of analgesia given



Time from Triage to 1st Analgesia



Time from Admission to 1st Analgesia



Results

Over the 12 months, we selected 75 notes of children attending the children's assessment unit or emergency department of which 45 met our selection criteria.

As per NG 143 guidelines it took an average of 16.3 minutes for patients to be triaged on arrival. Almost every child was given analgesia later after 30 minutes from arrival with October to December 2022 being the longest wait times of an average of 2.5 hours before they received any analgesia in the children's and ED department.

Similar delays in providing analgesia after triage with an average waiting time of about 2.2 hours.

Morphine was needed in 40%, followed by oral paracetamol at 36%.

About 9% needed IV paracetamol and 4% were given a combination of paracetamol and ibuprofen.

11 % of the patients an analgesia prescription or drug chart was missing.

43 of 45 patients had a pain chart and were scored every 30minutes.

Of the two no regular pain score, it was noted in one that due to severe learning difficulties it was hard to accurately assess pain.

The reasons for noncompliance were:

1. Poor parental understanding and not providing simple analgesia before presenting to CAU or ED.
2. National shortage of intranasal diamorphine.
3. Delayed escalation to the medical team.

Conclusion

We have taken several steps in improving patient experience and reducing hospitalisation by:

1. Introducing teaching to all nursing staff and medical staff during induction.
2. Reminding parents in clinics and providing them written information on starting pain management at home to manage pain before presenting to ED OR CAU.
3. Working with pharmacy to look at alternative forms of intranasal medication such as fentanyl, subcutaneous morphine.

References

1. Recommendations | Sickle cell disease: managing acute painful episodes in hospital | Guidance | NICE (https://www.nice.org.uk/guidance/cg143/evidence/full-guideline-pdf-186634333)
2. HCC | Pain Management & Support (westlondonhcc.nhs.uk)

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