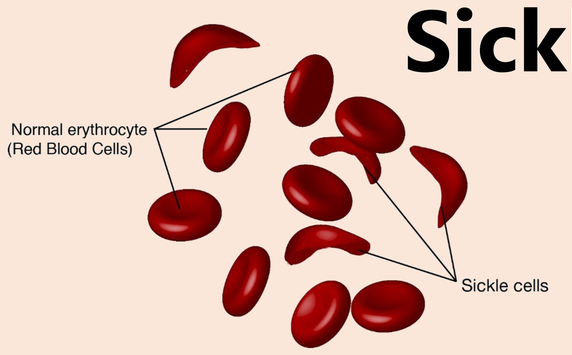
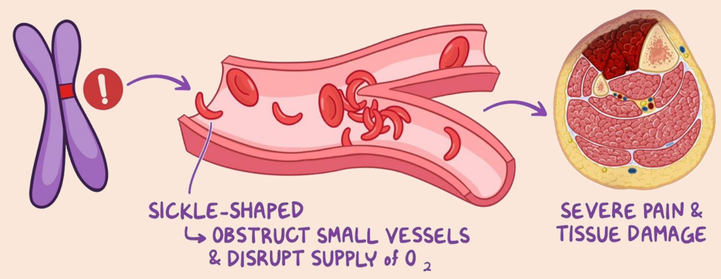
Sickle Cell Disease: Managing Acute Painful Episodes In Hospital



IML Tung[1]; F Watson[1]

1. General Paediatrics, Royal Bolton Hospital



OBJECTIVES

- Sickle cell disease encompasses a group of inherited conditions of sickle haemoglobin.
- It is estimated that there are between 12,500 and 15,000 people with sickle cell disease in the UK.
- Sickle cell crisis presents as several acute conditions such as vaso-occlusive crisis, aplastic crisis, splenic sequestration crisis, acute chest syndrome.
- Aim of this audit is to review the management of patients presenting with acute painful sickle cell crisis against NICE and local hospital guidelines.

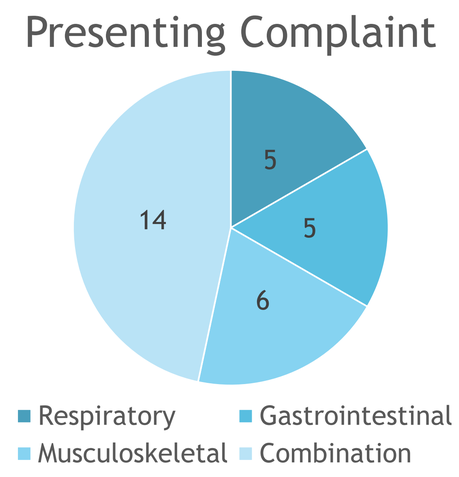
METHODS

- Retrospective data collection from clinical notes between 01/05/2019 to 01/05/2023 and review of data against NICE and local guidelines of Royal Bolton Hospital for the acute management of sickle cell disease complications in children using a locally created data collection proforma.
- Inclusion criteria:
  a. Paediatric patients <age 16 or ≥16years but still under care of paediatrics
  b. Known diagnosis of sickle cell disease
  c. Diagnosed with “Sickle Cell Anaemia with Crisis”
  d. Managed locally as inpatient/observation & assessment unit.

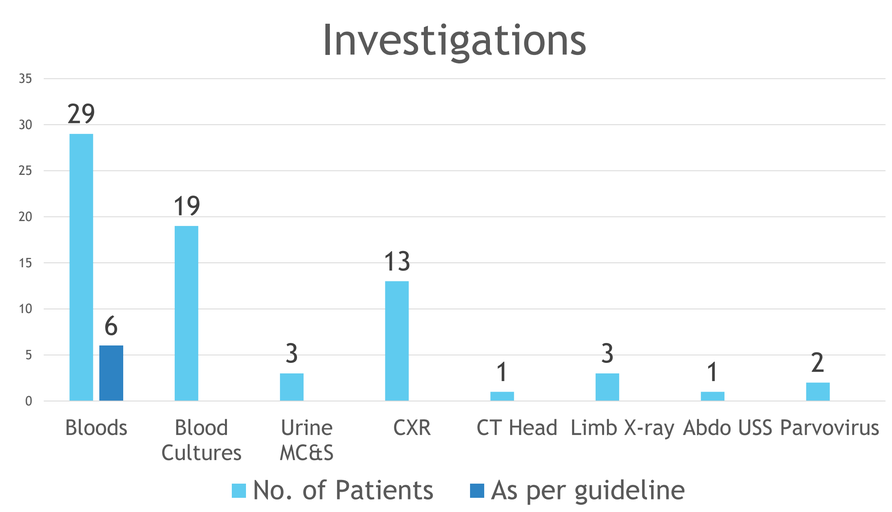
RESULTS

There were 16 patients with a total of 33 presentations combined to Royal Bolton Hospital between 01/05/2019 to 01/05/2023. 3 presentations were wrongly coded and thus did not meet inconclusion criteria.

90% of presentations were discussed with the tertiary Haematology team.



All 30 presentations had a complete set of observations taken at triage and 26 presentations had a pain score recorded at presentation.



Only 20% of presentations had all required investigations completed. Common missed investigations included lactate dehydrogenase, amylase, group and save.

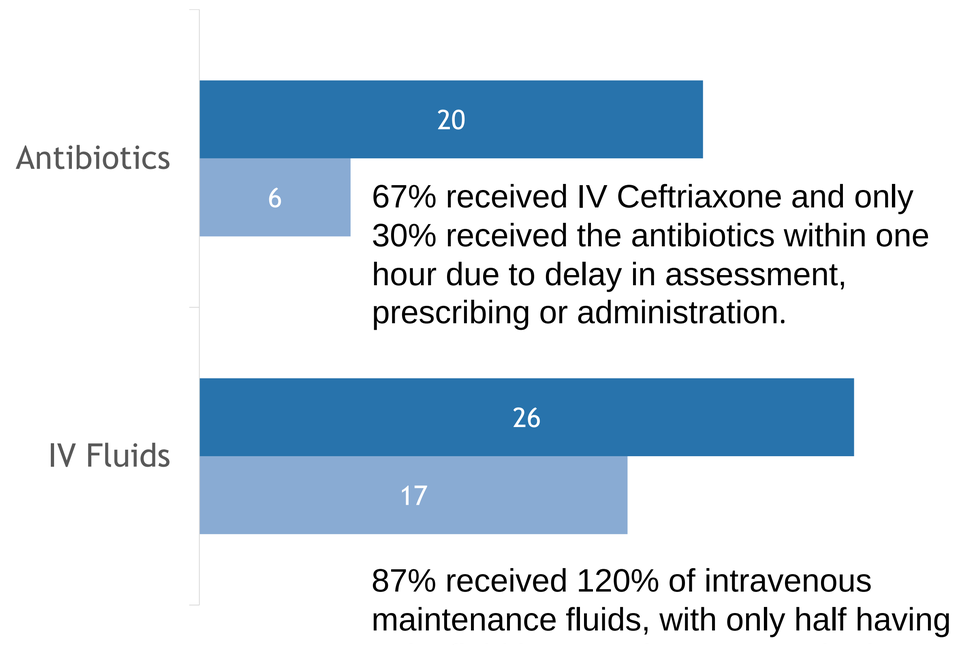
Pain Management

20 (67%) patients were offered analgesia within 30 minutes

	Yes
Paracetamol	29 (97%)
Ibuprofen	28 (93%)
Doses as per guidelines	27 (90%)
Opiates	24 (80%)
Continuous Morphine Infusion/PCA	6 (20%)

Prescribed for patients on regular opiates	Yes
Naloxone	5 (20%)
Laxatives	4 (17%)
Antiemetics	7 (29%)
Antipruritics	3 (13%)

11 (37%) patients had a 30-minute pain review following initial analgesia and only 9 (30%) patients were pain free within an hour.



CONCLUSIONS

- Space for improvement in the care provided for these patients.
- Recommendations:
  - Using local guidelines when managing patients
  - A list of investigations required to reduce over or under investigations
  - Ward round proforma to review analgesia, antibiotics, fluids and results of investigations.
  - Teaching sessions to improve awareness to both nursing and medical staff

REFERENCES

1. NICE (2012) Sickle Cell Disease: managing acute painful episodes in hospital. Clinical Guideline [CG 143] Published 27/06/2012.
2. Local Guideline: Acute Management of Sickle Cell Disease Complications in Children. Dr G Bowling, Dr J McViety. April 2020.
3. Images from Bio.News and Osmosis.org