parents of children aged 0 to 16 years old and by young people up to the age of 18 years.

P10 AN AUDIT TO ASSESS THE PRESCRIBING OF ANALGESIA IN CHILDREN WHO PRESENT WITH PAIN CRISIS DUE TO SICKLE CELL DISEASE (SCD)

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Aim To assess the prescribing of analgesia to manage pain crises in children with SCD. This was to establish whether the Trust was meeting national and local standards. Prompt pain control is essential to reduce length of stay and further complications.¹

Standards

- 100% of admissions will be prescribed regular paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs) at the recommended frequency unless contraindicated in accordance with national guidance.^{2,3}
- 100% of admissions will be prescribed appropriate doses of analgesia with consideration to weight and age in accordance with local policy.⁴

Method The audit was registered with the Trust's audit committee. A list of paediatric patients with the diagnosis of SCD was sought from paediatricians with an interest in haematology. A data collection form was created. Data was collected retrospectively over a one-year period. A total of 60 admissions were reviewed to check whether analgesia was prescribed regularly at the recommended frequency, and at the correct dose. Results were analysed using descriptive statistical analysis. Exclusion criteria included patients with hospital admissions under 24 hours.

Results A total of 55 admissions were included in the final sample. The audit showed the Trust was non-adherent to both standards assessed. A total of 45% (95% CI [31.9%, 58.1%]) of admissions were prescribed regular analgesia. A total of 78% (95% CI [67.9%, 88.9%]) of admissions were prescribed appropriate doses of analgesia. Two main reasons were found as to why analgesia was prescribed at the incorrect dose. This was due to incorrect weights recorded on the electronic system (n=4) and doses based on age only (n=8).

Conclusion The results show prescribers are familiar with the correct doses of analgesia but fail to prescribe analgesia regularly. This highlights an opportunity for education and training in the management of pain crisis in SCD. One recommendation includes development of an integrated care pathway booklet for paediatric patients presenting with pain crisis due to SCD. Integrated care pathway booklets have been implemented for other conditions such as cystic fibrosis yielding positive outcomes. The results have highlighted key issues surrounding the electronic prescribing system such as out-of-date weights remaining on the system unless updated, and default treatment protocols. The electronic prescribing system requires refinement for use within paediatrics. One suggestion includes compulsory weight field on admission. Limitations of this audit included small sample size. There was a lack of data to make suggestions based on different ages.

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P11 ARE LOW MOLECULAR WEIGHT HEPARINS BEING INITIATED, MONITORED AND SUBSEQUENTLY ADJUSTED APPROPRIATELY FOR PAEDIATRIC PATIENTS?

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Aim Heparin is used in patients who require anticoagulation for treatment or prevention of thrombosis. Much of the evidence for anticoagulation with both unfractionated and low molecular weight heparin (LMWH) is derived from adult practice.

This audit aimed to evaluate the accuracy of tinzaparin dosing and monitoring, and thus the provision of appropriate anticoagulation for treatment and prevention of thrombosis in paediatric patients. This was in line with trust clinical guidelines: 'Low molecular weight heparin guideline: paediatrics (treatment and prophylaxis)'.¹

Method Paediatric patients prescribed Tinzaparin between November 2017 and December 2018 were retrospectively identified from finance reports. Patient notes, which documented Tinzaparin indication, dosing and monitoring parameters (Anti-Xa levels) were accessed. Findings were recorded in a data collection questionnaire, derived from set standards, to identify if the corresponding local guidelines had been adhered to.¹ Subsequent statistical analysis was used to highlight trends within the data collection.

Results 88% (21/24) of paediatric patients were dosed accurately according to Tinzaparin indication; treatment or prophylaxis and patient weight as per guidelines. One anomaly was dosed according to local guidelines for adult patients, whilst a second and third were initiated on prophylactic rather than treatment dosing. Only 11% (3/24) of paediatric patients had their Anti-Xa level recorded at the correct time interval of 4 hours post dose. Evaluation of this data confirmed that for prophylactic regimens Anti-Xa levels were recorded in 7% (1/16) of patients, compared to 33% (3/8) for treatment regimens. Although Anti-Xa levels were recorded throughout 100% (8/8) of tinzaparin treatment regimens, 66% (5/8) failed to be recorded within four hours post first and second dose; a guideline requirement. These 'random' Anti-Xa levels commonly lay outside of the desired Anti-Xa level range highlighted in the guideline and subsequent dose adjustment meant that dosing regimens deviated from guidelines in an attempt to get the Anti-Xa levels within range. For regimens that lay outside the desired range but that were then adjusted in accordance with a dose adjustment tool within the guideline, all patients achieved the desired range efficiently and effectively, confirming that following the guideline achieves desirable results.

Conclusions It was clear that Tinzaparin was initiated appropriately in the majority of paediatric patients in accordance with patient age and weight, that an attempt was made to monitor patients receiving a treatment dose regimen and that some effort was made to maintain these levels within the desired range. The main issue raised by this audit was the