- Qualitative interviews with patients and carers after missed clinic appointments
- Audit (SCD Acute Pain Management Audit) of NICE guidance (CG143)
- Statistical Analysis of Index of Multiple Deprivation (IMD) for all SCD patients, those who missed clinic appointments, and those attending A&E

Results Semi-structured questionnaire (n=12):

- 66% of patients presented to A&E for urgent treatment rather than GP or home treatment
- 33% had needed emergency treatment in the last 6 months
- 60% of patients stated their pain was treated quickly in A&E (40% not quickly enough)
- 30% felt A&E staff did not know enough about SCD
- Qualitative interviews (n=5):
- Reasons given for missing appointments included: too many appointments, financial difficulties, travel difficulties, unwell child, appointments booked too far in advance
- Suggestions from families to improve appointment attendance included to send a closer reminder and to follow up telephone confirmations with a letter

SCD Pain Management Audit (n=28):

- Pain was assessed using an age appropriate scoring tool in 89% of cases
- We offered analgesia within 30 minutes in only 46% of cases
- 73% were prescribed laxatives when on opioids, and 47% were prescribed anti-emetics or anti-pruritics

Statistical Analysis (n=5190):

Preliminary analysis has shown:

- Using the IMD of residence, the most deprived (groups 1–3) had higher rates of missed hospital appointments when compared to groups 4–8
- An increased rate of admission was observed if at least one outpatient appointment was missed

Conclusion Higher rates of missed appointments were observed in the most deprived groups and correlated with increased admissions. Financial difficulties may contribute to missing hospital appointments, adding to health inequities in this vulnerable group.

The next phase will include implementing changes to improve paediatric care and accessibility, including considering virtual or community clinics.

G181(P)

PROPHYLACTIC RED CELL AND PLATELET TRANSFUSIONS IN PAEDIATRIC HAEMATO-ONCOLOGY PATIENTS: LESSONS FROM A UK SINGLE-CENTRE RETROSPECTIVE AUDIT

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Aims Transfusion of blood components carries significant risk. Adherence to national guidelines on transfusion thresholds standardises patient care and helps guide decision making. Such guidelines are currently less evidence-based in paediatric

than adult practice. This audit aims to capture real-world practice in a tertiary centre paediatric haematology/oncology unit.

Methods Blood transfusions to inpatients over four months between October 2018 and January 2019 were retrospectively analysed. Transfusion details, pre- and post-transfusion haemoglobin and platelet counts, and patient characteristics were obtained from BloodTrack and the electronic patient record (EPR). Patients with haemoglobinopathies were excluded from this audit.

Results Red cell transfusions (n=121) were given to 38 inpatients and prophylactic platelet transfusions (n=127) were given to 21 inpatients. Underlying conditions recorded were ALL (n=14), AML (n=3), Burkitt lymphoma (n=2), aplastic anaemia (n=1), and various solid tumours (n=18).

Red cell transfusions largely conformed to national guidelines, with 95% given to patients with a pre-transfusion haemoglobin below 80 g/l and a median haemoglobin of 72 g/l. Two units of red cells were given in 12% of transfusions.

While 34% of prophylactic platelet transfusions were given to patients with a platelet count $<10.10^9/l$, 38% were given to patients with a pre-transfusion platelet count of $20.10^9/l$ or greater without a valid indication documented in EPR. Half of these were given to a single patient with CMV retinitis at risk of retinal haemorrhage. Recorded pre-procedure platelet transfusions were given before lumbar punctures, surgery, lung biopsy, and tunneled central-line insertions. 6% of these were given at pre-transfusion platelet counts of $>50.10^9/l$, as local guidelines specified a threshold of $<80.10^9/l$ for central line placement.

A small number of patients received the majority of red cell and platelet transfusions; 64% of red cell transfusion and 71% of platelet transfusions were given to six and four patients respectively.

Conclusion This single-centre study shows that national guidelines for red cell transfusions are largely followed in paediatric haemato-oncology patients. However, a small number of complex patients and divergent local guidelines were responsible for low adherence to national platelet transfusion guidelines. To improve local transfusion practice, training of junior staff and spread of guidelines within the department are undertaken, after which re-auditing in 12 months is planned.

G182(P)

IMPROVING CARE OF FEBRILE NEUTROPENIA PATIENTS: A SPECIALISED PROFORMA AND RISK STRATIFICATION SYSTEM

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Aims The occurrence of febrile neutropenia (FN) in paediatric oncology patients is a major cause of morbidity and mortality. Focused and timely management of such patients are essential in preventing progression to sepsis. There has been a recent emphasis on risk-based management of FN patients using prognostic models to stratify them based on risk of severe complications. In line with this emphasis, we are a secondary care centre that developed a specialised FN proforma and risk stratification system. We aimed to evaluate their impact on the care of FN patients in our centre.

Methods We identified FN patients admitted to in 2016. We implemented the proforma at the start of 2017. We subsequently collected data on FN patients admitted in 2017. We reviewed clinical records to compare their management in 2016 versus 2017 including length of stay (LOS) and time to antibiotics (TTA).

Results There were 33 oncology patients with 20 FN admissions in 2016. Antibiotics were given within 1 hour for 45% and the average TTA was 72 minutes. In 2017 there were 48 oncology patients with 42 FN admissions. 17% of the admissions did not use the proforma. Antibiotics were given within 1 hour for 86% and the average TTA was 54 minutes. Risk stratification was completed for 45% in 2017: 17% were low risk and 28% were standard risk. 80% of the low risk patients were not discharged at 48 hours despite national recommendations. Average LOS was 4.2 days in 2016 and 5 days in 2017.

Conclusion The implementation of the FN proforma lead to improved standard of care in TTA of 54 minutes in comparison with national standard of 60 minutes mandated by the National Chemotherapy Advisory Group (NCAG). There has not been an identifiable improvement in the LOS, this suggests need for improving the understanding of the risk stratification and boosting the confidence in discharging low risk patients early. There is therefore scope for improvement in education and uptake of the risk stratification system to reduce LOS for FN patients.

G183(P) CLINICAL MANAGEMENT OF ACUTE PAIN IN PAEDIATRIC SICKLE CELL DISEASE (SCD) FOLLOWING THE NICE GUIDANCE (CG143)

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Aims

- To assess if children with SCD presenting to our District General Hospital with an acute painful episode are managed in line with NICE guidance.
- To compare our results with previous audits (2014 and 2016).
- To use feedback from the multi-disciplinary team (MDT) to develop sustainable interventions to ensure guidance is met.

Methods We performed a retrospective case note review (n=28) of medical notes. Primary data were collected from June-December 2018 and included all paediatric patients with SCD who presented in pain to the emergency department.

Results Our findings were presented to the MDT. Our local guideline was amended, with particular focus on the need to prescribe laxatives, anti-emetics and anti-pruritics to patients taking regular opioids, as well as timely pain relief. Feedback from the MDT, and reviewing interventions used by previous audits led us to amend induction for new doctors, emphasising the guideline and key audit findings.

Conclusions Clear improvements have been made from previous audits, however, despite this, there was a stark drop in our rates for offering analgesia within 30 minutes. This may reflect the challenges we face in providing rapid interventions in an ever-growing busy emergency department. Studies show

Abstract G183(P) Table 1

	2018	2016	2014
Pain assessed on presentation using age appropriate score	89%	94%	57%
Analgesia offered within 30 minutes of presentation	32%	65%	60%
Nursing observations measured at presentation	89%	56%	25%
Bolus of strong opioid offered in moderate-severe pain	90%	87%	32%
Effectiveness of pain relief assessed every 30 minutes until a satisfactory pain score was achieved	46%	6%	24%
Pain score reassessed every 4 hours	91%	13%	38%
Laxatives offered to patients on opioids	73%	13%	84%
Anti-pruritics and anti-emetics offered to patients on opioids	46%	-	-

that specialist care is superior over generalist care and improves outcomes (Bundy et al. 2016; Evensen et al. 2016). The Sick Cell Society suggests a Specialist Haemoglobinopathy Team with links to local hospitals could support acute pain services, as well as an individualised care plan for each patient.

This audit reinforces the importance of good acute care pathways and consideration should be given to alternative models of emergency care delivery.

G184(P) DIAGNOSTIC DILEMMA IN A CHILD WITH BLEEDING

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Introduction Acquired Thrombotic Thrombocytopenic Purpura (TTP) is a rare and severe disease in paediatric population. The known classic pentad of symptoms (microangiopathic hemolytic anemia, thrombocytopenia, acute kidney injury, fever and neurological symptoms) appear to be more varied rather than classical, in children. Herein, we describe a rare presentation of acquired TTP in a thirteen-year-old girl.

Case Report A thirteen-year-old girl previously fit and well, presented with a history of heavy vaginal bleeding, vomiting with increasing petechial rash over lower extremities and bruising to the chest wall. On presentation, she was febrile with generalised bruising. No history of trauma or significant past history nor family history to note.

Initial investigations showed anaemia and thrombocytopenia (Haemoglobin of 63 G/L, Platelet of $70 \times 10^9/L$), raised Urea of 9 mmol/L and Lactate dehydrogenase 1292 IU/L. Liver function and coagulation screen was normal. Blood film showed evidence of microangiopathic hemolytic anaemia (anisocytosis, schistocytes, spherocytes and basophilic stippling).

Differential diagnosis of Hemolytic Uraemic Syndrome (HUS) and TTP was considered at first instance.

She was initially stabilized in Paediatric Emergency Department where she received tranexamic acid infusion along with one unit of platelet and one unit of packed red cells.

In view of blood results and blood film, Haematology team considered TTP to be the likely diagnosis, henceforth she was transferred to tertiary renal unit for total plasma exchange (TPE). In addition, she received systemic steroids and immunosuppressant (Rituximab).