frequency of malignancies in BS represents that in the general population, this is the first report of a paediatric patient developing AML following treatment for ALL. This girl was found to carry two novel BLM mutations, c.1221T>C > A and c.1624delG. This case documents the short interval at which treatment-related myeloid malignancy may occur in a child with BS and implies a fundamental role for BLM for normal haematopoiesis, in particular in the presence of genotoxic stress. It demonstrates the importance of molecular analysis in atypical cases of childhood malignancies. Novel approaches are required to improve treatment for these individuals as optimal dose delivery to often aggressive malignancies is hindered by extreme sensitivity to treatment toxicity.

**G175**

THE IMPACT OF SOCIAL ISSUES ON THE HEALTH OF CHILDREN PRESENTING TO TWO TERTIARY PEDIATRIC SICKLE CELL CENTRES
doi:10.1136/archdischild-2013-304107.187

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**Background** Sickle cell disease (SCD) is an inherited blood disorder which affects 1 in every 2000 children born in the UK. Specialist clinics for children with SCD have identified that attending children live in areas of high deprivation, with many experiencing child protection issues.

**Aims** This study aims to examine the burden of social issues on this population of children with SCD, and investigate the impact of these factors on adherence to medication, clinic attendance, and inpatient admissions.

**Method** A retrospective notes audit of 360 children from two tertiary sickle cell referral centres was carried out and information on patient and family characteristics, social background and child protection issues, compliance with penicillin and immunisations was collated in line with national guidelines.

**Results** Housing problems were present in 25.8% of patients, immigration in 10% and child protection issues in 9.2%. 22.7% of patients were from single-parent families. The hospitals had good records for immunisations, (93.3% up-to-date), but poor clinic attendance, (mean attendance rate 71.87%). Attendance was higher with a more severe phenotype but not significantly different with social issues. Poor compliance was identified in 15% of patients. Strong associations exist between poor compliance and clinic attendance, not being fully immunised and the presence of parental SCD. There was a significantly higher incidence of inpatient admissions in patients with housing issues as compared to those without at both hospitals (Unit 1: p ≤ 0.017; Unit 2 p ≤ 0.027; combined in multivariate model p ≤ 0.04). There was also a higher incidence of inpatient admissions in patients with immigration issues than those without, however this was not statistically significant (p ≤ 0.28). There was no difference in inpatient admissions between single-parent and two-parent households.

**Conclusion** The significant burden of social problems and child protection issues in the paediatric sickle cell population studied must be recognised due to the impact on patients’ health, admissions to hospital, ability to attend clinic, and maintain compliance. Further research on causation of poor clinic attendance and poor compliance would reduce waste and improve health service efficiency, as well as being of considerable benefit to patient health and wellbeing.

**G177**

A SINGLE-CENTRE EXPERIENCE OF CENTRAL VENOUS LINES IN PAEDIATRIC HAEmatology/ONCOLOGY PATIENTS OVER FIVE YEARS
doi:10.1136/archdischild-2013-304107.189

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**Background and Aims** Safe central venous access is required for the management of paediatric patients with solid and haematological malignancies. The objective of this study was to retrospectively review central venous lines (CVL) experience in a single centre over a five-year period between 2007 and 2012 to determine the prevalence of line-associated complications and predisposing factors for premature line removal.