case studies where we are using our workflow to generate insights into big challenges in the hospital, i) a proof-of-concept surgery scheduling algorithm for improving theatre utilisation and reducing on-the-day cancellations and ii) an outpatient demand prediction model to understand the impact of international and private patients on diagnostic services in the hospital.

**FEMUR FRACTURES IN CHILDREN WITH CANCERS. WHAT COULD BE THE AETIOLOGY?**

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Introduction Femur fractures in children are uncommon. Incidence of fractures in leukaemia is about 13.5% and is 6 fold higher than estimate. No prevalence data available on fractures among hospitalized children with cancer. Among the cancer patients femur fractures could be due to various reasons such as non-accidental injuries (NAI), osteoporosis and bone metastasis. We report two patients who had mid shaft femur fractures while receiving chemotherapy as in patients.

**Case history** Case 01, 17 months old girl diagnosed with Ewings sarcoma (EWSR1-FLI1 type-2) and paraplegia. Whilst receiving chemotherapy she was experienced acute swelling of left thigh and diagnosed with a spiral femur fracture which was unrelated to disease. Case 02, 4 year old boy with adrenal cortical tumour. During his treatment he sustained a spiral fracture of his left femur. Both these children sustained their fracture while inpatient and extensive review excluded a possible safeguarding issues.

**Discussion** Case 01 was non ambulatory and case 02 was ambulatory but less able. In multidisciplinary child protection meeting mechanism of the fracture of case 01 was not clear. Child had a habit of trying to bite her toe. But, mum noted she might have caused this when trying to keep her on her side and child refused/rotated – as she did not feel pain therefore the force is difficult to assess – No ill intention was meant. Case 02, he tried to get down from the bed when he falls which leads to the fracture. The conclusion is that there was no evidence of child abuse. Lack of supervision of caregivers was raised as an issue in both cases.

**Conclusion** Spiral femur fracture in a non-ambulatory child must always raise a concern of NAI. However prevalence of fractures of children with cancers in hospital need more evaluation as those are preventable.

**IMPRESSING CLINICAL HANDOVER**

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Background Handover is an important clinical skill combining knowledge, prioritisation and communication. This has been highlighted within the emergency working patterns essential for patient care during the pandemic. Effective handover can reduce the incidence of adverse events and benefit patients, clinicians and the hospital. The aim of this project is to assess and improve the quality of departmental verbal and written handover.

**METHODS** A quality improvement method was used to assess the quality of verbal and written handover using verified opinion-based questionnaires for participants. The verbal handover was also assessed by measuring objective parameters including duration, participants and presenter type, number of patients discussed, situational awareness and task management, time pressure and distractions and teamwork factors.

Following the initial audit, standardised handover formats and a traffic light system were implemented to assist with prioritising patients. Results were compared before and after intervention with descriptive statistics.

**RESULTS** 20 members of our department completed our pre intervention questionnaire and results showed that most participants were dissatisfied with the verbal handover and 50% thought that this might result in adverse events. The disadvantages identified were lengthy duration, multiple interruptions and inappropriate team member leading handover. The objective assessment tool showed that areas of weakness were communication, accountability, task management and distractions. Following intervention with standardisation, objective measures remained stable but subjective responses improved. The satisfaction on general process, duration and person leading handover increased.

**Conclusions** ‘Handover’ is highlighted as an important clinical skill especially when working in unfamiliar team and shifts pattern. Implementing a standardised departmental handover has had a positive effect on the team and the process. We intend to continue to improve the handover process by implementing a standardised structure for written handover and continued integrated teaching highlighting communication, prioritisation and verbal handover.