a pathway activated in mild traumatic brain injury and to correlate with previous exposure to head injury.

**Methods** Whole blood was sampled from children with mild TBI at presentation with injury and compared to healthy paediatric controls at baseline. RNA was isolated and cDNA was synthesized. Gene Expression of IL-1β via rRT-PCR was recorded in 18 patients 5 controls at baseline. Of 18 patients, 10 had previously suffered concussion.

**Results** Mechanisms of injury included sporting and school yard clashes, falls from bikes and falls from bed. GCS was 14–15 in all. Inflammation was upregulated via IL-1β expression in children with previous episodes of mTBI compared to those with no previous injury. (p = 0.08) The highest IL-1β, 8000 fold that of baseline. This was recorded in a child who had previously had rehabilitation following a road traffic accident 7 years previously.

**Conclusion** Inflammation is altered in TBI compared to controls. IL-1β gene transcription was higher in those with previous episodes of concussion. Immune memory may be a factor in the clinically evident burden of symptoms following repetitive head trauma, and this warrants further exploration.

---

**Abstracts**

**GP99** IMPROVING PAEDIATRIC TEAM HANOVER: A QUALITY IMPROVEMENT PROJECT

1Deirdre O’Sullivan*, 2Rincy Koshn, Qasim Mahmood 4, Akhtar Khan 4. 1University Hospital Kerry, Tralee, Ireland; 2University Hospital Kerry, Tralee, Ireland; 3University Hospital Kerry, Tralee, Ireland; 4University Hospital Kerry, Tralee, Ireland

10.1136/archdischild-2019-epa.164

**Introduction** The importance of good communication during transition of care is well recognized. Poor handover has been linked to serious patient harm. Paediatric team handover at shift change was identified as an area in need of improvement. Therefore, a project was designed to look at the current Paediatric team morning handover practices and to improve the overall quality of clinical handover.

**Aims** The objectives of this quality improvement project are three-fold: 1) To assess the quality of current handover practices, 2) To improve handover using ‘ISBAR’ standardized handover tool, and 3) To re-audit clinical handover after implementing changes.

**Methods** An assessment was performed to establish current handover practices. Paediatric team handovers at shift change from 01/08/2018 to 31/08/2018 were assessed. Daily handover sheets and attendance log-books were reviewed to determine the number of admissions, number of handover sheets and handover duration in minutes. The primary intervention involved education on the ‘ISBAR’ communication tool. Formal training was provided for consultants and non-consultant hospital doctors (NCHDs) explaining the ‘ISBAR’ handover communication tool. An ‘ISBAR’ handover performed was implemented. Handover was re-audited from 01/09/2018 to 30/09/2018 to assess changes in practice. A prospective daily log of the number of hospital admissions, number of handover sheets and handover duration was recorded.

**Results** A baseline assessment of the paediatric team handover pre-intervention in August 2018 showed that the median number of admissions overnight was 5, the median duration of verbal handover was 23 minutes and written handover involved a median of 3 A4 landscape pages. Following implementation of changes to current handover practices, the median number of admissions in September 2018 was 5, the median duration of verbal handover was 14 minutes and written handover involved a median of 2 A4 landscape pages.

**Discussion** The initial assessment revealed the paediatric team handover failed to comply with national clinical guidelines. There was no use of a standardized template, handover content was variable, important information was often omitted and irrelevant information was included. In summary, this study improved the quality of clinical handover by incorporating a standardized template and by providing NCHDs formal training in handover communication skills.

**Conclusion** Introducing the ‘ISBAR’ communication tool improved the quality of paediatric morning handover and overall efficiency of communication. Identified areas for ongoing improvement include reducing interruptions, ongoing training/education, incorporating a multidisciplinary approach and regular re-auditing.