INVESTIGATING SUSPECTED NON-ACCIDENTAL INJURY IN THE UNDER TWOS: A NOVEL REQUESTING SYSTEM

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Aims In babies and non-mobile children presenting with bruising or injuries raising suspicion for non-accidental injury (NAI), the RCPCH recommends detecting occult injuries through additional investigations. In particular, a full skeletal survey including repeated survey within 14 days and blood investigations are recommended.

It was felt that our department could improve our adherence to RCPCH guidance. In other conditions (such as new presentations of diabetes) there are requesting tabs which allow the clinician to rapidly request required tests; this has not previously been used in cases of suspected NAI. A novel method of requesting investigations was introduced, approaching a case of suspected NAI as we would any other disease pathology with specific targeted investigations.

We compared our adherence to guidance before and after this intervention to assess whether this resulted in improvement.

Methods A retrospective audit of adherence to local guidance was undertaken. Cases were identified using the Radiology Department’s patient information database for paediatric skeletal surveys within the Trust. Anonymised data was stored in a secure format. Patient notes and audit trail of investigation requests were reviewed. Information was collected on the timing of repeat skeletal surveys and the completion of blood investigations. A novel requesting ‘tab’ was added to the software system used for investigation requests. We re-audited to assess whether there was improvement in guideline adherence. As this project involved service improvement audit, ethical approval was not required.

Results 46 children underwent investigation for NAI with 1 case excluded due to easily identifiable patient information. 23 cases were prior to the introduction of the requesting tab and 22 cases took place following implementation of the intervention.

In the pre-intervention group, the mean age was 9.4 months (3 weeks – 30 months). The mean age in the post-intervention group was 7.5 months (1 week – 24 months). The gender mix was similar in both groups, with 63.6% male patients and 65.2% male patients in pre-intervention and post intervention groups respectively.

The most common presentation was bruising in children under one year of age (43.5% of cases in pre-intervention group and 63.3% of cases in post-intervention group).

Adherence to guidance regarding radiology requesting showed significant improvement following the introduction of the requesting system (delay to repeat skeletal survey >14 days: 7 cases in pre-intervention group compared to 0 cases in the post-intervention group, p = 0.01). (figure 1).

There was a trend towards improvement in completion of blood investigations, from 60.46% pre-intervention to 82.27% post-intervention, although this did not achieve statistical significance (figure 2).

Conclusion It is vital to accurately diagnose NAI in young children presenting with unexplained injury as this may herald risk of further, more serious injury.

In this quality improvement project we identified that our adherence to the guidelines, in particular, timeframe of repeating skeletal survey, was suboptimal, in part due to human factors (for example, clinicians were not reliably requesting investigations).

The introduction of a novel, defined investigation set for suspected NAI, using existing IT systems, significantly improved adherence to best practice recommendations.

REFERENCE


DO WE NEED TO BRUSH UP ON OUR DENTAL DOCUMENTATION?

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Aims Dental caries affects around 1 in 3 children under 5 in Wales.1 It is a largely preventable disease and is the main cause for a general anaesthetic at this age. Poor dental health is linked with child neglect and maltreatment.2 Therefore, it is likely that neglected children have worse dental health than the normal childhood population. Children undergoing child protection medicals are examined by paediatric staff who fill in a standardised proforma and have the opportunity to identify oral health problems. Do paediatric staff document dental/oral health when they perform child protection medicals?

Our aims 1. To audit the documentation of oral health in children undergoing child protection medicals and any dental intervention received.

2. To see what proportion had ever had involvement with the dental Hospital.

Methods A clinical review of all child protection reports performed in Cardiff & Vale (92,000 childhood population) between January 2018 - December 2020 was conducted. Reports were searched for; reason for referral, ENT documentation, dental health documentation and Child protection