

surgery. These patients represented between 5 and 10% of our overall group of DDH positive patients. If left undiagnosed, they may have gone on to late presentation of hip dislocation requiring surgery as a child or undiagnosed acetabular dysplasia and possible surgical treatment in relatively early adult life.

Therefore we concluded that given the right guidance parents/carers would be ideal screeners to assist in detecting possible later presenting DDH in their baby.

Child Protection Special Interest Group

G45 WHAT IS THE ASSOCIATION BETWEEN EPISTAXIS AND ASPHYXIATION IN CHILDREN UNDER 2 YEARS? A SYSTEMATIC REVIEW

P Rees, A Kemp, F Dunstan, B Carter, S Maguire. *Institute of Primary Care and Public Health, Cardiff University, Cardiff, UK*

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Aims Whilst epistaxis is a frequent and trivial finding in most children, it is rare in those aged less than 2 years. Epistaxis has been observed amongst intentionally asphyxiated infants using covert surveillance, although the precise relationship between epistaxis and asphyxia has subsequently been called into question. This systematic review aims to determine the probability of asphyxia amongst young children presenting with epistaxis, and define the clinical characteristics of such children.

Methods An all-language search of published and grey literature across 10 databases from 1900–2014 was conducted with 76 key terms. Searches were supplemented with ‘snowballing’ techniques including hand searching non-indexed journals, checking articles’ references, and correspondence with authors for clarification. Inclusion criteria: high quality studies involving children with epistaxis aged less than 2 years; alive or dead on presentation; adequate confirmation or exclusion of intentional or unintentional asphyxia (upper airway obstruction), using an explicit rank of confirmation of asphyxia and non-asphyxia. Studies of traumatic or pathological epistaxis were excluded. All studies were independently critically appraised and data extracted by two trained reviewers.

The probability of asphyxiation in a young child with epistaxis was estimated in a meta-analysis using a random-effects model and is reported as a proportion with 95% Confidence Intervals (CI).

Results Of 2549 studies identified, 100 underwent full review, resulting in six included studies, representing 30 children with asphyxia-related epistaxis and 74 non-asphyxia related epistaxis. Meta-analysis was feasible for 4 studies yielding a probability of asphyxiation of 20% (95% CI = 13–29%). Children with asphyxia-related epistaxis were aged 30–684 days and described by 2 comparative cross-sectional studies, 1 case-control study, and 3 case series (1 of which was comparative). Live asphyxiated children tended to present unwell with altered skin colour, respiratory difficulty, and chest X-ray abnormalities. There were no associated features described among those dead on arrival.

Conclusion This systematic review defines the probability that epistaxis, in the absence of trauma or medical explanation, may indicate asphyxia in children aged less than 2 years, thus reiterating the importance of full investigation of these children who may be at considerable risk of death.

G46 A CLINICAL PREDICTION TOOL (CPT) TO IDENTIFY MALTREATMENT IN CHILDREN WITH BURNS AND SCALDS

¹AM Kemp, ²L Hollen, ²D Rea, ¹MC Pawlik, ¹D Nuttall, ²A Emond, ¹S Maguire. ¹*Institute of Primary Care and Public Health, Cardiff University, Cardiff, UK;* ²*School of Social and Community Medicine, Bristol University, Bristol, UK*

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Aims An estimated 10% of childhood burns arise from neglect or physical abuse. The challenge for emergency department (ED) staff with limited child protection training and a high staff turn over is to recognise these children. The aim of this study is to design an evidence-based CPT to assess the risk of maltreatment in a child who presents to ED with a burn or scald.

Methods Derivation: An evidence-based proforma Burns and Scalds Assessment Tool (BaSAT) was developed from a systematic review of the characteristics of burns or scalds due to maltreatment. Standardised data were collected on 1327 children <16 years presenting to EDs in the UK and Ireland (2008–10). A CPT for risk of maltreatment was derived from a logistic regression model of several influential factors for the referral of 112/1327 cases to Social Care, namely; age < 5 years, known to social services, inappropriate injury explanation, full thickness burn, atypical body location, bilateral symmetry and supervision concerns. Based on the predicted probabilities from the logistic regression, the CPT was adapted into a simple scoring system to grade cases as ‘concern’/‘no concern’ for child maltreatment. Validation: data on children with burns attending four UK EDs were collected prospectively (2013–14) on a revised BaSAT, and the CPT prediction validated against child protection referrals to social services.

Results The validation: Of 789 children (median age 30 months) with burns, 7% (54) were referred to social services. The CPT classified 19% (74/389) scalds, and 26% (104/400) burns as ‘concern’. For scalds the sensitivity for identification of children referred to social care was 83% (95% CI 59–96%) and specificity was 84% (95% CI 80–88%) for scalds; positive likelihood ratio (LR+) 5.2 for non scalds the sensitivity was 81% (95% CI 64–92%) and specificity of 79% (95% CI 74–83%) for non-scalds; LR+ 3.9.

Conclusions The CPT shows promise as an aid to clinical decision making in the ED setting. In conjunction with the BaSAT it provides standardised clinical assessment and documentation of children with burns/scalds and a prediction of the likelihood of maltreatment. Its applicability and accuracy will now be tested in an implementation evaluation.

G47 ABSTRACT WITHDRAWN

G48 A SYSTEM FOR ASSESSING THE RISK OF FEMALE GENITAL MUTILATION (FGM) FOR FEMALE INFANTS BORN TO MOTHERS WHO HAVE UNDERGONE FGM

A Flower, C Palmer, G Hann. *Women and Children's Health, North Middlesex University Hospital, London, UK*

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Aims To introduce and assess the effectiveness of a questionnaire to examine the level of risk of FGM if a girl is born to a mother who has undergone FGM.