

SESSION F2

F2.1 Rights-based standards for children undergoing tests, treatments and examinations

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iSUPPORT: International collaborative standards to Support Paediatric Patients during clinical procedures, Reducing harm and establishing Trust

Background Poor procedural experiences can have long lasting negative consequences for children. ISUPPORT is an international group of 50 members, which includes health-professionals, academics, young people, and parents. ISupport have developed standards for children undergoing tests, treatments, or examinations based on international children's rights set out by the UNCRC (1989).

Methods: The rights-based standards were developed through a three phase multi-stakeholder consensus approach. Stage 1 involved extensive consultation and group decision-making within the 50 group members. Stage 2 involved an international on-line survey and face to face consultations to gain feedback and input from children, parents, and professionals. Stage 3 involved further online surveys and face to face consultation to reach a consensus.

Results: The standards propose approaches to minimise the anxiety, distress and harm experienced by children undergoing clinical procedures. They describe good procedural practice; define and promote supportive holding as an approach to prioritising children's rights and challenge the use of restraining holds for non-emergency procedures. The standards include a version for professionals, a version for children, including a 'prep sheet' to help children plan for their procedures, as well as case studies demonstrating application of the standards to a variety of procedures. The standards are free to access and download on the ISupport website.

Conclusion: The rights-based standards aim to ensure that the short and long-term physical, emotional and psychological well-being of children are of central importance during clinical procedures.

F2.2 Incidence and patterns of fracture of the tibia in infants aged 0 to 36 months at a single UK centre

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Background Injury patterns in paediatrics may change over time with changing activity trends. Over the last decade, injuries associated with trampolines has increased in children¹. Injuries of the tibia are among the most common in those under the age of three, and are one of the most common fractures in suspected physical abuse (SPA)^{2,3}. The aim of this study was to explore the incidence and pattern of fractures of the tibia in infants aged three and under presenting at a UK centre.

Method 1500 cases were reviewed (mean age 1.72Y range 1d to 3Y). Cases were excluded if they had poor image quality or were in plaster of Paris. 911 remaining cases were reviewed by an experienced reporting radiographer and fractures categorised.

Results 643 cases had no fracture. 268 with fractures, the following fracture types were identified: n (%): Buckle 71 (26.5%); Spiral 64 (23.9%); Periosteal 54 (20.1%); Oblique 44 (16.4%); Toddler 20 (7.5%); Transverse 12 (4.5%); Greenstick 3 (1.1%).

Conclusion The pattern of fractures is different to those reported by Clark et al in their review of cases in 2007-2008 at a UK centre, with a notable increase in buckle fractures and a decrease in Toddler fractures⁴. This may result from changing activities, such as an increase in trampoline use, but also due to statistical noise. Around one in eight tibia fractures in those under 18 months may be due to SPA³, so careful correlation with reported mechanism of injury and safeguarding checks are required in this age group.

References

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F2.3 Evaluating the experiences of paediatric patients with neurodevelopmental conditions in the radiology department of an NHS children's hospital

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Background Literature shows patients with neurodevelopmental conditions (NDCs) are receiving poor-quality care and discrimination from healthcare staff. They face barriers to accessing even basic health care, resulting in preventable and premature deaths. The NHS must foster positive healthcare experiences from a young age, so these patients can learn to advocate for themselves and feel involved in their care.

Radiology's role in this is crucial, yet it shows virtually no exploration in the literature. This service evaluation examining the experiences of paediatric patients with NDCs explored what radiology was doing well, how the service could be improved, and what barriers prevented use of reasonable adjustments.

Methods An anonymous online qualitative survey aimed at carers of patients with NDCs was used. This allowed participants to be reached easily, encouraged less guarded responses and was simple to complete. The survey was advertised via social media pages, on posters and via a local NDC charity. Results were analysed by reflexive thematic analysis.

Results 36 participants took part. 61% had a positive experience, yet only 47% felt the department supported their child's neurodisability needs. Themes developed from qualitative data encompassed patient empowerment, carer voices, marginalisation and the lack of training and reasonable adjustments. Much needed to be improved, such as staff training, communication tools, sensory areas and the radiology request system.

Conclusions There is work to be done to improve societal understanding of NDCs, including within the NHS. Radiology needs to urgently recognise the role it must play in this endeavour, and make large-scale changes.

References

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F2.4 They are out there to catch you off guard! Unusual abdominal masses in children

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Background: Abdominal masses can be an unusual reason for children to seek medical attention, frequently leading them to paediatric emergency departments. Among the array of abdominal pathologies presenting acutely, apart from the common conditions like appendicitis, mesenteric adenitis, constipation, there are certain relatively uncommon conditions deserving urgent clinical attention. At our trusts comprising of large university hospitals, we regularly encounter several such paediatric cases. We are presenting five such atypical cases with abdominal masses.

Purpose: The aim of this poster is to underscore the importance of good history taking, clinical examination, appropriate utilisation of various imaging modalities and accurate interpretation of such complex abdominal pathologies in children. We are showcasing five such cases, which were initially misdiagnosed either clinically or on imaging and subsequently identified correctly through collaborative clinical discussions and comprehensive imaging. This poster also serves to stress the significance of interdisciplinary collaboration among radiologists, clinicians, and pathologists to arrive at a timely and accurate diagnosis, which is paramount for effective patient care.

Content: Five paediatric patients, ranging from 1 to 15 years of age presenting atypically in whom initial imaging was either inconclusive or misinterpreted. Further targeted imaging studies, coupled with clinical and histopathological analyses, revealed the elusive diagnoses of Extraosseous Ewings Sarcoma, Cryptorchid Testicular Teratoma, Sacrococcygeal Teratoma, Mesenteric Cyst, and Ovarian Dermoid in these children.

F2.5 Paediatric breast lesions - imaging and intervention

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Background Breast lesions are rare in paediatric patients, the majority of these are benign and do not require intervention. Despite this, due to public awareness of adult breast malignancy, paediatric breast lesions can be a significant source of anxiety (Harper 2023).

An approach to the diagnosis of paediatric breast lesions should consider three categories:

- Normal breast development and variations (such as asymmetry, accessory breast tissue and gynaecomastia).
- Benign entities including: Those unique to paediatric patients (such as infantile haemangioma, lymphangioma and juvenile papillomatosis); and those that overlap with breast disease in young adults (such as fibroadenoma, pseudoangiomatous stromal hyperplasia, phyllodes tumour and papilloma).
- Malignant lesions, which in paediatrics are more commonly metastatic than primary malignancy.

Imaging almost exclusively relies on ultrasound, with mammography seldom used due to risk of ionising radiation and reduced sensitivity in dense adolescent breast tissue (Phadke 2023). The need for diagnostic sampling and intervention should weigh the potential risk to the developing breast bud (Gao 2015).

Purpose After reviewing these cases the learner will be able to:

- Describe the process of normal breast development.
- Recognise the imaging features of common paediatric breast lesions.
- Discuss the special considerations in imaging the paediatric breast.
- Formulate a management plan for paediatric breast lesions.

Summary of Content We present cases with imaging findings of paediatric patients presenting to a tertiary breast unit. These cases demonstrate normal breast development, common breast lesions and imaging findings with emphasis on approach to imaging and management.

References

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