



## **Imaging Children; immobilisation, distraction techniques and use of sedation**

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### **Summary**

This guidance is issued jointly by the British Society of Paediatric Radiology (BSPR) and the Society and College of Radiographers (SCoR) in response to concerns raised by radiologists and radiographers regarding safe and effective immobilisation of children particularly during skeletal surveys for suspected non-accidental injury.

### **Background**

This guidance is issued jointly by the British Society of Paediatric Radiology (BSPR) and the Society and College of Radiographers (SCoR) in response to concerns raised by radiologists and radiographers regarding safe and effective immobilisation of children particularly during skeletal surveys for suspected non-accidental injury. There have been instances of parents attempting to blame radiographers for injuries sustained by the child and this guidance provides additional information pertinent to this. It should be read alongside Guidance for Radiographers Providing Forensic Radiography Services (2010) and Skeletal Survey for Suspected NAI, SIDS and SUDI: Guidance for Radiographers (2009) which provide detailed guidance and advice for radiographers undertaking skeletal surveys for suspected non-accidental injury. Both documents are available on the website [www.sor.org](http://www.sor.org) in the policy and guidance document library along with other general guidance and advice on imaging children. Similarly guidance from the Royal College of Radiologists is available at [www.rcr.ac.uk](http://www.rcr.ac.uk) under Clinical Radiology publications and guidance.

All members of the imaging workforce have a 'duty of care' and are accountable for promoting and protecting the rights and best interests of their patients. Where the use of restraint, holding still and immobilisation of children is concerned, consideration must be given to the rights of the child and the legal framework surrounding children's rights, including the Human Rights Act (Human Rights Act 1998) and the European Conventions on the Rights of the Child, Consent and Capacity Assessment (UN Convention on the Rights of the Child (1989)).

### **Image quality**

Children who undergo skeletal surveys for suspected non-accidental injury are usually under 2 years of age and often much younger. These children are some of the most vulnerable attending imaging departments. A skeletal survey should be performed with great patience, understanding and skill.

Gentle immobilisation is required to obtain images of sufficient quality and the exact technique may vary in individual cases, **The fact that the child was not cooperative is no excuse for the production of an inferior quality image.**

The requirement to produce a skeletal survey that includes a significant number of images, which are all of the highest diagnostic quality and a legal record, is also a challenge. The process can be upsetting for any parent or guardian to observe and this should be recognised and accommodated.

Two radiographers working together should carry out the skeletal survey and one of these should be specifically trained in paediatric forensic techniques. If necessary, guidance should be sought from an experienced radiologist. The skeletal survey should be performed in accordance with departmental and employing authority protocol including local restraint policy and careful adherence to the BSPR and SCoR guidance

### Explanation, consent and distraction

Children are often unable to fully co-operate during the imaging procedure. This may be due to their age, their lack of understanding of what is required of them, the complexity of the procedure, pain, fear of the unknown and of the equipment and of the staff. The aim, at all times, is to make a child as comfortable as possible so that the minimum degree of immobilisation is necessary.

A clear and full explanation of the technique required to obtain the skeletal survey should be given to the child, parents, guardian or health care professional as appropriate. Consent should be sought from the parents or guardian for use of immobilisation and recorded. If consent is refused this should be recorded along with the reasons given. The proposed method of immobilisation must be fully discussed in non-technical language and the opportunity for questions from them must be provided. If there is any doubt that the parents or guardian are unhappy with the procedure or the parents or guardian become unhappy during the performance of the skeletal survey the study should be halted and clinical advice should be sought. This could require further explanations, more pain relief or sedation.

The need for restraint may be prevented through giving clear information, through encouragement of the child and the parent and gaining their confidence, through the use of distraction techniques appropriate to the age of the child and through constructive play. Distractions will be different dependent upon the age of the child.

The radiographer should be careful in their use of terminology and use age appropriate language in talking to the child.

Hospital Play Specialists may be invaluable in providing information and support to the imaging workforce.

### Immobilisation

Gentle, protective restriction of the child with pads and other devices to maintain the correct position is acceptable so long as the radiographer prepares both the child and the parent/carer in advance.

Immobilising children or restricting their movement in order to carry out an imaging procedure should be carefully considered including anticipating the possible need for the person in attendance [preferably a parent, guardian or other family member] to hold the child still for the procedure whilst at the same time give consideration of ways to prevent the need to restrain. A healthcare worker,

usually an experienced nurse or paediatric social worker, must be present to undertake, and assist with the procedure.

A variety of simple but effective immobilisation devices and distraction tools should be available, for example, suitable sand bags, sponge wedges (covered), sticky tape, perspex blocks, bucky bands and musical mobiles and bottles for babies. . Positioning of limbs is by simple extension and holding and no twisting movements should be necessary.

## Sedation

It may be necessary to consider sedation for the child. . Careful assessment should be made by the clinical team as to whether adequate pain relief has been given, particularly for those who are already known to have significant bone or soft tissue injuries.

Sedation would be used extremely rarely but may be necessary to reduce pain, fear and anxiety. . If a decision is made to use sedation, then the skeletal survey and any other imaging, for example, CT and/or MRI should be coordinated to obtain maximum benefit from the sedation.

## Training

Most imaging staff, after qualification, do not receive specific, additional training in techniques of restraining and immobilising children and the provision of a locally based training programme. would help staff acquire the knowledge and skills they need to feel confident in this regard.

## Guidance and advice documents:

RCR Standards for Radiological Investigation of Suspected Non Accidental Injury (2008)

RCR & SCoR Imaging for non-accidental injury (NAI): use of anatomical markers (2011)

SCoR The Child & the Law: The Roles & Responsibilities of the Radiographer (2005)

SCoR Practice Standards for the Imaging of Children and Young People (2009)

SCoR Guidance for Radiographers Providing Forensic Radiography Services (2010)

SCoR Skeletal Survey for Suspected NAI, SIDS and SUDI: Guidance for Radiographers (2009)

See also:

RCN Restrictive physical intervention and therapeutic holding for children and young people (2010)

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