

medical instruments contribute 13% of the NHS England carbon footprint of which 75% is acute service.

Building energy use is 18% of the NHS England carbon footprint of which 51% of which is electricity consumption and 45% is gas consumption

Sustainable healthcare

- promotes well-being, protects them from hazards,
- prioritises prevention,
- creates balance between economic, environmental and social constraints,
- designs services to be effective, efficient and equitable,
- uses resources responsibly,
- reduces waste,
- embraces low carbon technologies.

Food

- What proportion of the UK food is now grown overseas?
 - How much does global food production contribute to climate change?
 - What proportion of UK food is wasted?
- 50% UK's food and feed now comes from overseas more than 2/3 of the land needed to produce the UK's food and feed is based abroad therefore 64% of the related greenhouse gases are emitted on foreign soils.
 - 24 % of the total global GHG emissions can be currently attributed to agriculture
 - 1.3 billion is of food is lost and wasted annually between farm and fork, producing 3.3 billion tons of carbon dioxide equivalent each year

Livestock production is a major contributor to climate change contributes about 18% to global anthropogenic greenhouse gas (GHG) emissions.

What can you do? Personally, locally and nationally?

Personally

- Read and talk about air pollution and climate change; subscribe to The Lancet Planetary Health (free on line). Conserve energy, buy quality – think whole life costs. Carpool, use public transportation, bike, or walk; if using a vehicle keep engines tuned, tyres properly inflated. Reduce meat consumption and recycle all you can.

Locally

- Discuss at work influence local green initiatives, promote insulation, renewable energy and recycling – everything. Help design NHS systems to use resources wisely –with a focus on prevention. Expand active travel networks and active leisure and transport especially for children and young people.

Nationally

“A Breath of Fresh Air” from RCPCH and other Royal Colleges suggest taking opportunities to promote:

1. cross government departmental collaboration to promote a joined-up approach to tackling air pollution and climate change
2. Phasing-out coal power stations by 2025.
3. Expanding existing clean air zones especially around schools and deprived areas.
4. Monitoring air pollution in areas where vulnerable populations are focused.
5. Retaining or improve air quality standards that the previous EU regulations afforded us during Brexit.
6. Supporting health professionals to take local action and provide advice to patients.

Key reads

The Lancet Countdown on health and climate change: from 25 years of inaction to a global transformation for public health
A Breath of Fresh Air – Addressing Climate Change and Air Pollution Together for Health UK Health Alliance

NHS Sustainable Development Unit <https://www.sdhealth.org.uk/>

The radiological investigation of suspected physical abuse in children. The Royal College of Radiologists, September 2017¹.

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These recently issued guidelines are an update from the previous *Standards for Radiological Investigations of Suspected Non-accidental Injury*, published in March 2008². Whilst the previous guidelines were co-written with the RCPCH, the current ones have not been but are endorsed by our college.

What are they?

The guidelines aim to answer the following questions:

- Which children should be imaged when physical abuse is suspected?
- Which imaging modalities should be used to maximise detection of occult injuries, while limiting unnecessary radiation exposure?
- How should the imaging be performed, reported and communicated?
- When should initial and follow up imaging be undertaken?

The recommendations are set out clearly, under the following headings:

- What imaging is required?
- Referral to social care and the safeguarding team
- Requesting imaging
- The skeletal survey
- Reporting
- Additional and alternative imaging
- Follow-up imaging
- Neurological imaging
- The deceased child

The recommendations are succinct and the document is easy to read; the key messages are conveyed more clearly compared to the previous guidance document. The recommendations are backed up by references which are listed, in order for each section, in the following chapter. Also included in the document is an excellent set of appendices, including exemplar information leaflets, consent forms, clinical algorithms and protocols and an audit proforma.

What's new?

Since the previous guidelines almost ten years ago, progress has been made in radiological techniques and there have been developments in the field of child protection and across medicine in general, with the spread of clinical networks and an ever-increasing need to practice to a sound evidence base and consider legal implications, particularly within the realms of child protection.

The main differences between the 2008 and current guidelines can be summarised as follows:

2017 Recommendations (with number)	2008 guidelines
4. Skeletal survey (SS) should be done on all children under 2 years old who are siblings or in the same house as the index case	No specific mention of investigations for siblings.
12. Written consent from a person with parental responsibility (PR) should be obtained.	Written consent not stipulated.
14. The skeletal survey should be acquired and reported within 24 hours and certainly no later than 72 hours from the request being made.	Although it is recommended that the SS is done within 24 hours, there is less emphasis on this and it is less clearly stipulated.
15. Two radiographers with documented education and training in paediatric and forensic radiography techniques should perform the SS.	Less robust recommendation on the training and experience of the radiographers.
18. In addition to the radiographers, a registered paediatric nurse or registered health or care practitioner should be present during the [SS].	Other non-registered healthcare professionals, eg health care assistants, were acceptable accompanying staff members.
22. Sedation may be helpful [in a SS].	Sedation not specifically mentioned.
28. Two radiologists with at least 6 months of specialist paediatric radiology training, including experience of suspected PA, should provide a consensus report within 24h.	Only one radiologist required and no mention of specific training.
33. Follow up Skeletal survey on all children at 11-14 days, up to 28 days. (also the nature of the imaging is clearly defined)	Stated "may be of significant value"
37-38. MRI head, when indicated, to be done 2-5 days after injury.	MRI head, when indicated, to be done 3-5 days after injury.
39. Any child that has had MRI head in this context should have MRI whole spine.	Spinal MRI only if symptoms or signs of spinal injury.
43. Follow-up MRI head should be done within 3 months (Appendix J).	Follow up MRI head in 3-6 months.

In addition to the key findings above, there are some more detailed stipulations on the required radiographic views for a skeletal survey and some other recommendations around alternative sources of imaging. There is a very helpful exemplar of a checklist for a skeletal survey which includes all of images.

Potential challenges:

The revised guidelines are an improvement in many ways on the previous document. However they do pose a number of potential challenges. These may vary between services but we suggest those most likely to arise are as follows:

1. The recommendation that siblings or co-inhabiting children under two years should also have a skeletal survey.
2. This raises a number of issues. Parents and carers can find the idea and the process of a skeletal survey quite distressing and persuading them of the indication to perform it on another young child, particularly if that child had no obvious injuries, could be quite challenging. This recommendation also obviously places strain on an already (usually) busy service which can struggle to meet the recommended timeframes for performing skeletal surveys in the index child.
3. The recommendations on the skills and experience of the radiographers and radiologists as well as the requirement for two radiologists are sensible and appropriate, in order to ensure the

optimal views are obtained and the conclusions are as sound as possible. However, this has implications for services, particularly in hospitals where there is not a dedicated paediatric radiology service. The guidelines state the need to use clinical networks, which again is appropriate; we would be interested to hear how this is working in practice within the necessary timeframes for getting skeletal surveys reported.

4. The recommendation for the person accompanying the child to the department is that this person is "someone who understands the legal framework of child protection and can act autonomously". This is important in order to safeguard the child as well as the staff, but in a busy paediatric ward in the middle of winter, it can be envisaged that to take a nurse off the ward for the length of time required will be a challenge for the ward staff.

There may be other potential difficulties from the point of view of the radiology service that are not immediately apparent to the paediatrician. It would seem worthwhile to have a meeting with your radiology service to discuss any likely problems and challenges with the new guidelines and put in place systems and plans to mitigate these as far as possible.

Summary

These revised guidelines are an improvement on the previous ones both in content and delivery. The recommendations are clearly set out and backed up by evidence. They reflect the current technical, legal and clinical frameworks within which we should all be working and provide excellent supportive resources to assist with practice. There are some significant changes that could lead to difficulties, both from the patient and staffing perspectives. It will be interesting to observe how they are implemented in practice and how services deal with these challenges.

References

1. The radiological investigation of suspected physical abuse in children. The Royal College of Radiologists. The Royal College of Radiologists & The Society & College of Radiographers. September 2017
2. Standards for Radiological Investigations of Suspected Non-accidental Injury. The Royal College of Radiologists & The Royal College of Paediatrics & Child Health. March 2008.

Community child health Training – Update from your CSAC

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CCH Training Program

The Community Child Health (CCH) sub-specialty training programme became part of the RCPCH National Grid in September 2015; this amalgamation brought CCH in line with all other sub-specialty training programmes. We are now in the third round of CCH grid interviews and looking forward to recruit next batch of high quality CCH trainees. For more information on applying to CCH grid process please refer to the "subspecialty section" on RCPCH website¹.

CCH training is designed as a three-year training programme (36months FTE). A minimum of 24 months should be dedicated to CCH clinical training. The remaining 12 months may be spent either in an allied post to develop a sub-specialist interest relevant to CCH or in an approved research post with the aim to enhance competences within CCH.