“What should I consider before referring a child for an imaging examination?”

Children are more sensitive to ionising radiation due to their growing tissues and their longer lifespan

When referring a child for an imaging examination that uses ionising radiation, the benefit of the examination should outweigh the radiation risk involved. Recommendations for good medical imaging practices (imaging referral guidelines) specific to children can be consulted to see if another examination that does not use ionising radiation can provide the answer to the clinical question. Communication with the parents on how the requested examination will help with their child’s care is essential and to be anticipated.

Talk to the radiologists about it!

Communication with parents about the best examination is critical for child's care!

The benefits for the child

- The child avoids unnecessary exposure to ionising radiation if MRI or ultrasound can provide the answer to the clinical question
- Dialogue with the parents and effective radiation risk communication will enable informed decision-making ensuring the greatest possible benefit at the lowest possible risk

What is the risk for babies and young children?

The potential risk of cancer associated with exposure to ionising radiation is greater for babies and young children than for adults. Due to the fact that their organs are still developing and their longer lifespan, they are much more sensitive to radiation and require special attention[1]. When a clinical evaluation or other non-ionising imaging examination can provide an accurate diagnosis, the use of ionising radiation imaging is unnecessary and should be avoided.

New-born babies vomiting or bringing back milk frequently?

Babies represent a specific case where priority must be given to examinations without radiation exposure and a step-by-step approach should be applied. If pyloric stenosis is suspected, clinical examination can provide indications, and ultrasound is favoured as the next step (non-invasive, no ionising radiation, readily available). Should ultrasound fail to give results, another type of examination may be necessary[2].

1. Source: https://www.iaea.org/resources/rpop/patients-and-public/children
2. Source: https://www.rcr.ac.uk/sites/defult/files/documents/paediatrics-section.pdf

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