### 10 Pearls: Radiation protection for children in interventional procedures

1. Remember: Some tissues of a growing child are more sensitive to radiation than adult children have longer life span to manifest radiation effects

2. Discuss with parents before the procedure
   - Ask about previous exposures
   - Answer their concerns about radiation safety

3. Increase awareness among your team members through the use of a pre-procedure safety checklist

4. Plan the procedures in detail and in advance to avoid improper or aborted runs or other repeated exposures

5. Protect the patient's thyroid, breast, eyes and gonads where possible

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**RPOP Posters webpage!**

https://rhop.iaea.org/RPOP/RPoP/Content/AdditionalResources/Posters/index.htm

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6. Use optimal technique:
   - Lower frame rates. Decrease from 7.5 to 3 pulses per second when possible
   - Remove grids from machine if possible for infants under 20 kg
   - Use air-gap technique instead
   - Minimize imaging time
   - Minimize field overlap in repeated acquisitions
   - Use tighter collimation
   - Minimize magnification usage

7. Use “last image hold” rather than additional exposures, where appropriate

8. Increase distance between patient and the X ray tube and decrease distance between patient and image receptor

9. Use dose recording and dose reduction technologies in equipment

10. Review and record radiation dose after the procedure