Requirements for Personnel Dosimetry and Patients Safety in Health Station

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Definition of problems

• Clear identification of personnel working with X Ray equipment, adequate basic required training!!! and regular updating
• Evaluation of risk related to kind of investigations
• Classification of areas: the X Ray room should be classified
• Dosimetry (TLD badge) for the personnel working (reading 3 months)
Evaluation of radiation protection

• ONLY radiographers working should be "occupationally exposed"….evaluation?
• Radiologists, if present, should also be!
• The health station should be part of a radiation protection network… for regular dosimetry, surveillance etc…or have a RPO/QE consultant???
For occupational exposure

- Application of annual limits: 20 mSv (average 5 year, max 50 mSv per year), 150 mSv for lenses (eyes) and 500 mSv for skin and extremities.

- When performing simple investigations, only!!!! Given adequate shielding etc…it is unlikely that there might be any problem!! Anyhow it is mandatory to follow the rules.
Protective tools

• At least one protective lead apron (well kept) should be present...to be used also by helping parents etc
• Protection of lower part of body, when performing chest in young patients
• Other protections to be evaluated
Protection of patients

• Avoiding unnecessary investigation.....with clinical approach
• Protect when possible and choose optimal parameters
• Equipment with exposure control with DAP would be optimal ....but expensive!!!
Conclusions

• Local evaluation of situation is essential
• Application of rules to situation…..
• The X Ray equipment and working personnel should be part of a surveillance network in order to be regularly checked
• Radiation protection and quality assurance/quality control should be implemented/applied regularly