

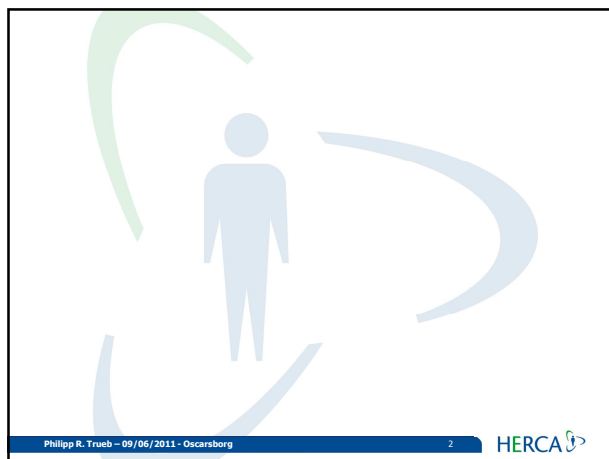
HERCA: Heads of the European Radiological protection Competent Authorities

1st European Inspection Workshop
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How to inspect in a clinical environment

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Philipp R. Trueb – 09/06/2011 - Oscarsborg

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Medical Practices – are important

- More people are exposed to ionising radiation from medical exposures than from any other human activity
- Individual doses and increasingly population doses are higher from medical exposures than any other activity or exposure source
- Medical exposures result in exposures to the individual undergoing the procedure, those undertaking the procedure and members of the public

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Medical Exposures – are different

- Medical exposures involve the deliberate direct exposure to ionising radiation of an individual
- In radiotherapy, exposure of patients to large quantities of ionising radiation is required – dose control is required rather than dose limitation

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Medical Practices – have different frameworks

- Medical exposures of individuals (eg patients) do not adhere to the framework provided by dose limits and dose constraints
- Medical exposures of patients might be likened to emergency exposures – there is limited control of the situation – AND WE DO NOT INSPECT EMERGENCY EXPOSURES
- But dose limits and dose constraints do apply to members of the public and those occupationally exposed from medical exposures

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Medical Exposures – are complex

- Justification is required at three levels –
general, type of practice, individual – unique
....but inspected at one
- Optimisation is required at two levels –
design and construction of equipment and installation
working procedures – ? the more important of the two
....and inspected at both

NB optimisation does not have to mean dose reduction

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Medical Exposures – Inspection requirements

- understanding of radiation protection at a range of dose levels and dose rates within one type of practice
- acknowledgement of the intention to do more good than harm for the patient, for whom the greatest risk is often not ionising radiation (eg trauma, disease)
- balancing the immediate needs of the patient against the protection of the staff and public

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Medical Exposures – Inspection requirements

- understanding and/or appreciation to some level of clinical practice and the variations introduced by patients in very different circumstances
 - for justification
 - for optimisation
- acceptance of limitations of ones own knowledge
- realism regarding the implications of enforcement action
- training implications outside radiation protection

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Medical Exposures –Imperatives

- maintain credibility in a field not known for being forgiving of others
- maintain position of authority – even if the doctor is God
- maintain status of the expert with regard to the detail and application of the regulations to medical exposures

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Thank you for your attention!

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