

*International Conference on  
Radiation Protection in Medicine*  
**ROUNDTABLE 4: Goals for medical  
radiation protection in 2020**  
*Summary of contributed papers.*

**Sigurður M Magnússon, rapporteur**



**GEISLAVARNIR RÍKISINS**  
ICELANDIC RADIATION SAFETY AUTHORITY

## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- 14 papers were accepted
- 6 Themes:
  - Integration of RP and safety
  - Dose assessment and national registries
  - Estimate and use of collective effective dose
  - Clinical audits
  - Individual sensitivity to ionizing radiation
  - Education and training



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- **Theme 1 – integration of RP and safety.**
  - Managing RP and safety in the hospital – success factors and challenges by A. Almén, Sweden.
    - Importance of including radiation protection and safety plans in management control systems in hospitals.
    - Success factors include personal involvement of key managers, authority given to RPE and transparent internal audits
    - Challenges include effective communication within the organization and adoption of graded approach towards RP and safety
    - Conclusions:
      - More emphasis needed on management issues in the medical field.
      - RP and safety issues are closely linked to patient safety issues
      - Management control systems must include RP and safety



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.20. Summary of contributed papers.**

### **■ Theme 2 - Dose assessment and national registries.**

- H. Järvinen, Finland
- O. Ciraj-Bjelac and colleagues, Serbia.
- K. Akahane and colleagues, Japan

All stress the importance of:

- assessing effective collective dose from diagnostic X ray and nuclear medicine examination
- establishing national systems to monitor frequency and doses
- observing trends in frequency and doses



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- **Theme 3 – estimate of collective effective dose.**
  - Methodology and inaccuracies in the estimation of collective effective dose from diagnostic and interventional procedures,  
E. Vano and colleagues, Spain.
    - Description of methods to estimate patient dose and collective dose from diagnostic and interventional procedures grouped into radiography, fluoroscopy, CT, interventional and nuclear medicine considering four age bands 0-15 years , 16 – 39, 40 – 59, 60-99 is given.
    - The results can be used to select priorities for clinical audit and optimization actions.



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

### **■ Theme 4 - Clinical audits.**

- Establishing Clinical Audits in France, M. Lafont, French National Health Authority and colleagues.
  - Clinical audits required by the Euratom Directive 97/43
  - NAH in cooperation with ASN has engaged stakeholders (professionals, institutional representatives, users ) in delveloping methodology for clinical audits focusing on processes and outcomes.
- Active involvement of stakeholders and co-operation between authorities and professionals is important when establishing clinical audits.



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- **Theme 5 – Individual radiosensitivity.**
  - Individual radiosensitivity and increasing medical doses: two serious risk factors for patients, Michel Bourguignon et al, France.
    - Medical exposures are increasing worldwide to levels where the risk may become significant.
    - Individual sensitivity to ionizing radiation is an additional risk factor for 5 – 15 % of population.
    - Repeated medical exposures of young patients hypersensitive to ionizing radiation should be a real concern for radiation protection.



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- Theme 6 – Education and training.
  - **Role of RP in the Schedule of Medical Physics MSc course of BME University.**
    - C Pesznyák et al, Hungary
      - RP is of primary importance in the curriculum of the course
  - **Key role of radiographers in RP in medicine.**
    - S. Huber, Germany
      - Focus on the important role of the radiographer in rp in medicine and the importance of their education and training
  - **Education and training in medical radiation protection: The experience from the MEDRAPET project.**
    - J Damilakis, Greece et al
      - Core task of MEDRAPET is development of new European guidelines on education and training in radiation protection for medical exposures.





## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- Theme 6 – Education and training, cont.
  - **Education and training in RP for Health Care professionals – a Survey in Finland.**
    - R. Havukainen et al, Finland
      - None of the reponding universities fulfilled goals set by STUK for E&T in RP for physician students
      - Half of universities reported that students graduating in other specialities than radiology, clinical physiology, oncology or nuclear medicine received no E&T in RP.
      - Employers feel that graduating physicians do not know enough about RP
      - E&T in RP for other groups than hospital physicist and radiographers does not fulfill the goals set by STUK.
      - Need for increased cooperation between E&T organizations and employers



## **ROUNDTABLE 4: Goals for medical radiation protection in 2020. Summary of contributed papers.**

- Theme 6 – Education and training, cont.
  - EU Project “Guidelines on Medical Physics Expert”, 3 papers by E. Guibelalde, Spain and colleagues**
  - the 1st paper introduces the purpose of the project and provides a general overview
  - the 2nd paper presents a proposal for qualifications and curricular framework for the MPE in Europe.
  - The 3rd paper focuses on how best to estimate the number of MPE ´s needed in a radiology department.

