

13th EAN Workshop
“ALARA and the Medical Sector”

**CONCLUSIONS AND
RECOMMENDATIONS**

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EAN WORKSHOPS

Objectives

- Exchange feedback 😊
 - Different stakeholders
 - Aid the implementation of ALARA in practice
 - Identify issues for further research and developments
 - Provide conclusions and recommendations
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Aims of the 13th Workshop

- to consider how the ALARA principle can be better implemented
 - patient and staff exposures
 - diagnostic and therapeutic uses
- To bring together medical professionals, networks and other stakeholders
 - to exchange practical ideas and experience
 - to identify further improvements for implementing ALARA in the medical sector.

Issues and themes from the 13th Workshop

Oral Presentations



First...

- A lot of information...
- Impossible to cover whole topic...
- A view from an EAN perspective
- Not medical experts!

Participation to the 13th Workshop

- 69 participants, 19 countries
 - Regulatory authorities: 42%
 - Medical sector: 32%
 - Other: 26%
- Not representative of the whole medical sector?
- No manufacturers/suppliers?

ALARA in the Medical Sector

- **MEDICAL EXPOSURES**
 - Wide range of Individual doses - can be (very) high
 - HUGE collective dose
 - Doses increasing
 - Already bigger than natural exposures?
- **BENEFITS**
 - Also HUGE (Individually and collectively)
- **Is the benefit also increasing as fast as the doses?**
 - Overuse?
- **ALARA?**
 - Large potential for reducing doses (and by a large amount?)
 - So is ALARA being achieved?

ALARA drivers and obstacles

- Drivers

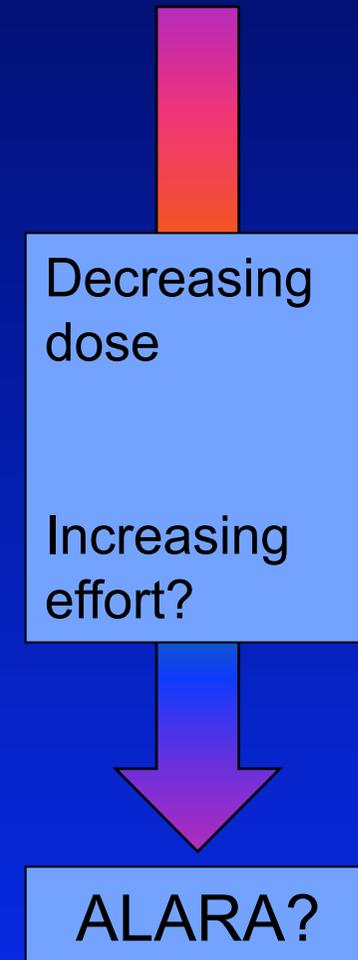
- Regulatory
 - ALARA is the law!
- Self-commitment
- Costs/availability of radionuclides
- Media (bad publicity)
- Hippocratic oath?
- Patient rights?

- Obstacles

- Rapid evolution of technology and procedures
- Limited resources
 - Incl Reg. Authorities
- Lack of ALARA culture
- Doctors!

ALARA means getting personal?

- Optimisation at several levels
 - Generic
 - practices, equipment
 - Procedure-specific
 - DRLs
 - Group-specific (eg children)
 - more DRLs
 - Individually-tailored



ALARA and staff doses

- Some staff doses are very significant
 - And may be higher than we know?
- Same protection philosophy as other sectors (time, distance and shielding)
 - Engineering controls
 - Working procedures
 - Personal Protective Equipment
- Training and information
- Dose assessment (ALARA)



Repeated Themes

- **CT!**
 - gives the biggest collective dose
 - other techniques catching up?
- **Essential ALARA elements**
 - Education and training
 - ALARA culture (ATTITUDE beats KNOWLEDGE!)
 - Multi-disciplinary approach
 - Teamwork (all stakeholders)

Manufacturers

- Play a large role
 - Have a responsibility
 - To enable and support ALARA
 - Need to lobby internationally
 - Engagement and co-operation
 - Mutual trust
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Dose assessment (ALARA essential)

- **Staff**

- Wearing the right dosimeter in the right place
- Dissemination and review of dose records
- Active Personal Dosimeters

- **Patients**

- Format of dose data
 - Processing, recording and collation of data
 - Better Nuclear Medicine (PET) dosimetry
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OTHER ISSUES

- ALARA: diagnosis vs. treatment
- ALARA and screening
- ALARA and Individual Health Assessments
- Medical accidents?
- Deterministic effects (tissue reactions)
- Clinical audits, peer review and self-assessment
- A confusion of Networks?
- And many more.....

Working groups recommendations

- 1A 3 recommendations
- 1B 5 (or 6)
- 2 3 (or 4)
- 3 18!
- 4 4 plus 1 bonus
- TOTAL = 33 to 36

Working groups recommendations

- **EAN dissemination**
 - Website and Newsletter
 - **PAPERS NEEDED!**
 - To partner organisations, societies and networks
 - National Journals (UK, France, Other?)
- **Follow-up (Action Plan?)**
 - EMAN? Others?

Finally...

- **14th EAN Workshop**
 - ALARA in Existing Exposure Situations
 - Dublin Castle
 - 4th – 6th September 2012
 - Details to be announced....
- **15th EAN Workshop**
 - ALARA Culture
 - Croatia, May 2014