

What are the elements of a good ALARA culture in medicine?

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Definition/Elements of RP culture

- ▶ Knowledge; attitude; behaviours; values; beliefs
- ▶ Relies on good relationships (groups & individuals; involvement of Med Physicist)
- ▶ Group or individual culture?
 - Can 'peer pressure' be beneficial?
- ▶ Education & training
 - Education - academic knowledge; training more practical
 - Maintaining culture: continuous professional development/refresher courses; changes in staff
 - Internal multidisciplinary training
- ▶ Sharing a common understanding of risk & safety
- ▶ Components according to field of activity

Training should be practical and multi-disciplinary

Factors affecting implementation of ALARA / good RP practices

- ▶ Working conditions eg stress
- ▶ Lack of staff
- ▶ Patient-centric attitude (in preference to own safety)
- ▶ Cost issues
- ▶ Time issues
- ▶ Difficulty to change habits (I have been working here for 30 years...)

Take time to understand the key drivers in situation

Importance of Management Systems

- ▶ ALARA/RP need to be embedded in the workplace
- ▶ Culture in specific areas (IR/NM etc) subset of broader safety culture, including organizational culture
- ▶ Reporting process (incidents/errors) should be opportunity to learn
- ▶ Senior management & all staff need to be engaged
- ▶ Human factors are important: person; job; organisation

Ensure training includes managers at all levels

Tools and technology

- ▶ Monitoring/dosimetry systems (workplaces, staff & patients)
- ▶ Alarms: not a tool for RP culture but help clinician focus on work
- ▶ Research & development (monitoring & PPE)
- ▶ Training on effective use of tools (PPE etc)
- ▶ Methods to raise awareness of current best practice & new developments
 - information exchange
 - team meetings
 - networking at local, national & international level

Check that RP tools are being used effectively

Regulations & radiation safety culture

- ▶ Many of examples of how Regulations promote a good RP culture eg
 - Training
 - Personal monitoring
 - Local rules
 - RPO
- ▶ A good RP culture supports regulations in embedding safety behaviours

Regulators/inspectors should consider RP culture

Roles of other stakeholders

▶ Regulators

- Should be last resort but more often a starting point

▶ Professional bodies

- Advice and guidance eg on staffing levels, protocols

▶ Manufacturers/suppliers

- Commitment to radiation safety & optimisation

▶ Patients & their representatives

- Central - do we talk to them?

Take time to establish dialogue with all stakeholders

Conclusion & Key Recommendations

Medical sector has specific challenges compared to other radiation-using sectors - for ALARA and radiation safety culture

1. The speed of development of medical radiation technologies and radiopharmaceuticals requires ongoing adaptation in radiation protection
2. Continuing education is required for personnel involved in medical exposures from senior management down. This should include 'soft skills'
3. Communication should be encouraged involving all stakeholders - networking opportunities should be facilitated for sharing/learning from experiences