

Abstract Title:

Radiation safety culture initiatives in x-ray imaging optimisation

Authors of the Abstract

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Abstract text:

Background Risks from radiological imaging are generally poorly understood by patients and many healthcare professionals. The familiarity of x-ray imaging procedures in modern medical practice and the evident benefits of imaging, coupled with the absence of immediate adverse effects of exposure to radiation, can lead to complacency. The breaking of the link between over-exposure and image quality deterioration associated with the transition from screen:film radiography to digital imaging can lead to the phenomenon of dose creep, with doses to patients not as low as reasonably practicable.

Method Whilst never losing sight of the benefits of medical imaging, there is increasing recognition that radiation safety practice in medicine is markedly more lax than in other industries where people are exposed to radiation, notably in comparison with the nuclear power sector. This has led to a number of global developments in recent years aimed at improving radiation protection in medicine, such as the Bonn Call for Action. However, some individuals who have championed improvements in this area have encountered surprising resistance when seeking to encourage optimisation of x-ray imaging.

Results Such experiences have created an increased focus on improving radiation safety culture in medicine. IRPA guiding principles have led to UK initiatives, such as those published by Croft et al and Chapple et al, which not only outline the problem but suggest novel solutions.

Conclusion There is growing recognition of the need to improve radiation safety culture in x-ray imaging, to protect patients from unnecessary exposure to radiation.

References

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Category

Dose optimisation and measurement

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3-6 keywords (in alphabetical order) which will enable subsequent abstracting or information retrieval systems to locate the paper
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