

Guidance on using shielding on patients for diagnostic radiology applications

Joint report of the British Institute of Radiology, Institute of Physics and Engineering in Medicine, Public Health England, Royal College of Radiologists, Society and College of Radiographers and Society for Radiological Protection

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Executive summary

Over the last 70 years or so, it has been a common practice amongst radiological professionals to place radiation protective material directly on the surface of a patient during radiodiagnostic procedures to help reduce the dose to critical organs. This has led to the expectation amongst patients and professionals alike that this would continue. However, an increasing number of studies have raised concerns regarding the efficacy and effectiveness of such 'contact shielding'. This has led to an inconsistency in application and, in some cases, friction between patients demanding shielding and professionals judging it is unnecessary or even potentially harmful.

Therefore a working party consisting of representatives from various UK radiological professional bodies was established to consider the evidence-base for patient contact shielding and produce a consensus of opinion as to what constitutes best and agreed practice, with the aim of improving consistency in application of such shielding.

This work challenges the historical perspective that using contact shielding only provides a benefit for the patient. Rather it suggests that contact shielding can adversely interfere with the imaging (leading to a repeat test) and, if misplaced or allowed to move during an examination, can actually lead to increased patient radiation exposure, rather than the reverse. Overall, the findings suggest that contact shielding provides minimal or no benefit and professionals should concentrate on other areas of radiation protection which are more effective in optimising the patient radiation exposure.

The recommended cessation of the widespread practice of applying patient contact shielding requires a major cultural change in outlook regarding radiation safety and practice amongst medical professionals, educators, regulators and the public alike. The adoption of these guidelines into clinical practice will therefore also require a suitable education programme which could incorporate some of the material provided here.



Public Health
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Guidance available
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The British Institute of Radiology
48-50 St John Street
London
EC1M 4DG

T : +44(0)20 3668 2220
E : admin@bir.org.uk

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