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### Why Dose? And Why Now?



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## RADIATION DOSE - THE RESPONSIBILITY OF ALL

The demand for medical imaging examinations is constantly growing, making safety and quality in radiological practice and the risk of unnecessary radiation more important than ever.

Public awareness and concern have grown across a wide range of media. People are worried, they receive conflicting, sometimes confusing information, and they come to the radiology department with these concerns.

Worldwide, stakeholders and educational initiatives have responded to the challenge of radiation dose awareness, and regulations are starting to mandate radiation tracking.

The European Council Basic Safety Standards Directive (Council Directive 2013/59/EURATOM of 5 December 2013) lays down basic safety standards for protection against the dangers arising from exposure to ionising radiation. EU countries must ensure compliance in national legislation by 6 February 2018.

The International Commission for Radiation Protection (ICRP) calls for imaging examinations to be performed adhering to the three fundamental principles of "justification, optimisation, and limitation".

Nevertheless, reduction of patient dose and risk should never be made at the expense of diagnostic imaging performance. The diagnostic value and the potential risks of an examination should be balanced and it is the responsibility of any radiology department to justify, optimise and limit radiation dose, keeping patients and referring doctors informed.

This special report reviews the initiatives of key European and International organisations, tools and educational supports that are available, the regulations and guidelines in place, how radiology departments can rise to the challenge, as well as a case study of how one department implemented dose monitoring software.

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