The clinical value of the CT image produced for attenuation correction

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Attenuation correction to improve image quality, particularly in nuclear cardiology, is now largely undertaken by the use of low dose CT data acquired on hybrid SPECT CT gamma cameras. These devices generate a CT image set, of variable quality depending on the specification of the CT gantry, which in most centres is disregarded for the purpose of diagnosis. However as the specification of CT gantries installed in SPECT CT devices evolve, the quality of these CT images is improving. This raises an ethical dilemma – ie should these images be reported – which has a reflection in the legal framework governing medical radiation exposures in the EU and particularly in the Ionising Radiation (Medical Exposure) Regulations in the UK, which require the recording of an interpretation for all medical exposures.

This presentation will explore some of these issues in greater detail, and present some preliminary results from the Salford SPECT CT Research group project which is looking at the incidence of CT detected abnormalities in the chest CT element of nuclear cardiology procedures undertaken at six centres in the North West of England, and the possible clinical consequences of these for patients at one centre.