

Dose can still be reduced even when no upgrade is possible

Patient dose from medical imaging, particularly CT, SPECT/CT and PETCT, is currently a hot topic in the UK with most major manufacturers implementing low dose protocols on their latest models.

"However, many UK hospitals have installations of existing systems that, while perfectly functional, require higher doses to deliver diagnostic quality images," points out Holley Consulting, a company that sells and markets medical technology and services in Europe, including Sapheneia Clarity CT.

"Upgrading to a lower dose system may not be an affordable option. Sapheneia Clarity CT Solution software provides a cost effective solution to upgrade existing systems or enhance a new system that does not offer low dose protocols," adds the company.

Sapheneia Clarity CT's dose reduction software is said to allow 30-50 per cent dose reduction without loss of image quality. It uses an adaptive iterative post-processing algorithm that allows for concurrent optimisation of edges and 3D structures. Image enhancement settings are optimised for anatomy specific details of texture scale and morphology. For example, soft tissue will be filtered for noise reduction while a higher contrast filter is applied to the lung to enhance visibility of small structures.

The low dose images shown below are from a Siemens Biograph PETCT scanner using 30mA tube current. The image on the left is noisy due to poor statistics caused by low tube current, however, after processing with Sapheneia Clarity the right hand image shows significant reduction in noise and increased contrast without loss of the fine detail.

Clarity CT solution supports current and earlier CT systems from all manufacturers. It is compliant with the Dicom 3.0 standard for integration into existing workflows.

INQUIRY REF 455011



Before processing with Sapheneia Clarity CT.

After processing with Sapheneia Clarity CT.