HealthManagement
Promoting Management and Leadership

Siemens Upgrade Options for Era of Tight Budgets

By offering new upgrade options for hard- and software, Siemens Healthcare supports hospitals and practitioners operating under tight budgets. Siemens Healthcare offers systems that can be extended to additional functionalities when needed. In the field of magnetic resonance imaging, Siemens makes the latest technological innovations available to its customers as so-called “fit upgrades”. Customers will be able to upgrade their existing systems Magnetom Verio, Magnetom Avanto and
Magnetom Trio with Tim 4G, the fourth generation of integrated coil technology Tim (Total imaging matrix), and Dot (Day optimizing throughput).

Tim 4G offers ultra high-density local coils combined with the highest number of receive channels and a unique digital radio frequency (RF) architecture. The result: high image quality with high signal-to-noise and faster image acquisition. Dot includes customisable presettings which enable high consistency, productivity, and
greater ease of use.

The MR software platform Syngo MR D13 offers a range of new functionalities for image acquisition as well as new options for breast, spine, and large joint examinations. The application Syngo Warp allows for imaging of anatomical details around MR-conditional metal implants. Syngo Resolve can be used for high-resolution diffusion-weighted imaging. The new acquisition technique Caipirinha shortens complex examination times. Liver scan times can be reduced by half to 10 seconds – a comfortable time for a patient’s breathhold. Syngo MR D13 is available for MR scanners Magnetom Aera 1.5 Tesla (T) and Skyra 3T as well as Magnetom Avanto 1.5T and Verio 3T systems – for new systems as well as for field upgrades.

Siemens Healthcare presented a new mammography system that reduces radiation dose by up to 30 percent compared to its predecessor model – and can be extended to tomosynthesis and biopsy. The Mammomat Inspiration Prime Edition works
without the current scatter radiation grid. Thus, the primary radiation which is crucial for diagnosis can be used completely. At the same time, a new algorithm identifies scatter-causing structures and calculates a corrected image. The result: high-quality images with less dose.

The 3D breast tomosynthesis option enables a more accurate diagnosis of lesions than before and reduces the number of false positive findings. During the examination, the X-ray tube moves in a 50-degree arc – the biggest one in the
market – around the breast, taking 25 low-dose images. For a more reliable diagnosis, Siemens offers a new HD (high-definition) Volume Reconstruction software, which provides enhanced spatial and depth resolution for especially
reliable diagnosis.

The unit for stereotactic biopsy slides on the full-field detector of the mammography platform and automatically switches to the biopsy mode. The system enables vertical or lateral needle access to lesions. Stereo images support accurate collection of tissue.

In computed tomography, Siemens scanners from Somatom Emotion to the highend models Somatom Definition Edge and Dual-Source-CT Somatom Definition Flash can be equipped with Fast Care technology. The Fast-applications – Fully
Assisting Scanner Technologies – help to make time-consuming and complex procedures faster as well as far more intuitive. The Care applications – Combined Applications to Reduce Exposure – contribute to keeping the dose as low as
possible.

With the following scanners, customers can take advantage of iterative reconstruction: For Somatom Emotion, the worldwide top-selling CT, Iris (Iterative Reconstruction in Image Space) is available as an option. From Somatom Perspective to Somatom Definition Flash, Siemens offers Safire (Sinogram Affirmed Iterative Reconstruction), a similar application that can reduce radiation doses up to 60 percent or improve image quality. Existing installations of these systems can be upgraded with Iris or Safire.

The 64-slice configuration of Somatom Perspective – shown for the first time in Europe at ECR 2013 – allows customers to extend their systems to 128 slices in the future. Thus, they can better use their CT scanner for demanding clinical fields such
as cardiac imaging or emergency diagnostics.

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