SIEMENS Healthineers

Press

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New Cios Alpha mobile C-arm from Siemens Healthineers increases precision in surgery

- Most possible detailed imaging while keeping the dose as low as possible
- Optimized dose management
- Improved system handling concept to make work flow more intuitive during surgery
- Expanded range of possible applications: additional applications available from the Digital Ecosystem Store[3]

Siemens Healthineers presents its new mobile C-arm, the Cios Alpha[1], at this year's Charing Cross International Symposium for vascular and endovascular procedures. The new version of the device comes with revised retina technology, and has an integrated CMOS detector for the first time. This makes it possible to produce x-ray images with particularly high resolution and sharp contrast, which enables a very high degree of precision during vascular surgery, for example. Access to the CARE (Combined Applications to Reduce Exposure) technologies from Siemens Healthineers also means surgeons can individually adapt the dose used for each patient. A revised system handling concept that includes new elements like the Wireless Footswitch[2] makes work processes in the OR easier and faster, while the antimicrobial surface of the system makes the hygiene aspects easier. An interface to the Digital Ecosystem[3] from Siemens Healthineers lets users expand the range of functions offered by their mobile C-arm to include additional applications of their choice.

"One of the consequences of the expansion of precision medicine in surgery is the need to individualize decisions regarding diagnostics and treatment as much as possible for each patient," says Peter Seitz, head of Surgery at Siemens Healthineers. "The new technologies for Cios Alpha are designed to help our customers deal with each patient in the most appropriate way, with the most possible detailed imaging while keeping the dose as low as

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possible, in order to improve the result of treatment."

Reducing the dose in image-guided treatment often results in inadequate image quality, whereas a high dose will provide better images but pose a health risk for the patient, surgeon and other employees.[4] This is why the new Cios Alpha includes a range of functions that will help reduce the dose while maintaining the best possible image quality. While various CARE technologies from Siemens Healthineers help the treating physician keep the dose as low as possible, the new algorithms for imaging achieve excellent image quality in conjunction with the new CMOS detector. For example, predefined examination profiles with an appropriate dose setting can be selected while surgery is in progress, and smart x-ray screens can be used to target the radiation accurately. Laser light marks[2] on the patient are used to guide the mobile C-arm to the correct position with no use of radiation. Intelligent power management automatically adjusts system power to the requirements of the procedure. And an active cooling system protects the device against overheating, to ensure that a consistently high image quality is maintained, even during very long surgical procedures.

The new Cios Alpha supports Cios OpenApps for mobile C-arms, thus integrating the system in the Digital Ecosystem of Siemens Healthineers. Users can select and download applications directly from the Digital Ecosystem Store without having to invest in additional hardware. After downloading, the application is immediately available on the mobile C-arm, and can even be tested up to 90 days at no cost. For the market launch of the new mobile C-arm, applications from Pie Medical Imaging BV[5] are available for use in vascular surgery, like CAAS QVA for quantitative vascular analysis. The Digital Ecosystem from Siemens Healthineers is continuously developing and growing, opening up new options for healthcare providers across the globe to efficiently introduce digital health offerings into their institution. The offerings available in the store of the Digital Ecosystem are either cloud-based or locally installed deployments.

[1] Cios Alpha VA30 is currently under development; is not for sale in the U.S. Its future availability cannot be guaranteed

[2] Optional

[3] The Siemens Healthineers Digital Ecosystem is under development and not commercially available in the U.S. and other countries. The services may not be commercially available in all countries due to regulatory or other reasons.

[4] See for example Tamer El-Sayed, Ashish S. Patel, Jun S. Cho, James A. Kelly et al. 2017. Radiation-Induced DNA Damage in Operators Performing Endovascular Aortic Repair. Circulation. 2017 Dec 19;136(25):2406-2416. doi: 10.1161/CIRCULATIONAHA.117.029550. Epub 2017 Oct 20.

[5] Siemens is neither the provider nor reseller nor legal manufacturer of these products. Any claims made for this product are under the sole responsibility of the legal manufacturer. Additionally, they may not be commercially available in all countries. Please contact the legal manufacturer for more information

This press release and a press picture is available at

https://www.healthcare.siemens.com/press-room/pressreleases/pr-20180423012hc.html

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Siemens Healthineers enables healthcare providers worldwide to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, improving patient experience and digitalizing healthcare. A leader in medical technology, Siemens Healthineers is constantly innovating its portfolio of products and services in its core areas of diagnostic and therapeutic imaging and in laboratory diagnostics and molecular medicine. Siemens Healthineers is also actively developing its digital health services and enterprise services.
In fiscal 2017, which ended on September 30, 2017, Siemens Healthineers generated revenue of €13.8 billion and profit of €2.5 billion and has about 48,000 employees worldwide. Further information is available at www.siemens-healthineers.com.