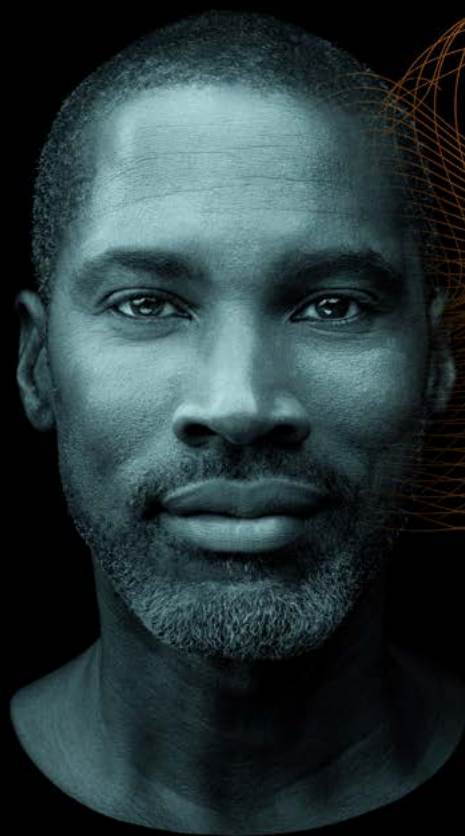


SOMATOM On.site

Bringing critical care imaging to your patient

siemens-healthineers.us/somatom-on-site







Providing CT scans of the head for ICU patients is crucial but often challenging

ICU (Intensive Care Unit) patients suffering from acute and neuro critical conditions face a high risk of sudden health status deterioration. When this happens, fast evaluation is essential for immediate treatment decisions. CT scans are typically suited for this task – but providing imaging for ICU patients is often cumbersome and does not come without risk.



CT scans of the head are in high demand

Head scans are among the most common procedures for ICU patients and account for 30% of all CT scans.¹



ICU patient transport involves logistical and staffing challenges

Transporting patients from the ICU to the radiology department is a delicate and complex process that requires up to five staff members² to leave their other duties behind.



Transport may negatively affect the patient's health status

Providing CT imaging requires transporting ICU patients to the radiology department. However, for 1 in 5 patients, transport makes existing health conditions worse.³



ICU patient scans complicate radiology department schedules

Patients with acute and neuro critical conditions tie up CT scanners for at least twice as long as most other patients.^{4,5} Transports are also frequently delayed,² making it necessary to reschedule other patients.





Bringing critical care imaging to your patient

Siemens Healthineers SOMATOM On.site provides mobile head CT imaging with reliable and consistent SOMATOM image quality, right at your patient's bedside. Thanks to the latest advances in digital healthcare, the intuitive and easy Touch UI with myExam Companion in combination with our GO technologies guides users through the scanning process. With this workflow guidance the system is easy to use and enables greater consistency in image acquisition and quality across your team.

SOMATOM On.site will change the way you care for ICU patients suffering from acute and neuro critical conditions. Reducing or eliminating transport to the radiology department for CT imaging of the head may help prevent related complication risk and allows your staff to concentrate on what matters most: providing optimal care for all patients within the department. With this fast access to mobile CT imaging of the head directly at the point of care, physicians can reach fast treatment decisions and changes in the patient's condition or arising complications for better outcomes. Additionally, offering CT imaging directly in the ICU allows the radiology department to maintain their scheduling.

With SOMATOM On.site, you can transform care delivery.

See for yourself

Our workflow video demonstrates how point-of-care CT scanning works with SOMATOM On.site.

[➤ Click here to see video](#)



Transform care delivery with SOMATOM On.site

Minimize patient transports

SOMATOM On.site offers CT imaging of the head directly in the ICU, reducing patient transports and risk. Acquiring images directly at the patient's bedside enables physicians to reach fast treatment decisions, therefore supporting better outcomes.

Optimize staff deployment

SOMATOM On.site reduces the need for transporting patients to the radiology department for CT scans of the head. ICU staff can remain in the ICU and focus more on their core tasks and patient care. Offering bedside CT head imaging for critically ill patients can increase workforce efficiency and streamlines the imaging workflow.

Achieve reliable and consistent image quality at the Point of Care

SOMATOM On.site brings SOMATOM image quality to the patient's bedside. All by combining proven technologies from existing SOMATOM scanners with additional newly designed components.

Point of Care imaging reduces the number of ICU patient scans that need to be performed in the radiology department, potentially resulting in more streamlined utilization of stationary systems and staff, along with more predictable radiology appointment schedules.



Experience easy bedside imaging

SOMATOM On.site streamlines the imaging workflow and enables access to SOMATOM image quality for critically ill patients directly in the ICU.

Mobility for convenient driving and maneuvering

The SOMATOM On.site offers bedside imaging with a slim and easy system design and ergonomic drive handle that enables easy maneuverability even in small spaces.

For enhanced safety, the SOMATOM On.site is equipped with an integrated camera that provides the user real time viewing when driving and maneuvering the system.

Eliminating patient positioning challenges

SOMATOM On.site features a telescopic gantry and stationary system trolley during scanning that provides ample space for patient positioning and keeping your patient connected to monitoring equipment and lines. The system also includes convenient integrated patient support accessories. To position, the user would slide the patient's body up in the bed, onto the integrated body support, known as the shoulder board for neuro imaging, positioning their head in the integrated patient support, known as the head holder for neuro imaging. SOMATOM On.site's design and integrated accessories help with positioning patients at isocenter within the gantry for optimal image quality.



Easy scan set up and fast workflow



Select your patient via the intuitive user interface of SOMATOM On.site.



Choose your preferred scan protocol for image acquisition.



Scan&GO allows you to setup and perform the scan right at your patient's bedside.



Recon&GO performs automated postprocessing and automatically uploads images to PACS.

Fast and intuitive scan preparation

SOMATOM On.site leverages key digital healthcare innovations to unleash the full potential of modern imaging technology – independent of the operator's experience. The scanner offers a Touch UI and intuitive, easy user interface, thanks to myExam Companion.

In addition, SOMATOM On.site features workflow guidance provided by GO technologies. Scan&GO enables users to control the entire scan process via the integrated Touch UI and stay right next to the patient throughout the image acquisition process. A dedicated Recon&GO option performs automated postprocessing and automatically uploads images to PACS. As a result, physicians receive comprehensive results with reliable and consistent image quality. Together, these features make scanning intuitive and easy.



Mobile CT imaging with radiation safety for patients and staff

Traditional stationary CT scanners require users to return to the control room during scan acquisition for radiation protection. SOMATOM On.site system design allows users to stay close to patients and remain at their side during scanning.

The self-shielded scanner design, with the attachable radiation shields* for the front and back gantry openings, reduces scatter radiation and provides protection for neighboring patients and staff.



Scan start position



Scan end position

Telescopic gantry for hassle-free acquisitions

The SOMATOM On.site telescopic gantry houses the moving scanner components, with the tube and detector moving away from the patient which reduces the scatter radiation compared to CT scanners without this design. With this technology, the telescopic gantry glides on the stationary system trolley base which remains fixed during scanning, eliminating common problems associated with scanners that move during image acquisition. The many lines and drains typically in place for ICU patients remain unaffected while scanning with SOMATOM On.site, as the front gantry cover remains fixed throughout scanning. Taking scanner, table, and patient movement out of the equation means that you do not have to make any compromises.



CT imaging performance

SOMATOM On.site delivers reliable and consistent image quality with the advantages of mobile CT scanning thanks to a combination of existing innovations from SOMATOM scanners (e.g., low-noise detectors) and newly designed components (e.g., the tube).



Stellar detector

SOMATOM On.site is the first mobile CT system outfitted with our SOMATOM Stellar detector. Stellar detector's technology helps to keep electronic noise low, increases dose efficiency, and improves spatial resolution. It's high channel density and integrated design of the detector results in the grey-white matter differentiation that is crucial for evaluating CT scans of the head.



Dedicated X-ray tube

The dedicated X-ray tube allows for high-quality CT imaging at the patient's bedside and provides an optimized tube spectrum, enabling a CT-value differentiation of 3 HU, the baseline for gray and white matter brain tissue differentiation in neuro imaging, which is comparable with SOMATOM CT scanners Gray value and spatial resolution. The cooling system is a special design combining water and air.

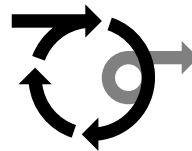
State-of-the-art image reconstruction algorithms

SOMATOM On.site incorporates iterative reconstruction algorithms to help you get the most out of your Point of Care CT imaging.



Metal artifact reduction with iMAR

iMAR (iterative metal artifact reduction) allows for reconstructed artifact reduction without losing valuable information. iMAR is designed to yield images with a reduced level of metal artifacts compared to conventional reconstruction if the underlying CT data is distorted by the presence of metal in the scanned object.



Reducing noise with SAFIRE

This iterative image reconstruction algorithm delivers high image quality at very low doses, reduces noise while maintaining image quality and detail visualization, and provides fast image reconstruction. Multiple iterations are performed to reduce noise without compromising image quality when processing the raw data.



SOMATOM On.site Specifications

Key data

Slices	32
Z-coverage	2.4cm
Collimation	32 x 0.75 mm
Detector	Stellar detector UFC (Ultra Fast Ceramics)
Tube Voltage	80 kV and 120 kV
Tube Current	2-25 mA
kW Output/Generator	3 kW
kV settings	80, 120 kV
Rotation time	1.0 s
Gantry Opening	35cm
FOV	25 cm, HD FOV 35 cm
Scan Range	Up to 25 cm
Iterative Reconstruction	SAFIRE, iMAR
Tube Cooling	Hybrid (air & water)
Driving Mode	Motorized trolley with integrated camera
Accessories	Integrated patient support accessories Body support (Shoulder board for neuro imaging) Scan support (Head holder for neuro imaging)



*System weight: 975 kg / 2149.5 lbs. without radiation shields – weight is subject to change

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An estimated 5 million patients globally benefit every day from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics, and molecular medicine, as well as digital health and enterprise services.

We're a leading medical technology company with over 120 years of experience and 18,500 patents globally. With about 50,000 dedicated colleagues in over 70 countries, we'll continue to innovate and shape the future of healthcare.

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References:

¹ Data on file.

² Barnes E. *Portable CT brings lower costs, reduce risk to ICU.* AuntMinnie.com; 2008.

⁴ *Anticipating unique disruptions. PwC's 21st CEO Survey: key findings from the healthcare industry [homepage on the internet].* PwC Turkey; 2018 [cited 2019 Aug 6]. Available from: <https://www.pwc.com.tr/en/yayinlar/arastirmalar/ceo-survey/21-ceo-arastirmasi/saglik-sektoru-sonuclari.html>.

⁵ Agrawal, D et al. (2016). *Bedside computed tomography in traumatic brain injury: Experience of 10,000 consecutive cases in neurosurgery at a level 1 trauma center in India.* *Neurol India.* 2016 Jan–Feb; 64(1):62–365. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/26754994>.

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