

Computer tomograph on rails

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For some time now, the German Society for Trauma Surgery (DGU) has been demanding that whole-body CTs be available around the clock near trauma rooms. Until now, this wish was difficult to fulfill, because trauma room CTs are rarely used and therefore not economical. In addition, it is always risky to move [trauma patients](#) around. The installation from Siemens solves these problems.

To create the mobile CT, the experts at Siemens decided to use an enhanced sliding gantry. A CT's gantry consists of the entire rotating unit that contains the radiation source, the detector, and the associated electronics. Whereas conventional CTs have immobile gantries and the examination table moves along with the patient, a sliding gantry moves up to 120 millimeters per second while the patient remains stationary on the table.

What's new about the sliding gantry used in the mobile CT SOMATOM Definition AS is that the top-quality scanner moves on rails that are up to six meters long. The rails are completely submerged into the floor and covered by stainless steel strips so that staff members can walk on them without the risk of tripping. The CT's power cables, data lines, and cooling system are moved along a ceiling-mounted rail. A radio-opaque sliding door can be closed between the two rooms, each of which has its

own examination table.

A crucial advantage of the sliding gantry solution is that severely injured patients requiring diagnostic CT scans don't have to be moved away from the medical systems and stabilization equipment in the trauma room. Polytrauma patients suffer from severe injuries to various parts of their bodies. Life-threatening injuries have to be identified as quickly as possible so that they can be treated first.

The sliding-gantry version of the SOMATOM Definition AS could also be used between other parts of a hospital, for example between the interventional CT room, trauma room, routine examination room, and hybrid operating room.

Provided by Siemens

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