



Exposure of a cleaner during calibration procedure on a hospital CT scanner

Description of the incident

In a radiology department, an operator started the scanner calibration procedure (emission of X-rays without a patient on different slice thicknesses) and left her post for 15 minutes. The scanner calibration is performed between 7:00 and 8:00 a.m. before patients arrive, and the operator is alone during this procedure.

A cleaner, from an external contractor, entered the room to clean, without having been advised of the on-going procedure.

Following this incident, the person competent in radiation protection was informed and proceeded with an evaluation of the equivalent dose received by the cleaner. A warning sign was also posted on the door (which was also fitted with a lock).

Radiological consequences

The whole body dose was estimated to be a maximum of 35 microsieverts, based on pessimistic assumptions.

Lessons to be learned from the incident

An effective warning signal (audible and visible) during the emission of X-rays should be provided (at the time of this incident, this signaling was only required when the equipment was started up).

Access should be effectively restricted during a calibration procedure, and the operator should remain at the control panel. Any change in this procedure should be discussed with the person competent in radiation protection.

Information regarding radiological risks should be provided to all staff, including ancillary staff such as cleaners, especially in the hospital environment. To this end, it is preferable that such staff is permanent.