

Siemens Healthineers Cloud-based Network Helps Comply with the New Euratom Radiation Protection



- Radiation protection directive 2013/59/Euratom will take effect in February 2018.
- · With new functions for dose management, teamplay is already preparing for the EU Directive.

Siemens Healthineers has expanded teamplay ⁽¹⁾, its cloud-based network, to include new functions that will help hospitals and radiology practices comply with the future EU radiation protection directive for radiological imaging. The basic safety standards directive 2013/59/Euratom was published by the European Atomic Energy Community (Euratom) in January 2014 and must be implemented in national law by February 6, 2018. The directive will regulate and optimize radiation protection in the workplace, for the general population, and in medical procedures. Siemens Healthineers enables healthcare providers worldwide to meet their current challenges and to excel in their respective environments. The new functions of the teamplay Dose application will help doctors and medical professionals prepare for the Euratom quality assurance and quality improvement requirements for radiation protection.

The 2013/59/Euratom directive defines basic safety standards for the exposure of personnel and patients to ionizing radiation. Among other things, it contains new stipulations for recording and documentation of doses that occur during medical procedures and for the use of diagnostic reference values. Because the justification² of each individual medical exposure plays a major role in the directive, each administered dose has to be documented and annotated if necessary. The teamplay Dose application helps the operators of radiological imaging facilities to document and monitor patient doses and optimize radiation exposure.

Standardized values – referred to as dose constraints – serve as optimization tools for the Euratom directive. Starting early next year, radiologists will have to be able to prove that they meet national reference values. With teamplay, Siemens Healthineers already offers a solution for radiation dose management in hospitals and radiological practices in accordance with 2013/59/EURATOM. The dashboard on the teamplay home screen indicates how many examinations have exceeded the national reference value or the internal limit of the institution within a defined time period. Teamplay Dose clearly lists all dose outliers and makes it possible to annotate them. To determine the cause for dose outliers, the outliers can be analyzed and compared in detail. The resulting information provides a solid foundation for suitable countermeasures. If the cause for a dose outlier can be attributed to a faulty CT scan protocol, for example, users can use teamplay Protocols³ to immediately access the protocol parameters saved in the CT scanner and initiate measures to optimize the scan protocol.

To objectively compare the dose values of the protocols from a user's facility with those of other facilities, users can utilize teamplay to assign the purpose of the examination to their protocols, regardless of their own protocol names and in accordance with Radlex playbook. The playbook is a terminology and ontology database for radiology.

About teamplay

With teamplay, Siemens Healthcare offers a cloud-based network for physicians, medical professionals, and decision-makers in healthcare. It allows simple evaluation of capacity utilization for imaging equipment, various workflows, and individual tests and examinations. With just one click, it is also possible to compare anonymized data with values for similar healthcare providers. Thanks to centrally controlled updates and upgrades, as well as an intuitively understandable structure, teamplay can be used without advanced training. The network is connected through a receiver to the imaging equipment or the PACS, so it can – depending on the adjustment of the receiver - send DICOM (digital imaging and communications in medicine) data from those systems to the teamplay cloud. For research and teaching purposes, doctors can additionally use the secure cloud to share clinical studies among colleagues⁵. Teamplay from Siemens Healthineers is already being used at more than 700 clinical locations worldwide. Teamplay has recently been awarded the German "Seal of Privacy for IT products" of the Independent Centre for Privacy Protection Schleswig-Holstein (ULD) as well as the European Privacy Seal (EuroPriSe). As such, the processing of patient data complies with the data protection regulations of Germany and the EU.

References:

- 1 teamplay is not yet commercially available in some countries. No undertakings can be given as to its future availability due to the special legal provisions pertaining to medical devices. More detailed information can be obtained from the relevant local Siemens organization.
- 2 Amtsblatt der Europäischen Union, Richtlinie 2013/59/EURATOM des Rates, Artikel 55 (2) b) und c)
- 3 Teamplay Protocols supports selected Siemens scanners.
- 4 Availability of Benchmarking option depends on a minimum number of considered subscribers to guarantee customer anonymity and data protection.
- 5 This information about this product is preliminary. It is under development, not commercially available, and its future availability cannot be ensured
- 6 teamplay CORE applications: teamplay Dose, teamplay Usage and teamplay Protocols has been awarded with the European Privacy Seal and the German "Seal of Privacy for IT products" of the Independent Centre for Privacy Protection in Schleswig-Holstein (ULD).

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