The Clatterbridge Cancer Centre
NHS Foundation Trust, United Kingdom

Reducing radiation dose in specialist cancer care

How one of the UK’s leading cancer centres reduced radiation dose by 17% with teamplay Dose

siemens-healthineers.com/teamplay

Responsible for providing specialist cancer care to 2.4 million people in the North of England, The Clatterbridge Cancer Centre NHS Foundation Trust employed Siemens Healthineers teamplay Dose to optimise radiation dose management.

teamplay Dose is an application hosted on the teamplay digital health platform. The enterprise-wide radiation dose management solution provides patient-centric dose monitoring across all equipment, allowing precise dose audits by the Trust’s Imaging Optimisation Team.

Benefits

- Monitor dose events and easily identify dose outliers
- Drill down to individual procedures and applied dose
- Optimise radiation exposure to improve patient outcome
Expanding precision medicine

Radiation dose management is vital in ensuring compliance with nationally defined reference levels for applied radiation. Teamplay Dose supports and provides easy access to dose data, displaying continuous dose performance evaluation, regardless of equipment, modality or vendor.

As one of the leading specialist cancer centres in the UK, The Clatterbridge Cancer Centre NHS Foundation Trust are committed to delivering best possible experiences and outcomes for patients. Aiming to improve health and wellbeing through compassionate, safe and effective cancer care in their provision of a range of inpatient care, advanced radiotherapy, chemotherapy and other systemic anti-cancer therapies.

Simplifying radiation dose management

Through automatic, real-time dose recording and report generation, Teamplay Dose identified an underlying issue in the patient dose distribution in the chest abdo-pelvis single series examinations performed on the Siemens Healthineers SOMATOM Definition Edge CT system – finding them to be unexpectedly higher than the chest abdo-pelvis contrast which has two overlapping acquisitions. An investigation was launched with a view to making a protocol alteration and optimising the exam. This has led to a 17% mAs reduction from 180 to 150 with negligible loss of image quality.

“Having previously relied on PACS and CRIS for dose audits, Siemens Healthineers teamplay has allowed us to quickly download and process a huge volume of patient dose data so that our dose audits are much quicker and more powerful than before. Because of this, we can audit more of our protocols, and spend more time investigating outliers and unexpected results as opposed to doing data collection.”

Colin Lee – Senior Clinical Scientist at The Clatterbridge Cancer Centre NHS Foundation Trust

Histogram comparing previous dose data with current

Comparison of dose audit data for CAP_SINGLE_RUN protocol pre and post Quality Reference mAs change

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