



Catalan Clinical Audit
Network for Quality Improvement
in Radiotherapy

The role of the RTT

Clinical Audits in Radiation Oncology: Training for Auditors and Auditees

Day 2 (11/06/2025)

Aude Vaandering



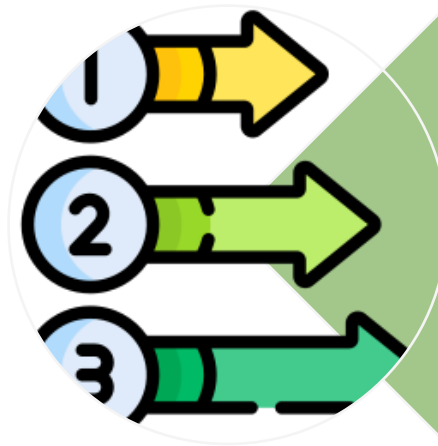
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Definition

What is a clinical audit?



Audit process

How are audits organized? What are the different steps involved in an audit?



Audit methodology

How are the audits carried out? What do the auditors/auditees need to do?



On-site audit methodology

How are the audits carried out? What do the auditors/auditees need to do?



- What is the role of the RTT in the audit process? Are there any particularities?

Radiation Therapists (RTTs)



- This group of professionals working in radiation oncology is referred to **differently** in different parts of the world. Synonyms used include radiation therapists, radiotherapists, therapist-radiographers (to distinguish them from diagnostic radiographers) and radiology technician and nurse
- Typically the largest group of professionals in a radiotherapy department

Radiation Therapists' roles

Roles include:

- Operating teletherapy machines: linacs, 60Co units, and superficial and orthovoltage X ray units;
- Operating simulator and other imaging devices for therapy purposes: CT scanners and simulators;
- Providing mould room services: production of immobilization masks, lead blocks, etc.;
- Under the supervision of medical physicists, they may also calculate the monitor units for treatment, carry out treatment planning and operate HDR brachytherapy equipment
- Other roles...consultations, IGRT - SGRT specialists, adaptive treatments...

→ RTTs are the professionals most **closely associated with many patients** as they meet them every day for many weeks

→ *This relation allows for early detection of problems/side-effects and ensures high patient satisfaction*



Radiation Therapists' roles

Roles vary greatly accros European countries:

- Recommended education: ESTRO benchmarking document

https://www.estro.org/ESTRO/media/ESTRO/Education/ESTRO-RTT-Benchmarkingdocument_rebranded.pdf

- Future roles:

- Michelle Leech et al. The Radiation Therapist profession through the lens of new technology: A practice development paper based on the ESTRO Radiation Therapist Workshops, Technical Innovations & Patient Support in Radiation Oncology, Volume 30, 2024, <https://doi.org/10.1016/j.tipsro.2024.100243>.



The RTT in the audit



- Typically, the best professional to review the patient workflow
- Will spend an important amount of time on the simulation and treatment units: to observe and review documentation
- Will also evaluate ease/facility in error/incident reporting
- Will also review:
 - Human resource management and training
 - Ease of communication between the different members of the team (intra and inter-professional communication)



Tips and tricks for the RTT

Before the
audit

Before the audit

- Look at the ("RTT dedicated") checklist
- Look at the website of the hospital
 - *Web-page dedicated to the radiotherapy department?*
 - *What is the content?*
 - *Information for patients?*
 - *Accessibility information?*

Audit

After the
audit





Tips and tricks for the RTT

Before the
audit

During the audit

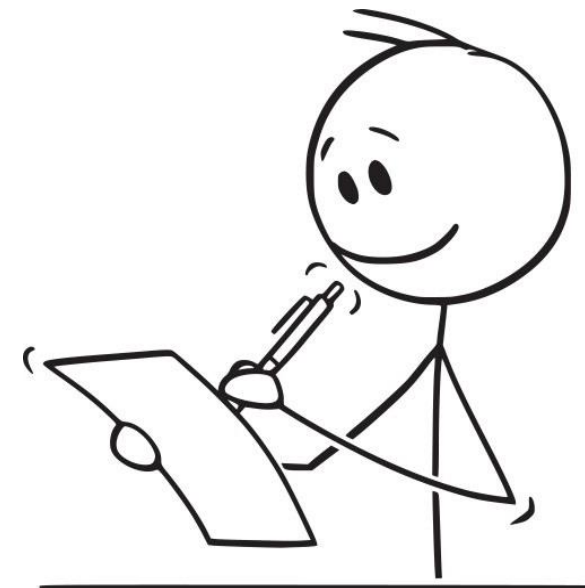
Difficult in having dedicated time

- Observe
- Take pictures!!
- Take notes

Look at patient workflow and RTT's work and work environment

Audit

After the
audit





Tips and tricks for the RTT - Infrastructure

Before the
audit

Audit

After the
audit

- The **waiting area**
 - *Large enough? Enough seats?*
 - *Patient information brochures?*
 - *Is there a toilet nearby?*
- **Simulation and treatment units:**
 - *Privacy issues?*
 - *Ease of movement/equipment storage/*
 - *Sinks (hygiene)?*
 - *Access to screens/set up visualization?*
- Does the infrastructure facilitate communication and data transfer?





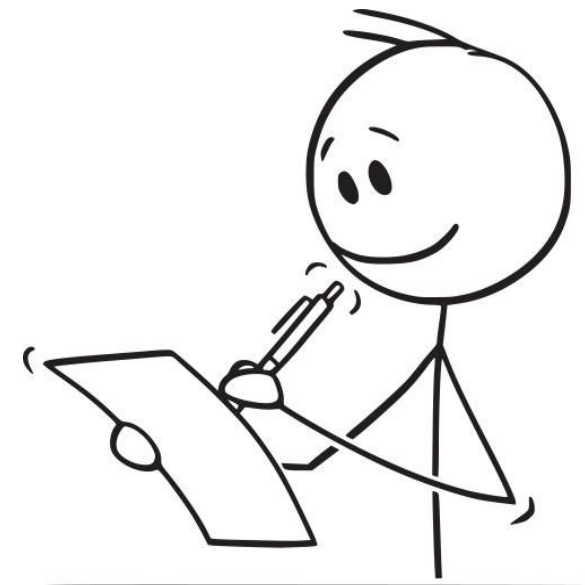
Tips and tricks for the RTT -Personnel

Before the
audit

Audit

After the
audit

- **RTT workload**
 - *Too many patients at simulation? On treatment?*
 - *Turn-over rate?*
- **RTT roles and organisation:**
 - *What are the roles and scope of practice of the RTTs?*
 - *Is there a head RTT?*
 - *How is the work schedule organized? Shifts?*
 - *Machine rotations?*
- **Communication** within the team/with the other professional groups





Tips and tricks for the RTT – Clinical workflow

Content dependent on checklist

Before the
audit

Audit

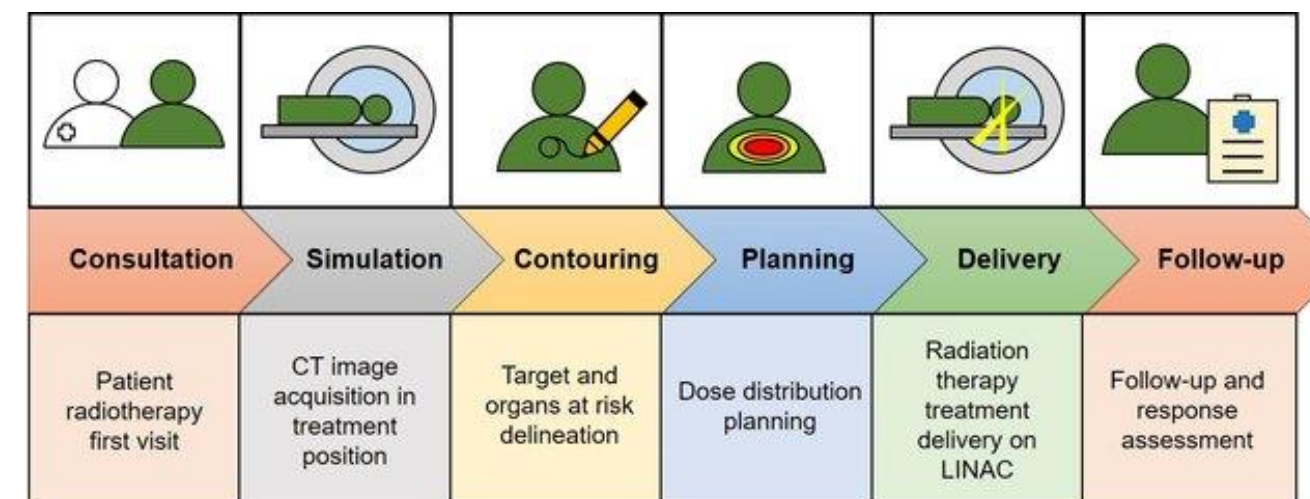
After the
audit



RTT dedicated checklists?

- Patient assessment
- Access to diagnostic procedures
- Multidisciplinary Medical Approach
- Practice guidelines
- **Research & Clinical trials**
- **Patient information and consent**
- **Treatment preparation and image acquisition infrastructure**
- **Simulation procedures**
- **Simulation workflow**
- Generation of target volume and OAR delineations

- Treatment prescription
- Treatment planning
- **Pre-treatment checks**
- **Patient identification on a daily basis**
- **Patient set up and set up verification**
- **Treatment delivery**
- **Professional behaviour**
- Documentation of treatment summary
- Patient follow-up



* RTT focus



Tips and tricks for the RTT – Clinical workflow

Content dependent on checklist

- **Some elements** to consider
 - *How is the identification of the patient done?*
 - *Do the RTTs perform a small anamnesis before treating the patient?*
 - *Is there any written report of their observations?*
 - *Is the workflow carried out during simulation and treatment optimal for patients? For RTTs?*
 - *IGRT – roles, responsibilities and workflow*
 - *Patient communication*
 - *Hygiene protocols*

Before the
audit

Audit

After the
audit





Tips and tricks for the RTT – Equipment

Before the
audit

Content dependent on checklist – RTT focus will often be on immobilization devices and IGRT

- *Is the equipment in good condition? Is the equipment in line with its use?*
- *Do the RTTs have a role in equipment quality control procedures?*
- *Do RTT have a role in equipment selection?*
- *Are the RTT adequately trained in using the equipment?*

Audit

After the
audit





Tips and tricks for the RTT – Important considerations

Before the
audit

The RTT auditor should also assess

- *What is the role of the RTT within the multidisciplinary team? Role in management decisions?*
- *How are new RTTs trained? Do RTTs have access to continuous professional training?*
- *Role of RTTs in error/incident reporting? In incident/error analysis?*

Audit

After the
audit





Tips and tricks for the report?

Before the
audit

- The RTT will first focus on the parts **where he/she was most involved**
- It is then important to **read the whole report** in order to ensure that there are
 - No contradictions
 - Missing observations

Audit

After the
audit



To be started as soon as possible



Any Questions?