



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



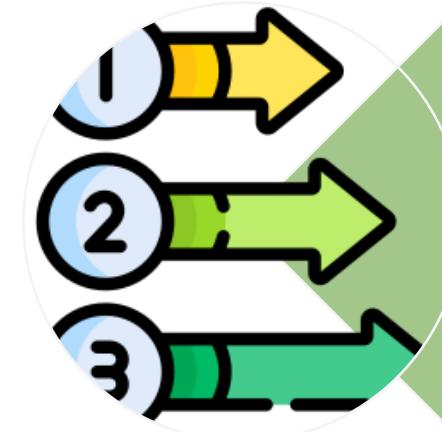
Co-funded by
the European Union

CAT·ClinART



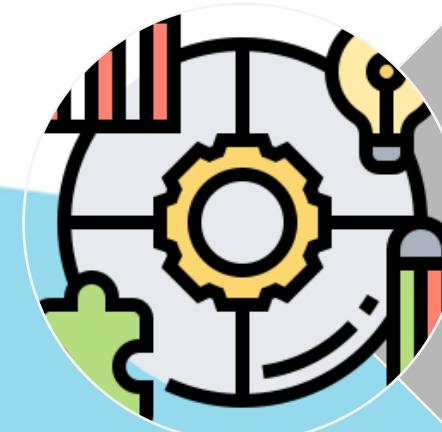
Definition

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



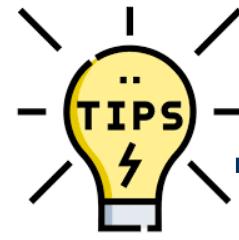
-Future roles:

- 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>.

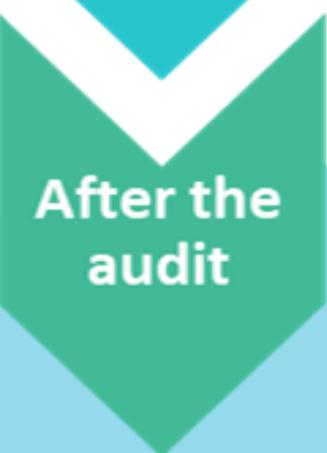
The RTT in the audit

- 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)





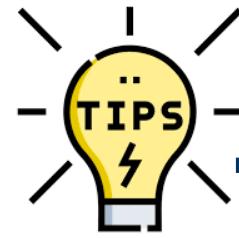
Tips and tricks for the RTT



Before the audit

- 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?





Tips and tricks for the RTT



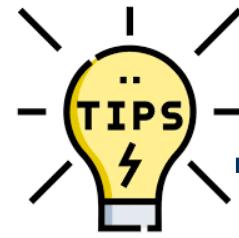
During the audit

Difficult in having dedicated time

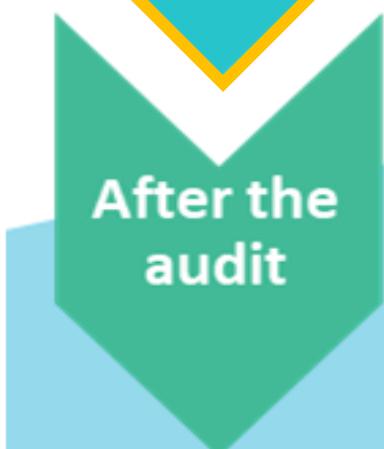
- Observe
- Take pictures!!
- Take notes

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



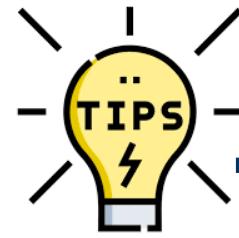


Tips and tricks for the RTT - Infrastructure

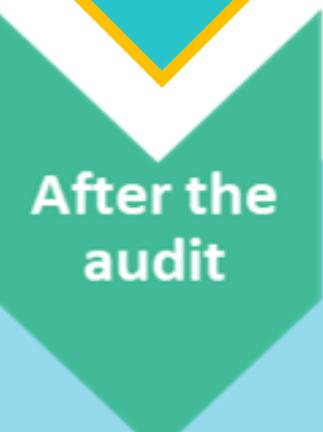


- The **waiting area**
 - Large enough? Enough seats?
 - Patient information brochures?
 - Is there a toilet nearby?
- **Simulation and treatment units:**
 - Privacy issues?
 - Ease of movement/equipment storage/
 - Sinks (hygiene)?
 - Access to screens/set up visualization?
- Does the infrastructure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





Tips and tricks for the RTT -Personnel



- **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

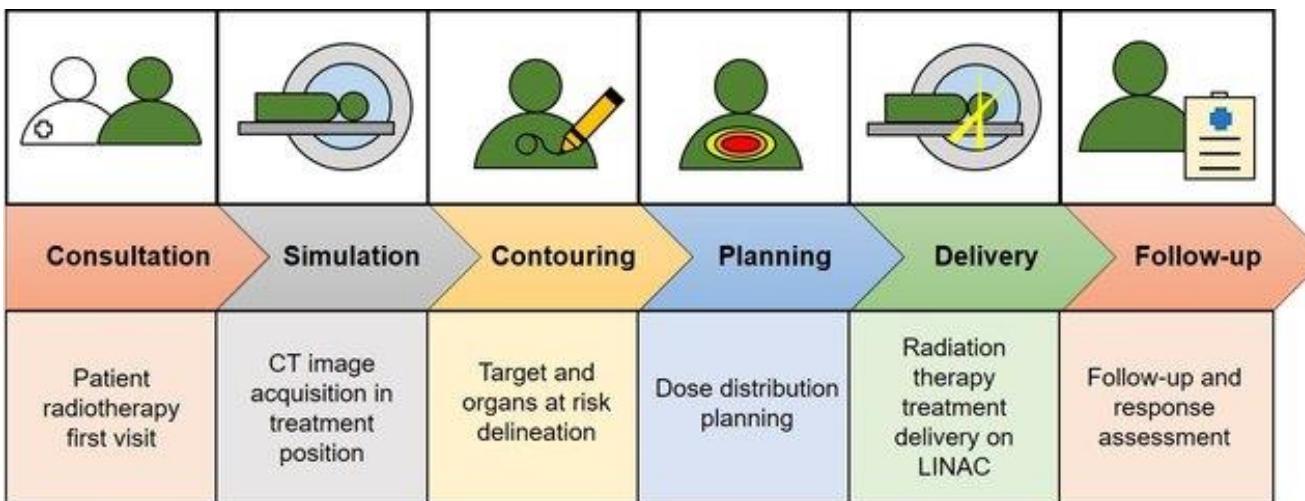


Content dependent on checklist



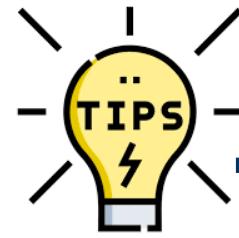
RTT dedicated checklists?

- 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

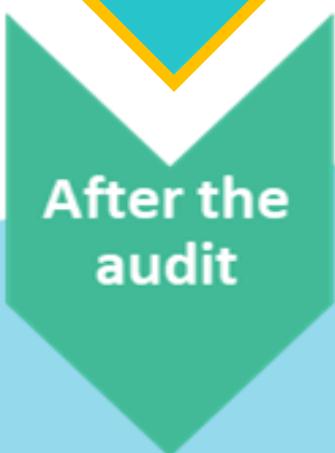


- Treatment prescription
- Treatment planning
- **Pre-treatment checks**
- **Patient identification on a daily basis**
- **Patient set up and set up verification**
- **Treatment delivery**
- **Professional behaviour**
- Documentation of treatment summary
- Patient follow-up

* **RTT focus**



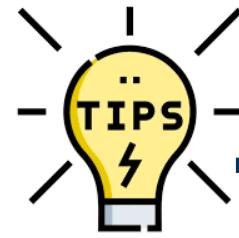
Tips and tricks for the RTT – Clinical workflow



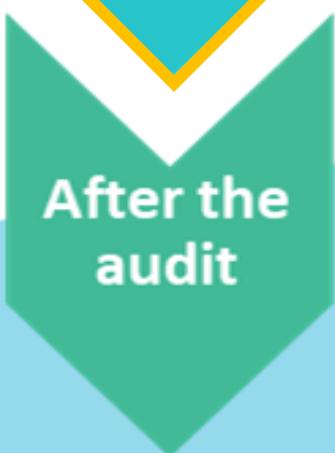
Content dependent on checklist

- **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*





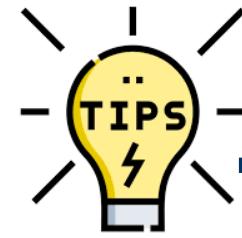
Tips and tricks for the RTT – Equipment



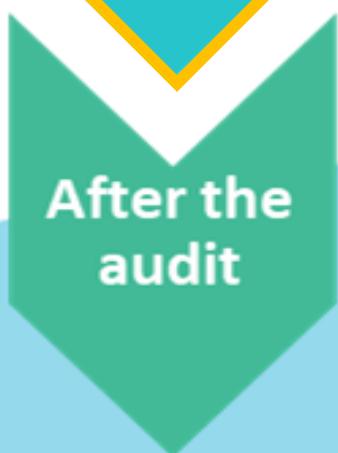
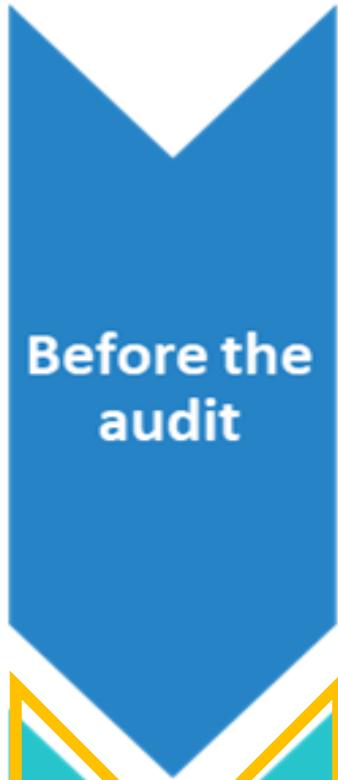
Content dependent on checklist – RTT focus will often be on immobilization devices and IGRT

- *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?*





Tips and tricks for the RTT – Important considerations



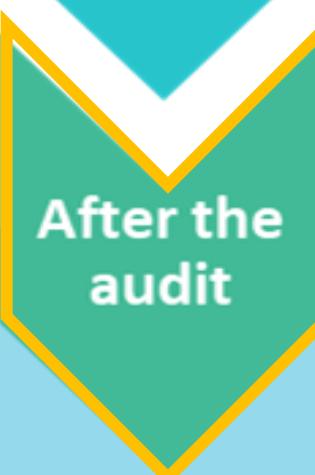
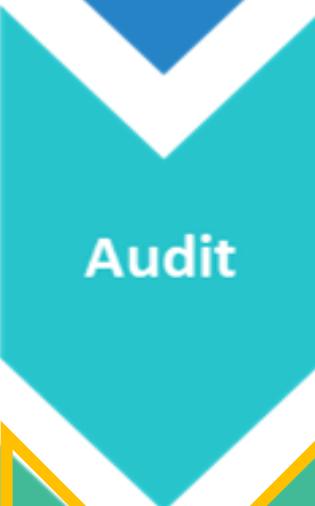
The RTT auditor should also assess

- *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?*

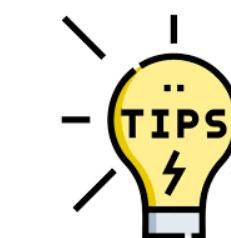




Tips and tricks for the report?



- 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



To be started as soon as possible





Co-funded by
the European Union



Any Questions?