



Catalan Clinical Audit  
Network for Quality Improvement  
in Radiotherapy

# Audit QUATRO team

Prof. Dr. Dirk Verellen



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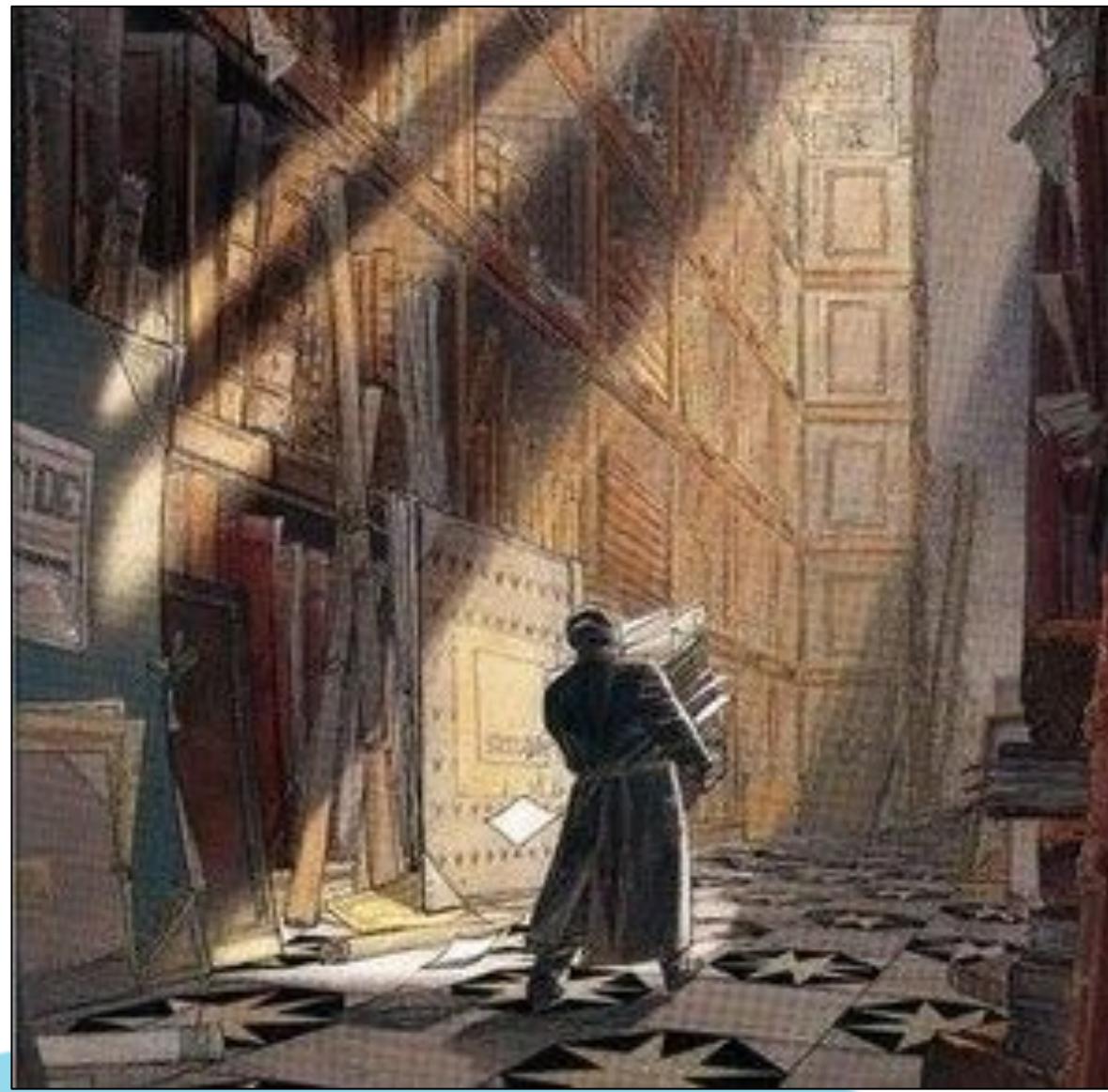


# Objectives of the lecture

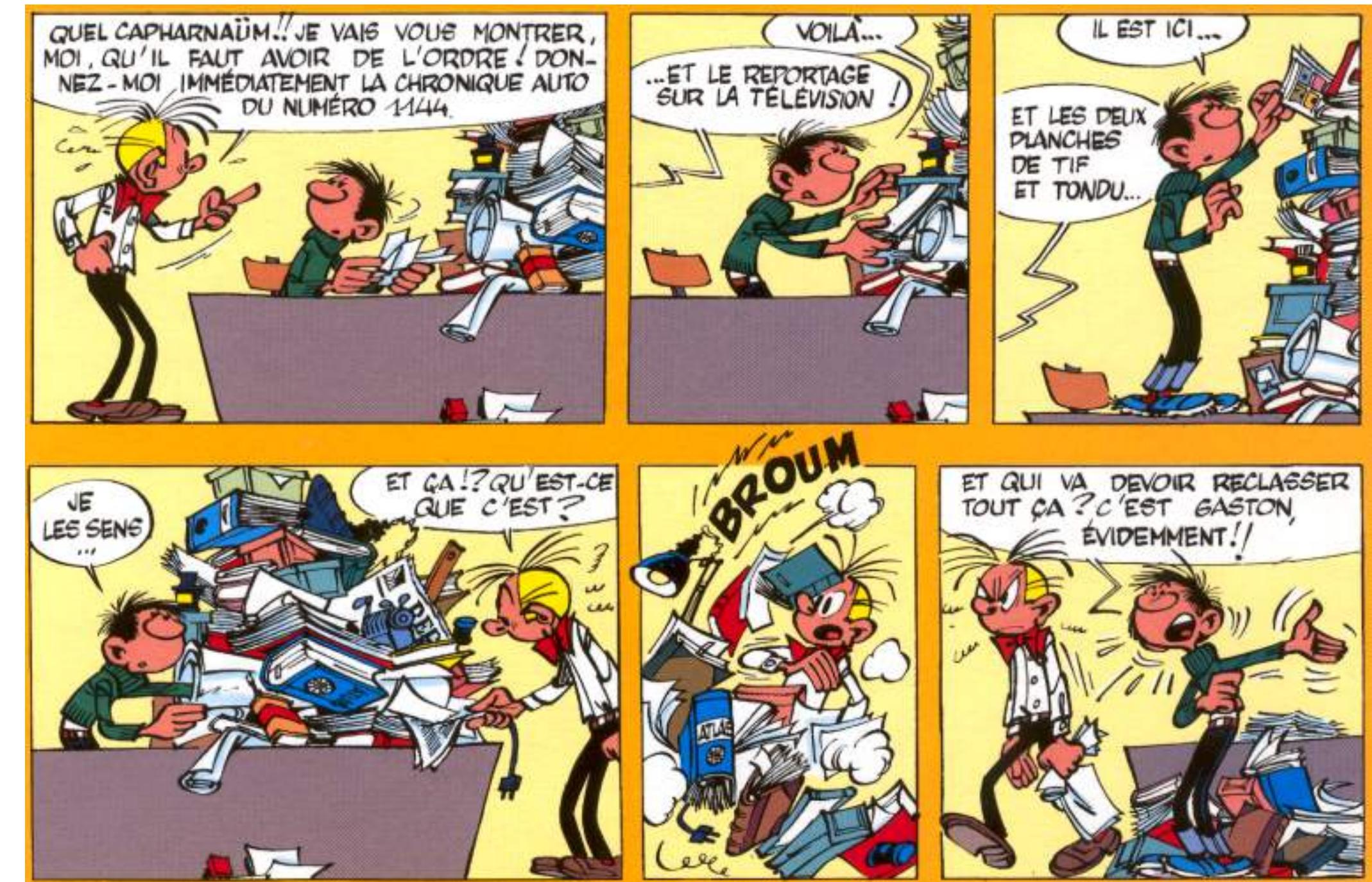
- Discuss the need for a team approach in radiotherapy
- Introduce the members of the team and their roles
- Consider skills of the team that are not specific to any of the professions



# The aim of the audit ... is not ...

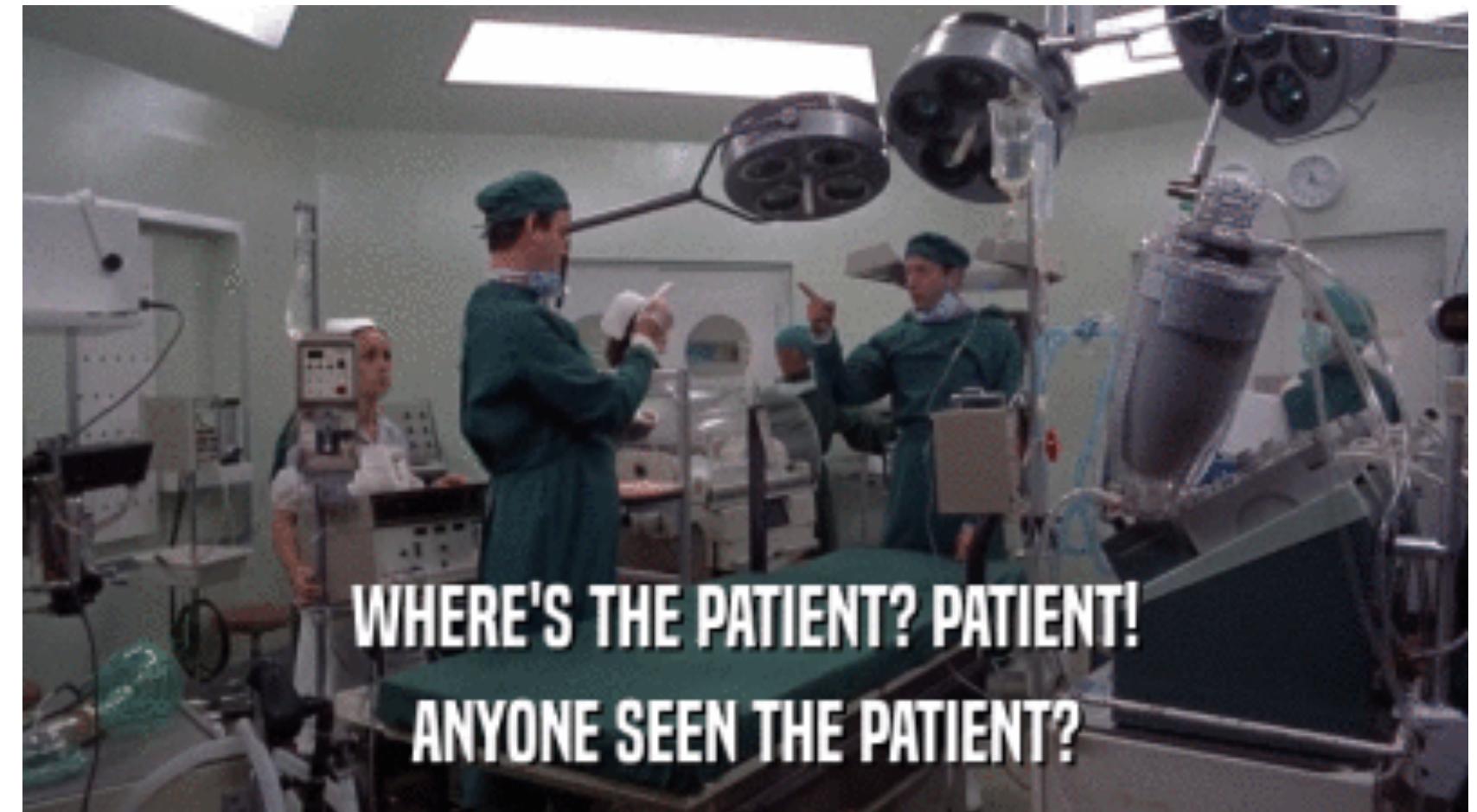
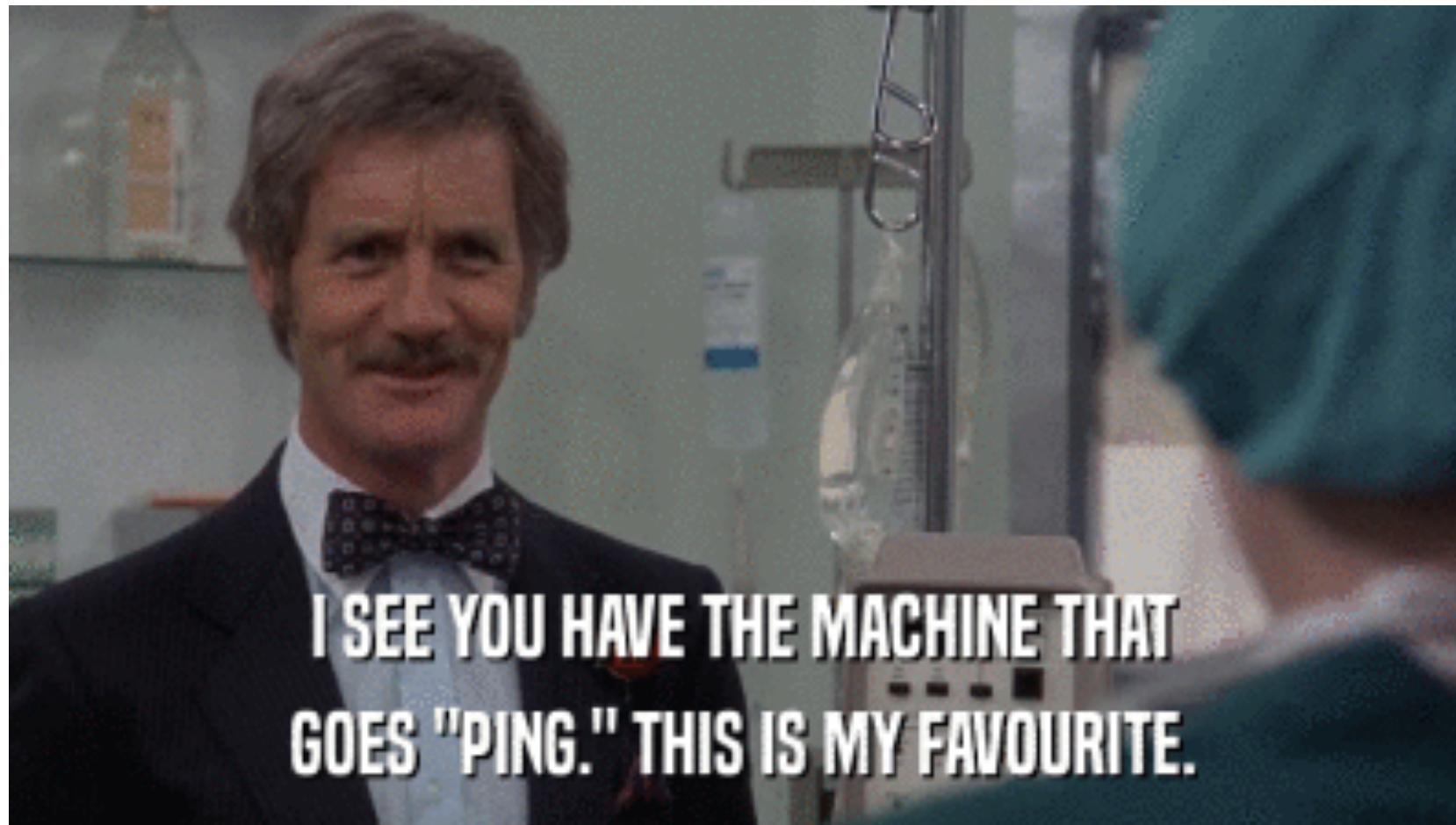


Schuiten & Peeters

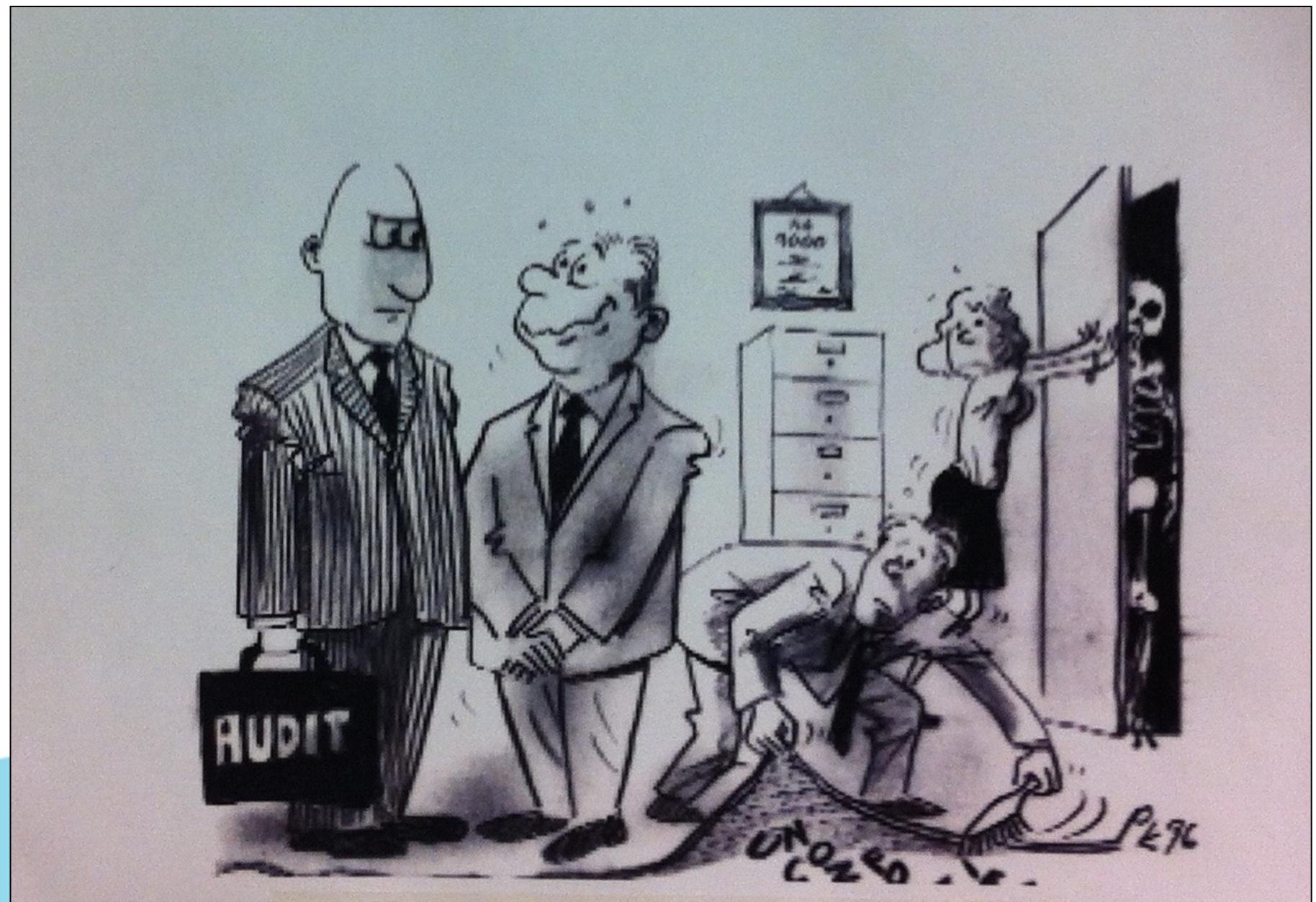


Franquin

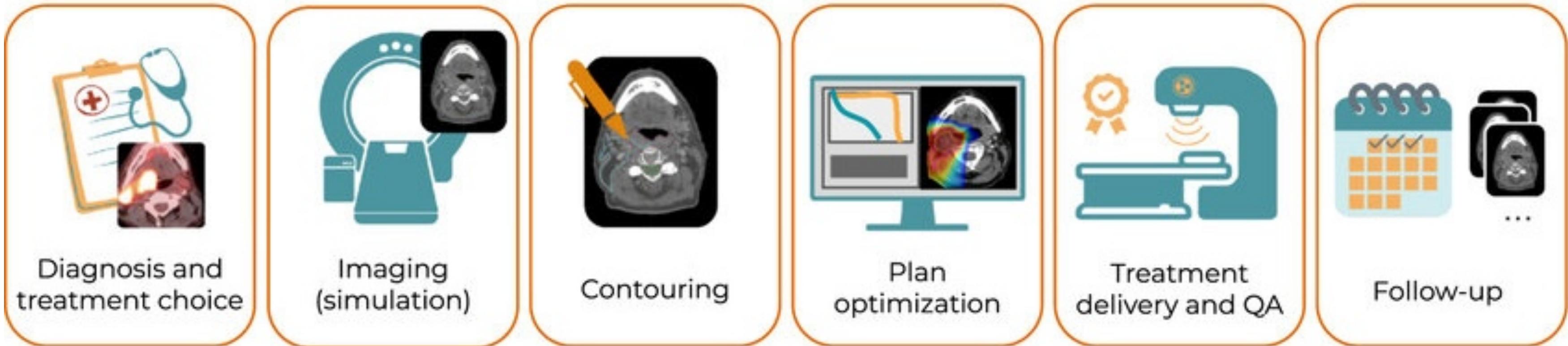
# It is not about the technology



# The aim of the audit ... is not ...

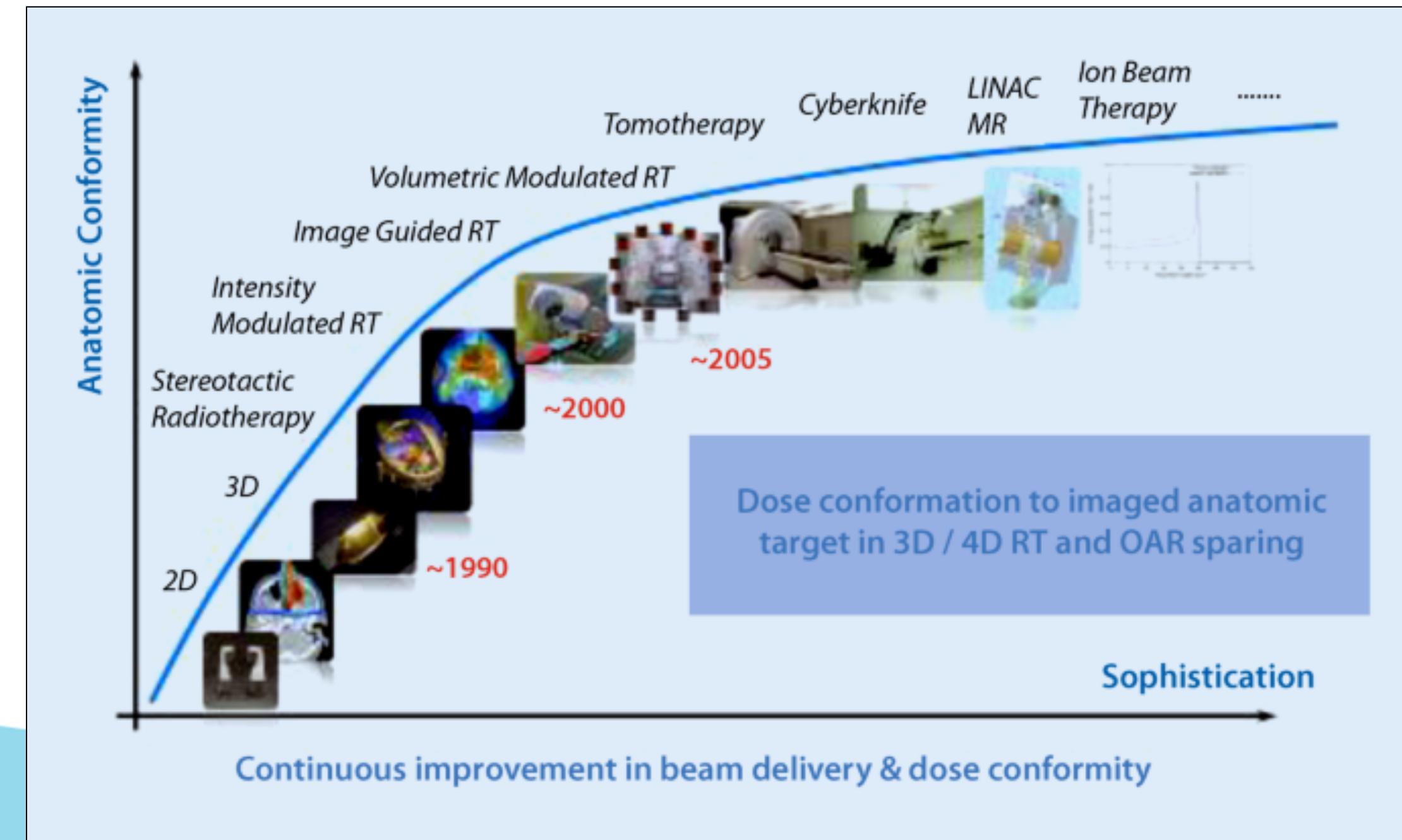


# Consider the Radiation Oncology workflow



Courtesy AM Barragán Montero

# Radiation Oncology, a rapidly evolving discipline



Courtesy D. Georg

# The aim of the audit ...



D. Verellen - The Audit QUATRO team

# It's all about the team ...

The most important thing to a patient **is not** the availability of some high technology device, rather **it is** the ability of a team of physicians, physicists, dosimetrists and therapists to use a technology with skill for the benefit of the patient.

*Dr. Marc Edwards*

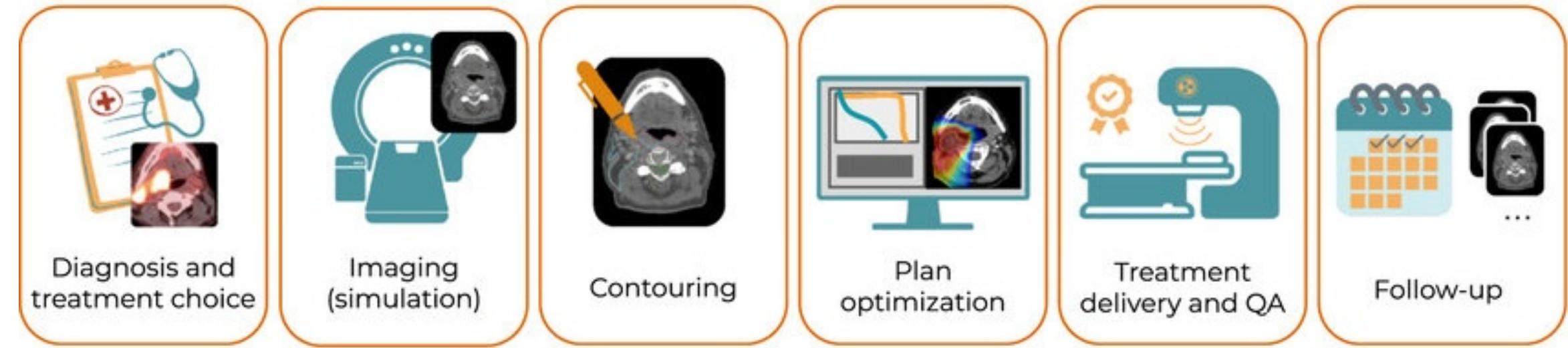


*It's the team  
not the beam!*

# Who does what in the Radiation Oncology workflow?

- Patient care
- Diagnostic procedures and imaging
- Combination with other therapies
- Oncology Information Systems - data transfer
- ICT: Treatment planning systems, AI, image registration, ...
- Equipment: Simulation, on-board imaging, surface scanning, treatment units, dosimetry systems
- ...

**VUCA: volatility, uncertainty, complexity and ambiguity**

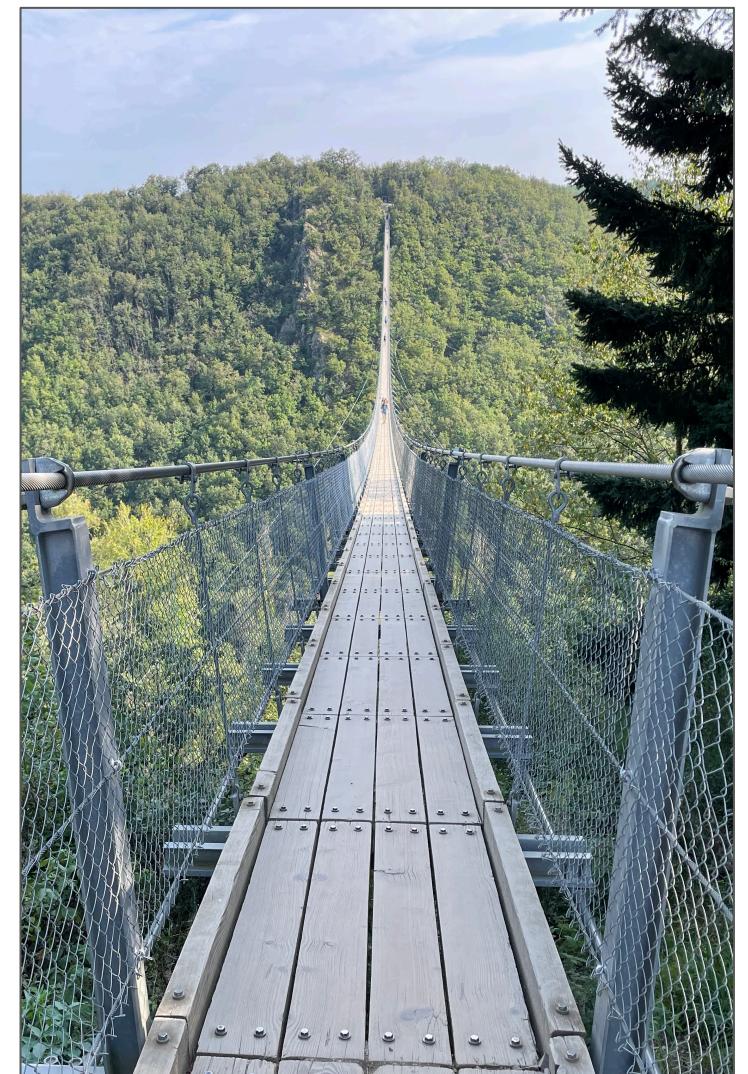


Courtesy AM Barragán Montero

# ...other professionals involved in patient care

## How is the connection organized?

- Other clinicians
  - radiology, nuclear medicine, surgeons, pathologists, oncologists, organ specialists, ...
- Nurses, social workers, dietetics, physiotherapy, ...
- Maintenance / service engineers
- Radiation Protection Officers
- Manufacturers / suppliers of equipment
- Hospital technical and bio engineering department
- Administration
- Regulators
- ...



# It's a team effort

- Requires understanding of all components in the process
- Different area's of expertise
- How is communication / training organized



# The audit team

- Representative of the RT-team
  - **Multidisciplinair**
- Trust / discretion
  - **Peer review**
- Advisory
  - **Competent, experienced**
- Expertise
  - **Specific and complementary**





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# The aim of the audit ...



# The audit team

- Should have been in contact with each other prior to the audit
  - ✓ Be aware of each others particular expertise and how this would fit with the audit
  - ✓ Prepare audit plan/schedule and roles
- Perform some aspects of the audit as a team, while other aspects can be looked at as individuals.
- Daily team meetings during the audit are necessary for briefing and follow up
- All contribute to ONE report



# Preparation

- Be familiar with the audit procedures, discuss the approach and allocate the responsibilities
- Prepare and adapt the questionnaire together
- Review the preparatory and background information prepared by the institution
- Request additional information if necessary

~~UNPREPARED~~



# Auditor characteristics (ISO 19011)

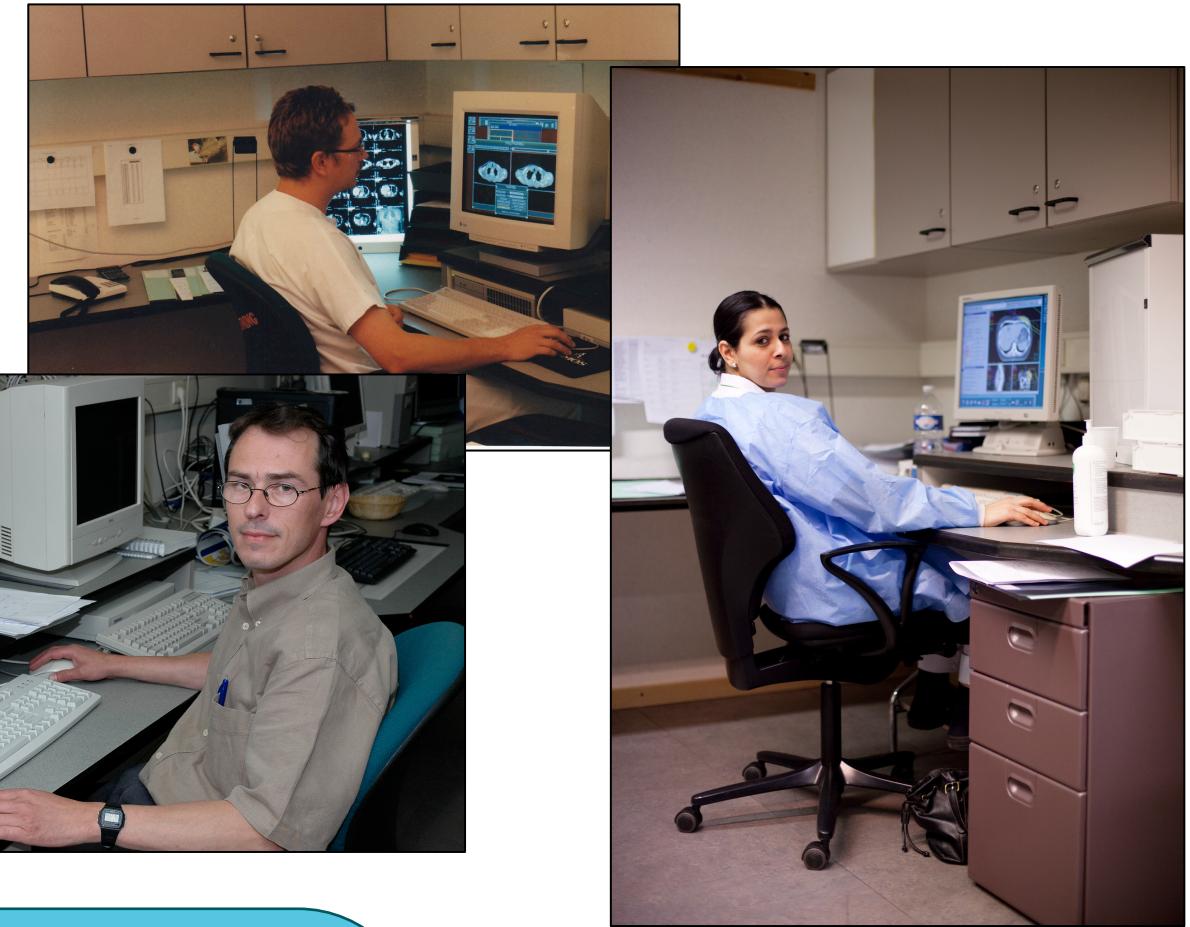
- Communication skills
- Tact
- Flexibility
- Persistence
- Fairness
- Objectivity
- Integrity
- Ethical
- Confidentiality
- Code of Conduct



# Roles of team members

Not cast in stone

- ✓ Depend on individual expertise
- ✓ Depend on needs at the audit
- ✓ Depend on other tasks (even distribution)



## Treatment planning as an example:

- What needs to be checked by whom?
- What part is performed by which specialty?
- Each audit team member has a specific perspective

# Roles of the team members

## Team leader

- Overall management of the audit
- Preparing audit program
- Liaison with audited centre
- Management of audit team
- Presentation of Entrance and Exit Meetings
- Managing and editing of report
- Review of proposed corrective actions and suggestions (if required)

# Roles of the team members

## Team members

- Assist Team Leader with preparation
- Prepare Checklists
- Interview personnel
- Review evidence
- Evaluate Processes
- Report findings
- Contribute to report
- Assist with follow-up



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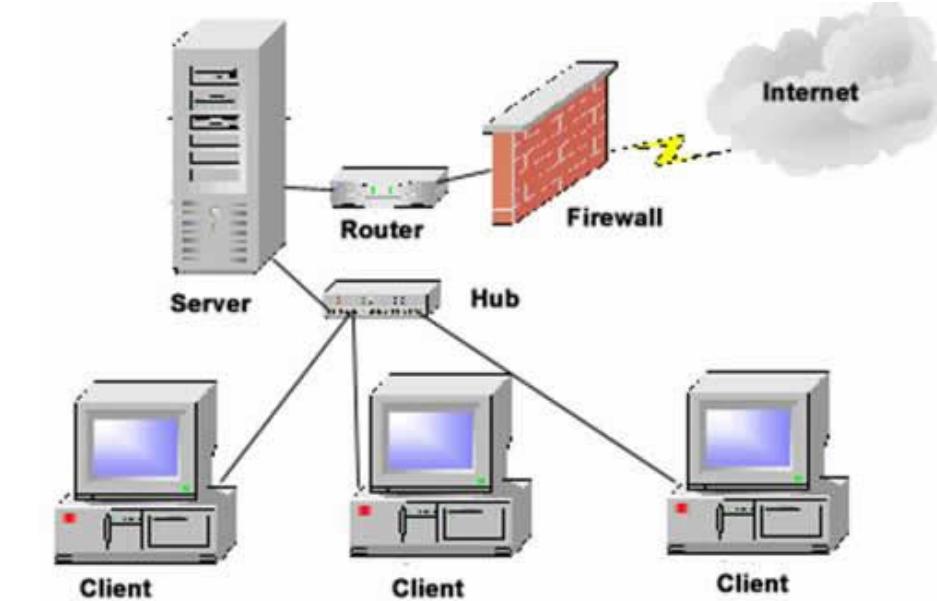


# Detailed tasks of the team members

Will be discussed in next lectures

# Additional useful skills

- **Language:** ability to speak the local language will allow to communicate with all staff and review documents
- **Health economics:** funding and resources are often a major constraint for radiation oncology facilities.
- **Biomedical engineering:** simple repairs of equipment, sourcing of cheap alternative parts and advise on maintenance are valuable
- **Computing, networks and databases:** as radiation oncology relies increasingly on computers, the ability to assess data flow and handling, storage and processing would be an advantage in many environments
- **Communication, listening, ...**



# Summary

- QUATRO is a **comprehensive, independent, multidisciplinary, peer review process**
  - It's a team effort.
- The audit is performed by a **team** consisting of a radiation oncologist, RTT, medical physicist, quality manager.
- **Communication** between team members is essential to ensure that the particular skills of each member is harnessed for the audit





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