SGRT at OsloMet's education of RTT's in Norway

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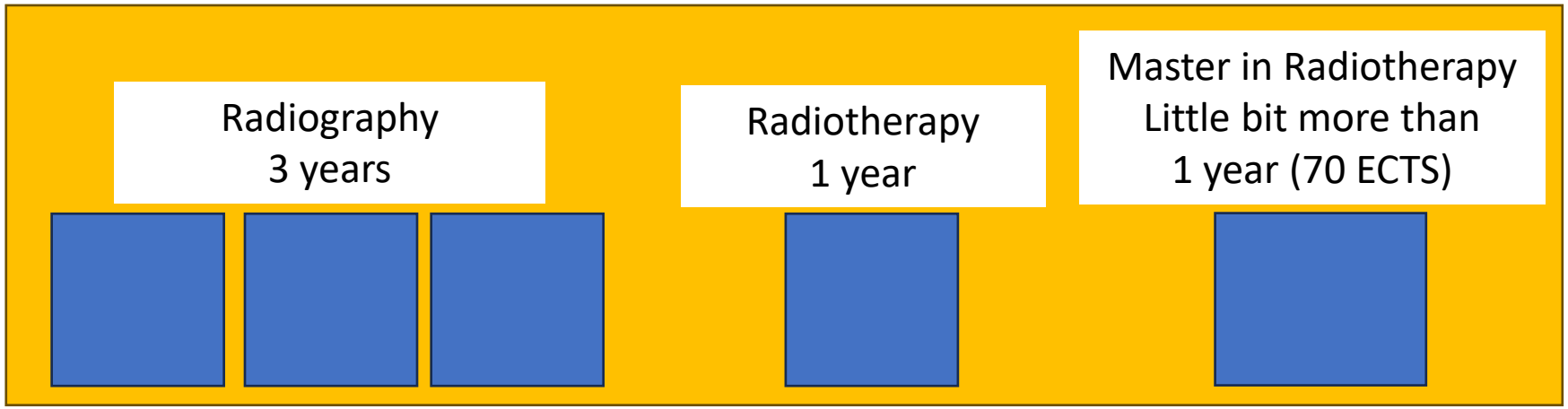
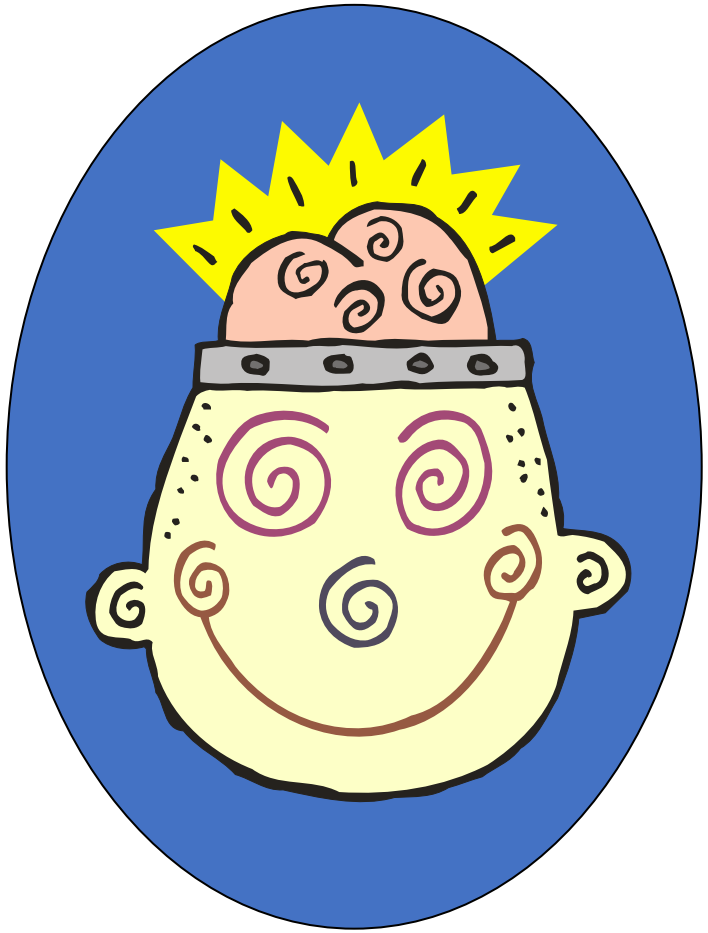
RTT education in Norway

- 3 year (180 ECTS) in radio**graphy**
- 1 year (60 ECTS) in radio**therapy**

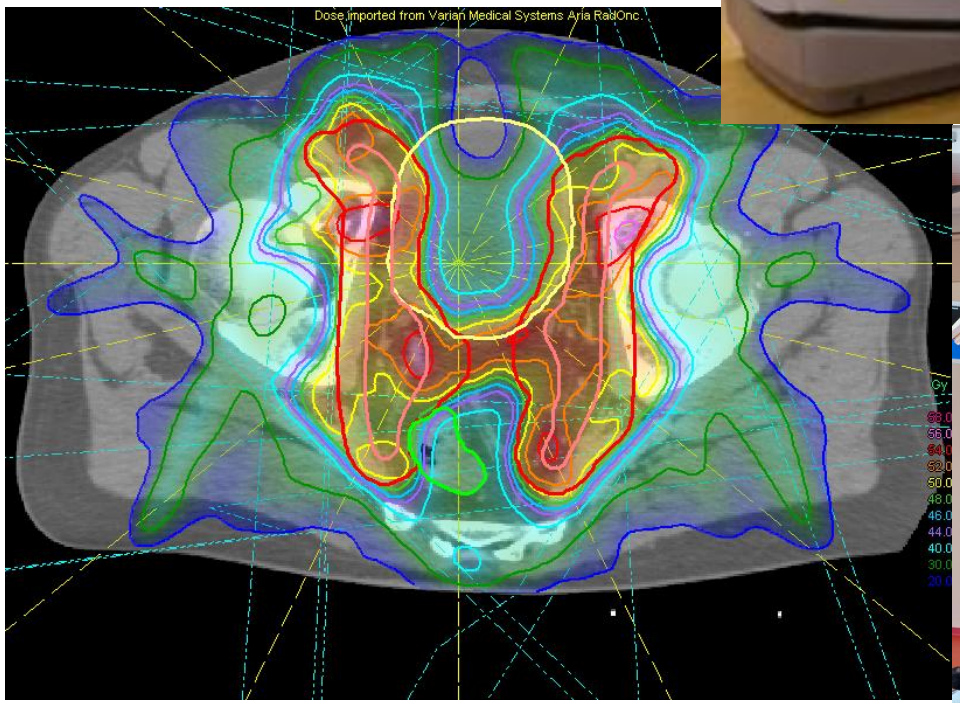
- If you want a master after the RTT-education: continue in a master's program in health and technology, specialization in radiation therapy





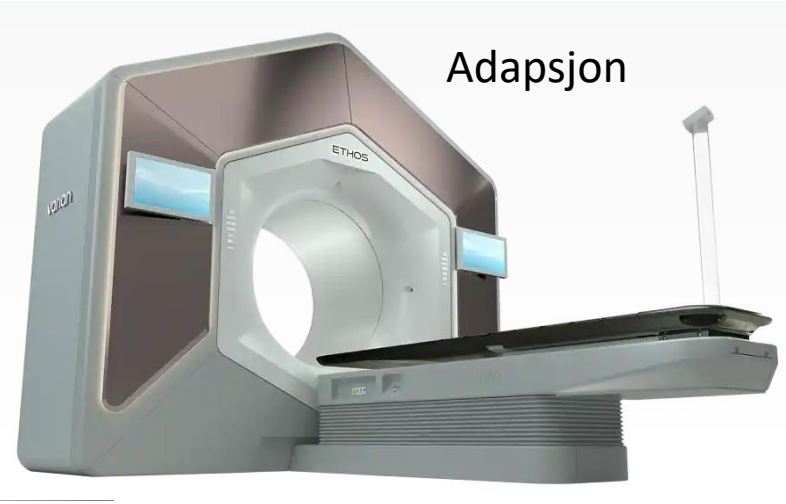
RTT's function in Norway

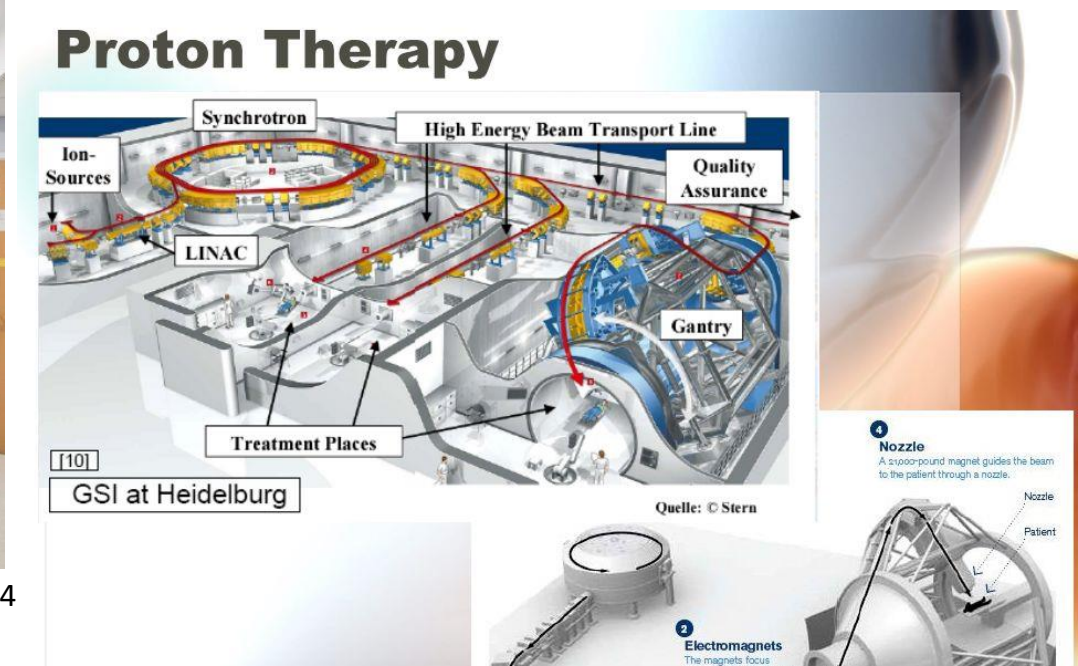
- Treatment planning
  - Imaging (CT/MRI)
  - OAR Delineation
  - Forward & Invers dose planning
  - Radiobiology
- Treatment
  - Delivery
  - Patient care
  - Quality assurance
- Treatment follow-up



Developments in radiotherapy goes fast

- New technology
- New way of working
- More precise and accurate treatment



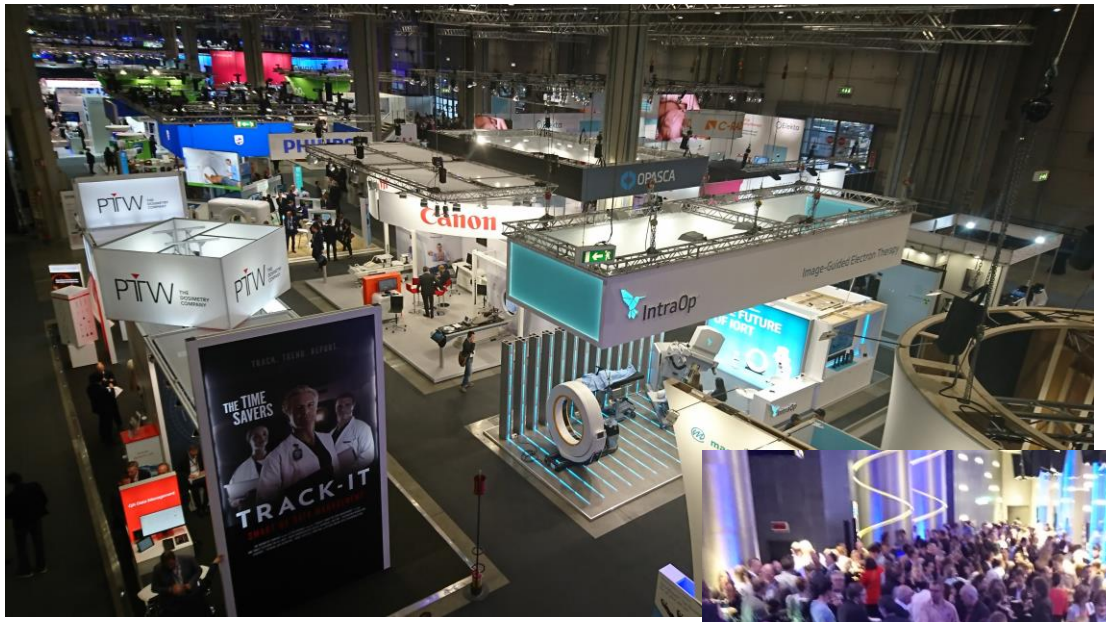


Developments in radiotherapy goes fast

- How to implement SGRT into the education of RTTs?
- We had a problem with access to the Linacs that have SGRT equipment
- Many students and lack of possibility for software in house training

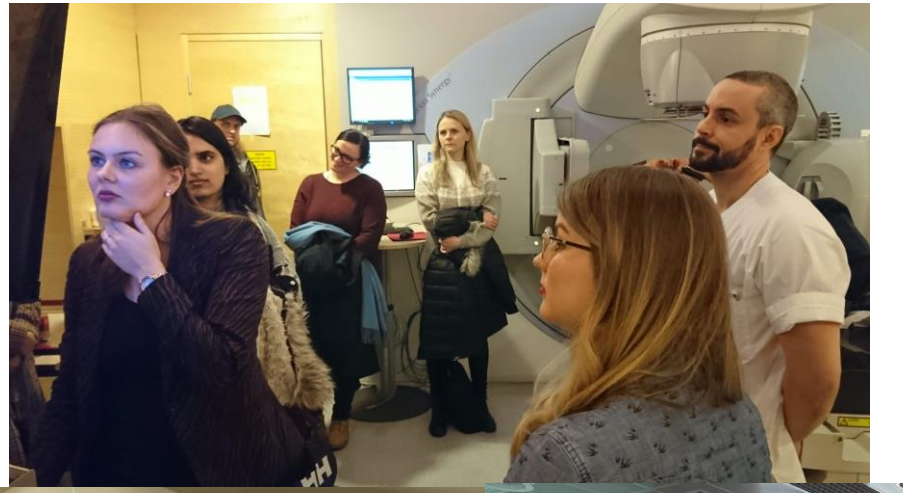
The idea of involving the IGRT suppliers in the education came at ESTRO 2019

- We discussed with the SGRT providers if it was possible to collaborate about the education of RTTs in SGRT.
- Andre Søndergaard at VisionRT thought that would be possible
- Discuss further in autumn 2019
- First class in spring 2020
- Every spring after that.



The content of the program we have with VisionRT

- A half day
  - SGRT presentation
  - Hands on training on the linacs together with RTT's in Oslo
- Next half day
  - Software hands on training in groups
  - Kahoot quiz



Further collaboration with VisionRT

- Get access to the remote on-line training facilities
- Implement MapRT with RayStation
- Implement DoseRT

- Thanks' to VisionRT that was trilled to help us.
- To Katja and Kim for their enthusiasm
- and **Thank you all for your attention.**

SGRT Nordics, Helsinki 31th of May 2024

SGRT in Norwegian radiotherapy facilities

Presentation of an indepth thesis from Further education in radiotherapy at Oslo Metropolitain University

Berit Bø, University lecturer OsloMet

OSLO METROPOLITAN UNIVERSITY
STORBYUNIVERSITETET

SGRT NORDICS, HELSINKI FEBRUARY 2ND. 2024

"A survey of the implementation and use of SGRT at Norwegian radiotherapy centers. What do the end-users think?"

Objectives

- Overview of SGRT in Norway
- Overview on training and implementation of SGRT
- Experience, attitude and opinion on training and use of SGRT

Method

Coordinator

- Overview equipment
- Training, supply
- Implementation

End user

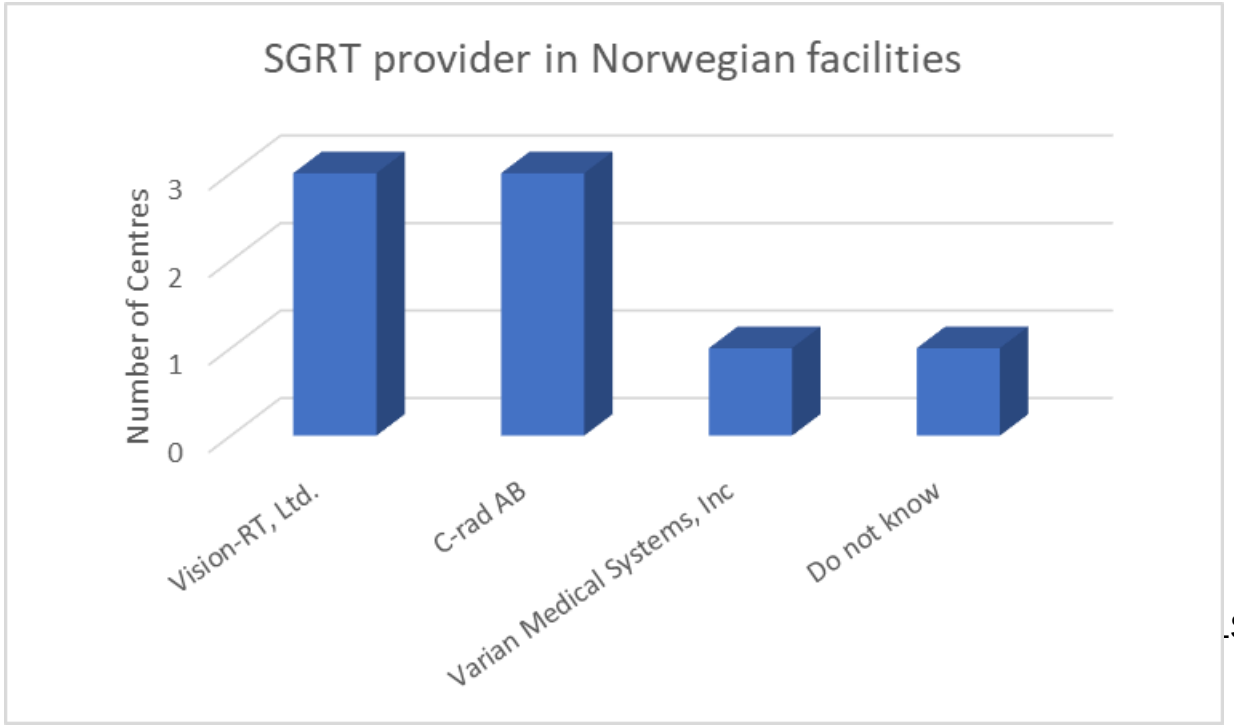
- End-user demographics
- SGRT experience
- Perspectives on use and training

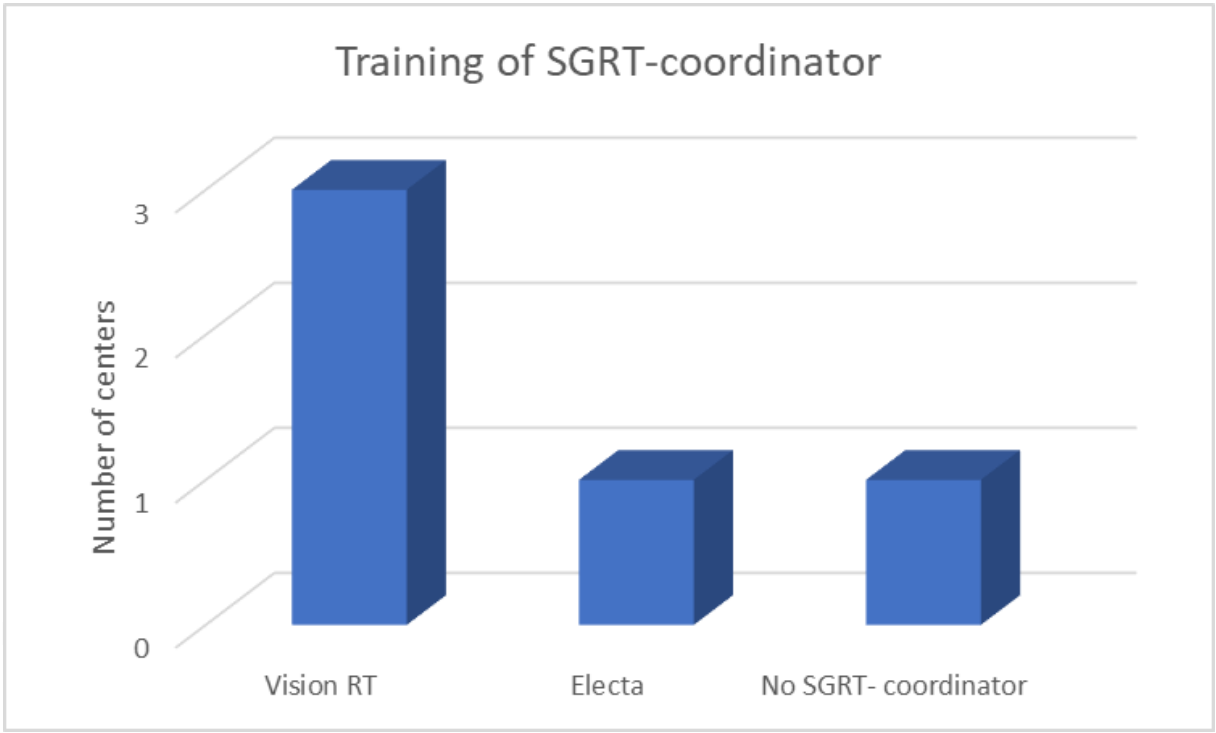
Results coordinator

- 8 of 10 RT facilities in Norway use SGRT

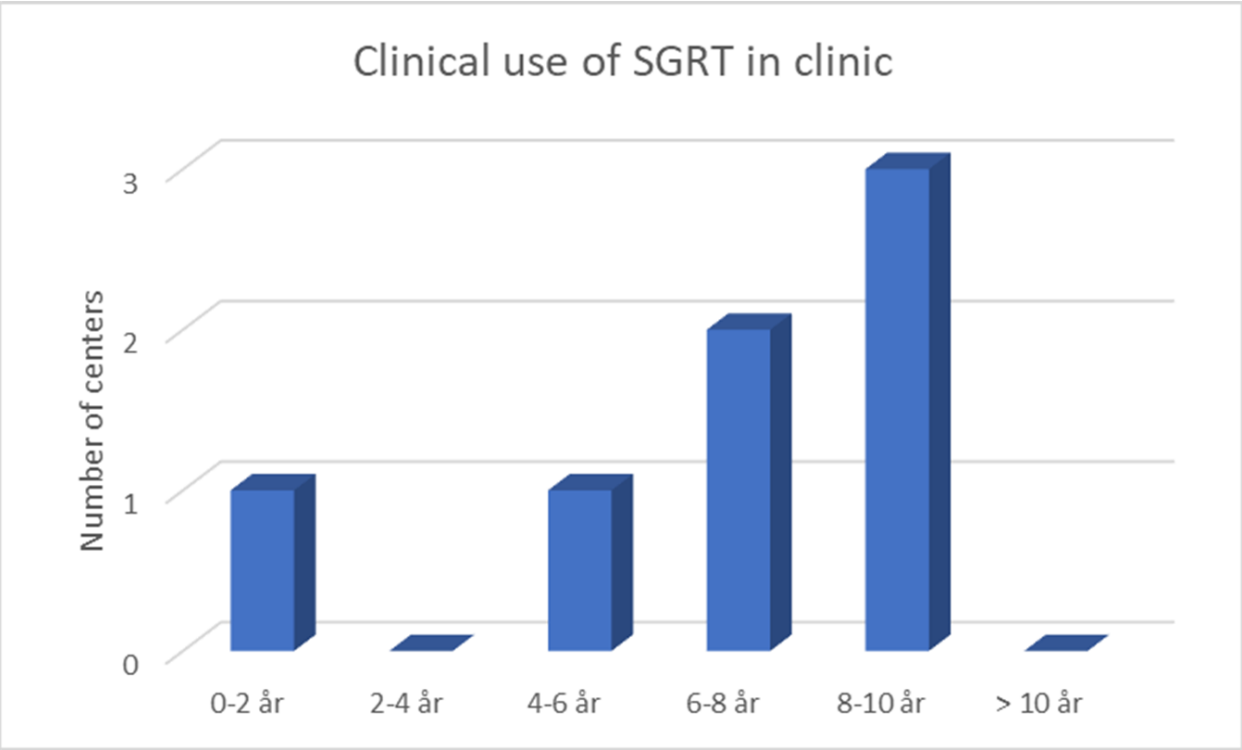
- 4 centers have SGRT installed on Varian machines, and 3 centers on Electa machines

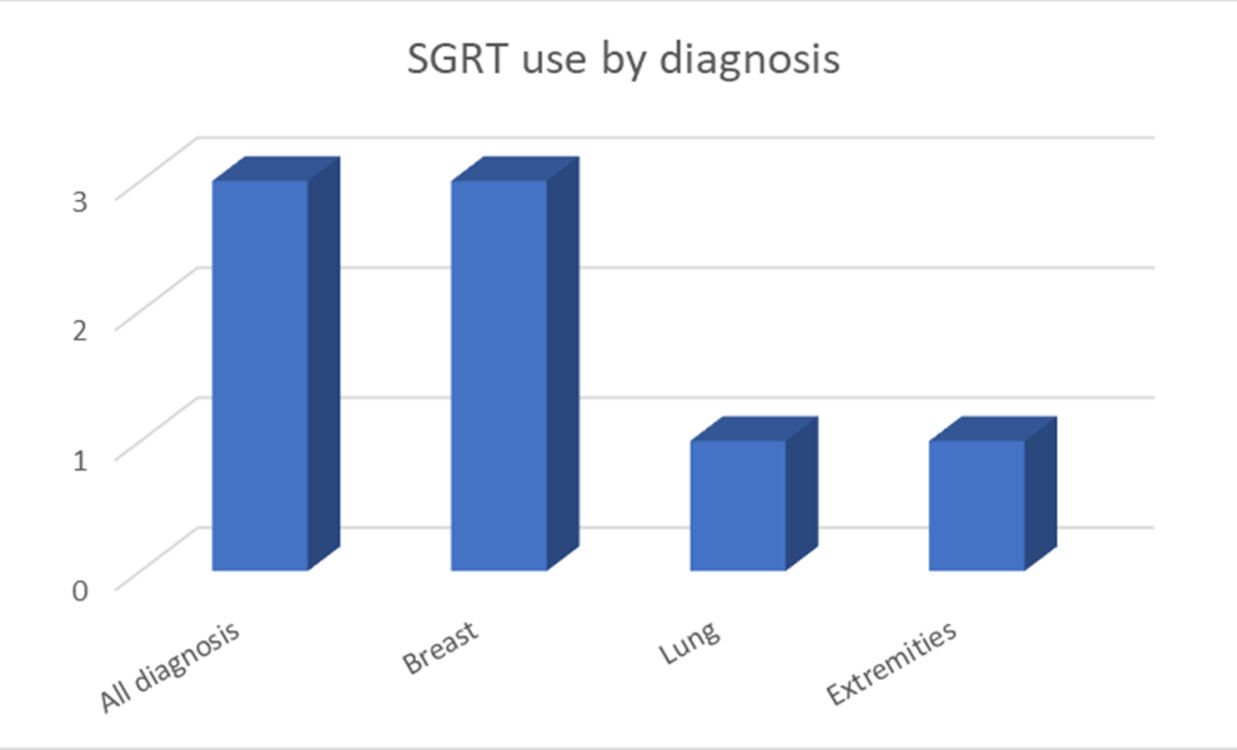
- Responsible for implementation of SGRT:
  Physicians (6), RTT's (4), Engineer (2), do not know (1), in some departments the responsibility was shared.





Results coordinator





Results coordinator

- 6 of 7 agreed that employees could use the system after training.

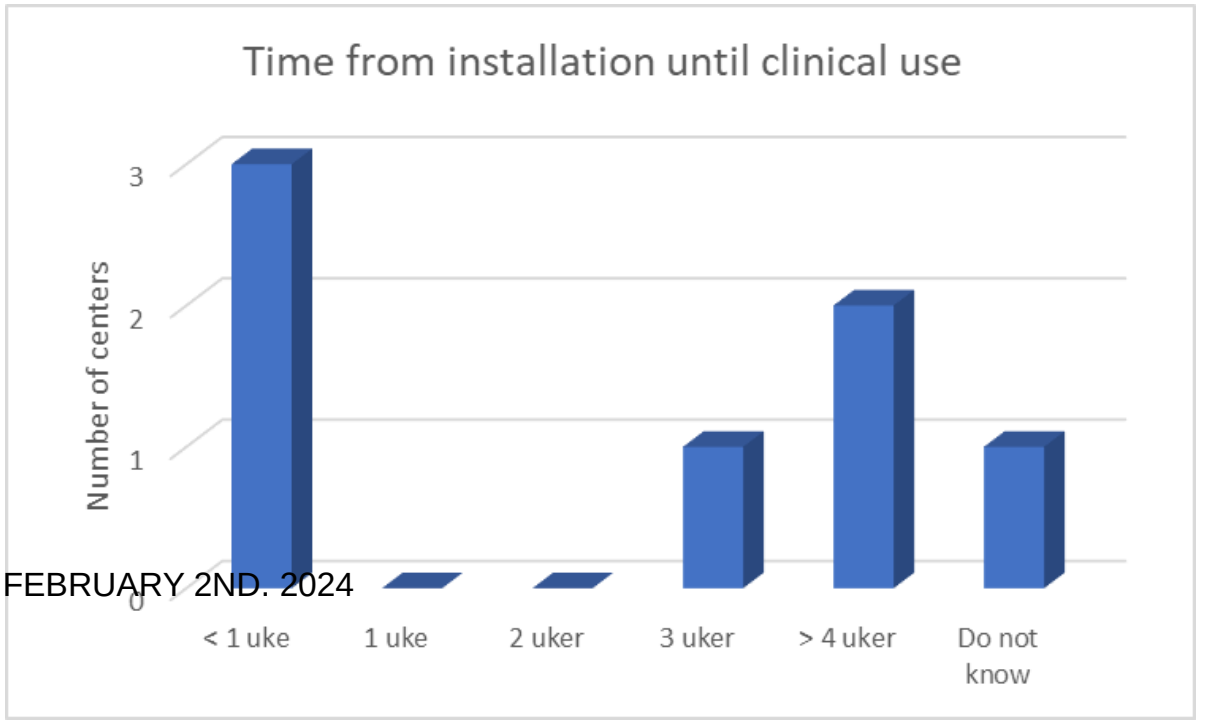
- Guidelines for implementing SGRT

  Manufacturer (5), Literature(1)

- 5 respondents agreed that SGRT could be standard treatment and that all linac's should have SGRT.

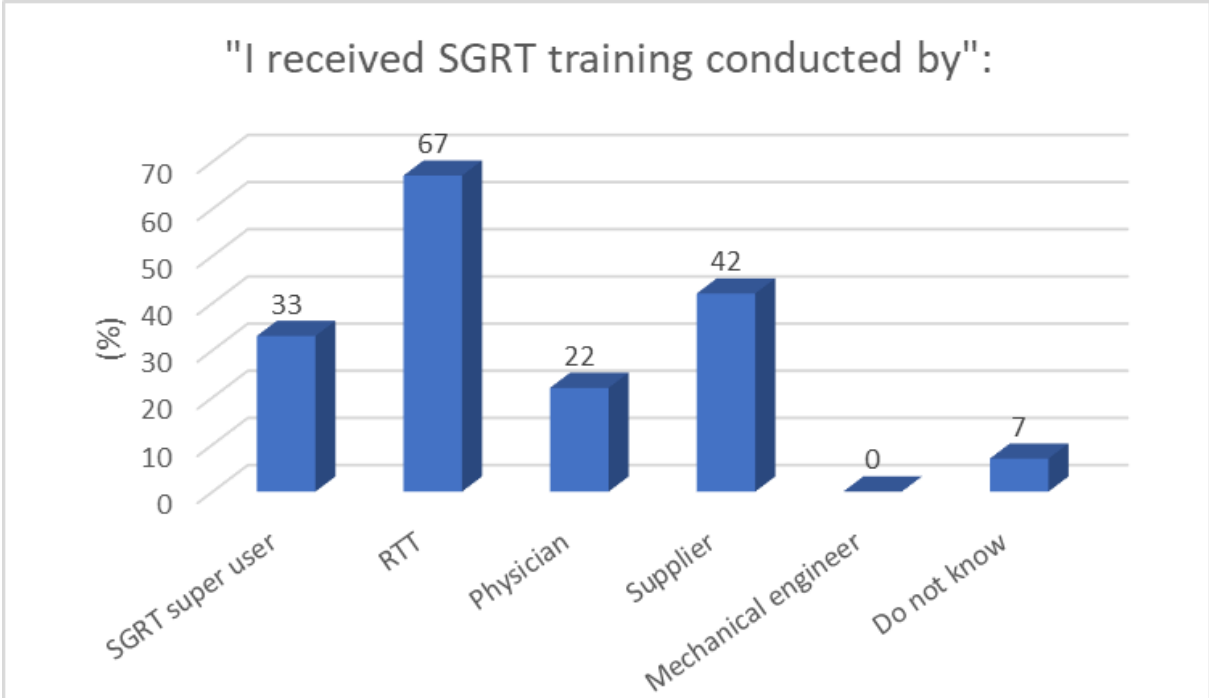
- Factors that can prevent the implementation of SGRT in the department:

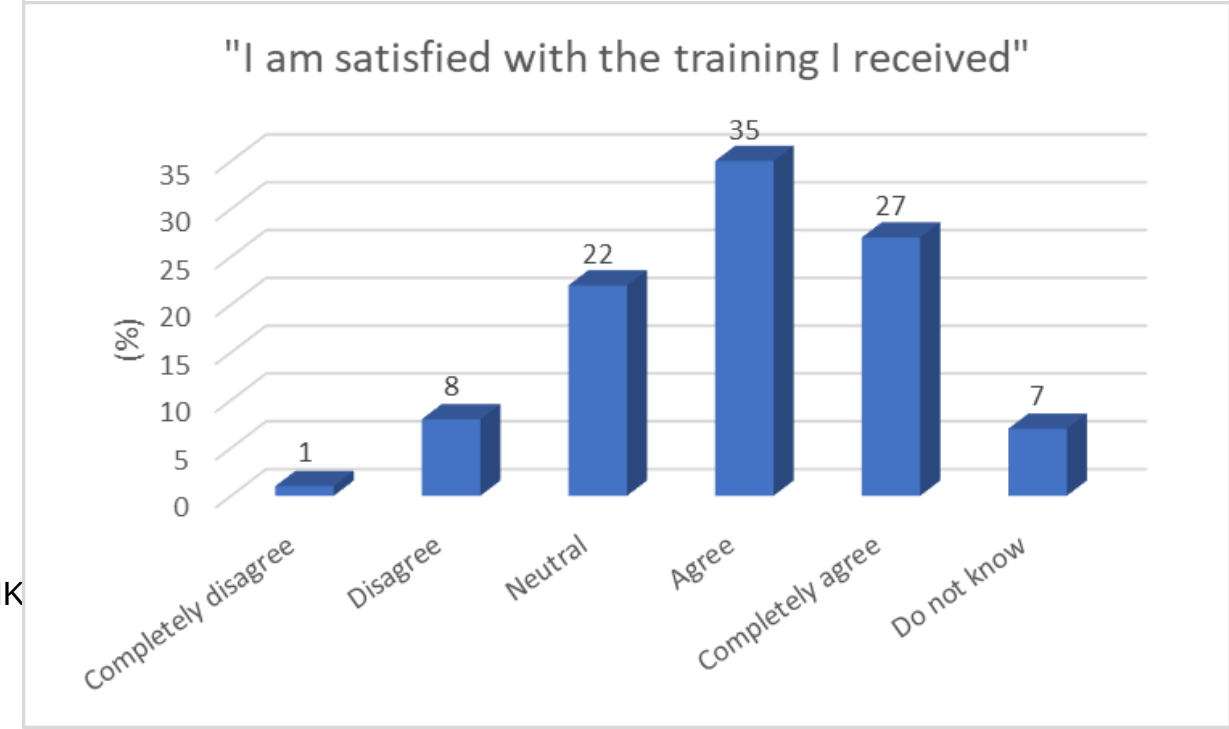
  Economy and training of staff



Results end user

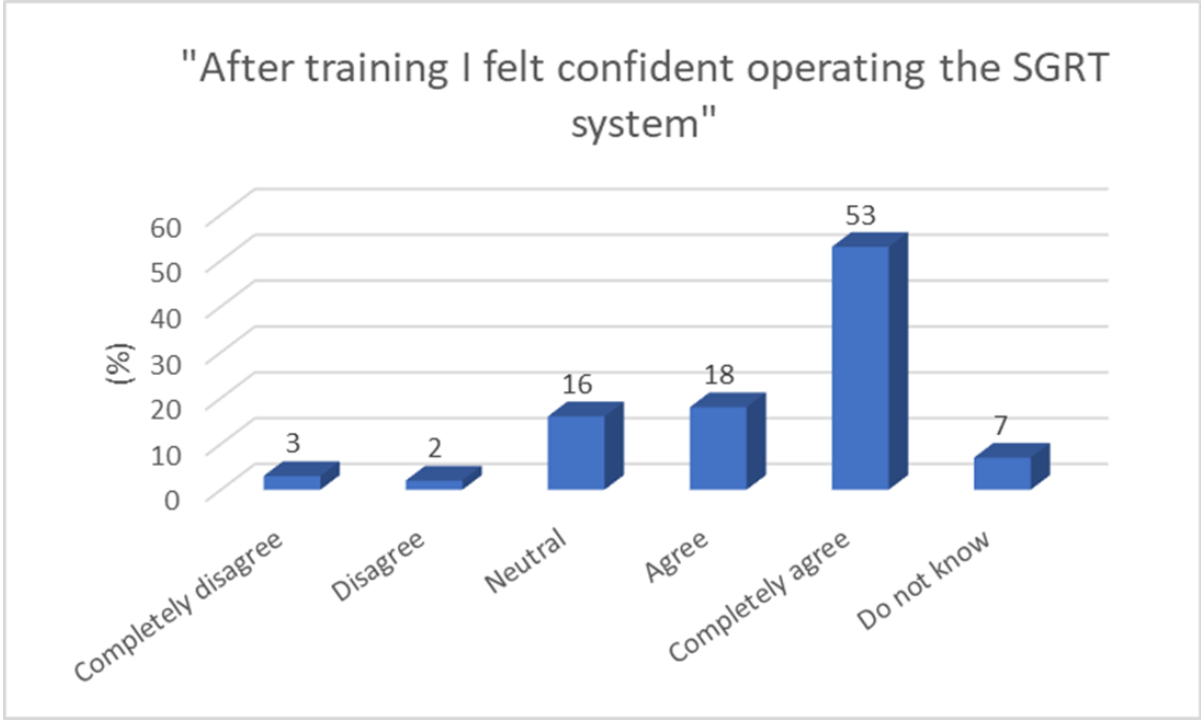
- Most of the end-users are RTT’s
- 85% use SGRT daily
- 78% use SGRT for patient positioning daily
- 72% use SGRT for motion monitoring daily
- 56% use SGRT for DIBH daily

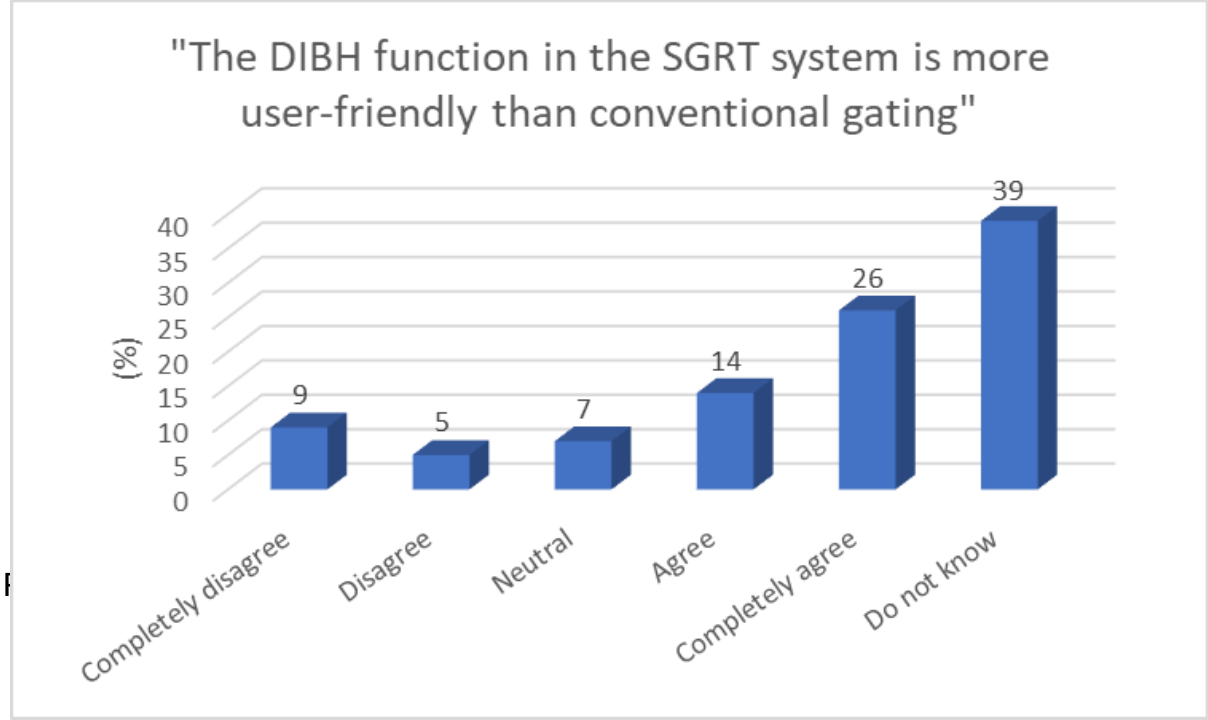




Results end user

- 74% agreed that SGRT has raised the quality of RT
- 70% agreed that SGRT has made patient-positioning more effective and time consuming
- 68% agreed that SGRT has made it easier to discover wrong or missing positioning devices
- 70% agreed that patient monitoring in SGRT makes them feel safer that treatment is delivered more precise





Advantages and disadvantages

- Motion monitoring (87%)
- Patient positioning (83%)
- Elimination of tattoos (74%)
- Efficiency (65%)
- DIBH model in SGRT system (63%)
- Less need for repeated verification images (57%)
- Ergonomics (52%)

- Signal problems (60%)
- Registration of ROI (41%)
- Connection hardware-software (33%)
- Anatomical changes (31%)
- System shutdown (22%)

Conclusion

- A majority of respondents are satisfied with the training and report that they can use the system independently after completing the training.
- Most of the respondents show a positive attitude towards SGRT and its areas of use.
- The most common areas of SGRT use:
  - Patient positioning
  - Motion monitoring
  - DIBH
- The majority of respondents stated that accurate treatment is an advantage of SGRT:
  - Improved efficiency in patient settings
  - Increased quality of radiationtherapy
- Factors creating problems with the SGRT system:
  - Signal problems
  - Registration of ROIs
- Obstacles to implementation:
  - Economy

A big thank you to the students who carried out the survey;

Mari, Christina, Aurora, Guro and Tonje!