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Introduction

The future of RTT environment is influenced by technical and technological development. Automation affect the RTT role and ask development of new skills. The arrival on the market of automated technique like “auto-planning”, “auto-matching” or “auto-segmentation” transforms the working methodology.



Participants & method

Our study is based on a qualitative approach using descriptive exploratory design. We conducted 8 semi-structured interviews in west Switzerland in the 3 domains of radiology (conventional radiology, nuclear medicine & radiation oncology). We performed a content analysis using the 3 main topics and 11 subtopics that has been establish for the interview’s guide construction.

Aim

To explore the influence of automated technologies on the RTT work and related challenges.

Results (by main topics, in the RTT perspective)

RTT – machine association:

automatized acts, education and skills

- Automation is widely present in radiation oncology department
- Work with automatized technology asks specifics skills
- Limited training confines the TRM to a *button pusher* role

Automation:

Personal definition, impact on clinical practice, challenges for the profession and personal experience

- Automation is not clerly defined by the RTT
- Impact on clinical practice are rarely evaluated (for professionals & patient)
- Economical aspect is the major precoccupation in decision process
- Automation can offer new opportunities for RTT

RTT role:

Technological management, quality & safety management, team work and patient management

- Lack of RTT integration in technological management affect choice and daily practice
- RTT are faced with difficulties to assure patient safety and quality assurance
- Automation is a conflict source in team work and responsibilities definition
- Decision making process is not clearly defined
- New technologies can also affect care path and RTT-patient relation

Discussion

The main mission of tomorrow's RTT is to evolve and adapt so that it does not disappear. Or rather, to create the future of the profession and not to be subject to change. Go forward with technologies rather than against them seems to be a relevant alternative. Since automation does not only affect the RTT profession, a kind of *square fighting* can take place in the coming years.



This poster is based on the results of a Master Thesis conducted within the joint Master of Science (MSc) in Health Sciences of HES-SO (University of Applied Sciences and Arts Western Switzerland) and University of Lausanne (UNIL), major in TRM, at HES-SO Master.



Conclusion

The human-machine association with automatized technologies influences deeply the RTT occupation in opportunities, decision-making processes, work methodologies and machine controls. Initial, continuous and postgraduate education would be a key point for the future of the profession.