WP3 FACT SHEET

"Assessment of the linear accelerator radiographer competencies developed in educational institutions"

Management

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WP leader	University of Malta (MT)
Partners	Associação Portuguesa dos Radioterapeutas (PT)
	European Federation of Radiographer Societies (EU)
	Towarzystwo Naukowe Technikow Medycznych Radioterapii (PL)
	Ulster University (UK) – SAFE EUROPE coordinator

Methodology

- Systematic search of the literature
- Thematic analysis of the literature to identify list of competencies of the TRs on the linac
- Questionnaire design
  - Part A: Course characteristics
  - Part B: Competency level of graduates
- Distributed to radiotherapy lecturers across EU
- Statistical analysis
  - Characteristics of RT education across EU
  - Most/least developed competencies
  - Relationship between course characteristics and competency level

Most/least developed competencies in EU
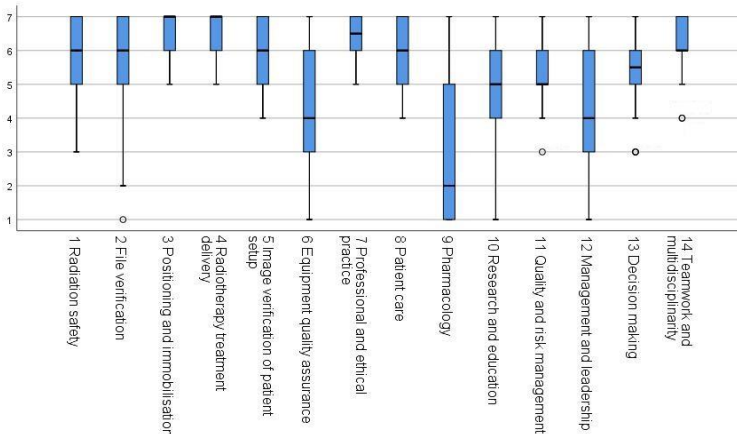
Competency score: from 1 (competency not developed) to 7 (competent)

Characteristics that improve competency

P-value < 0.05
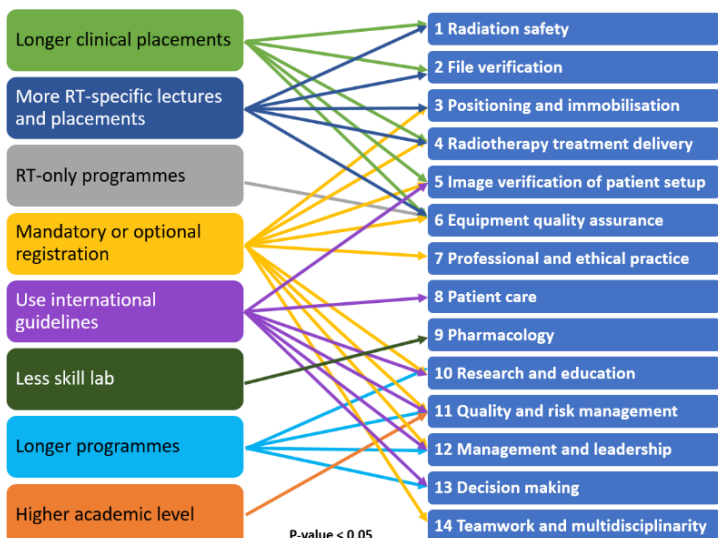
Background

The profession and education of therapeutic radiographers (TRs) is regulated at the national level. Therefore, lack of European regulation leads to differences in the roles and education of TRs between member-states.

The aim of the WP3 was to identify if the education programme characteristics influence the competency level of graduates, and which competencies are less developed across EU. The WP3 focused on the role of TRs working in the linear accelerator (linac), which is the most common role of these professionals in radiotherapy (RT) departments.

This WP feeds this information to WP10, where webinars on the least developed competencies will be made available to the public.

Results

Thematic analysis of the literature

- 170 competencies were identified as being the responsibility of TRs working in the linear accelerator
- Evidence of a complex body of knowledge and skills developed by TRs
- List of competencies used in the design of the survey

Survey

- 50 respondents from 19 countries
- 5 countries identified multiple pathways to become a TR

Lack of harmonisation of education of radiotherapy across Europe

- Most common programme characteristics identified by respondents:
  - Dual-qualification programmes (RT and MI)
  - EQF6 level
  - 3 to 4 years long
  - Learning outcomes defined by national law/regulation
  - Registration mandatory to practise
- Other programme characteristics found across EU:
  - RT-only programmes
  - Programmes which include RT, MI and electrophysiology (e.g. ECG);
  - Programme academic level vary between EQF4 and EQF7
  - Programme duration varies between 1 semester and 5 years
  - Optional registration or registration not available in some countries
- Average of 31% of the curricula is dedicated to RT
  - 88% if programme is RT-only
  - 24% if programme is dual qualification (p = 0.005)
- Average of 459h of clinical placement dedicated to RT
  - 94% of total placement hours dedicated to RT if programme is RT-only
  - 27% if programme is dual qualification (p = 0.005)

Detailed results and more information

Couto JG., McFadden S., McClure P., Bezzina P., Hughes C. *Competencies of therapeutic radiographers working in the linear accelerator across Europe: A systematic search of the literature and thematic analysis*. Radiography 2019. https://doi.org/10.1016/j.radi.2019.06.004

List of competencies of the TR working on the linac: www.safeeurope.eu

Couto JG., McFadden S., McClure P., Bezzina P., Camilleri L., Hughes C. *Evaluation of radiotherapy education across the EU and the impact on graduates' competencies working on the linear accelerator*. Radiography 2020. https://doi.org/10.1016/j.radi.2020.08.010