LISTOPAD 26-27 2021 | HYBRYDOWO ONLINE I ON-SITE

### X OGÓLNOPOLSKIE WARSZTATY Z OKAZJI **ŚWIATOWEGO DNIA RADIOLOGII**

Wydarzenie Towarzyszące i SAFE Europe ERASMUS +



### WP3/4

### Education programme characteristics' impact on TR/RTTs competencies and quality of care

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# What is 'competency'?

### Competency is...

knowledge + skills → work/practical situations with autonomy + responsibility

 $\uparrow$  academic level  $\rightarrow$   $\uparrow$  competency  $\rightarrow$   $\uparrow$  autonomy and responsibility

Developed in the initial education  $\rightarrow$  life-long learning

(European Parliament & European Council, 2008)

RTT/TRs competency affects PATIENT CARE

(Baeza, M., 2012)

Education of RT varies across EU  $\rightarrow$   $\neq$  competencies & levels

(Couto et al., 2021; EFRS, 2010; HENRE, 2008; Janaszczyk and Bogusz-Czerniewicz, 2011; McNulty et al., 2016)











# Research question

What are the <u>factors related to education</u> that affect <u>competency level</u> of RTTs/TRs in the EU?









# Methodology

#### **Online survey**



explanatory sequential multiphase mixed method

- RT educators across the EU
- Aim, to evaluate:
  - Course characteristics
  - Competency level
    - (63 linac competencies)

#### **Recruitment:**















- RT stakeholders
  - Local and migrant TR/RTTs
  - Educators
  - Students
  - Clinical managers
  - Professional associations representatives
- 4 countries with 'extreme' course characteristics
  - Finland (< % RT content)</p>
  - Portugal (RT-only→ RT+MI+MN)
  - Poland (EQF5 EQF7; 2 5 years)
  - UK (RT-only; > % RT content)
- Aim: Explore & explain results of survey











Results
of
Survey

Longer clinical placements More RT-specific lectures and placements RT-only programmes Mandatory or optional registration Use international guidelines Less skill lab Longer programmes Higher academic level

P-value < 0.05

1 Radiation safety 2 File verification 3 Positioning and immobilisation 4 Radiotherapy treatment delivery 5 Image verification of patient setup **6 Equipment quality assurance** 7 Professional and ethical practice **8 Patient care** 9 Pharmacology **10** Research and education 11 Quality and risk management 12 Management and leadership

14 Teamwork and multidisciplinarity

13 Decision making

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Higher academic level

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P-value < 0.05

# Results of Interviews

'education training should be to degree [EQF] level six' (UK1)

'you know a little bit of everything, but you don't know everything about one thing' (FL2)

- Factors affecting competency level
  - Academic level
  - Number of specialisms
  - RT-specific training
  - Programme duration
  - National tradition
  - Lack of resources (time, human, financial)
  - Lectures with RT expertise
  - Teaching methods
  - Regulation of learning outcomes

"We have pharmacology, of course, but not in relation to radiotherapy" (FL3).

"in Spain, they study two years and go to the [treatment] units. They have no knowledge of dosimetry, [...] of physics, they have no knowledge at all' (PT5)

"the last decision goes to the doctor" (PL2)

"some of the radiotherapists are content to do what they are told to do instead of questioning" (FL4)

"most students (...) opt for the review article" (UK2) or "a research proposal" (UK4)

'I'm quite alone' (FL3)

'the competence of the lecturing staff [in a] fast-paced changing environment' (UK4)

'a more active approach (...) could increase the quality' (UK4)

"[The] standards and the assessment of those programs (...) should be offering that assurance that the output at the end is the same' (UK1)

## Education models and countries discussed

Programmes below BSc (EQF4 and EQF5) – Germany, Poland and Spain

RT-only BSc programmes (EQF6) – Portugal (before 2014) and the UK

Multiple-specialism BSc programmes (EQF6) – Finland, Malta and Portugal (after 2014)

**RT-only apprenticeships (EQF6)** – UK

Multiple-specialism BSc followed by an MSc programme (EQF6 → EQF7) — Poland

**Integrated masters (EQF7)** – no country identified by stakeholders

RT-only pre-registration MSc (EQF7) – UK

'Common trunk' model (EQF6 or EQF7) – The Netherlands



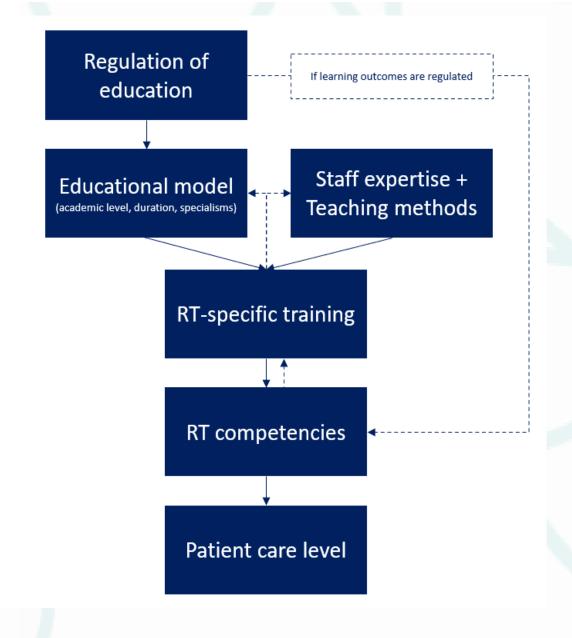






## Conclusion

- Many factors affect competencies
- If we regulate the education model/course characteristics
  - Competencies achieved are a by-product
  - -≠ competencies across the country
- If we regulate the learning outcomes
  - -Competencies are the goal
  - -Similar competencies across the country
  - (even with ≠ education models)













## Thanks

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