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# A Systematic Review of Evidence about Advanced Practice Roles for Therapeutic Radiographers/Radiation Therapists (RTTs)

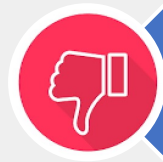


Celeste Oliveira<sup>1,2</sup>, Bárbara Barbosa<sup>1,2</sup>, Guilherme Couto<sup>3</sup>, Isabel Bravo<sup>1</sup>, Ricardo Khine<sup>4,5</sup>, Helen McNair<sup>4,6,7</sup>  
<sup>1</sup>Portuguese Oncology Institute of Porto, PT; <sup>2</sup>University of Vigo, ES; <sup>3</sup>University of Malta, MT; <sup>4</sup>European Federation of Radiographer Societies, NL; <sup>5</sup>Buckinghamshire New University, UK; <sup>6</sup>The Royal Marsden Hospital, Surrey, UK; <sup>7</sup> Institute of Cancer Research, Surrey, UK

## BACKGROUND & RATIONALE



Advances in Radiotherapy (RT) demand a greater level of autonomy, responsibility and accountability in RTT's clinical practice. Advanced practice (AP) roles in RT workforce enhance patient care.



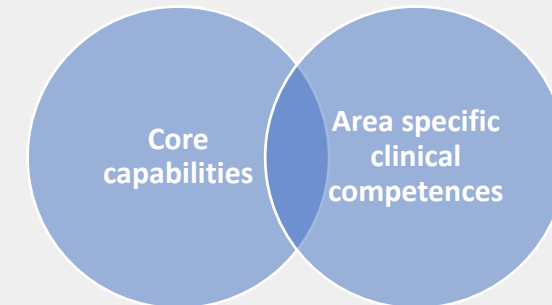
Conflicting definition of AP in the literature and international divergence about the perception of whether a specific role represents AP. Some AP roles can be embedded into standard practice over time.

## Study aim



To establish an international baseline of evidence on AP roles in RT to identify advanced activities amongst RTTs and capture its perceived impact on clinical, organizational and professional outcomes.

## Adopted definition of AP (NHS-HEE 2017)<sup>1</sup>



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## METHODS



A systematic PRISMA<sup>2</sup> review (01/2020 -03/2021)  
10 databases & hand search of RT journals & snowballing<sup>3</sup>



91 papers from 87 studies were included in the review

## RESULTS

- Studies were conducted in 10 countries. Most studies from 3 countries (UK/CAN/AUS)
- First paper with an AP role description was published more than 20 years ago (1999)
- 41% of studies were mixed-methods

## Data analysis



Data extraction according 4 different categories\*  
(\*some studies were categorized into more than one group)



43%  
Role evaluation



34%  
Task congruence

22%  
Role implementation



8%  
Educational programmes



PHASE 1

PHASE 2



Thematic analysis of AP roles in 27 groups of advanced activities organised into 7 dimensions



Validation by RT expert panel (SAFE EUROPE project)



Patient care



Treatment planning



Treatment imaging & delivery



Management & consultancy



Quality & risk management



Research & innovation



Education & training

## RESULTS



Only 44% of the studies involve advanced practitioners RTTs (diverse job titles).



Only 13% of studies covers the 4 pillars of AP (most studies only focus on 1 pillar: clinical practice).



The most reported site-specific role is Breast Cancer (focus on comprehensive care, review clinics, interventions, target delineation, etc).

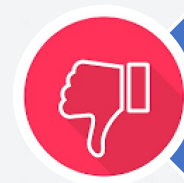


The most reported speciality is palliative care (holistic care, continuity of care, remote follow up, treatment prescription, etc).

## CONCLUSIONS



Two decades of evidence of AP roles. Positive outcomes in clinical, organizational and professional indicators.



Limited evidence of the 4 pillars of AP. Lack of cost-effectiveness evidence. Need for role standardisation.

Impact of Advanced Practice	Examples	Studies (n)
Higher service efficiency	patient throughput, workflow optimisation	30
Maintain quality standards	low observer variability - tasks performance	28
Improved patient satisfaction	quality of patient review, patient comfort	24
Enhanced patient experience	patient empowerment, patient reassurance	19
Increased job satisfaction	career progression, team working	18
Enhanced patient-focused care	continuity of care, holistic supportive care	15
Increased satisfaction of RT staff	recruitment & retention, workload optimisation	15

### References

<sup>1</sup> NHS. Multi-professional framework for advanced clinical practice in England 2017. <sup>2</sup>PRISMA-P Group, Moher D, Shamseer L, Clarke M, Ghersi D, Liberati A, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev 2015 <sup>3</sup>Wohlin C. Guidelines for snowballing in systematic literature studies and a replication in software engineering. Proc. 18th Int. Conf. Eval. Assess. Softw. Eng., New York, NY, USA: Association for Computing Machinery; 2014.

### Acknowledgements

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