



RTTs/TRs Advance Practice in Neuro-oncology: what the literature can tell us



Celeste Oliveira MSc

Therapeutic Radiographer & Researcher
Instituto Português de Oncologia do Porto, Portugal

PhD student of Advanced Practice in Radiotherapy
Advanced Biotechnology, Health, Universidade de Vigo, Spain

Disclaimer

Medical Imaging & Radiotherapy in Neurology

SAFE EUROPE Project



The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



SAFE Europe
Safe And Free Exchange of
EU Radiography Professionals
across Europe

Co-funded by the
Erasmus+ Programme
of the European Union

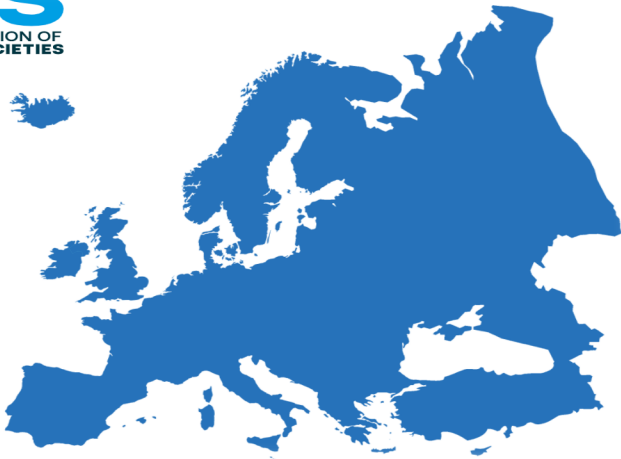


Polskie Towarzystwo Elekroradiologii

Context



EFRS
EUROPEAN FEDERATION OF
RADIOGRAPHER SOCIETIES



WP8: Advanced practice for TRs

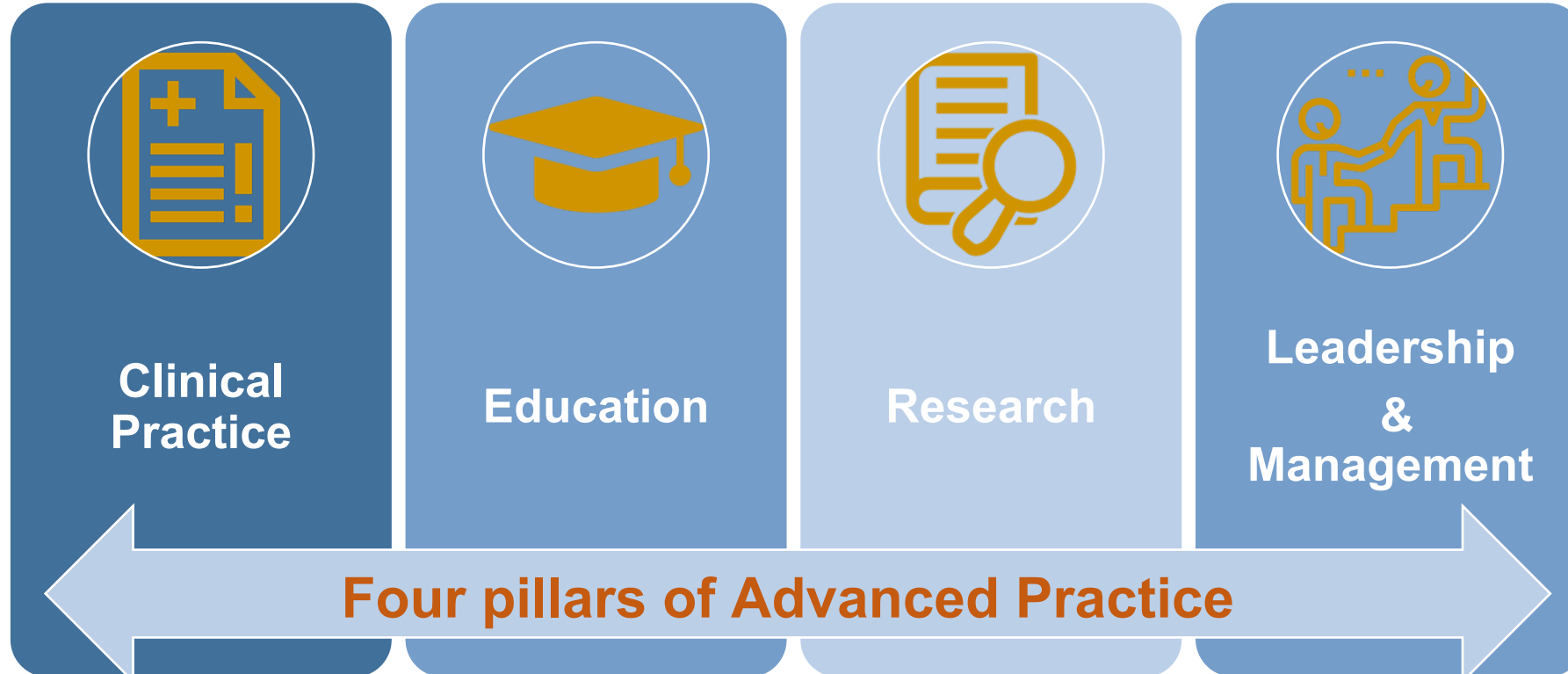
Aim: Assess radiotherapy advanced practice roles and identify the required capabilities, across Europe.

Objectives:

- Explore curriculum gaps on education and training programmes
- Identify new emerging advanced practice roles in radiotherapy

Output: Curriculum of webinar sessions regarding underdeveloped capabilities on advanced practice roles

Advanced Practice definition



HEE&NHS, 2017. *Multi-professional framework for advanced clinical practice in England.*

Systematic literature review-SLR



Which roles have developed in the advanced practice of radiotherapy?

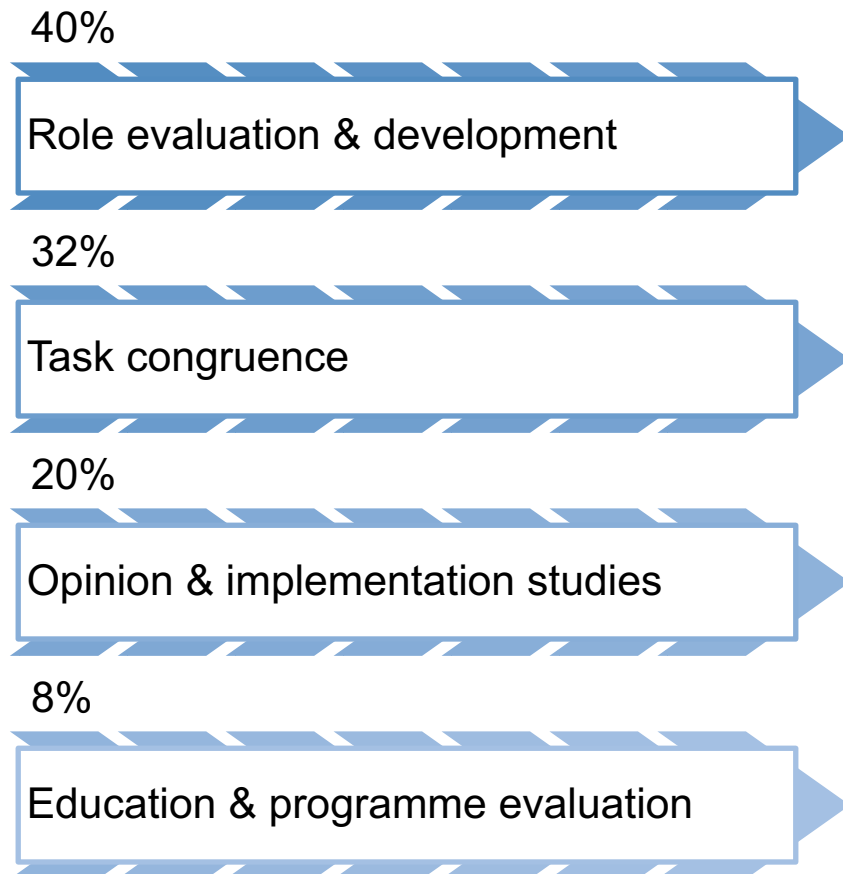
Checklist item	Information
Yes	No
MAKING	
1a Identify the report as a protocol of a systematic review	<input type="checkbox"/>
1b If the protocol is for an update of a previous systematic review, identify as such	<input type="checkbox"/>
2 If registered, provide the name of the registry (e.g., PROSPERO) and registration number in the abstract	<input type="checkbox"/>
3a Provide name, institutional affiliation, and e-mail address of all protocol authors; provide physical mailing address of corresponding author	<input type="checkbox"/>
3b Describe contributions of protocol authors and identify the guarantor of the review	<input type="checkbox"/>
4 If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	<input type="checkbox"/>
4a Indicate sources of financial or other support for the review	<input type="checkbox"/>
4b Provide name for the review funder and/or sponsor	<input type="checkbox"/>
5a Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	<input type="checkbox"/>
6 Describe the rationale for the review in the context of what is already known	<input type="checkbox"/>
Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	<input type="checkbox"/>

PRISMA-Protocol



Systematic search strategy

SLR results



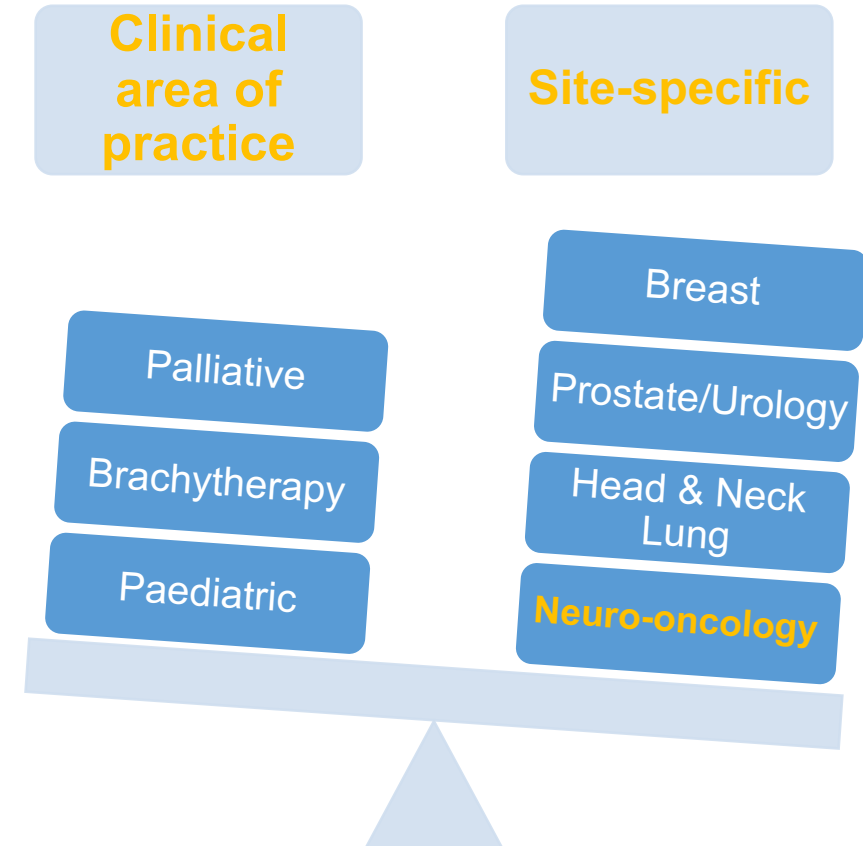
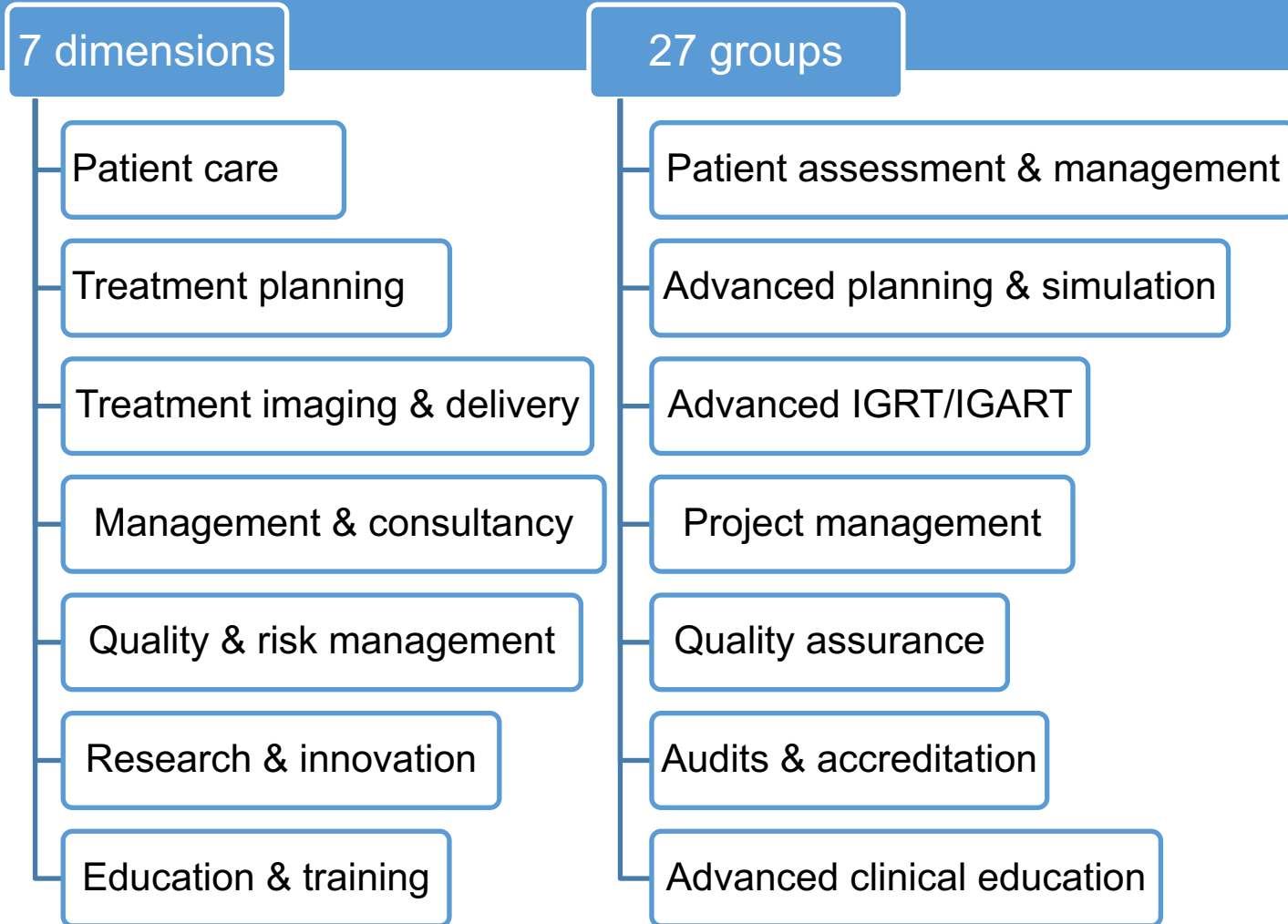
Since 1999

24%
Focus on
4 pillars

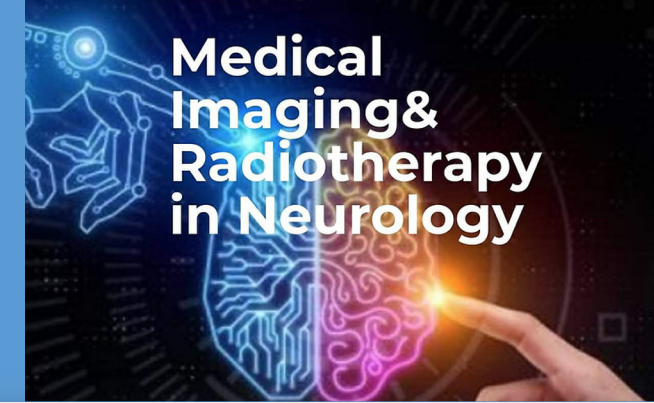
35% UK

44%
Advanced
Practitioner

SLR results: AP roles



Results in Neuro-oncology



Palliative care

Coleman 2009
Duffton 2021
Harnett 2018&2019
Rozanec 2017&2021
Wong 2021

Radical

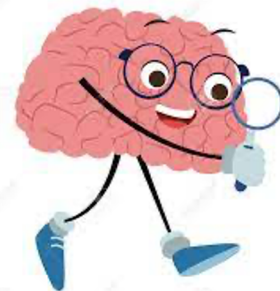
Duffton 2021

Brain

- Blyth 2000
- Job 2017&2018

MSCC & neurological symptoms

- Fitzpatrick 2020
- Goldfinch 2016
- Lacey 2015



Journal of Radiotherapy in Practice

Journal of Radiotherapy in Practice 2001
2, 85-90
© Greenwich Medical Media Ltd. 2001

Original Article

An innovative approach to palliative care within a radiotherapy department

C. M. Blyth, J. Anderson*, W. Hughson*, A. Thomas*

*Department of Clinical Oncology, Western General Hospital, Edinburgh, UK; *Faculty of Health Sciences, Queen Margaret University College, Edinburgh, UK*

Technical Innovations & Patient Support in Radiation Oncology 17 (2021) 102-107



ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Technical Innovations & Patient Support in Radiation Oncology

journal homepage: www.elsevier.com/locate/tipsro



Research article

Diversity in radiation therapist/therapeutic radiographer (RTT) advanced practice (AP) roles delivering on the four domains

Aileen Duffton*, Karen Moore, Aoife Williamson

Department of Radiotherapy, Beatson West of Scotland Cancer Centre, Glasgow, UK



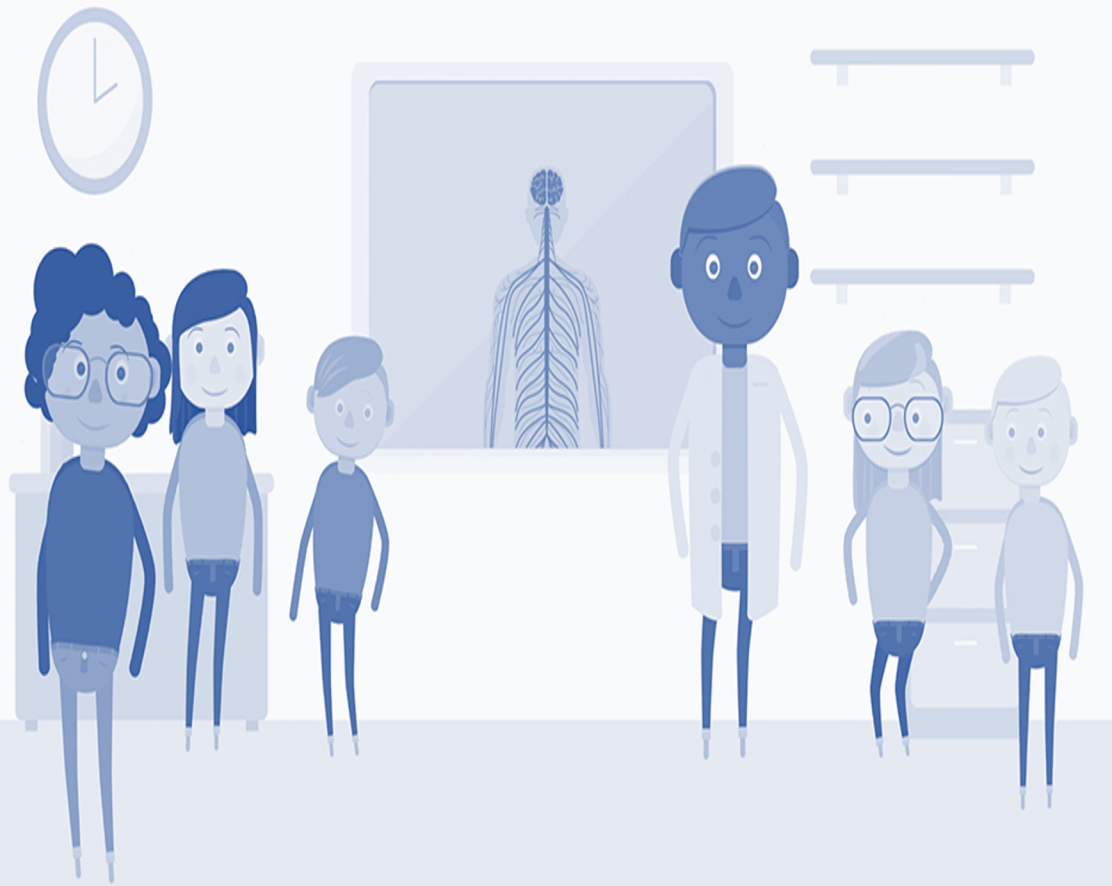
AP roles: Clinical Practice



- ✓ Patient referral and orders
- ✓ Patient assessment & consenting
- ✓ Patient information & follow-up
- ✓ Pharmacological intervention
- ✓ Advanced planning & simulation
- ✓ Supervision of complex techniques & cases
- ✓ Treatment prescription (Palliative care)

Duffton 2021, Wong 2021, Fitzpatrick 2020, Harnett 2018, Job 2019&2017, Rozanec 2021&2017, Harnett 2019, Goldfinch 2016, Lacey 2015, Coleman 2009, Blyth 2000

AP roles: Education



- ✓ Mentorship for MSc students & specialist registrars (e.g. residents and clinical fellows)
- ✓ Lecturer to undergraduate students
- ✓ Lead training for complex techniques

Duffton 2021, Rozanec 2021, Wong 2021, Fitzpatrick 2020,

AP roles: Research



- ✓ Lead service improvement & research
- ✓ Lead implementation of new technology/programmes
- ✓ Co-investigator trials
- ✓ Reviewer for peer review journals

Duffton 2021, Rozanec 2021, Fitzpatrick 2020, Lacey 2015

AP roles: Leadership & Management



- ✓ Responsible for local RT protocols
- ✓ Participate in national RT protocols
- ✓ Radiotherapy research group
- ✓ Involved in recruitment
- ✓ National working groups
- ✓ Maintain national & international profile

Duffton 2021, Rozanec 2021, Fitzpatrick 2020, Harnett 2018

AP roles **IMPACT** in Neuro-oncology



- ✓ **Service efficiency:** timely access to treatment, reduction in waiting times, efficient resource utilization
- ✓ **Patient care:** improve patient satisfaction (e.g. continuity of care), enhanced patient-focused care (e.g. holistic care)
- ✓ **Economic costs:** cost savings (e.g. minimising hospitals visits)
- ✓ **Quality service:** consistency in practice
- ✓ **Knowledge translation:** new findings



Wong 2021, Rozanec 2021&2017, Fitzpatrick 2020, Job 2019&2017, Harnett 2018, Goldfinch 2016, Lacey 2015, Blyth 2000

The literature tell us...



Advanced practitioners take roles that require high levels of **autonomy** and **complexity**

- ✓ previously taken by other professionals
- ✓ supported by **advanced education** (Master's degree or equivalent) and **professional experience**

The evidence supports advanced practice roles in Neuro-oncology

- ✓ but more **primary studies** are required
- ✓ preferably with indicators of **impact** (local evaluations!)

Dedicated Palliative AP roles are becoming more prevalent amongst RTTs.

References



- ❑ Blyth, C.M., Anderson, J., Hughson, W., Thomas, A., 2000. An innovative approach to palliative care within a radiotherapy department. *J. Radiother. Pract.* 2, 85–90. <https://doi.org/10.1017/S1460396900000145>
- ❑ Coleman, K., Herst, P., Sycamore, C., 2008. Role extension for radiation therapists in New Zealand: a survey of radiation oncologists and radiation therapists. *Shadows* 52, 11–8.
- ❑ Duffton, A., Moore, K., Williamson, A., 2021. Diversity in radiation therapist/therapeutic radiographer (RTT) advanced practice (AP) roles delivering on the four domains. *Technical Innovations and Patient Support in Radiation Oncology* 17, 102–107. <https://doi.org/10.1016/j.tipsro.2021.02.003>
- ❑ Fitzpatrick, C., Javor, J., Zywine, C., Job, M., Gram, V., 2020. Advancing Roles of Healthcare Professionals in Palliative Radiotherapy. *Clinical Oncology* 32, 753–757. <https://doi.org/10.1016/j.clon.2020.07.024>
- ❑ Goldfinch, R., Allerton, R., Khanduri, S., Pettit, L., 2016. The impact of the introduction of a palliative Macmillan consultant radiographer at one UK cancer centre. *The British journal of radiology* 89, 20160286. <https://doi.org/10.1259/bjr.20160286>
- ❑ Harnett, N., Bak, K., Lockhart, E., Ang, M., Zychla, L., Gutierrez, E., Warde, P., 2018. The Clinical Specialist Radiation Therapist (CSRT): A case study exploring the effectiveness of a new advanced practice role in Canada. *Journal of medical radiation sciences* 65, 86–96. <https://doi.org/10.1002/jmrs.281>
- ❑ Harnett, N., Bak, K., Zychla, L., Gutierrez, E., Warde, P., 2019. Defining advanced practice in radiation therapy: A feasibility assessment of a new healthcare provider role in Ontario, Canada. *Radiography* 25, 241–249. <https://doi.org/10.1016/j.radi.2019.02.007>
- ❑ Job, M., Holt, T., 2016. Evaluation of an advanced practice radiation therapist role in palliative radiation therapy. *Journal of Clinical Oncology* 34. https://doi.org/10.1200/jco.2016.34.26_suppl.136
- ❑ Job, M., Holt, T., Bernard, A., 2017. Reducing radiotherapy waiting times for palliative patients: The role of the Advanced Practice Radiation Therapist. *Journal of medical radiation sciences* 64, 274–280. <https://doi.org/10.1002/jmrs.243>
- ❑ Lacey, C., Ockwell, C., Locke, I., Thomas, K., Hendry, J., McNair, H., 2015. A prospective study comparing radiographer- and clinician-based localization for patients with metastatic spinal cord compression (MSCC) to assess the feasibility of a radiographer-led service. *The British journal of radiology* 88, 20150586. <https://doi.org/10.1259/bjr.20150586>
- ❑ NHS. Multi-professional framework for advanced clinical practice in England. Health Education England; 2017.
- ❑ Rozanec, N., Lavergne, C., Harnett, N., 2021. A Canadian experience of palliative advanced practice radiation therapy TIPS: Training, implementation, practice and sustainability. *Technical Innovations and Patient Support in Radiation Oncology* 17, 89–96. <https://doi.org/10.1016/j.tipsro.2021.01.003>
- ❑ Rozanec, N., Smith, S., Wells, W., Moyo, E., Zychla, L., Harnett, N., 2017. Patient satisfaction with the role of a Clinical Specialist Radiation Therapist in palliative care. *Journal of Radiotherapy in Practice* 16, 226–231. <https://doi.org/10.1017/S1460396917000267>
- ❑ Wong, S.M.M., Sin, S.Y., Lim, L.H., Nurul Tassha, B.M.A., Lin, J., Melissa, K., Koh, W.Y., Ho, F., Quah, D.S.C., Sommat, K., Tuan, J.K.L., Wong, F.Y., Ng, W.L., Yeo, R.M.C., Soong, Y.L., Wang, M.L.C., 2021. The implementation of an advanced practice radiation therapy (APRT) program in Singapore. *Technical Innovations and Patient Support in Radiation Oncology* 17, 63–70. <https://doi.org/10.1016/j.tipsro.2021.02.002>

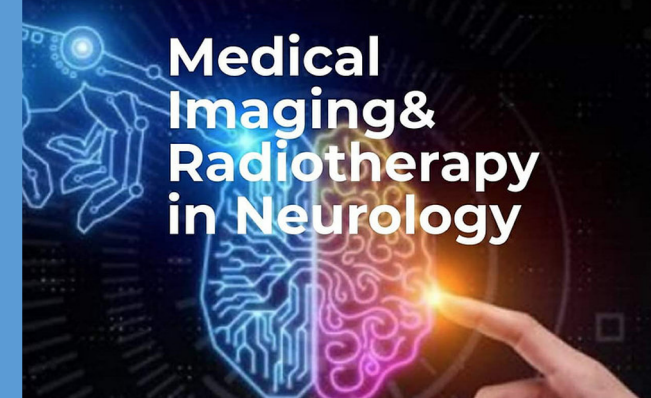
Acknowledgements



Research team: Bárbara Barbosa, Guilherme Couto
Supervisors: Isabel Bravo, Ricardo Khine, Helen McNair



Thank You!



@Celeste_M_O

@SAFEEurope1



celeste.m.oliveira@ipoporto.min-saúde.pt