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Editorial

Advanced practice in radiotherapy: How to move to the next level?



Every year there are approximately 9.6 million deaths caused by cancer globally [1]. Radiotherapy (RT) plays a key role in cancer management, and it is recommended as part of treatment for more than 50% of cancer patients [2]. As the number of new cases of cancer continues to rise, the demand for RT services has been increasing constantly. In the last decade, there have been rapid changes and progressive developments in the technology used for planning and delivery of RT. Besides of implementing the latest technology with cutting edge equipment, it is essential to continue developing and advancing the RT professional workforce in order to facilitate the safe delivery of advanced radiotherapy which meets with the service demand.

Radiation therapists (RTT) are responsible for planning and delivering RT treatments and play a non-replaceable role in cancer patients' RT pathways [3]. Task shifting is a Health Human Resource (HHR) strategy where a professional group, that generally requires less training and fewer qualifications, expands their scope of practice to close gaps with other professional groups that requires longer training, in order to tackle bottlenecks or gaps in the delivery of high quality and timely care to patients. For the purposes of streamlining workflows and generating system efficiencies in RT, this task delegation concept has been realised under the umbrella of 'advanced practice' (AP). It often involves the implementation of RTT AP by making the best use of existing scopes of practice and enhancing the potential of novel roles in RT patient pathways.

In this *tipsRO* special issue focused on advanced practice in RT, manuscripts have been selected to illustrate how these task-shifting, advanced RT practice initiatives are being implemented and making an impact on the effectiveness and efficiency in the radiation oncology domain while highlighting the factors that facilitate successful implementation and those that present ongoing challenges in a variety of jurisdictions.

A rising focus on productivity, workforce efficiency and increasing consumer expectations has created an urgency to review patterns of practice within RT workforce. In the manuscript prepared by Skubish et al, the relationships between the demand for cancer services and the drivers of and barriers to advancing the current RTT scope of practice (SoP) have been explored within the healthcare systems in the United States (US) [4]. It suggested that clear definitions of RTT AP roles were essential for trailblazing the RTT AP roles in the US with the aim to establish their long-term values with evidence-based research showcasing the roles' credibility and innovative benefits [4]. As a proof of this principle, the manuscript by Wong et al has been set out to examine how evidence-based processes can be employed in the implementation

of a new RTT AP practice model in Singapore with a defined SoP [5].

Various definitions and descriptions of AP in RT have been reported in the literature [6]. As described by the European society for radiotherapy and oncology (ESTRO) Radiation Therapist Committee (RTTC), RTTs who work at an AP level are required to demonstrate their expert practice in a specialised area with a leadership role in the development of RT services, and research associated with their specialties [6]. There is a growing evidence suggesting improved access and treatment quality for patients requiring RT as a result of implementing the RTT AP roles [7]. Within this *tipsRO* special issue, the manuscripts prepared by Buijs et al [8] and van Pelt et al [9] continue this trend by illustrating how the evolution of the RTT AP roles can enhance the efficiency of the RT patient pathway in terms of RTT led image guided radiotherapy workflow and breast RT target volume delineations.

The development of AP in RT is constantly progressing locally and globally. There are several countries including Australia, Canada and the United Kingdom (UK) embracing the benefits of having RTTs in AP roles through providing national policy and framework documents and aligned resources to support the consistent implementation of these roles into the multi-disciplinary clinical setting. With the aim to explore the perspectives and influencing factors driving the implementation of RTT AP roles, there are three manuscripts in this special issue featuring the lessons learnt in progressing regional and/or national implementations of RTT AP in Australia [10], Canada [11] and the UK [12].

Reviewing the published literature, there is limited evidence showcasing the wider impact of AP in RT on research, service transformation and patient outcomes [13]. The impact on patients, staff and the organisation can be direct or indirect, immediate or delayed, and intentional or unintentional [14]. The manuscript by Duffton et al provides several clear and transparent examples of AP activities in RT under the themes of Clinical and expert practice, professional leadership and consultancy, education, training and development, and practice and service development, research and evaluation [15]. The need for measuring impact of these AP roles has been highlighted in this manuscript; comprehensive, well thought-out strategies should be in place for the development of future AP posts with a proactive succession planning that guarantees the continuity existence of these roles [15].

There is no doubt that each AP position is unique. The concepts of task shifting through AP roles should not be interpreted as replacing medical colleagues but rather as a way to rationalize who provides what service, in order to augment the efficiency and effectiveness of our healthcare system for patients getting

the right care at the right time [16]. The collection and communication of compelling evidence of impact is a key challenge given the uniqueness of each position and the overall low number of AP roles in each clinical and professional speciality. In order to advocate for AP roles in RT, more robust, multi-position and multi-institutional “proof of concept” studies are required to quantify the impact of these roles. It is essential for all of our colleagues in AP roles to work in unity to promote the visibility of the overt and hidden impacts that the roles enable in clinical service delivery. Establishing an international community of practice for AP in RT can be one of the many approaches to unify our efforts and find synergies and unique opportunities to collaborate locally and internationally; it provides an international forum for exchanging, disseminating and generating new knowledge within our radiation oncology community.

If we truly believe in the positive influence of AP roles on RT service delivery and patient care, more roles in more specialities in more departments world-wide should be invested, implemented and developed. This will only happen when we strive for gathering all relevant information in a consistent manner and provide evidence that will compel healthcare service users and RT departments to do so. The papers presented here in this special issue provide guidance, data and food for thought for those considering or already implementing AP in RT.

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