

Background

- Advancements in image-guided adaptive radiotherapy (IGART) have been rapid in recent years
- Development of radiation therapist (RTT) specific competency-based training frameworks have been necessary to ensure quality and safety
- RTT scopes of practice can now be heavily dependent on the achievements of competencies instead of traditional role seniority

Aims

- To critically reflect on concepts of competency and proficiency with junior and senior RTT
- To explore the perceptions of RTT in relation to competency versus seniority when delivering IGART
- To explore service development benefits and potential barriers in moving to a competency-based system as opposed to one grounded on traditional seniority



Method

- A bespoke reflective training session on the concepts of competency and proficiency was designed and delivered by a senior RTT specialising in education and training.
- Staff who attended the training sessions were asked to complete a post training survey on their perceptions of how a competency-based IGART system could impact the department across three domains – safety, efficiency and job satisfaction
- A Mann Whitney test was used to determine if there were any significant differences in the scores of Likert questions between the junior and senior RTTs.

Results

- 16 RTTs (7 junior and 9 senior) attended the training sessions across 3 groups
- Statistically significant differences of perceptions under safety and efficiency seen between the junior and senior RTT groups ($p < 0.01$)
- General unease was expressed from the senior RTTs on the potential for allowing junior RTTs to work together, even if they were to hold sufficient IGART competency
- Junior RTTs were generally more positive in their perception, identifying being able to gain experience to progress towards a senior role as being a potential benefit

Likert Questions	Junior RTT Median score (range)	Senior RTT Median score (range)	P value
How safe do you think it would be for two fully competent junior RTTs to deliver IGART on a linac together with remote senior RTT support if required? (1 being not safe at all to 5 being exceptionally safe)	3 (3-4)	2 (1-3)	$P < 0.01$
Do you think it would impact efficiency if two fully competent junior RTTs to deliver IGART on a linac together with remote senior RTT support if required? (1 being no impact to 5 being exceptionally high impact)	4 (3-5)	2 (1-3)	$P < 0.01$
Do you think it would impact RTT job satisfaction if radiotherapy treatment delivery was governed by competency entitlements instead of role seniority? (1 being not satisfied at all to 5 being exceptionally satisfied)	3 (1-4)	1 (1-5)	$P = 0.27$

Table 1 - Results of Mann Whitney U test indicating significant difference in opinion $p < 0.05$

Conclusion

- There was a low level of understanding of different levels of practice within the competency framework
- Senior RTTs were more likely to view having junior teams treating patients negatively, even if competent, despite being the group who would gain the most in terms of additional time for their own projects, training and research
- Overall, perceptions of moving to a fully competency driven training framework was mixed between the groups

Implication for practice

Further investigation of the potential for reducing our reliance on role seniority is required, specifically around -

- increased competency and proficiency assessments
- Co-creation of working practices, with the aim to enhance patient care and departmental efficiency