

Taking Advanced Practice Skills Full Circle

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Disclosures

- None

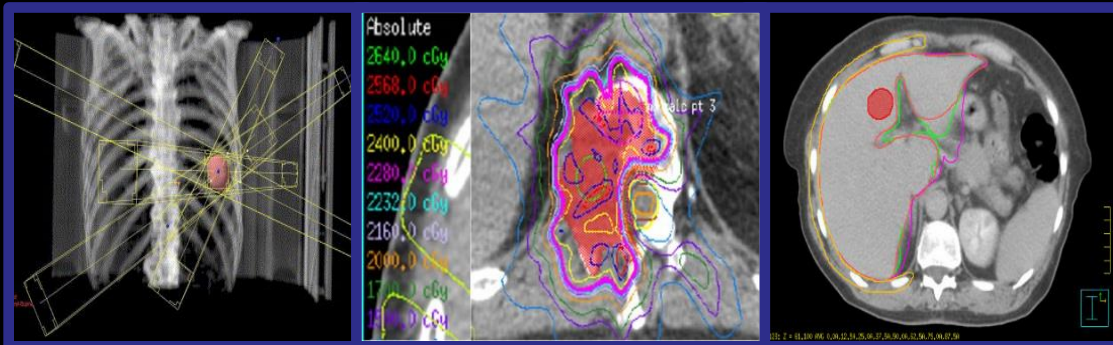
Odette Cancer Centre (OCC)

- Cancer program opened in 1982 and now sees over 10,000 new patients per year
- One of the program's strategic goals is to enhance our work in specialized image-guided ablative therapies and specifically to expand research into Stereotactic Body Radiotherapy (SBRT)

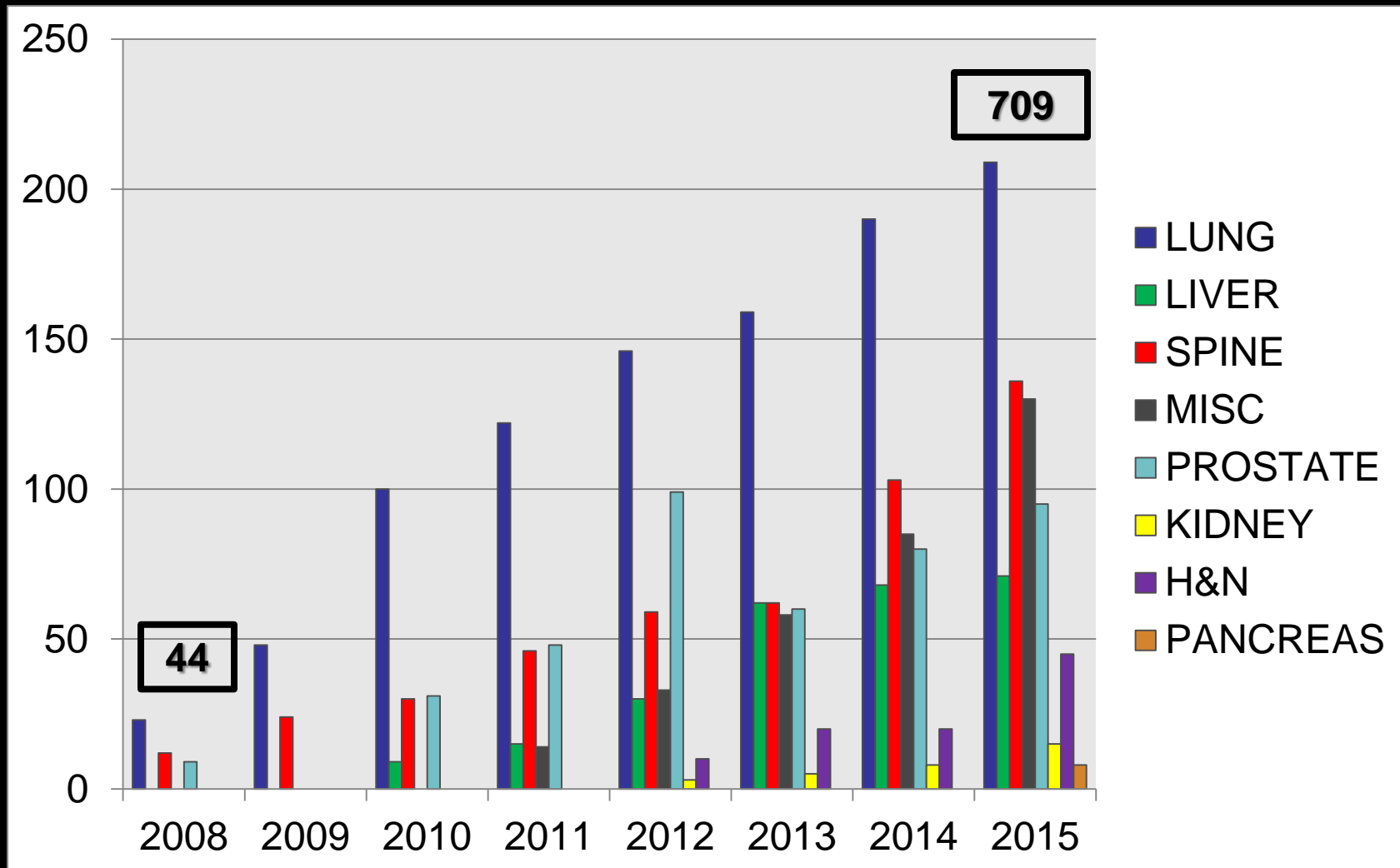


SBRT Program at OCC

- Lung and Spine SBRT Programs started in 2008
- Liver SBRT Program began in 2010



SBRT Program at OCC



Overview of CSRT in SBRT Role

- Assessment of Day 1 Cone beam CT (CBCT) registrations
- Weekly review or last day assessment of SBRT patients
- Patient navigation
- Technical expert
- Educational lead in SBRT for radiation oncology department
- Initiate and conduct SBRT related research

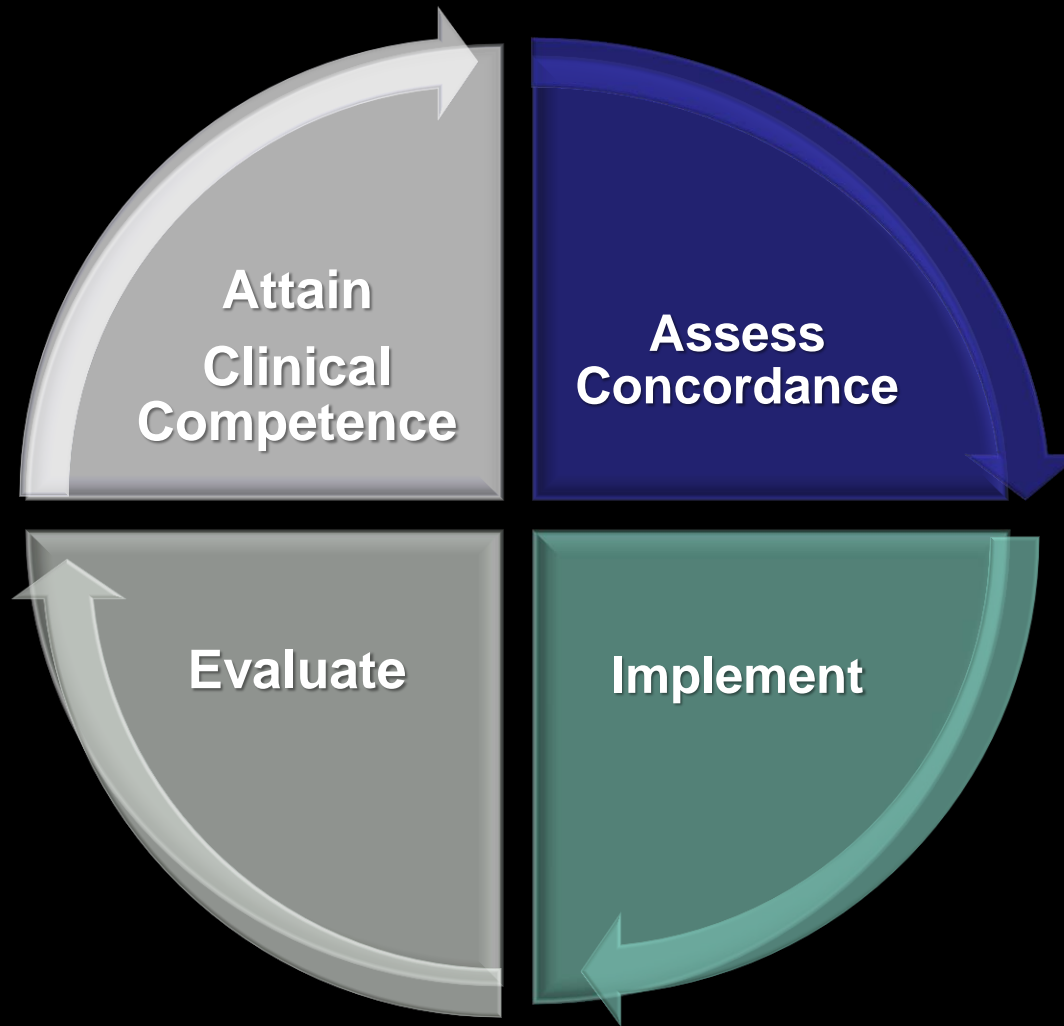
Identified Gap in Care

- Review Day 1 CBCT registrations for SBRT patients in place of radiation oncologist
 - General time savings for physicians (and patients)
 - Eliminates interruptions during consultations with other patients
 - Reduce the time that treatment machine waits for physicians, which may offer potential to reduce treatment times

What Does the Literature Say?

- Based on the high agreement, low false negative and acceptable false positive rates, reasonable that radiation therapists adopt process of approving verification films Holden & Loblaw *Can J Med Radiat Technol* (2005)
- With daily CBCT, waiting for physician approval in all situations would paralyze workflow, some institutions have elected “imaging specialists”
White & Kane *Semin Radiat Oncol* (2007)
- AAPM TG101 (2010)

Implementation Plan



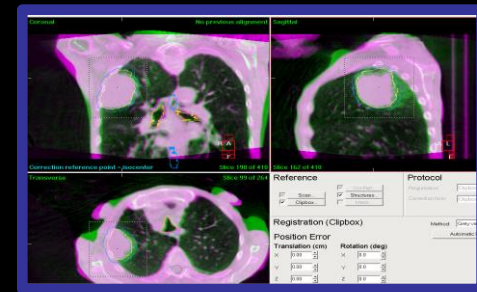
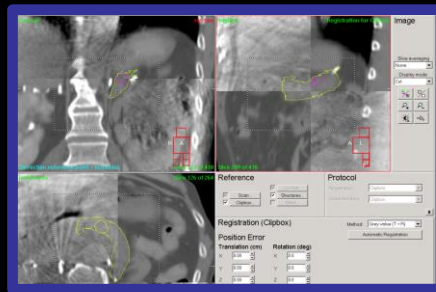
Concordance Results by Site

	Agree	Disagree (not clinically significant)	Total	Percent Agreement
Adrenal	2	0	2	100
Kidney	3	0	3	100
Liver	10	2	12	83.3
Lung	20	0	20	100
Nodal Recurrence	2	0	2	100
Prostate	3	0	3	100
Bone Mets	2	0	2	100
Total	40	2	44	0.95

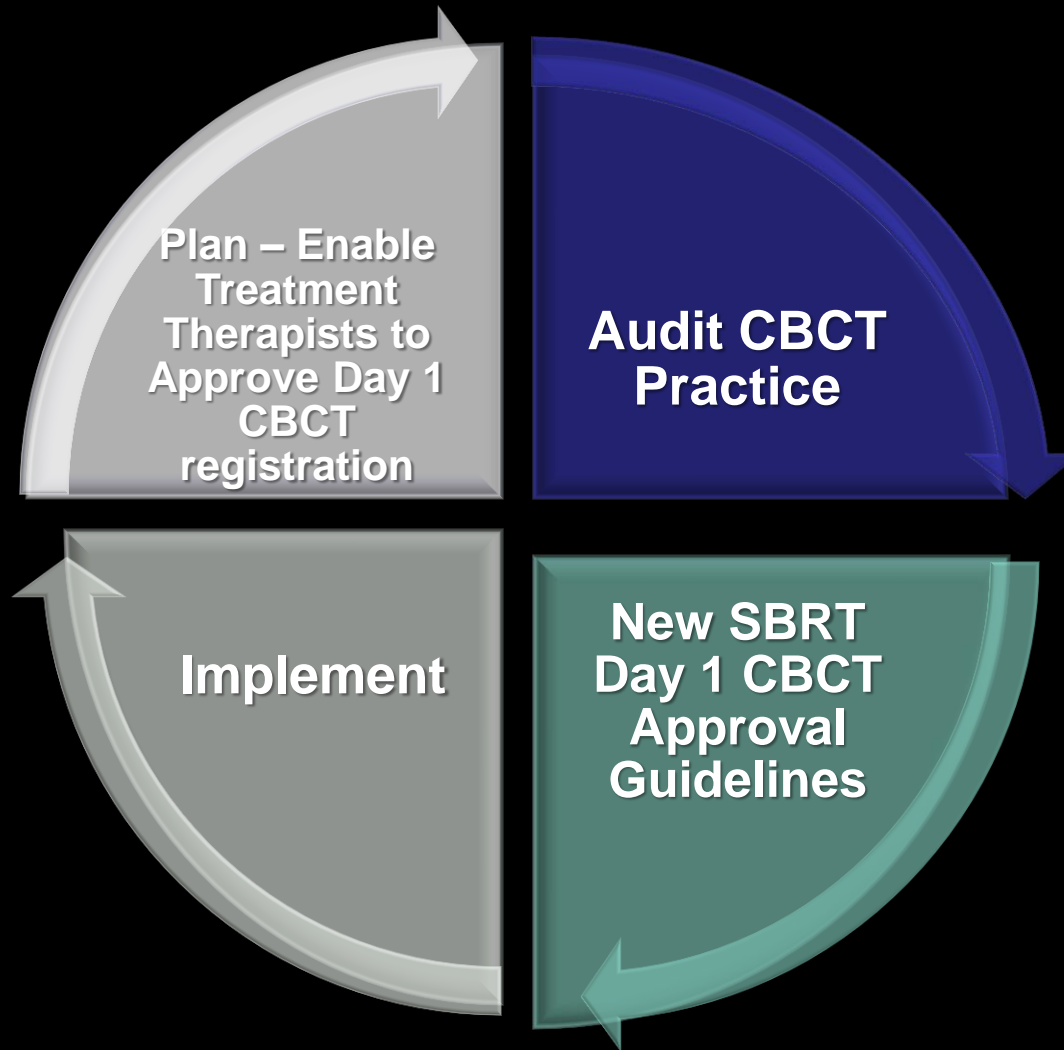
- Average time that the treating radiation therapists waited for the physician once paged for CBCT registration was 6.74 minutes

Impact

- In 2014, CSRT approved 167 Day 1 CBCT registrations in place of the radiation oncologist, averaging 14 per month, which translated to an approximate time savings of 3.5 hours for the physician
- This increased to 235 Day 1 CBCT registrations in 2015, averaging 19.5 per month, which translates to a monthly time savings of approximately 5 hours



Evolution Phase



Audit

- CSRT performed audit of SBRT CBCT registration practice
 - Determined that automatic registration worked very well for bone targets as well as peripheral lung
 - Liver SBRT registrations always required manual adjustment
- Results informed new Day 1 CBCT registration approval policy that permits independent review by treatment radiation therapists for select cases



Conclusion

- Advanced practice radiation therapy roles should not be stagnant
- Necessary to recognize progress and adapt to align with evolving needs
- Evaluation is imperative
- Responsibility to impart advanced knowledge, skills and judgment to radiation therapy department to enhance practice



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Questions



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