

#### USING ALIGN RT INBORE SGRT TECHNOLOGY WITH BORE-BASED LINACS

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#### 2 TRUE BEAMS



#### 2 BORE BASED LINACS





### ETHOS & HALCYON

# WHAT IS INBORE SGRT & HOW IS IT HELPFUL?

Real time active monitoring system used to help verify patient set-ups with surface guided technology.



Helps limit the amount x-rays taken for patient positioning. Does not emit radiation.(ALARA)

 $\bullet \bullet$  Works as a verification system/second pair of eyes.



Adds efficiency to the flow of the department minimizing the amount of time the patient is on the table.

# COMPARE AND CONTRAST

# True Beam:

# COMPONENTS OF INBORE ALIGN RT

- Inbore Ring attached to the inside of the linac bore: Actively monitors patient movement while in treatment mode.
- Ceiling mounted cameras: Assists with the set-up mode of the workflow.
- Align RT Computer Software: Quality Assurance Select/Adjust ROI (Region of interest) Indicates patient position/patient intrafraction movement.







# MOST COMMON TREATMENT SITES

#### BREAST TREATMENT WORKFLOW DIBH/FREEBREATHING TANGENTS

- Select FB Align RT for patient.
- Under Set-up Mode, press the play button. Ceiling mounted cameras will turn on.
- Bring patient to set-up iso (pseudo iso).
- Adjust the vertical, lateral and longitudinal using machine controls.
- Adjust yaw, roll and pitch manually by moving the patient.
- Once patient position is within tolerance, select DIBH Align RT for patient.
- Have patient hold their breath and verify patient is within tolerance.
- Switch to Treatment Mode and load patient to treatment iso.



# BREAST TREATMENT WORKFLOW CONT...





Average treatment time from start of CBCT to beam off is 3.2 minutes.

# BRAIN TREATMENT WORKFLOW



- Under Set-up Mode, press the play button. Ceiling mounted cameras will turn on.
- Bring patient to Set-up Iso.
- Adjust the vertical, lateral and longitudinal using machine controls.
- Adjust yaw, roll and pitch manually by moving the patient.
- Once patient's position is within tolerance, clamp mask.
- Switch to Treatment Mode and load patient to treatment iso.





# BRAIN TREATMENT WORKFLOW CONT...

On average, the magnitude of shifts were 3 to 4 mm in the vertical, lateral and longitudinal direction.

Out of the 21 patients that are currently using SGRT for treatment, only one patient had to be rescanned.

# EXTREMITY TREATMENT





# <complex-block>

Setup is

Continue

**STEP 1/2** 

# QUALITY ASSURANCE

# THE FUTURE OF INBORE SGRT

• Ethos: Adaptive Planning for Prostate & Gyn Treatments

-Adaptive treatments can anywhere from 20 minutes to 40 minutes.

-The longer the patient is on the table, the higher the possibility for intrafraction movement.

-Allows us to monitor for any movement while the adaptive plan is being created.



# CONTRIBUTORS/COLLABORATORS

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