



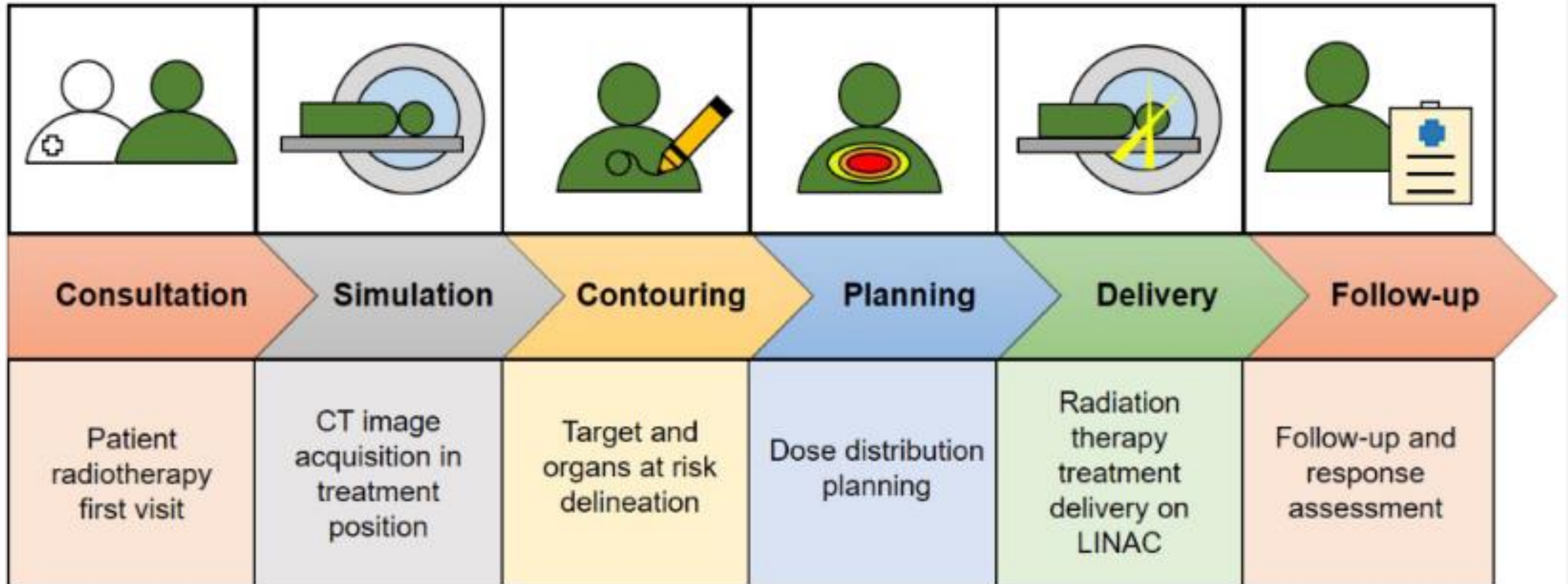
SGRT For Head And Neck Cancers On Ethos With Open Face Mask

Mr. RONIT ROY
Radiation Therapist

Sir H N Reliance Foundation
Hospital, Mumbai.



Current Practice



What Is SGRT



Timeline

Planar/2D imaging

Port films

EPID

Volumetric/3D imaging

Fan beam CT

CBCT

4D imaging

SGRT

Exactrac

Calypso

Timeline

Planar/2D imaging

Port films
EPID

Volumetric/3D imaging

Fan beam CT
CBCT

4D imaging

SGRT
Exactrac
Calypso

Timeline

Planar/2D imaging

Port films
EPID

Volumetric/3D imaging

Fan beam CT
CBCT

4D imaging

SGRT
Exactrac
Calypso

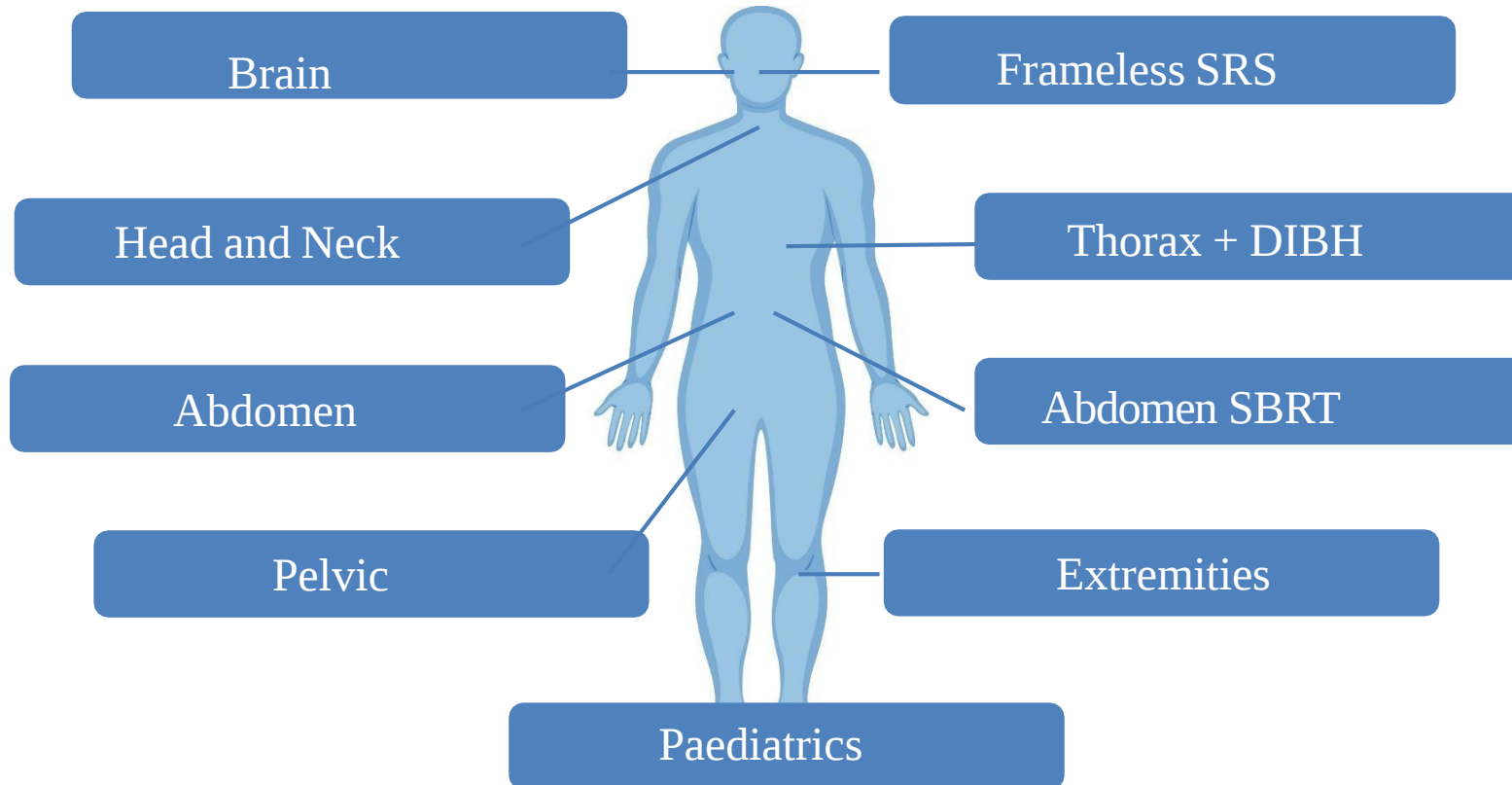




In Bore SGRT Camera



Patient Selection Criteria:



Work Flow of SGRT – AlignRT System:

Planning in AlignRT

- Planning CT (Sim RT)
- RT structure Export to TPS

Preparation in AlignRT

- Patient Plan Import
- ROI Delineation

Treatment Delivery + AlignRT

- Setup
 - Monitoring
- 

Minimize Immobilization -



5 Clamp H&N Open



CombiFix System



Breast Board



3 Clamp Brain Open



Vacloc

Video Of Roi Delineation For Head And Neck Cancer Patient

Import DICOM (1) Set Treatment

Treatment Course

- IM124 [Head and Neck]
- VA140 [Unassigned]
 - ISO 1 [26.9, -214.9, -333.0] ⓘ
 - CT SIM Body 09/05/2025 16:26:47

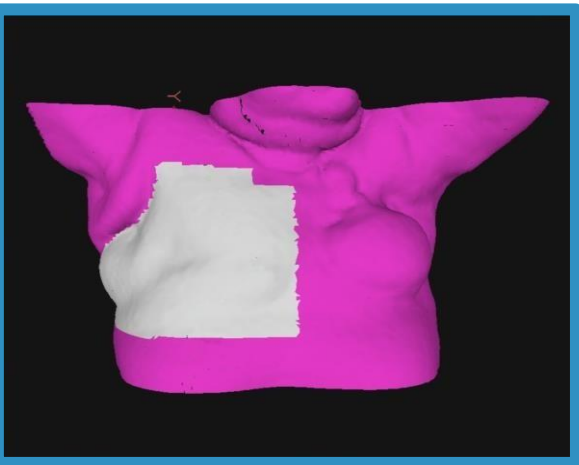
DICOM Plans

Plan Name	Date/Time Sent	Protocol	Structure Sets
☒ VA140	13/05/2025 15:22	Select Protocol	Body

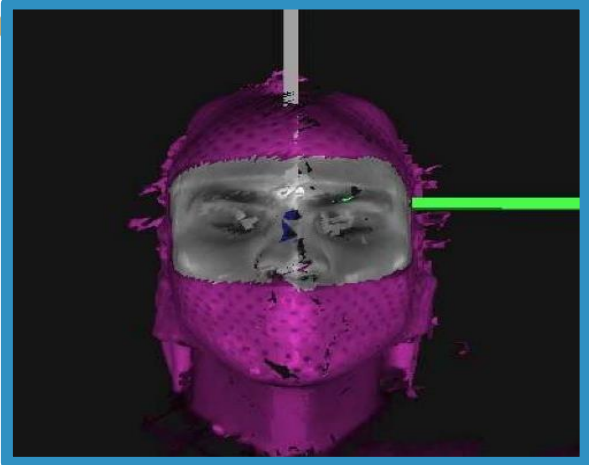
- Intracranial SRS
- Extremities
- Breast DIBH
- Chest Wall DIBH
- Chest

Browse files... Save Cancel

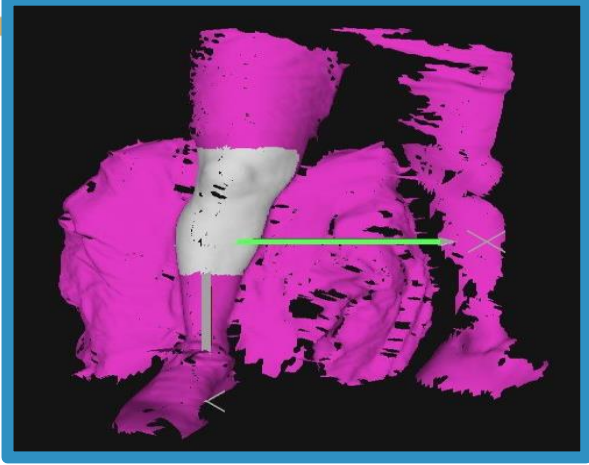
Can Be Used In Any Treatment Site



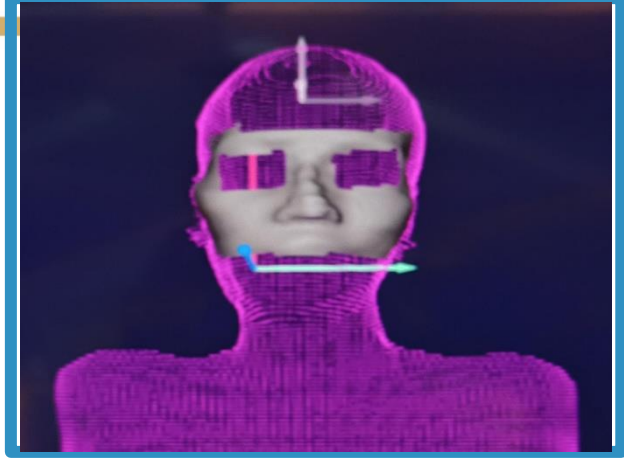
BREAST/PE
LVIS ROI



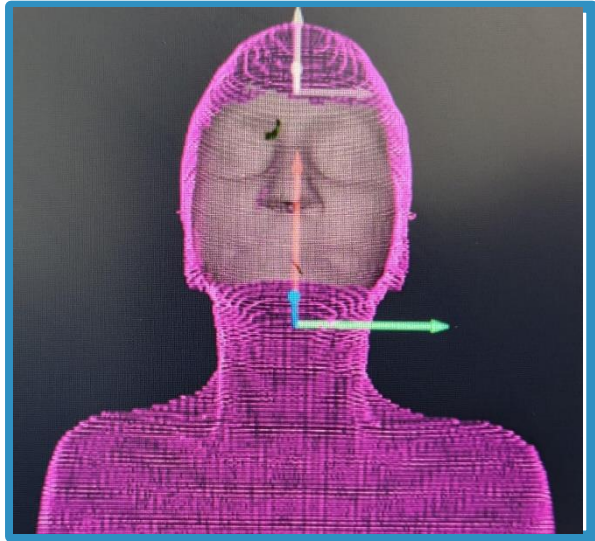
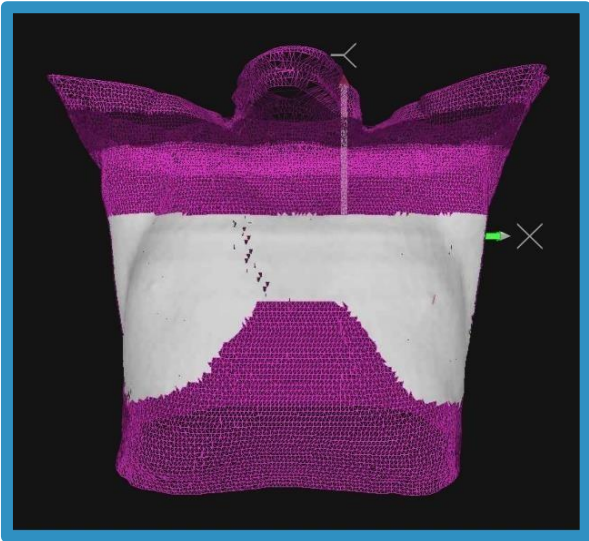
SRS BRAIN / SBRT
LUNG



EXTRIMETIES /
ABDOMEN

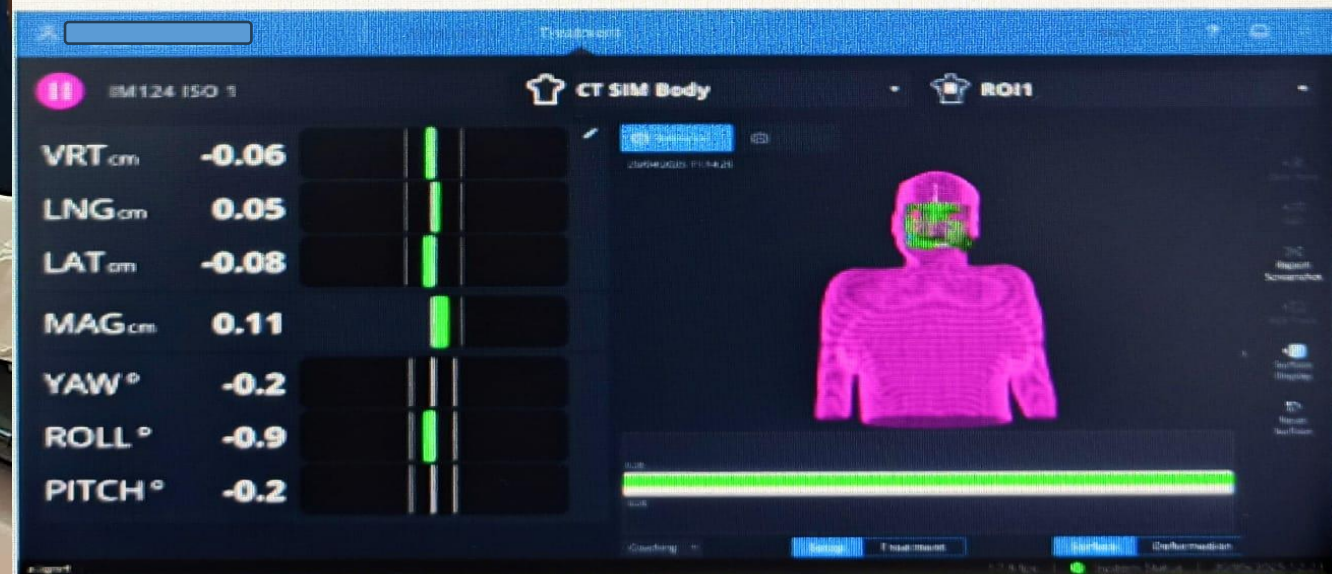
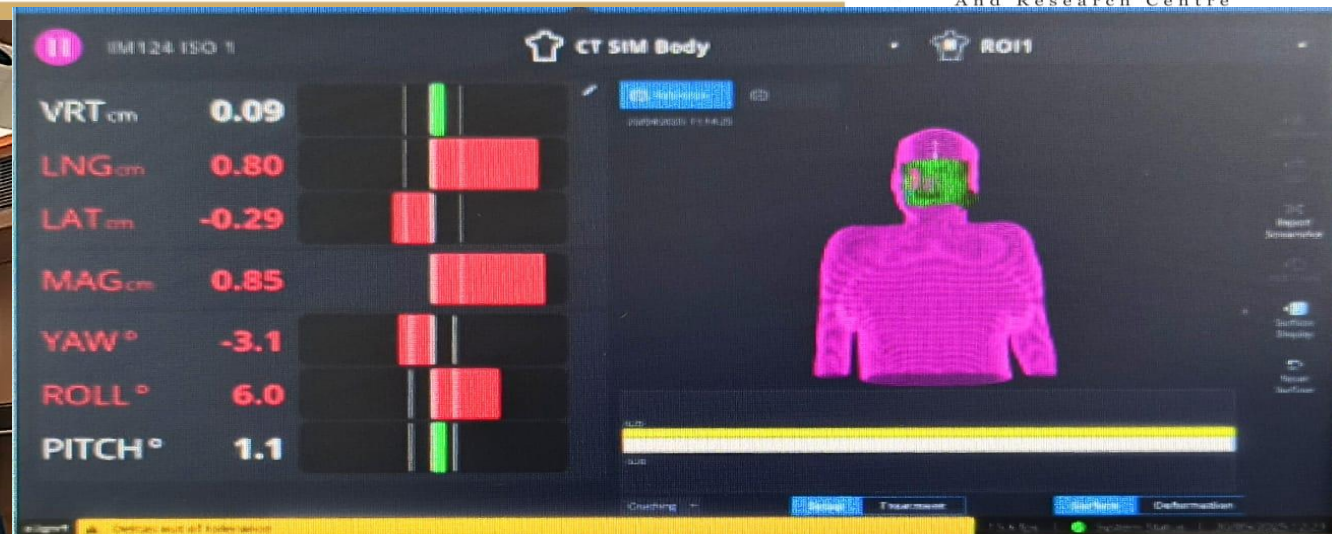


HEAD AND NECK/

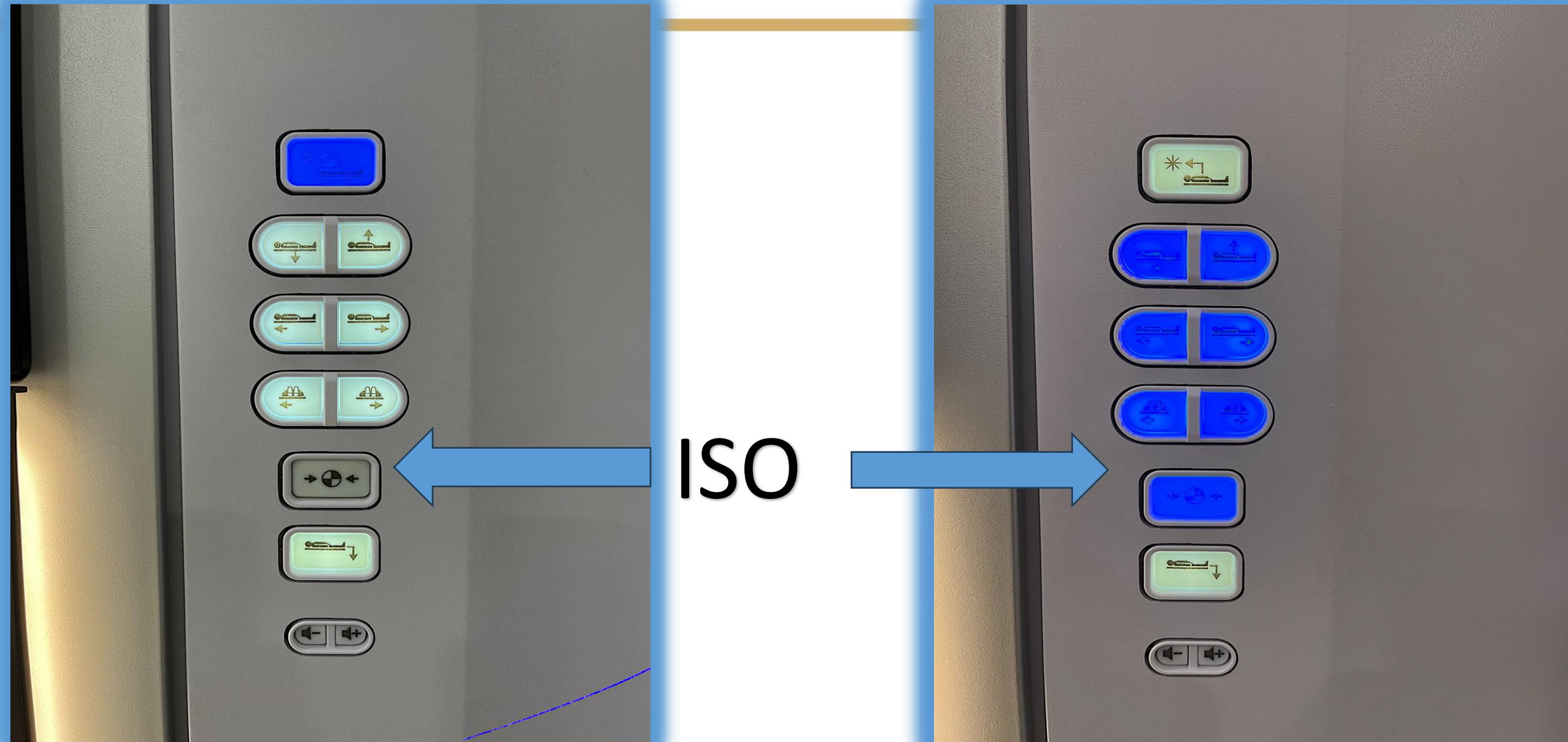


SGRT For Head And Neck Patient Setup In Ct

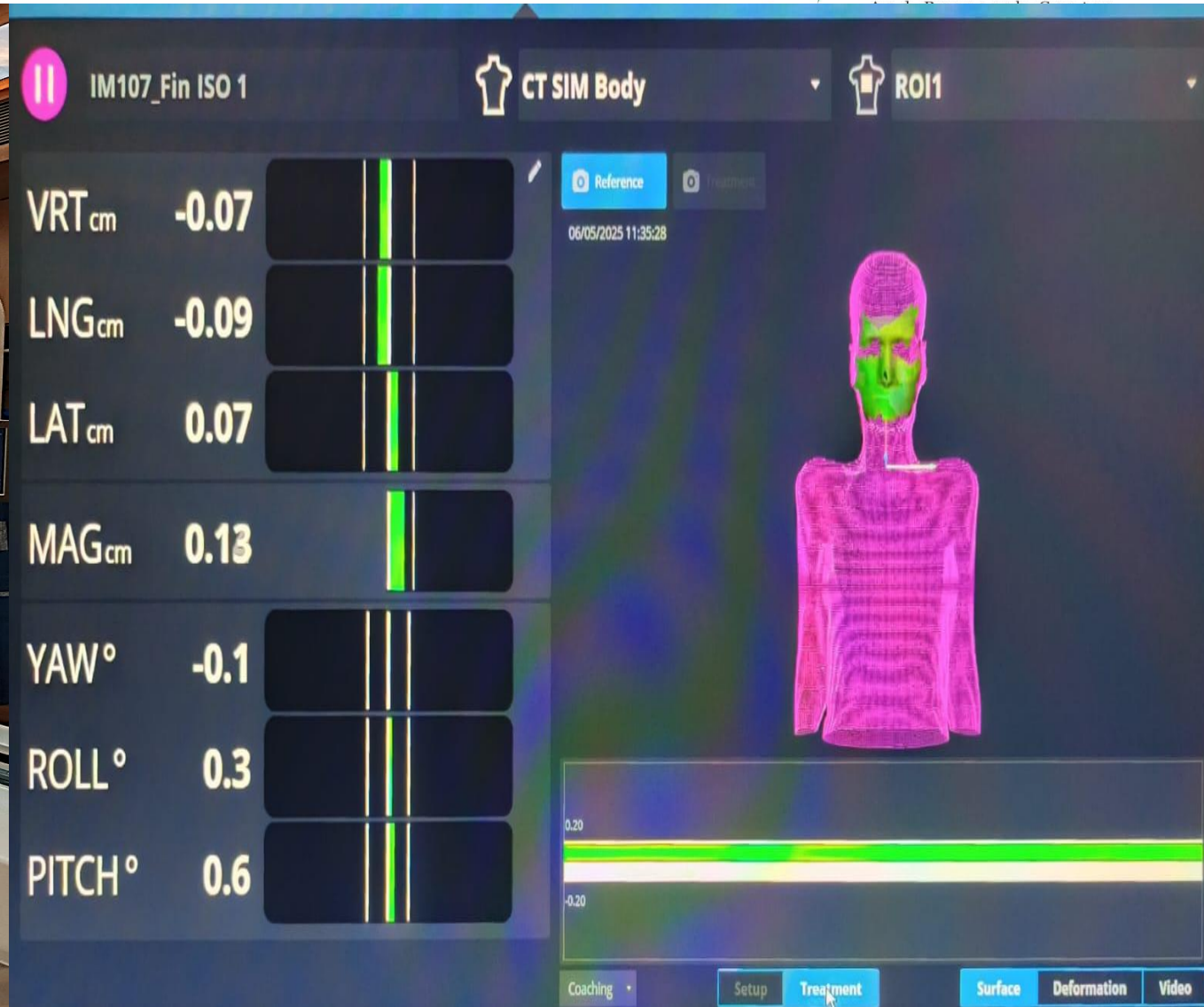
Reference Point



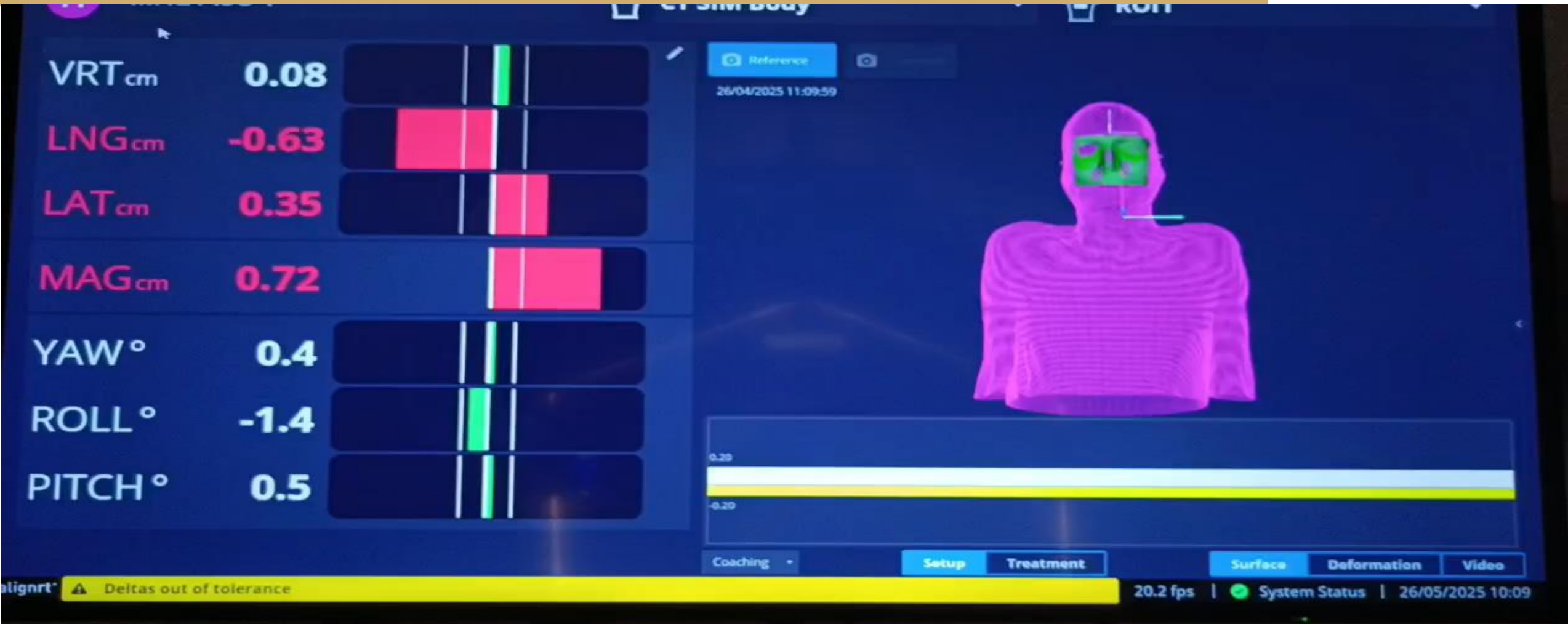
Control Panel In Ethos Machine



SGRT Head And Neck Patient Setup In Treatment Isocenter



Patient Setup Video With SGRT

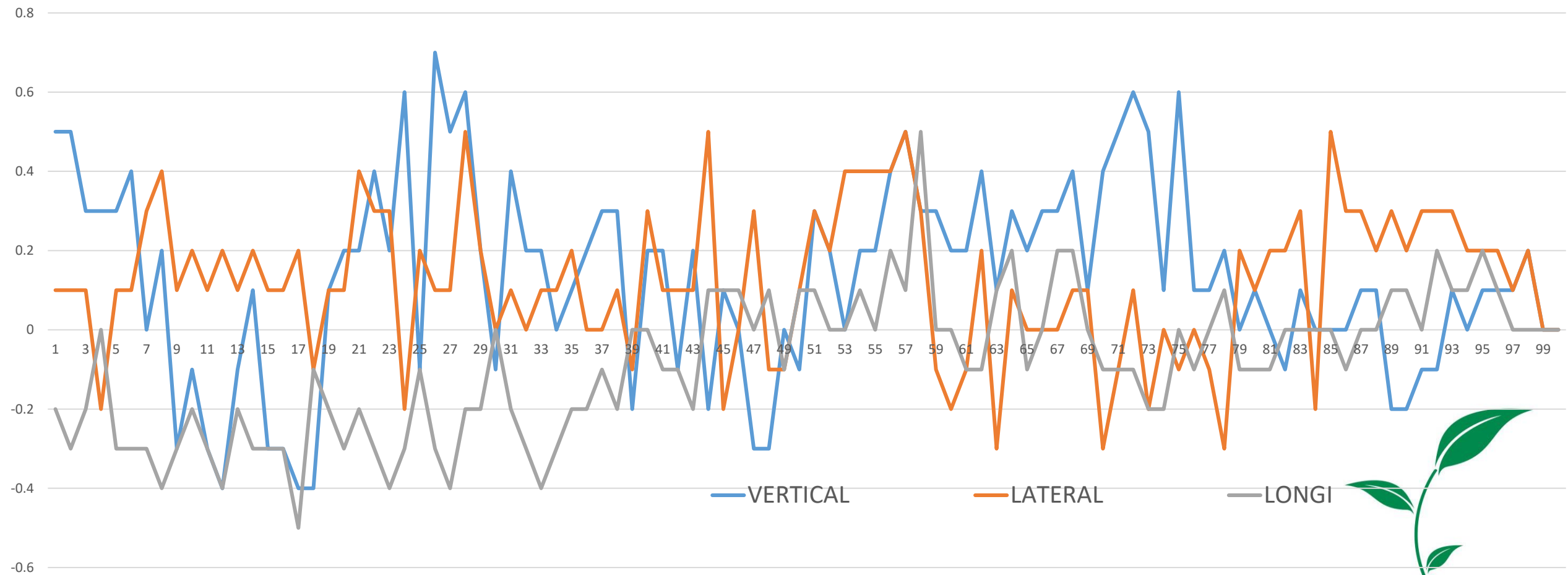


After Setup CBCT Matching



CBCT Shift Values After SGRT Set up

CBCT SHIFT WITH SGRT SETUP



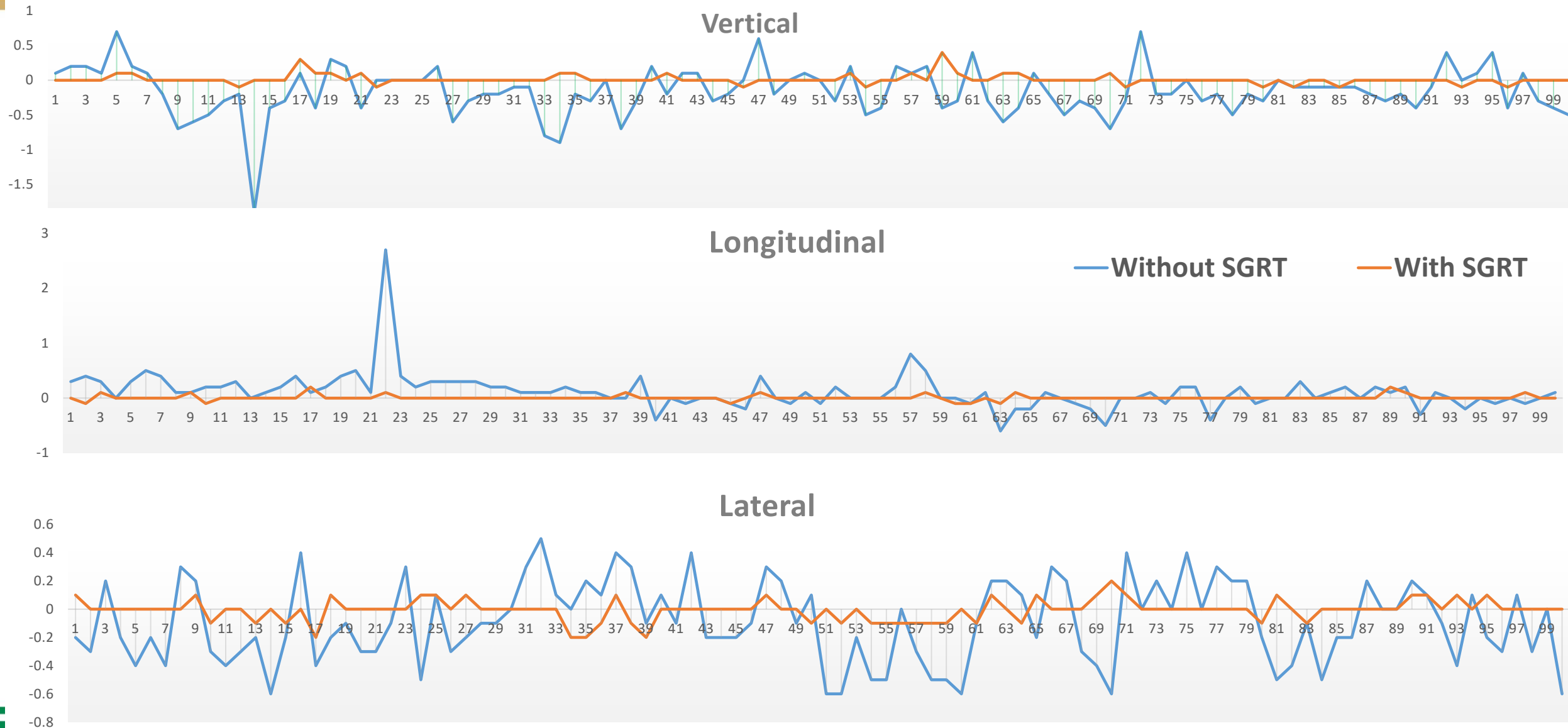
Treatment And Monitoring – Ethos



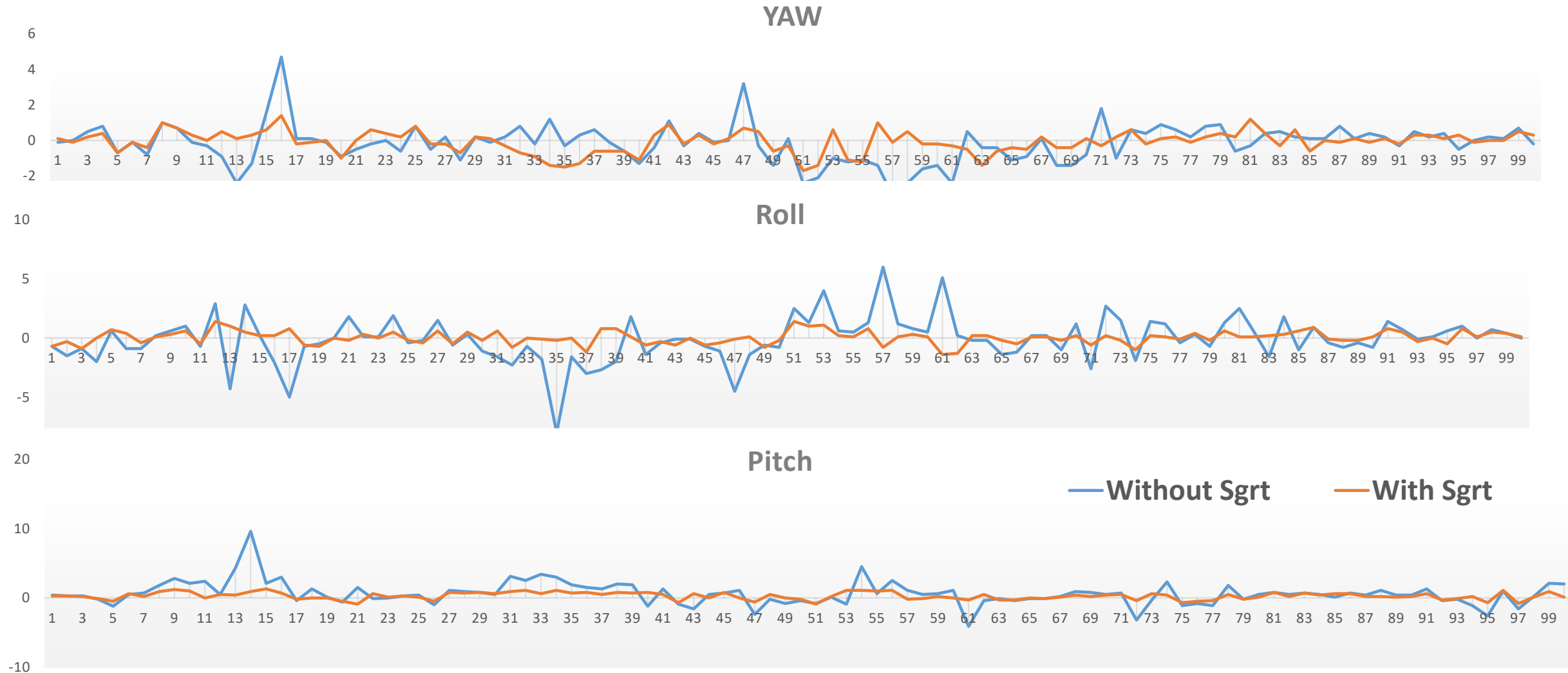
Open Face Mask For Head And Neck Patient



Data Of Setup Accuracy With SGRT : Head & Neck (ETHOS)

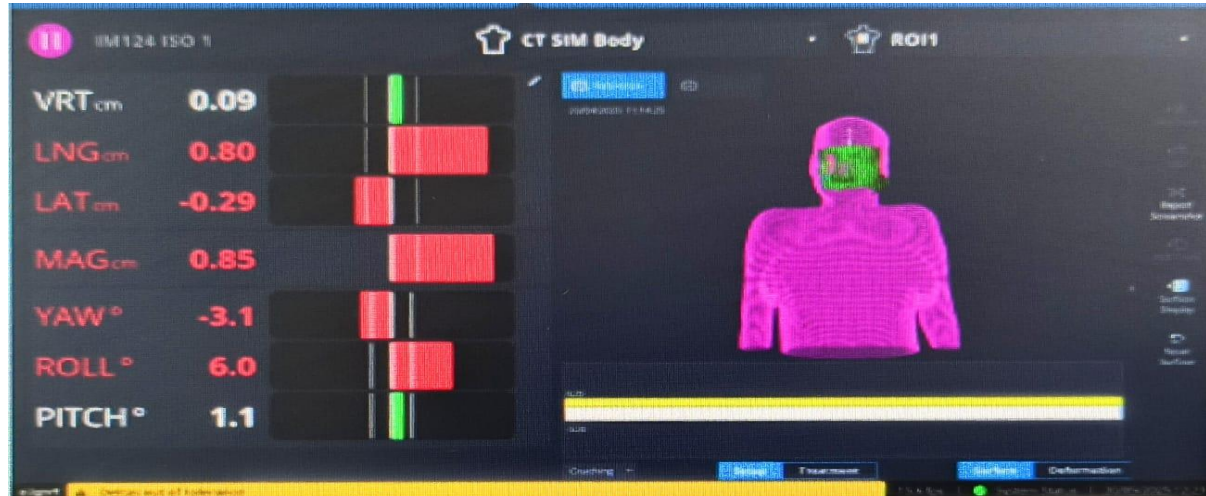


Data Of Setup Accuracy With SGRT : Head & Neck (ETHOS)

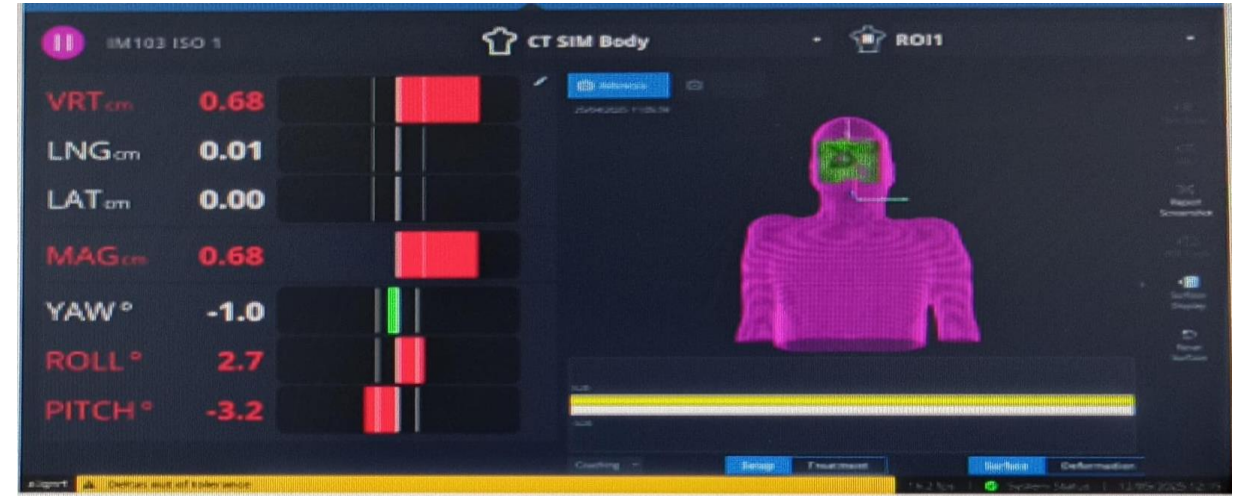


Without SGRT Vs With SGRT For Head And Neck Setup

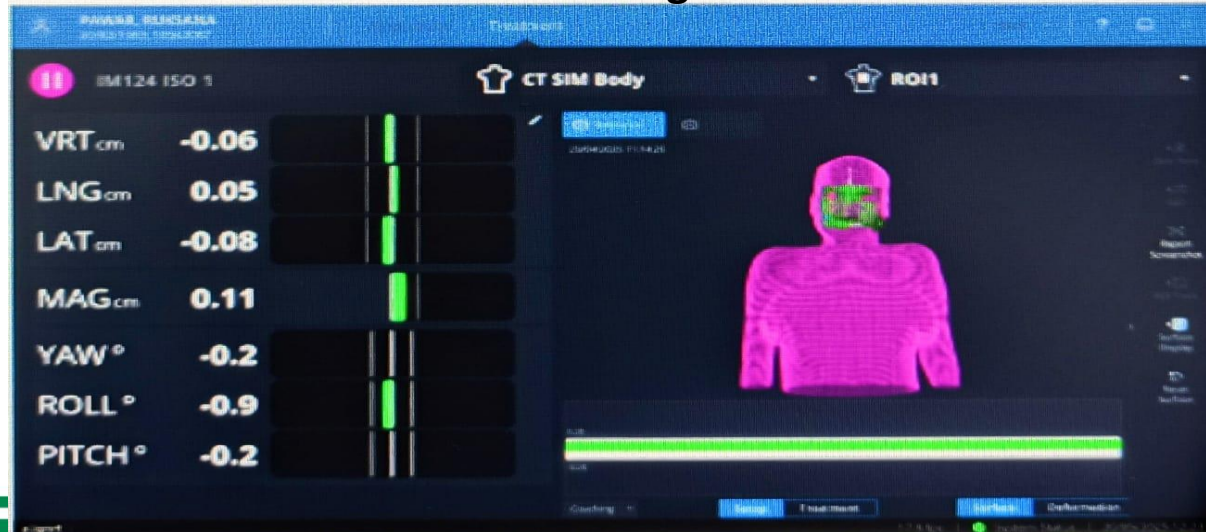
Patient one Without Sgrr



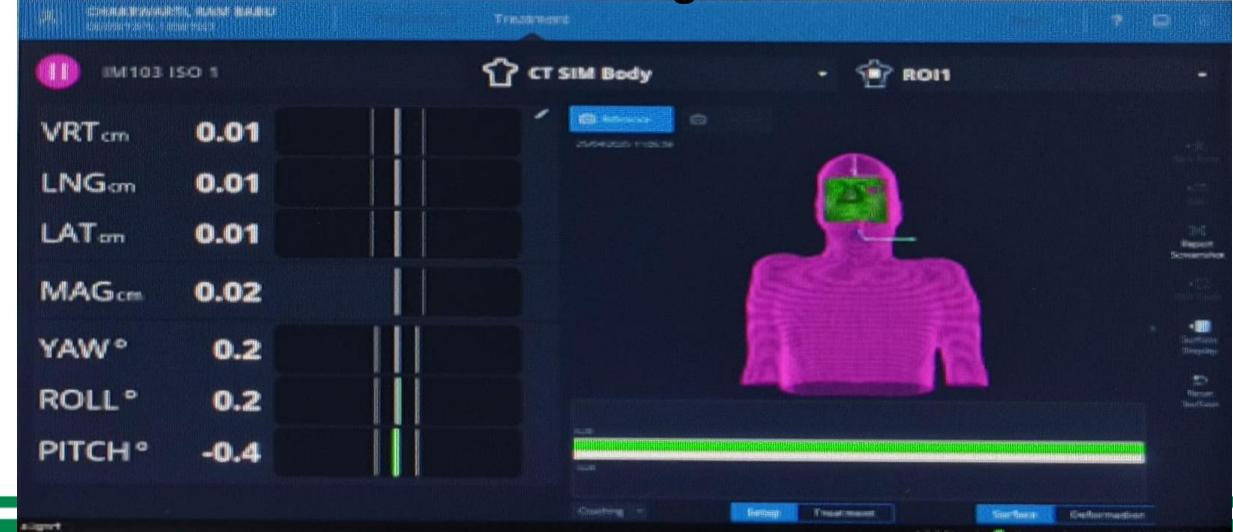
Patient Two Without Sgrr



Patient One With Sgrr



Patient Two With Sgrr



**Non-ionizing
radiation**

**Non-invasive,
tattoo less**

**Actual surface
mapping**

**Reduces set up
time**

**BENEFITS OF
SGRT**

**Reduces RT
exposure**

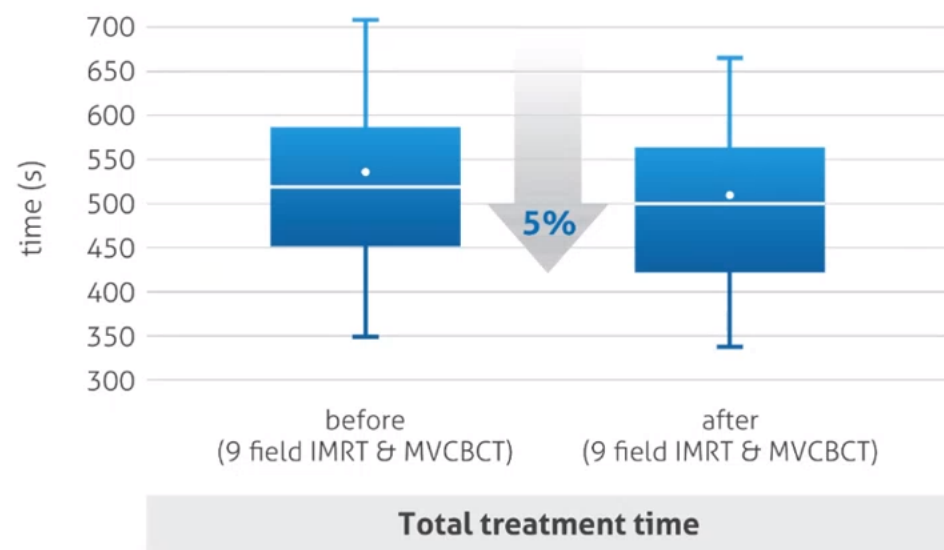
**Rx isocenter
calibration**

**Collision
avoidance**

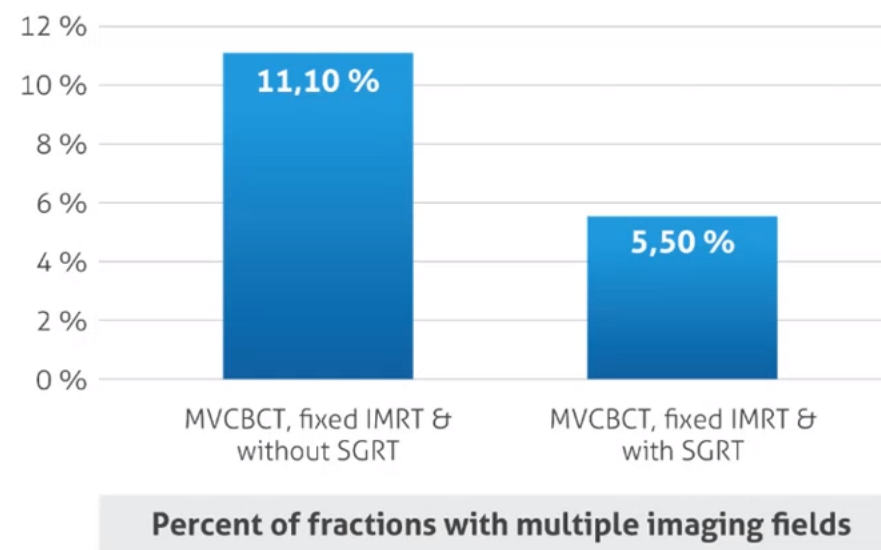
**Intra-fraction
monitoring**

Reduced Treatment Time & Repeated Imaging

AlignRT helps **reduce treatment times, reduce repeat imaging and improve patient position accuracy** by reducing residual rotational errors¹.

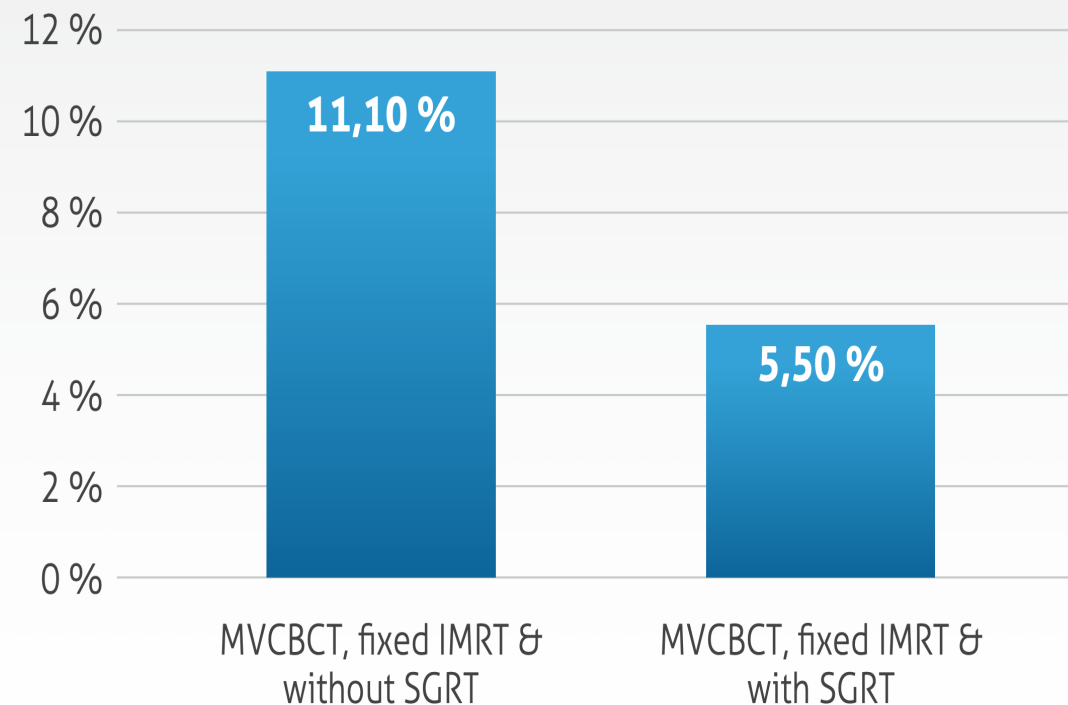
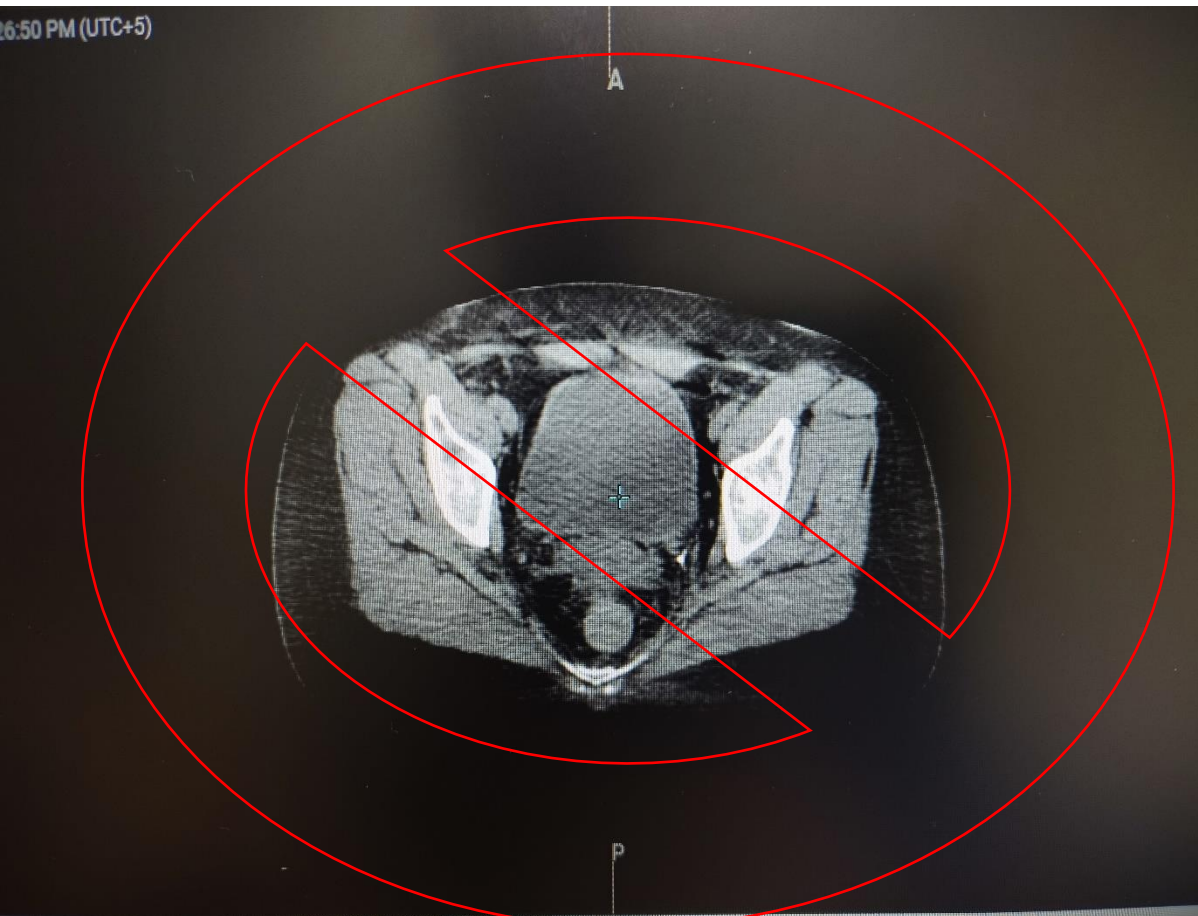


Mean total treatment **time reduced by 5%** after AlignRT implementation¹.



Up to **50% reduction** in the number of fractions requiring correction and additional imaging fields¹.

Reduced Treatment Time & Repeated Imaging



Percent of fractions with multiple imaging fields

Up to 50% reduction in the number of fractions requiring setup correction and additional imaging fields

Tattooless Radiotherapy

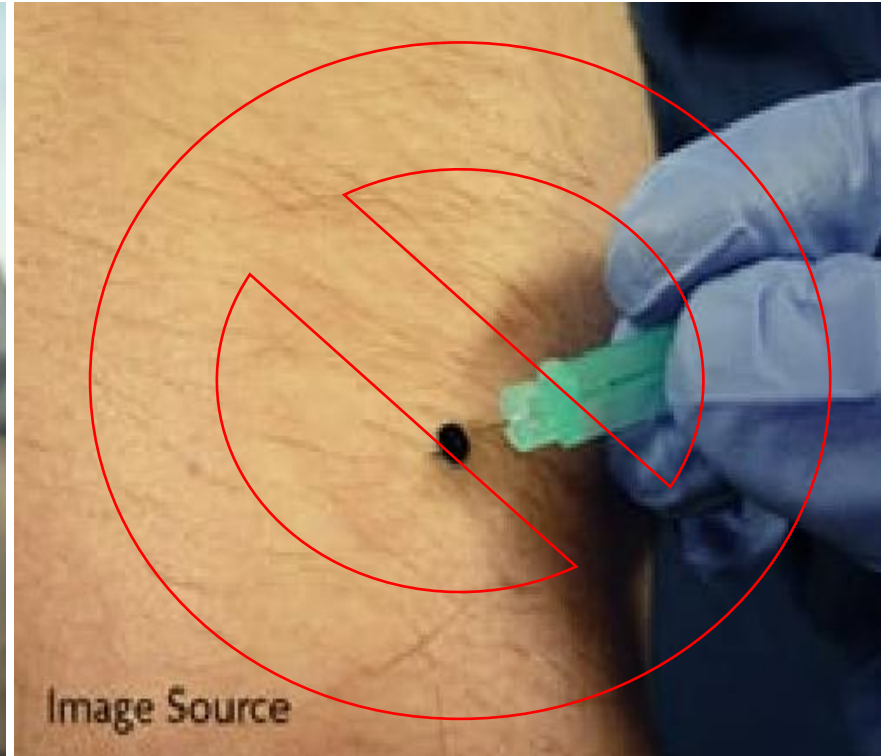
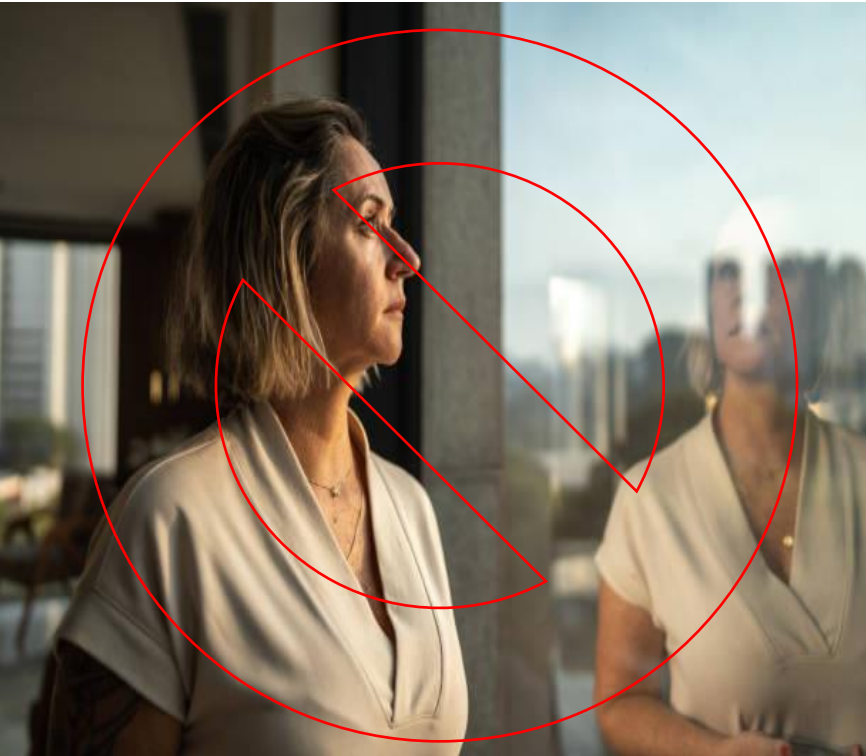
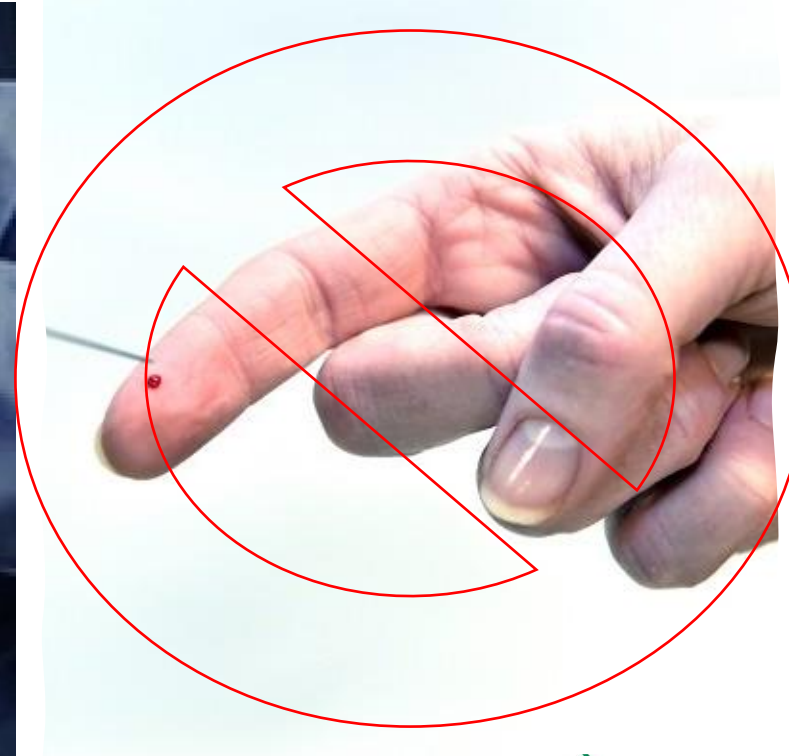


Image Source



Conclusion

- Accurate patient setup and treatment delivery
- SGRT is a non ionizing additional tool for positioning
- Tattoo-less radiotherapy is feasible
- More precise treatment due to Real-time intrafraction Monitoring in all 6DoF
- Easy and comfortable for patient
- Versatile- can be used for any anatomical site and treatment technique
- Robust and reliable system



SGRT vs CBCT : Can we Get Rid of CBCT

NO



THANK YOU

