Designing an Optimal Immobilization Device for SGRT

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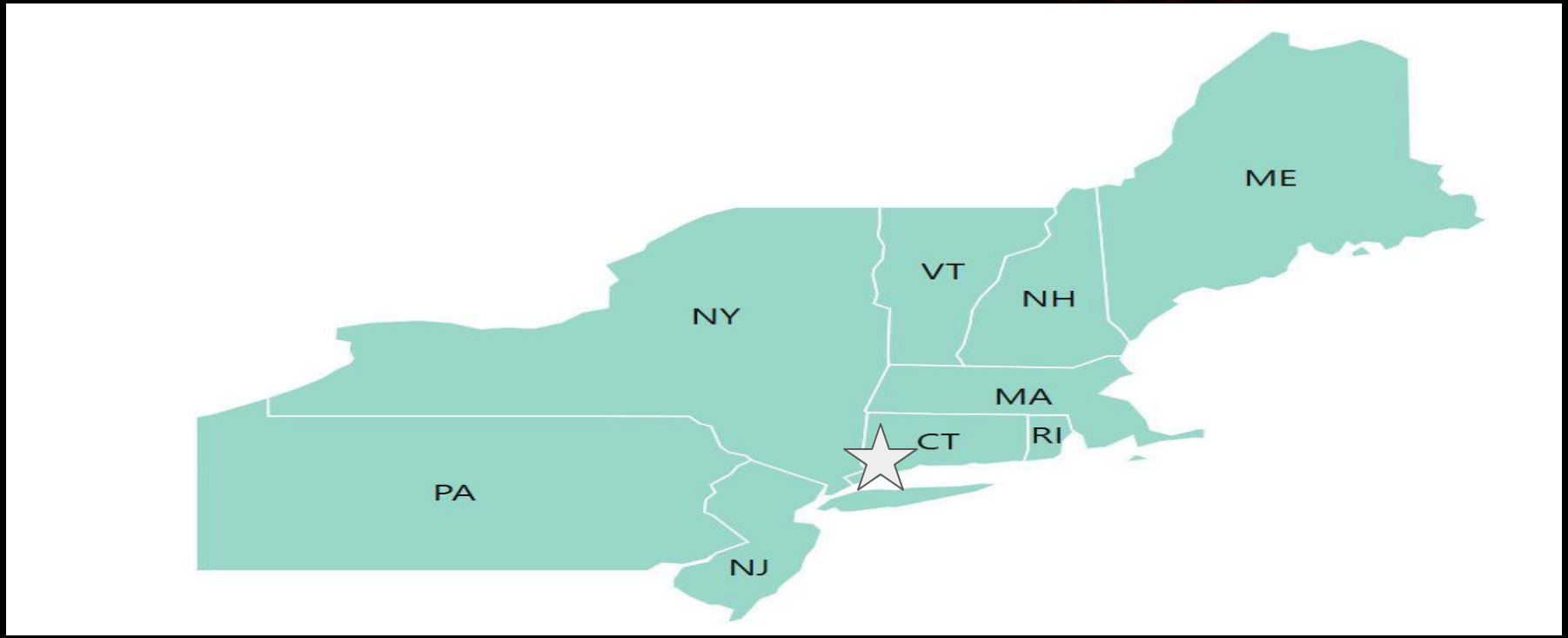
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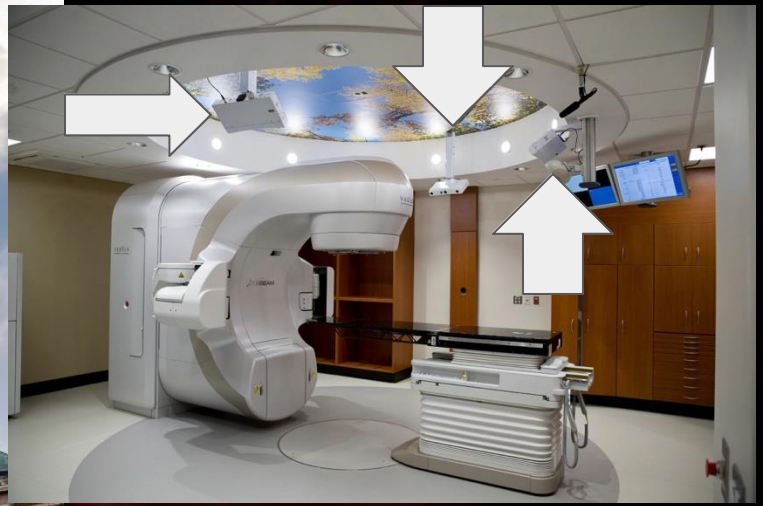


Agenda

- Discuss our department workflow
- Discuss the link between ROI & Immobilization device fabrication
- How we prepare our Simulations to optimize the use of SGRT
- Discuss what has been successful for our department
- Review our immobilization devices

WORKFLOW

Assess what area we are treating

Which immobilization devices will work best?

Can the patient tolerate the recommended position and immobilization?

Can we draw a suitable Region of Interest around the immobilization?

Our Devices

Devices Continued

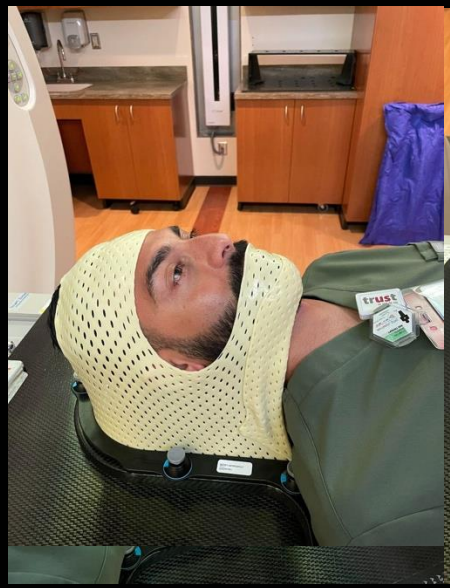
Q-FIX

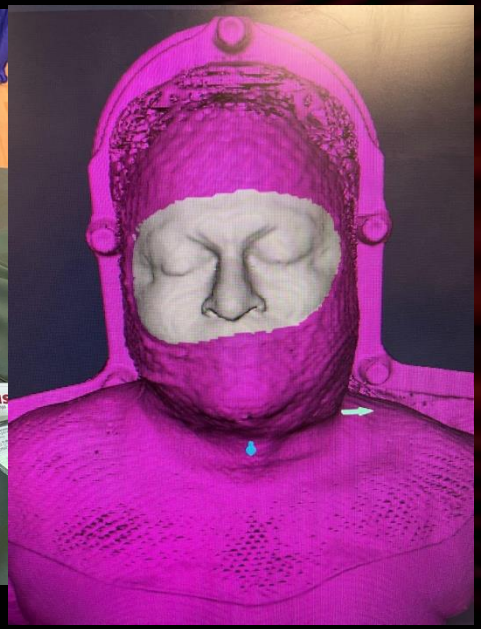
CIVCO

Brain-Head/Neck Immobilization

- We want 2cm from eyebrows to mask edge
- Clear open face tracing down from hairline
- Upper lip covered encompassed by mask
- We don't want to draw our ROI on the mask itself

Optimal ROI For Brain/Head and Neck





Key Points For Thoracic ROI

In this section we will review how we create immobilization devices for

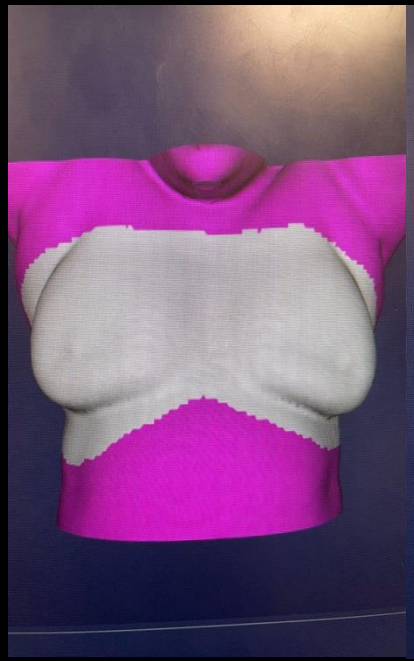
- Breast
- Esophagus
- Lungs

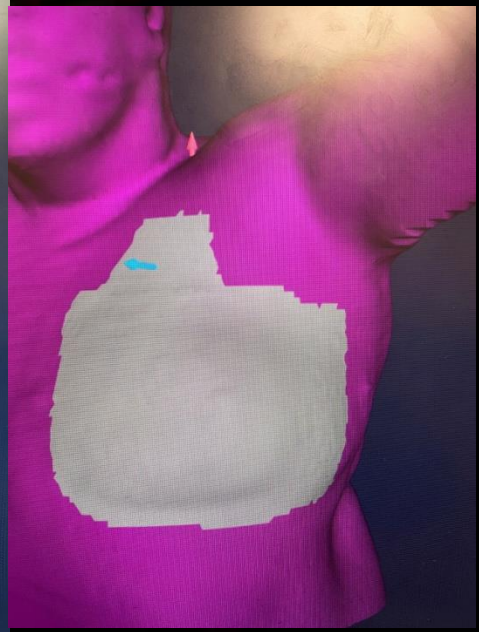
Key Points For Making Upper Vac Loks

- Arms must be encompassed to create reproducible landing
- Never make your Vac Lok higher than midline
- Think about the Region of Interest that we want to create for treatment
- Don't want to block the ROI with the Vac Lok


MIDLINE

How We Draw our ROI For Thoracic Set-Ups

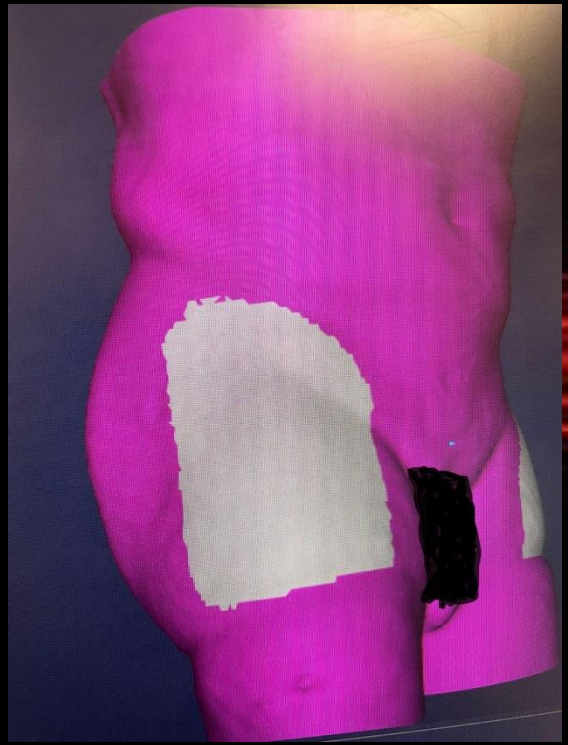


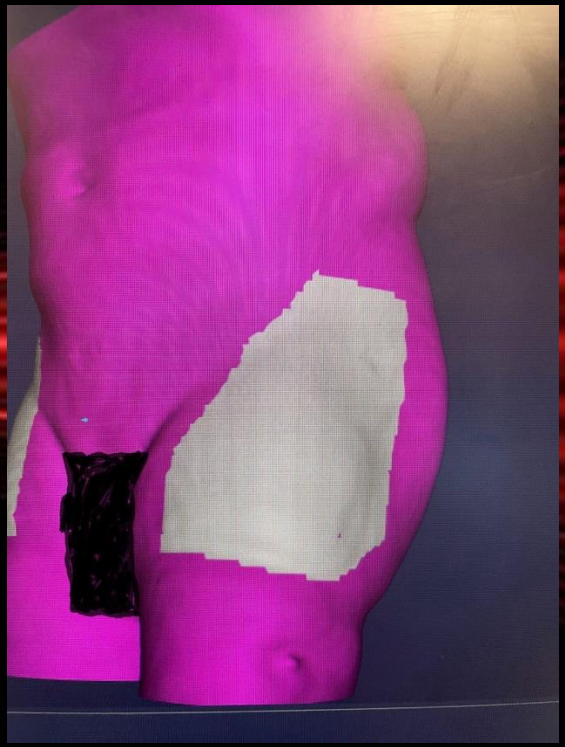


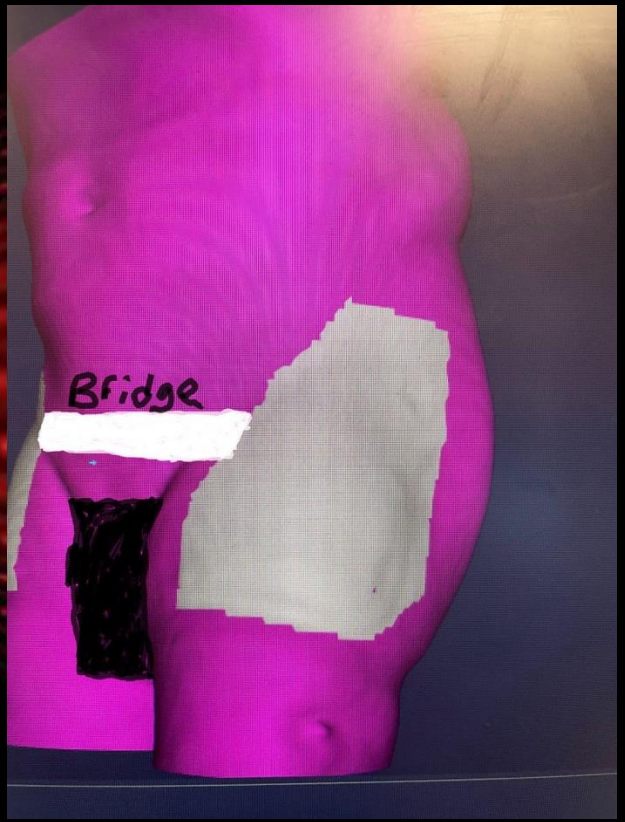
Pelvis

Key Points

- Two strips going down lateral side of pelvis
- Cloth is covering AP portion
- If ROI is being blocked then try drawing a “Bridge” across lower abdomen






Bridge

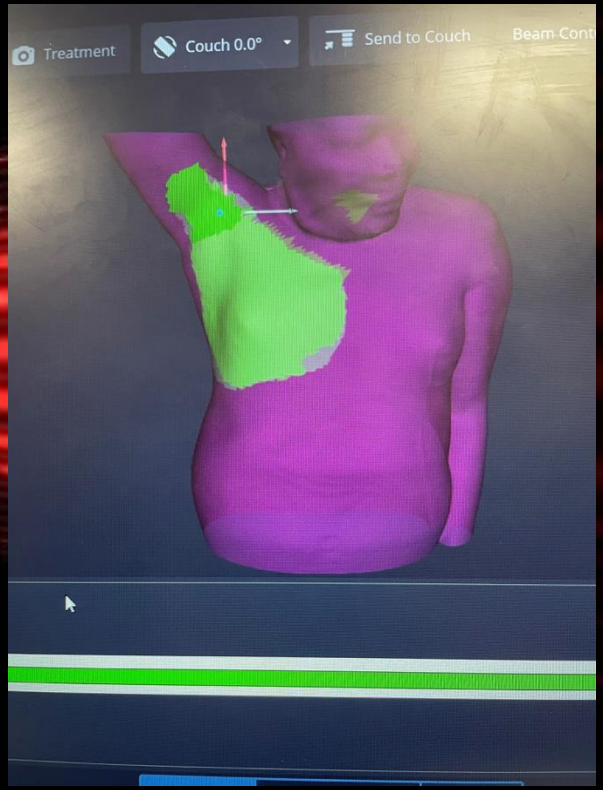
Extremeties

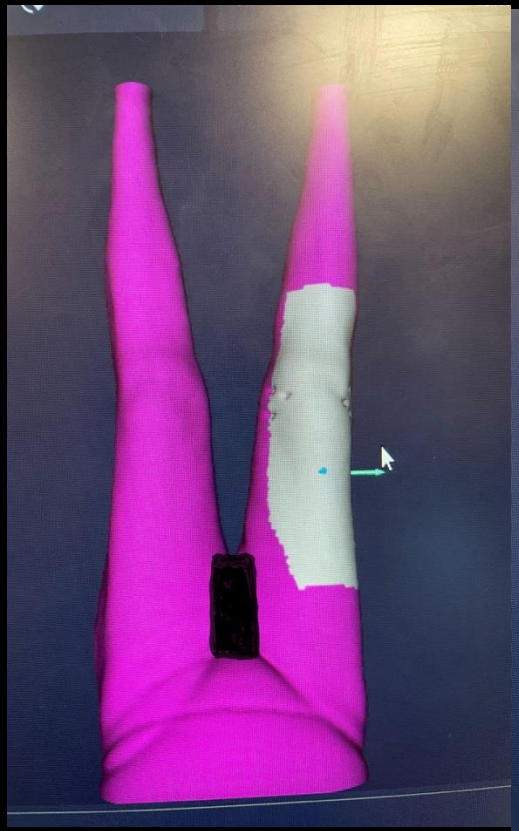
- Many Factors play a role for extremity set-ups
  - Upper or Lower extremity
  - Best immobilization device to use
  - Can the patient hold this position comfortably?

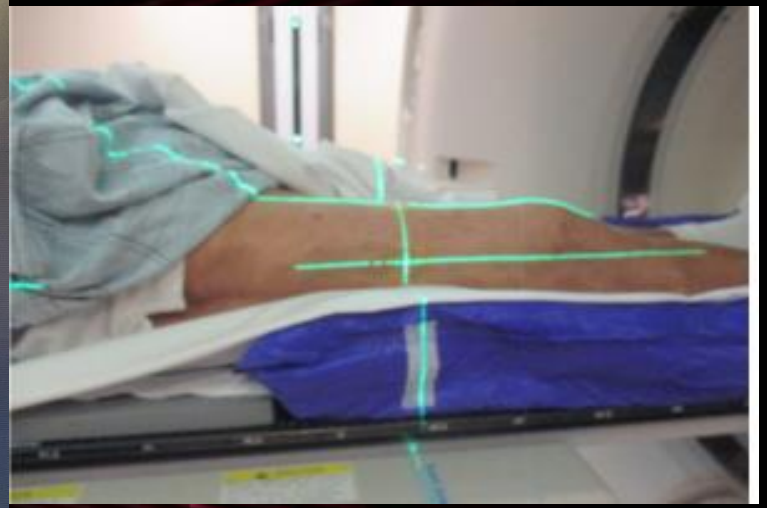
- We use SGRT for all extremity set-ups
- These setups include; shoulders, femurs, ankles, hands and arms
- We have seen SGRT work on all of these sites

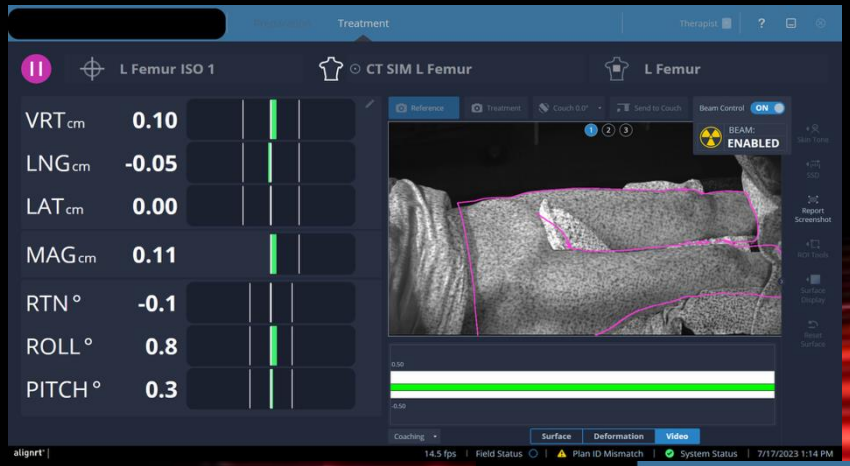
Key Extremity Takeaways

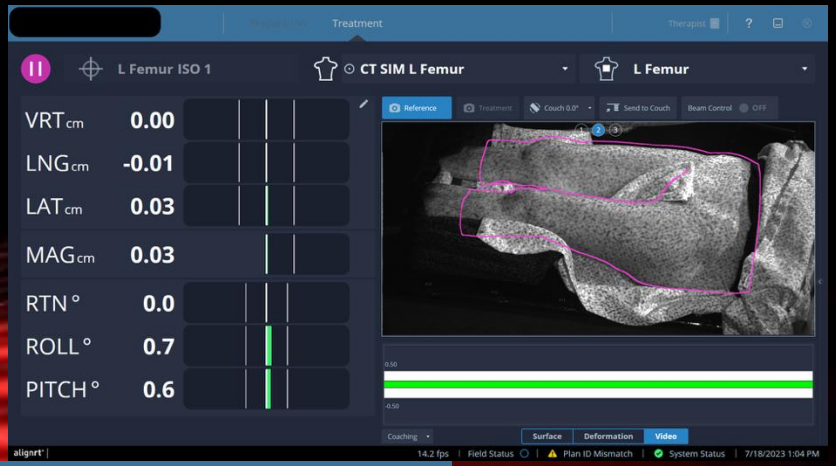
- Always draw a ROI on a joint, the more topography the better!
- Immobilization Device should allow this ROI
- Joint should not be covered by immobilization
- Vac Loks should never go higher than mid line on a joint

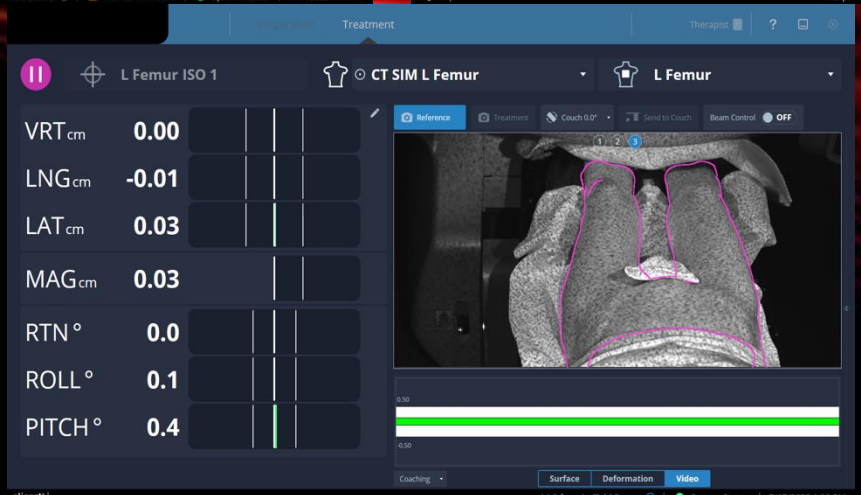




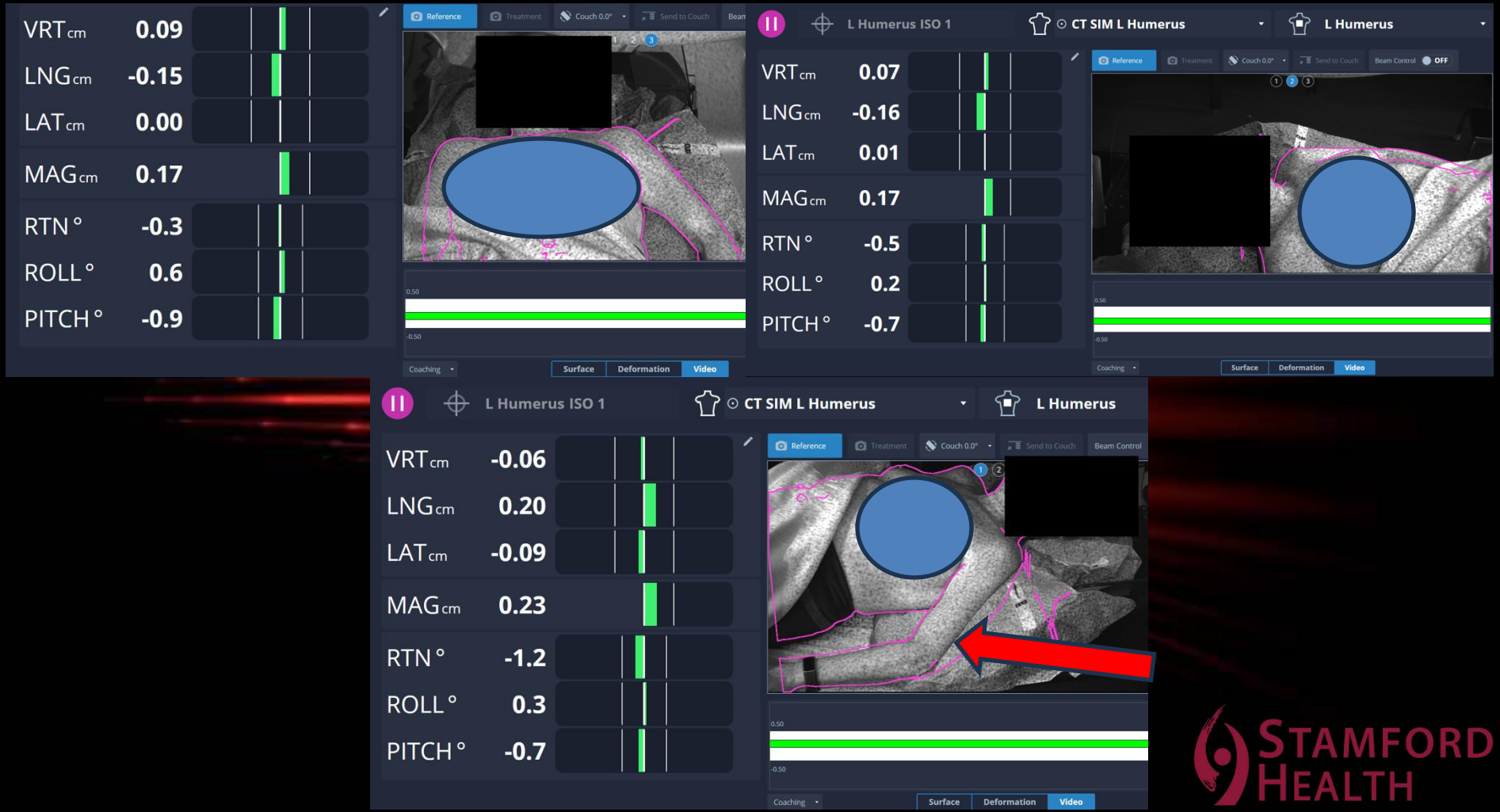








STAMFORD HEALTH



STAMFORD HEALTH

Key Take-aways

Proper immobilization can truly optimize set up in treatment with SGRT

Whereas incorrectly made mobilization can really lead to negative results such as poor ROI, poor feedback

This may lead to a less-than-ideal experience on the machine for the patient