

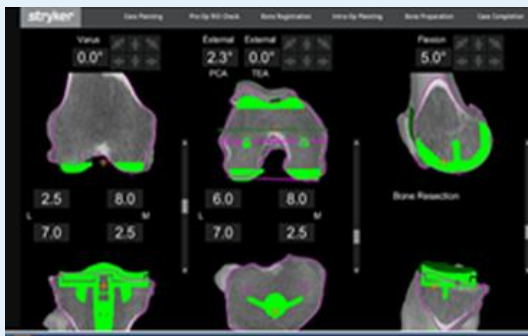
# Precision in Practice: Cadaveric CT Protocols

## Enabling MAKO Robotic Training

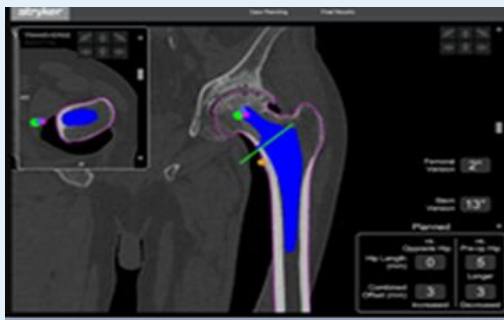
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### BACKGROUND

MAKO Robotic-Arm Assisted Technology creates a personalised surgical plan using a CT-derived 3D model of the hip or knee. To support high-fidelity orthopaedic training, NHS Golden Jubilee, the Radiographic and Orthopaedic departments, Stryker, and the University of Glasgow have developed a biannual cadaveric MAKO training pathway. This approach replaces basic saw bone practice with anatomically realistic cadaveric simulation, improving trainees' understanding of robotic workflows and surgical planning.



Planning for TKR & THR



### AIMS

- To deliver accurate, MAKO-compatible CT imaging for cadaveric training.
- To provide orthopaedic fellows with hands-on robotic experience supported by personalised pre-operative planning.
- To enhance educational continuity and team cohesion following COVID-related training disruption.

### METHOD

- Donor cadavers transferred to GJNH CT suite
- CT MAKO protocols for live patients adapted for cadaveric donors
- More donors than required are scanned to mitigate unforeseen issues
- Images uploaded to Stryker
- Stryker use the images for segmentation and planning prior to course
- Donors transferred back to Glasgow University

### RESULTS

- Improved trainee understanding of MAKO technology and planning.
- Superior anatomical realism provided by cadavers
- Develops an additional competency for radiographers within the MAKO workflow.
- Consistent imaging quality ensures reliable MAKO software planning.

### CONCLUSION

A structured cadaveric CT pathway is essential for realistic and effective MAKO robotic-arm surgical training. The collaboration between radiography, orthopaedics, industry, and academia provides a sustainable, high-quality model that enhances trainee confidence, supports surgical accuracy, and elevates educational standards.

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