# MR-Guided Prostate Stereotactic Body Proton Therapy with Symphony® Imaging, Treatment & Transfer Solution

HKSH Medical Group



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### **BACKGROUND**

Situated in the serene surroundings of eastern Hong Kong Island, the HKSH **Proton Therapy** Centre is equipped with Hong Kong's first proton therapy system, a unique and cutting-edge radiotherapy facility,

marking a new milestone in the city's cancer treatment. While the benefits of stereotactic body radiotherapy are

clear, hardware limitations have often restricted its full potential in proton therapy. This poster presents a novel workflow leveraging the Symphony Imaging, Treatment & Transfer Solution, effectively overcoming this limitation and improving overall efficiency. The Symphony Solution seamlessly integrates MRI with proton therapy to deliver prostate stereotactic body proton therapy (SBPT).

# Key advantages of MR Guided Prostate SBPT with the **Symphony Solution:**

#### Visualization

Provides clear visualization of prostate, fiducials, and surrounding anatomy

Increases patient throughput and minimizes treatment room occupancy time

#### Experience

Enhances patient experience by allowing two modalities to be used while the patient remains immobilized on one platform

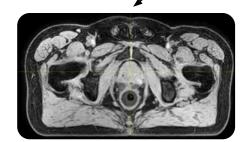
#### SYMPHONY SOLUTION



## **WORKFLOW**



Patient is setup in treatment position on the Alta AirShuttle in the MRI



MRI scan performed

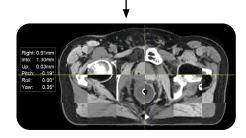


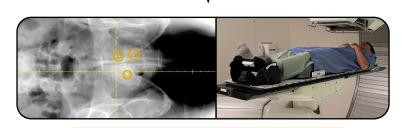
Image registration to determine shifts and applied to the proton therapy system







Patient is transferred from MRI to Proton using the **Symphony Solution** 



Final position verified with fiducials before starting treatment

# **RESULTS**



>100 patients treated with MR guided prostate SBPT



<2.5mm patient



movement



25% less time spent in proton treatment vault per patient



33% increase in patient throughput, allowing us to treat 1 extra patient for every 3



Superior image quality for registration



Better patient experience

# STAFF TESTIMONIAL

"Having MRI images provides us with better visualization of the treatment area. The prostate and surrounding anatomies can be seen clearly on the MRI images giving us the confidence to deliver SBPT. The Symphony Solution allows us to transport the patient safely and efficiently between modalities (MRI and Proton) without change in positioning and setup; thereby enabling this MR guided workflow."

- Serene Ho, Radiation Therapist (2025)

# PATIENT TESTIMONIAL

"Very comfortable and smooth transfer with minimal movement. Best of all I don't need to get on and off the couch at the different machines."

- Prostate Cancer Patient (2025)

### **CONCLUSION**

The successful implementation of MR-quided prostate SBPT using the Symphony Solution at HKSH has established a new standard in proton therapy. This approach offers a powerful, replicable model for centers worldwide seeking to maximize machine utilization while delivering MR-guided treatments.