

## Parallel Sessions

PS5.1

Use of IT to Improve the Quality of Healthcare

09:00 Theatre 1

### Filmless Operating Theatres Project: from Pre-operative Planning to Surgical Safety Enhancement in Hospital Authority

*Yam KY**Department of Neurosurgery, Tuen Mun Hospital, Hong Kong*

Radiology images are crucial in making diagnoses and supporting effective treatment at clinical areas. Inside the operating theatres (OT), surgeons have special needs to access radiology images for conducting pre-operative planning to selected, complicated operations besides viewing. Hospital Authority (HA) has launched the Filmless OT Project, which is a 3-year corporate-wide project since 2015/16, with an aim to modernize HA through implementation of filmless technology and facilitate surgical services. It covers 23 HA hospitals with about 230 OT rooms from 7 clusters, and involves 8 specialties like Radiology, Neurosurgery, Surgery and Orthopaedics & Traumatology etc.

215 viewing equipment and 370 image processing systems were installed to all HA OT rooms and related areas as at March 2018. The central technical infrastructure was enhanced to include additional images like Computerised Tomography (CT) thin cuts and those from Public-Private Interface referrals. As such, a streamlined and automated workflow model was developed in supporting clinicians to acquire radiology images from any radiology departments in HA, including cross-cluster referrals, and transfer them to the image processing system securely. In addition, basic and specialty-based eLearning videos, and workshops with hands-on practice were available to facilitate clinicians' training and adoption of this technology.

Filmless OT Project allows surgeons to access radiology images timely and easily so they can simulate and pre-visualise the surgical procedures and make safe and feasible plan pre-operatively. Also, the risk of losing patient data due to the use of removable storage devices is mitigated as related logistics are now leveraging on a well-built infrastructure. It is believed that this streamlined and automated workflow model brings benefits to clinicians, patients and HA in enhancing surgical safety.