Managing Hospital-Wide Mobile Assets Centrally with Real Time Location System (RTLS)

By centrally managing hospital-wide mobile assets with RTLS, the hospital aims to:

- **Optimise assets** by driving higher utilization with reduced asset numbers.
- **Deploy assets efficiently** to handle fluctuating operational needs.
- **Enable nurses to spend more time on patient care duties** by relieving them of having to spend time searching for, or sighting assets.

**Equipment Reduction**

- Infusion pumps: 168
- Syringe pumps: 300
- Patient transfer trolleys: 38
- Wheelchairs: 293

**Total reduction of about $900k**

**Preventive Maintenance Time Saved**

- Maintenance Engineers: 896 hrs/yr
- Nursing: 938 hrs/yr

- **A 30% reduction** in asset numbers (wheelchairs, patient transfer trolleys and pumps).
- Nurses' and Maintenance Engineers' time saved as **less effort is spent** in locating/maintaining these equipment.
- With CAM managing these assets centrally, there is **no need to return the items** to asset owners during patient transfer, resulting in **efficient deployment of equipment and personnel**. The model of operations has enabled the hospital to provide **seamless patient care**, by not having to change equipment for the patient throughout his patient journey in SKH.

**Centralised Ownership Model**

Hospital-wide mobile assets such as wheelchairs, patient transfer trolleys, hospital beds, infusion and syringe pumps, are owned and centrally managed by CAM.

**Asset Tracking**

Central Asset Management (CAM) tags the assets with active RFID (Radio-Frequency identification) tags to track and identify the whereabouts of these assets.

**Automated Corrective Maintenance Process**

A press button on the RTLS allows users to indicate that Corrective Maintenance is required; it will trigger asset location information for porters to pick-up and deliver the asset to the workshop.

**Dynamic Asset Deployment**

CAM is able to deploy the assets to the desired hospital locations based on minimum and maximum par level configurations.

**Conclusion**

SKH is the first hospital in Singapore to setup CAM that leverages RTLS to help manage a pool of shared assets such as patient transfer trolleys, beds, wheelchairs and infusion and syringe pumps; and ensure timely availability to end-users at all times. With a centralised asset management model using RTLS, CAM is able to deploy assets optimally and efficiently, according to patient needs. This has led to better patient care through the re-channelling of staff time and effort to more critical needs, such as clinical care.