Challenging the Heavy Load of Consignment Instrument Sets

**Background**
- Increase in aging population
- Increase in young people engage in high-impact sports
- Surgery requires use of consignment instrument sets

**Outcome**
- Managing of the heavy consignment sets is streamlined efficiently and effectively
  - Workflow established and sustained as loaner sets have to meet recommended weight guidelines
  - Ease of identification and assuring completeness of consignment instrument set for surgery in timely manner
  - Enhancing a safe and ergonomic work environment:
    - Boost staff morale and confidence
    - Promote staff commitment and retention
    - Enhanced rapport and better relationship amongst staff from sterile supplies unit and operating rooms paving the way for a more collaborative partnership

**Consignment Instrument Sets**
- More than 500 consignment (loaned) trays reviewed with the medical suppliers to meet the recommendation of not exceeding 10kg per tray

**Use of Perspex Sheet**
- Perspex sheet made of transparent and smooth plastic material customised to fit cart shelves
- Prevents incidence of torn linen wrapper which can contaminate consignment sets and facilitate easy transfer of sets
- Now, Perspex sheets are fitted to all instrument carts in TSSU

**Designated Instrument Carts**
- Labels have to be big in order to help staff identify and see the labels from far
- Now, the consignment sets are placed correctly onto designated carts as complete system enabling:
  - Ease of identification
  - Quick retrieval and
  - Less handling by staff

**Ergonomic-Customised Carts**
- Ergonomically safe to use
- Easy to maintain
- Fitted with shelves of height to fit specifications of instrument trays
- Designed to carry a total weight up to 250kg of consignment sets
- Made of metal enabling easy cleaning & disinfection
- Battery is charged daily
- Further improvements:
  - Weight of cart reduced to enable staff to have line of sight during transportation and
  - Increase in width to accommodate more instrument sets

**Downsized Instruments**
- Heavy Instrument trays decanted into 2 smaller trays to meet recommended weight of >10kg
- Surgeons and OR Nurse Champions were engaged to review the content and optimize the consignment sets
- Removed obsolete instruments
- Isolated rarely used instruments and packed separately

**Work Process Improvement**
1. Standardise Naming Convention for Identification
   - Label loaner instrument sets by supplier and system specific.
   - Colored-coded labels with assigned number facilitate easy identification and grouping of sets by systems.
   - This reduces multiple handling of the instrument sets and improve efficiencies as the instrument trays for each system are complete and available for surgery

2. Designate and label existing instrument carts by Medical Supplier and System
   - Labels have to be big in order to help staff identify and see the labels from far
   - Now, the consignment sets are placed correctly onto designated carts as complete system enabling:
     - Ease of identification
     - Quick retrieval and
     - Less handling by staff

3. Placed onto shelves of instrument carts to meet recommended weight of >10kg

4. Heavy Instrument trays decanted into 2 smaller trays to meet recommended weight of >10kg

5. Semi-automated carts, customised with motorised functions, met specifications, budget, workplace safety requirements & management approval