**Annex**

Digital Transformation to Improve Inventory Management System in Perioperative Services

1. Healthcare workers play an important role; from tending to patients to fulfilling inventory duties during each shift. However, limited nursing resources and manual processes pose challenges for clinical and administrative staff at NTFGH’s Operation Theatre.
2. Traditionally, nurses have manually managed the inventory of consumables, comprising mainly non-stock items[[1]](#footnote-2). This process is both time-consuming and labour intensive, occasionally resulting in overordering or underordering of stocks and leading to problems with storage and wastage. To streamline processes, enhance productivity and improve efficiency, HSEU and NTUC’s Industry Training and Transformation (IT&T) initiated an Operation and Technology Roadmap (OTR) with NTFGH and collaborated with its Perioperative team to automate inventory management and address these challenges.
3. On 23 November 2023, NTFGH tapped on NTUC CTC Grant, administered by NTUC’s e2i (Employment and Employability Institute), to implement a new inventory management system and redesign the job processes. The system monitors stock levels, provides predictive data for informed purchase decisions, and features an auto-prompt function for low stock, expiring items and slow-moving items. As a result, nurses are no longer required to manually monitor the inventory, freeing up their time to focus on clinical work.
4. The new inventory management system will not only reduce time spent on non-clinical tasks, but also allow them to upskill and focus on higher-value tasks like clinical and bedside care by using the new system, enhancing overall productivity.

VitalScout Project - Smart Monitoring For Better Patient Safety And Care Efficiency

1. Nurses undertaking ward rounds play a pivotal role in NTFGH, contributing significantly to patient care and well-being. These ward rounds involve a timely examination of each patient's vital signs, medications, and overall health status.
2. Presently, nurses perform hourly parameter checks on ill patients in the wards - a necessary but time-consuming task. To alleviate the workload of nurses, NTFGH, with support of HSEU and IT&T, is exploring the adoption of VitalScout, a vital sign monitoring wearables that integrates with Next Generation Electronic Medical Record (NGEMR).
3. The vital sign monitoring wearable to be worn by patients leverage IOT technology. It is integrated with Next Generation Electronic Medical Record (NGEMR), and nurses will be alerted promptly should there be any sudden decline in patient’s vitals and enable them to respond swiftly. The wearables are part of the SMART Ward model which will feature other innovations that aim to harness technology to streamline processes, optimise nursing resources and improve care coordination. NTFGH targets to launch the wearables in 10 wards by November 2024, followed by subsequent implementation in other wards in 2025.

1. Consumables refer to single-use items during surgery. Non-stock items are items that are not physically kept on hand and not managed by the hospital’s warehouse management system. [↑](#footnote-ref-2)