A proactive instruments inspection and reporting system to enhance perioperative patient safety
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Keywords:
perioperative patient safety
instruments inspection
reporting system

Introduction
Inadvertently leaving instrument objects inside patients is a rare but serious error. Precise surgical instrument counting, inspection and follow up actions of problem instruments are essential to ensure perioperative patient safety. The use of iPad was first adopted as a tool for instrument counting in Prince of Wales Hospital (PWH) operating theatre (OT) in 2013. Although, instrument count sheet in iPad facilitates efficient instrument counting, incidents happened. Instrument inspection cue cards with photo references were added to iPad and an enhanced reporting and feedback system was implemented in January 2017. Evaluation on effectiveness of the newly developed system was performed in January 2017.

Objectives
1. To promote patient safety and ensure safe operation. 2. To facilitate instrument inspections and management of depreciated instruments. 3. To enhance effective communication on instrument problems among surgeons, theatre and Sterile Supply Unit (SSU) nurses.

Methodology
A self-designed pre-questionnaire was used for assessing and analyzing risks of unintentionally retained object despite correct count within PWH OT as the preliminary search. An educational program was held to strengthen OT nurses utilizing the new tools for instrument inspection and review self-practices. A post-questionnaire was used to evaluate the effectiveness of the newly developed system and receive opinions from OT nurses.

Result
Sample size was 77 theatre nurses. 81% of respondents appreciated the updated iPad tools. 88% of the respondents found the extra high-resolution photos and arrows facilitate instrument inspection. 52% of the respondents found the new format of the
feedback form help standardize the way of reporting. Nurse’s Competency on surgical instrument inspection has been increased by 10% after the education program. The proactive instruments inspection and reporting system has significant impact on enhancing perioperative patient safety. It enhances OT and SSU nurses’ knowledge about instrument inspections. An efficient surgical instrument management system standardizes nursing practice towards instrument inspection and reporting. The safety culture in PWH OT has been strengthened and perioperative patient safety is safeguarded.