

SSIs. However, we did not achieve an overall decrease in SSIs, likely due to increased reporting of SSIs through improved SSI surveillance. However, important gains were achieved in improved healthcare worker knowledge and practice through the implementation of an SSI care bundle. Fluctuations in checklist compliance reflected COVID-19 surges.

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Subject Category: SSIs

Abstract Number: SG-APASIC1092

Bundled preoperative preparation reduced surgical-site infections

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Objectives: We aimed to reduce the overall surgical-site infection (SSI) rate to 0.2%. **Methods:** A new checklist protocol was developed based on the APASIC guidelines. The bundle for preoperative preparation was implemented: adequate preoperative bathing, proper time of hand-forearm washing, and sufficient contact time of antiseptic application. The compliance rate was monitored with a weekly control chart from December 2019 to November 2020. **Results:** In total, 9,995 cases were operated at Narasuan University Hospital (NUH) in 2020, classified by surgical wound type as follows: clean wound, 62.6%; clean-contaminated wound, 32.1%; contaminated wound, 0.8%; and dirty wound, 4.5%. According to surgical wound type, the mean compliance with preoperative bathing was 68.22% for clean wounds, 68.33% for clean-contaminated wounds, and 34.82% for contaminated wounds. Hand hygiene preparation compliance was higher for clean wound surgeries (mean, 94.01%) and clean-contaminated wound surgeries (mean, 95.05%) than for contaminated wound surgeries (mean, 88.30%). A high percentage was achieved by the 3 groups. The rate of skin antiseptic preparation compliance was higher in the clean wound group (mean, 89.05%) and the clean-contaminated wound group (mean, 90.70%) than the contaminated wound group (mean, 68.12%). The lower rate might be due to time constraints in contaminated wound operations. Only 0.18% of clean-wound operations had SSIs, and the clean-contaminated wound group had 0.19% SSIs, whereas no SSIs occurred in the contaminated and dirty wound groups. The overall SSI rate was 0.17%; thus, we achieved our goal. **Conclusions:** A bundle of preoperative infection-prevention preparations reduced the rate of SSI. Furthermore, the bundle had a highly tangible positive impact for both internal and external stakeholders, and it was effective in ensuring good practice regarding preoperative preparation.

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Redesign of outpatient clinic clean care to decrease postoperative SSIs after orthopedic implants

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Objectives: Based on Sardjito Hospital surveillance data in 2020, the incidence of SSI in orthopedic implant surgery was 46 cases (4.7%), mostly in the outpatient clinic. We evaluated some of the potential risks and proposed redesign of infection prevention and control measures in April 2021 to improve the overall clean care at the orthopedic outpatient clinic. **Methods:** We conducted an operational study to redesign various components of clean care using a before-and-after evaluation of infection risk. The study was led by an IPC nurse and was supported by all levels of stakeholders at Sardjito Hospital, a referral and academic hospital in Yogyakarta, Indonesia, during May–September 2021. **Results:** The redesigned components covered continuing professional development (CPD) through a workshop on clean care and wound care for doctors

and nurses. The workshop also encouraged high-level management to make several important changes: (1) to redistribute medical staff schedules, (2) to start online patient registration to better distribute and decrease patient loads, (3) to set up the waiting room as well as the dressing room with strictly separate between dirty and clean areas, (4) to schedule daily general disinfection at noon during service hours, and (5) to perform routine air disinfection after daily clinic services as well as placing an additional portable HEPA filter for continuous air disinfection. After these changes, during 2021, 7 SSIs occurred among postoperative orthopedic implant patients, a decrease of 85%. We observed more clean and neat rooms without patient overcrowding as well as easy and comfortable flow of patients and staff. Environmental pathogen germ counts decreased significantly. **Conclusions:** A redesign project at the orthopedic outpatient clinic reduced the incidence of postoperative SSIs and reduced the number of environmental pathogens. Overall clean care is a basic strategy in IPC for improving patient safety.

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Microbiological surveillance of endoscopes in a Singapore tertiary-care academic hospital: A retrospective study from 2018 to 2021

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Objectives: Improper reprocessing of endoscopes may result in healthcare-associated infections. Regular microbiological surveillance is an important means of evaluating the quality of endoscope reprocessing. We evaluated the effectiveness of reprocessing endoscopes (including the protocols on steps to be taken in the event of any positive microbiological results) in a sterile supply unit (SSU) and an endoscopy unit in a Singapore tertiary-care academic hospital. **Methods:** Singapore General Hospital (SGH) is a 1,750-bed, tertiary-care, academic medical center in Singapore with 2 main SSUs: 1 inpatient endoscopy unit and 1 outpatient endoscopy unit. We reviewed microbiological surveillance results from endoscopes following reprocessing from January 2018 to December 2021. In total, 160 endoscopes (27 bronchoscopes, 58 gastroscopes, 52 colonoscopes, 6 duodenoscopes, 5 echoscopes, 5 cystoscopes, 5 rhinolaryngoscopes, and 5 enteroscopes) and 15 automated endoscope reprocessors (AERs) were evaluated for the presence of microorganisms. Samples were obtained by swabbing the tip of the scope and the biopsy channel. Fluid was flushed from the biopsy channel after reprocessing, and this water from the AERs was sampled after waterline disinfection. **Results:** Of the 15,783 samples collected, 15,667 (99.3%) yielded no growth; 36 (0.2%) were positive for gut and environmental flora; and 80 (0.5%) were positive for low-concern organisms such as skin flora. **Conclusions:** Microbiological surveillance yielded a high percentage of negative results confirming the effectiveness of endoscope reprocessing. This quality-assurance process is necessary and beneficial in achieving patient safety.

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Reduce cost and reesterilization rate of reusable medical device sets by reorganizing and rearranging packaging and process

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Objectives: We evaluated the reesterilization rate, user satisfaction, and cost of reesterilization after rearranging and packing of reusable instrument sets. **Methods:** For 1 month in July 2018, we conducted an observational