to correlate with lower compliance to hand hygiene (HH) protocols among healthcare workers (HWs). This project aimed to improve and sustain HH compliance (HHC) among HWs in the ETD by adapting to the World Health Organization (WHO) HH Multimodal Improvement Strategy. **Methodology:** This is a cross-sectional study in ETD, Sarawak General Hospital, a university-affiliated, public tertiary-care hospital in Malaysia. It spanned 12 months, from Jan 2023 to Jan 2024. The intervention involved installing wall-mounted automated ABHR dispensers at multiple fixed locations in ETD. Pre-, during, and post-12 weeks intervention HHC audit were conducted according WHO's gold-standard direct observation method. We conducted a sequential trend analysis and compared proportions across these periods using a linear logistic regression model to assess the improvement and sustainability of HHC. **Results & Discussion:** Mean HHC improved from 66% (383/579) (95% confidence interval [CI], 62.1%-70.0%) in the pre- intervention period to 81% (321/397) (95% CI, 76.6%-84.6%) in the intervention period, and further sustained at 85% (302/352) (95% CI, 81.7%-89.3%) in the post-intervention period (P value<0.05). The positive coefficient of 1.13 in the model, when moving from the pre- to the post-intervention period indicates a positive trend in HH compliance. The availability of adequate wall-mounted automated ABHR dispensers at multiple fixed locations at ETD created easy accessibility of ABHRs for HWs and acted as visual reminders for good HH behavior at the ETD. **Conclusions:** Having wall-mounted automated ABHR dispensers in various fixed locations proved effective in promoting good HH among HWs in emergency settings. It's essential to have fixed ABHR dispenser placement in crowded - areas like the ETD to improve and sustain HHC among HWs.

*Antimicrobial Stewardship & Healthcare Epidemiology* 2025;5(Suppl. S1):s18–s19
doi:10.1017/ash.2025.130

### Risk factors associated with continuous ambulatory peritoneal dialysis-related infections in chronic kidney disease patients at Dr. Kariadi Hospital Semarang

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**Introduction:** Continuous Ambulatory Peritoneal Dialysis (CAPD) is a treatment method for Chronic Kidney Disease (CKD) that allows patients to undergo dialysis therapy at home. Although CAPD provides benefits in terms of flexibility, efficiency, and comfort, patients undergoing CAPD are at high risk of infections, including exit site infections, tunnel catheter infections, and Peritoneal Dialysis (PD) peritonitis. This study aims to identify risk factors associated with CAPD infections in CKD patients at Dr. Kariadi Hospital, Semarang, Indonesia. **Methods:** A retrospective cross-sectional study design was applied to adult CKD patients undergoing CAPD at Dr. Kariadi Hospital between January 2022 and March 2024. Data were collected from patients' medical histories and records, then analyzed using SPSS 21. A p-value less than 0.05 was used to determine statistically significant variables. **Results:** This study involved 81 adult patients undergoing CAPD with 58% male subjects. There were 23 (31.9%) subjects who experienced CAPD infections. Subjects who had infections experienced exit-site infections (10,5%) and peritonitis (89,5%). The most dominant microorganism in infected patients was Staphylococcus epidermidis. Diabetes mellitus (p = 0.03) contributed as significant risk factors for infection, while hypoalbuminemia and overweight were not significant risk factors (p > 0.05). **Conclusion:** In conclusion, the incidence of CAPD-related infections was high with a predominance of Staphylococcus epidermidis. Diabetes mellitus is considered a contributing factor to the infection.

**Keywords:** Continuous Ambulatory Peritoneal Dialysis-Related Infections; Risk factors
*Antimicrobial Stewardship & Healthcare Epidemiology* 2025;5(Suppl. S1):s19
doi:10.1017/ash.2025.131

### Correlation of serum albumin concentration with length of stay in Surgical Site Infection (SSI) patient at Rspad Gatot Soebroto, Jakarta, 2019-2022: a quantitative study

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**Background:** The prevalence of surgery in Indonesia is increasing every year and may increase the prevalence of surgical site infection (SSI). SSI is an infection in the surgical site organ or space that occurs after surgery. Complex treatment of SSI has a significant impact on patient outcomes due to increased length of stay. There are a variety of risk factors, both endogenous and exogenous, that can affect the length of stay of SSI patients, especially the concentration of serum albumin before and after surgery. Albumin is an important component of proteins. Albumin plays a role in promoting inflammation, so tissue repair is done more quickly, and without albumin, the body is more difficult to carry out cell regeneration. This study aimed to determine the relationship between pre- and post-operative concentrations of albumin and duration of stay in SSI patients. **Method:** The study design used a quantitative study using cross-sectional secondary data from the medical records of 40 patients diagnosed with SSI at Gatot Soebroto Army Hospital. All SSI patients met the inclusion criteria. **Results:** The results showed that patients had moderate hypolbuminemia before surgery (35%) and after surgery (35%), long-term stay (50%), 19-60 years (77,5%), women (52,5%), comorbidities (50%), malnourished nutrition (60%), ASA score 2 (52,5%), clean surgical wound type (60%), abdominal or vaginal hysterectomy (17,5%), and showed that it has the characteristics of a normal operation period. (65%) Bivariate analysis using assay chi-squared shows a relationship between pre-operative serum albumin (p-value =0.005; PR=7.207; 95% CI=1.09-47.55) and post-operative (p-value=0.016; PR=3.857; 95% CI=1.05-14.08) with duration of stay in SSI patients. Concentration. Multivariate results indicate serum albumin preoperative concentration (p-value = 0.049). **Conclusion:** It can be concluded that serum albumin preoperative concentration is the only variable that greatly affects the length of stay of SSI patients.

**Keywords:** Surgical Site Infection (SSI); Albumin Concentration; Length of Stay, Indonesia
*Antimicrobial Stewardship & Healthcare Epidemiology* 2025;5(Suppl. S1):s19
doi:10.1017/ash.2025.132

### Effect of wearing particulate respirators on physiological changes of healthcare workers in isolation room

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**Introduction:** The use of Personal Protective Equipment (PPE) for healthcare workers must be addressed, especially for procedures that generate aerosols. A standard N95, FFP2 or FFP3 particulate respirator mask is