

viruses. Compared with CAI, HA-RVI patients were older (mean age 37.1±29.7 vs 21.4±27.5 years,  $p<0.001$ ), had recent hospitalisations (OR 1.5, 95% CI:1.1-2.1,  $p=0.007$ ), underlying bronchial asthma or COPD (OR 2.8, 95% CI:1.5-5.3,  $p=0.002$ ) and were immunosuppressed (OR 7.6, 95% CI:4.3-13.4,  $p<0.001$ ). Interestingly, HA-RVI patients were less likely to have fever (49.8% vs 66.4%,  $p<0.001$ ), cough (42.2% vs 67.3%,  $p<0.001$ ) or shortness of breath (17.5% vs 26.6%,  $p=0.02$ ). Despite fewer symptoms, HA-RVI patients were more likely to have pneumonia with abnormal chest x-rays (33.3% vs 22.7%, RR 1.14, 95% CI:1.02-1.29,  $p=0.04$ ), longer lengths of stay (mean 21.2±36.7 vs 5±14 days,  $p<0.001$ ), higher rates of ICU admission (14.9% vs 8.1%, OR 2.0, 95% CI:1.4-2.9,  $p<0.001$ ), and mortality (4.8% vs 0.6%, OR 8.6, 95% CI:3.6-20.5,  $p<0.001$ ). **Conclusions:** Patients who are older, have pre-existing respiratory disorders or are immunosuppressed face greater HA-RVI risk. HA-RVI patients are less likely to exhibit typical respiratory infection symptoms, potentially delaying diagnosis. This probably contributes to increased morbidity and mortality associated with HA-RVI which underscore the importance of hospital infection prevention even for endemic respiratory viruses.

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### Knowledge and practice of surgical hand hygiene of healthcare worker at University Medical Center, Ho Chi Minh City, 2022

Truong Thi Le Huyen<sup>1</sup>, Pham Thi Lan<sup>1</sup>, Tran Nguyen Giang Huong<sup>1</sup>, Nguyen Thi Minh Khai<sup>1</sup>, Le Thanh Truyen<sup>1</sup>, Huynh Hoang Hai<sup>1</sup>, Trinh Thi Thoa<sup>1</sup>, Nguyen Vu Hoang Yen<sup>1</sup> and Huynh Minh Tuan<sup>1,2</sup>

<sup>1</sup>University Medical Center, HCM city and <sup>2</sup>University of Medicine and Pharmacy at HCM city

**Introduction:** Nowadays, surgical site infection is one of the four common types of healthcare-associated infections. There are many preventive measures applied and surgical hand hygiene (SHH) is the most effective and the simplest measure. This study aimed to assess the knowledge, practices of SHH among staff and the relationship between knowledge and practice of SHH in Viet Nam. **Methods:** An analytical cross-sectional study was conducted at the University Medical Center (UMC) in Ho Chi Minh City in 2022. The study employed a set of pre-prepared questions for the knowledge assessment section. For the practical assessment section, the research team conducted indirect observation through cameras and filled out a monitoring checklist. The data were analyzed using Stata 13.2. **Results:** Of the 271 healthcare workers, surgeons had the highest proportion at 48.7%, which was 18.6 times higher than that of anesthesiologists. The majority of healthcare workers received training on SHH, accounting for a rate of 95.6%. Among the participants, the overall compliance of SHH before entering the operative room accounted for 85.6%. The percentage of correct general knowledge reached 73.8%, and there was a relationship between correct knowledge and correct practice with  $p < 0.01$ . **Conclusion:** Our data suggests that having correct general knowledge of SHH is a crucial factor in accurately practicing SHH. Therefore, providing training to impart accurate knowledge about SHH to healthcare staff is necessary to enhance the overall compliance rate of SHH before entering the operating room.

**Keywords:** Surgical hand hygiene; Surgical hand hygiene procedure; hand hygiene

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### Results of environmental monitoring at pediatrics isolation ward, tertiary hospital in northern of Thailand

Sutthiphan Thanomphan PhD<sup>1</sup>, Mattana Chaiprasert B.N.S<sup>2</sup> and Nittaya Wungsudthisomsri B.N.S<sup>3</sup>

<sup>1</sup>Department of Nursing Research Development Nakornping, Chiang Mai Province., Thailand, <sup>2</sup>Department of Pediatrics Patients Nursing Nakornping Hospital, Chiang Mai Province., Thailand and <sup>3</sup>Department of Pediatrics Patients Nursing Nakornping Hospital, Chiang Mai Province., Thailand

**Background:** Throughout healthcare, the physical environment presents an important source of pathogens that can cause healthcare associated infections (HAIs). To keep patients safe, hospitals must maintain a clean environment and minimize the presence of pathogens. **Objectives:** 1. To identify through environmental monitoring the level of cleanliness in area of pediatrics isolation ward. 2. To assessments of environmental cleaning practice of environmental service (EVS) staff, and healthcare worker. **Methodology:** This retrospective study was done in pediatrics isolation ward, tertiary hospital. Sample sizes were 1 EVS staff, 3 nurses aid, and 102 environmental sites. Data were collected from database of infection control program between February 29, to March 2, 2024 via Infection control assessment and response (ICAR: tool for assessing cleaning practice of EVS staff, personnel by direct performance observations), visual assessment, and monitored the residual bioburden by adenosine tri phosphate (ATP) tests, and swab culture of the surface. Data were analyzed by using descriptive statistics. **Results:** The results of this study revealed that level of cleanliness in area of ward by ATP test found, contaminated spots were highest (61.76%, 21/34) and clean spots were lowest (38.24%, 13/34), while swab culture method found contaminated spots were higher (55.88%, 19/34), clean spots were lower (44.12%, 15/34), and visual monitoring found contaminated and clean spots were 35.29%, 12/5 and 64.71%, 22/34 respectively. The most of contaminated sites were bed rails, toilet sink, Treatment and IV care car, door handle, mop, Light scope & blade (5.88%, 6/102). As the results proved the most organisms were *Acinetobacter spp.*, *Escherichia coli*, and *Pseudomonas spp.*, respectively. **Conclusion:** This study suggests that the environmental cleaning in specialized area must be monitored continuous with standard methods. It is necessary to promote education and training staffs follow update practice guidelines, especially the participation of disciplinary team motivated effective activities in reducing the microbial contamination.

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### Knowledge, practice of medical waste classifications and related factors of health staff at Ho Chi Minh City District 4 Hospital

To Thanh Tam<sup>1,\*</sup> and Ngô Đồng Khanh<sup>2</sup>

<sup>1</sup>Ho Chi Minh city District 4 hospital and <sup>2</sup>Ho Chi Minh City University of Medicine and Pharmacy

**Corresponding author:** MSc To Thanh Tam Tel: 0333415037 Email: tothanhtam123@gmail.com

**Objectives:** In the face of the complicated developments of the COVID-19 epidemic, the increasing number of cases, accompanied by an increase in the number of personal protective equipment has contributed mainly to the increased amount of medical solid waste. Updating knowledge and practicing the correct classifications of solid medical waste according to regulations is an urgent issue to minimize the risk of pandemic spread, health, and the environment, as well as responding to incidents and