Analysis of medical profession and time of occupa6onal exposure among health workers in RSUD Dr. Saiful Anwarmalang

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Background: Occupa(onal blood and body fluid exposure is one of the major public health problems in healthcare workers (HCW). This condi(on had the risk of transmission of infec(ous diseases. Educa(on level is oEen considered a key factor influencing the frequency and dura(on of exposure. This study inves(gates the correla(on between medical profession and the (me of occupa(onal exposure among health workers at RSUD dr. Saiful Anwar Malang from 2020 to 2024. **Objective:** The primary objec(ve of this study is to determine whether there is a significant correla(on between the educa(on level of health workers and their exposure, with the aim of iden(fying poten(al areas for interven(on to reduce occupa(onal hazards. **Methods**: A cross sec(onal study from health workers from at RSUD dr. Saiful Anwar Malang. Data included gender, medical profession (nurse, resident, doctor, medical student, cleaning service), and (me of exposure (work hour, duty hour), and status immuniza(on. Sta(s(cal analysis was performed using the chi-square test to determine the significance of the rela(onship between employment status and exposure (me. **Result:** From 93 responden, distribution gender (60.6% female, 39.4% male), medical profession (35.5% nurse, 33.3% resident, 3.2% doctor, 23.7% medical student and 4.3% others), exposure time (53.2% duty hour, 46.8% working hour), source of exposure (61.3% needle, 34.4% blood, 5% others body fluid), 86.2% used PPE and 68,1% already had hepatitis B immunization. The analysis showed significant relationship with exposure time (p = 0.046) among medical profession and time of exposure. **Conclusion:** This study is important in identifying specific risks related to the group status of medical personnel and the time of exposure to needles, blood and body fluids to identify vulnerable workers. In addition, with this basic study, more effective safety policies and protocols can be developed by adapting to the needs of each work group. Research recommendation is needed to explore the impact of specific education and training programs in reducing the risk of exposure in HCW.

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Comparison of the incidence of extended-spectrum βlactamase-producing *Enterobacterales* (ESBL-PE) before, during, and after the COVID-19 pandemic in a tertiary hospital in indonesia

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Objectives: The COVID-19 pandemic has become a serious threat to global health. Current research shows that COVID-19 causes an increase in the incidence of multidrug-resistant organisms (MDRO) due to excessive use of antibiotics during COVID-19 [1,2]. Extended-spectrum β lactamase-producing *Enterobacterales* (ESBL-PE), especially *Escherichia coli*-producing ESBL (Eco-ESBL) and *Klebsiella pneumoniae*-producing ESBL (Kp-ESBL) are pathogens of current concern due to their potential for rapid spread in communities and healthcare [3]. Based on antibiogram data from Dr. M. Djamil General Hospital Padang in 2022, the incidence of MDRO in the inpatient, outpatient, and intensive care units was mostly caused by Kp-ESBL (12,7%), followed by Eco-ESBL (11,9%) [4]. This study aims to compare the incidence of MDRO caused by Eco-ESBL and Kp-ESBL before, during, and after COVID- 19. **Methods:** This research constitutes a retrospective descriptive study conducted at Dr. M. Djamil General Hospital Padang during three distinct periods: before, during, and after the COVID-19 pandemic. The population of this study was the results of all cultures from all specimen examinations that produced ESBL. Two thousand and seventeen samples were taken from the population that met the inclusion and exclusion criteria using the total sampling technique. **Results: Comparison of the incidence** showed that Eco-ESBL has an increased risk of incidents after the pandemic by 1.41 times compared to before the pandemic, while the risk of incidence during the pandemic does not show a significant relationship (p=0.63, p>0.05). In contrast to Kp-ESBL, there is a decrease in the risk of incidence after the pandemic by 0.62 times compared to before the pandemic (p<0.05), while the risk of incidence during the pandemic also does not show a significant relationship (p=0.63, p>0.05). **Conclusion:** There is a significant risk of incidence of MDRO caused by Eco-ESBL and Kp-ESBL after the pandemic compared to before the pandemic COVID-19.

Key words: COVID-19; ESBL; MDRO

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Effectiveness of implementing the new bundles of surgical site infection (SSI) of *Sectio Caesarea* (SC) in post SC operative patients on the SSI incident rate

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Background: SSI cases in patients undergoing SC procedures are still a problem. Routine bundles are being implemented but infections still occur. So, it is necessary to evaluate existing bundles. **Research objective:** To compare the incidence of post-SC SSIs between the implementation of routine bundles in hospitals with new SSI bundles. **Method:** Quantitative research using a prospective cohort method on pregnant women of childbearing age (WCA) aged 15-49 years who were treated in the Dr. Hasan Sadikin General Hospital, Bandung. Data collection was carried out in the period October- November 2023 where SC was carried out. The sampling technique that will be used in this research is a non-probability sampling technique with a consecutive sampling method. The instruments used are the SSI indicator profile, hospital standard tool bundles, and new SSI tool bundles. Data analysis used the Fisher Exact test to compare the two groups and the efficacy formula to calculate the effectiveness of implementing the two bundles. **Research Results:** There were 710 cases of SC, and in 60 research samples in both groups for one month, the results of the intervention group with new bundles of SC showed 100% effectiveness with no cases or 0% during the 0-30 days post-SC operation monitoring period while the control group with hospital procedure bundles had one case or 3.3%. The Fisher Exact test analysis showed no significant difference (P> 0.005) between the intervention group with new SC bundles and the control group with hospital procedure bundles (P=1.000). **Conclusion:** The implementation of the new SSI bundles in the intervention group was proven to be effective with no cases of SSI when compared to the control group with hospital procedure bundles which contained one case of SSI.

Key words: Bundles; surgical site infection; post *sectio caesarea* operation patient

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