

Determinants of COVID-19 Vaccine Acceptance among Healthcare Workers in Penang

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ABSTRACT

Introduction: Healthcare workers (HCWs) were the earliest frontlines to be vaccinated compared to the general population in Malaysia. Their acceptance of the vaccine and recommendation may influence general population to eventually accept the vaccine and subsequently combat the COVID-19 pandemic. However, the paucity of local data and vaccine acceptance among HCWs remains poorly understood. Therefore, in this study, we sought to determine the acceptance of COVID-19 vaccines among HCWs in Penang. **Methods:** This survey was a cross-sectional study conducted among government HCWs in Penang. Online Google Form was used to design an online self-administered questionnaire and it was disseminated through WhatsApp media using both convenient and snowballing sampling techniques. The questionnaire which was adopted underwent validity and reliability testing. The dependent variable was vaccine acceptance. Data were analyzed using descriptive, bivariate, and multivariate analyses using SPSS. **Results:** Of the 4760 HCW who completed the online survey, 4623 (97.1%) indicated acceptance of the COVID-19 vaccine. Determinants of COVID-19 vaccine acceptance are good COVID-19 practice (AOR=5.160, 95%CI=2.100-12.680, $p<0.01$), tertiary education attainment (AOR=1.859, 95%CI=1.246-2.772, $p=0.002$), good COVID-19 knowledge (AOR=1.853, 95%CI = 1.183-2.903, $p=0.007$), clinical category HCW (AOR=1.699, 95%CI=1.039-2.778, $p=0.035$) and history of being swabbed for COVID-19 (AOR=1.676, 95%CI=1.183-2.374, $p=0.04$). Factors for refusal included vaccine novelty, safety, side-effects, religious and others. **Conclusion:** This study showed high acceptance of the COVID-19 vaccine amongst HCWs which would provide useful information to plan future interventions and improve COVID-19 acceptance. However, the reason for vaccine refusal needs to be further explored to tailor communications and promotion campaigns to increase vaccine acceptance.

Paediatric Dosing Information in Package Insert of Antibiotics Used in a Malaysian Tertiary Hospital

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ABSTRACT

Introduction: Paediatric patients are commonly prescribed with antibiotics and most of it lacks adequate dosing information. This study was conducted to determine the nature and extent of paediatric dosing information available in package inserts (PIs) of antibiotics. **Methods:** In this cross-sectional study, the PIs of antibiotics available in the Hospital Tunku Azizah were collected and reviewed. Antibiotics with PIs in foreign language or prepared extemporaneously in the hospital were excluded. These PIs were reviewed for dosing information in paediatric patients according to paediatric age classification, using a validated categorisation system. **Results:** A total of 156 PIs were reviewed involving 80 types of antibiotics. In total, 80.8% of the PIs reviewed provided inadequate paediatric dosing information for all age groups. The proportion of PI with adequate dosing information increased consistently with age group (neonates: 19.9%, infants: 37.2%, children: 48.1% and adolescents: 52.6%). It was also found that 11.5%, 8.3%, 3.8%, and 1.9% of PIs contraindicated the use of antibiotics in neonates, infants, children and adolescents, respectively. On average, about 20% of the PIs did not contain dosing information for paediatric use. **Conclusion:** The majority of PI for antibiotics reviewed did not provide adequate dosing information for paediatric patients. This can lead to many antibiotics being used outside the marketing authorisation or at suboptimal dose. In the absence of authorised dosing information, evidence from clinical practice on the safety and effectiveness of antibiotics should be documented in a structured manner to support rationale and optimal use of antibiotics in children.