

The descriptive study of monitoring the utilisation of pharmacy value-added services in Melaka public health facilities before and during the COVID-19 pandemic

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ABSTRACT

Introduction: Increasing the usage of pharmacy value added services (PVAS) would help limit contact and alleviate hospital congestion as part of a strategy to combat the spread of COVID-19. The aim of this study is quantified the usage of PVAS in public health care facilities in Melaka before (2019) and during the COVID-19 pandemic (2020 & 2021). **Materials and Methods:** The retrospective study in 36 public health facilities of Melaka. The total number of value added services (Drive-Through Pharmacy (DTP), Prescribed Medication Courier Service (PMCS), Integrated Drug Dispensing System (IDDS), and Pharmacy Appointment System (PAS) utilisation were extracted from Statistics Report of Melaka State Pharmaceutical Services 2019-2021. The percentages differences in PVAS utilisation were calculated between before pandemic year (2019) with pandemic year (2020 and 2021). **Results:** The findings showed 15.9% (2020) increment of utilisation of PVAS in Melaka and 24.1% (2021) compared with the 2019. The most increment utilisation of PVAS in Melaka from 2019 are; for year 2020; PMCS (226.6%), DTP (219.2%), IDDS (40.3%) and for year 2021; DTP (285.3%), PMCS (252.4%), IDDS (46.2%). All of the percentages difference if compared with the pre pandemic year with pandemic year it showed significantly difference $p < 0.05$. **Conclusion:** The utilisation of various type of PVAS are increase during the COVID-19 pandemic. This demonstrated that these strategies could assist patients in reducing their visits to health care facilities during a pandemic.

Keywords: Pharmacy value added services; COVID-19; continuity of care; health facilities, utilisation

Evaluating the risks of adverse maternal and neonatal outcomes among unvaccinated pregnant mothers admitted with COVID-19 in Ampang Hospital, Malaysia

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ABSTRACT

Introduction: COVID-19 infection during pregnancy has been associated with increased risks of maternal and neonatal adverse outcomes especially for unvaccinated pregnant mothers. There is a paucity of comparative local data demonstrating these elevated risks. To evaluate the risks of COVID-19 related maternal and neonatal adverse outcomes among unvaccinated pregnant mothers in Ampang Hospital, Malaysia. **Materials and Methods:** This was a retrospective cohort study of all COVID-19 positive pregnant mothers who were admitted to Ampang Hospital from January 2021 to October 2021. Data was collected from the hospital electronic records on vaccination status, COVID-19 severity, ICU admission, intubation, maternal mortality, mode of delivery, poor APGAR score at delivery (<5 at 10 minutes), and preterm delivery. Chi-squared analysis was performed to detect statistically significant associations. Relative risk was then calculated to measure the strength of the associations. **Results:** A total of 795 pregnant mothers were included. More than half 53.46%(425) were unvaccinated. The majority 73%(581) were admitted with COVID-19 Category 2. 88(11.07%) eventually required intensive care while 69(8.68%) required intubation. All 6(0.75%) patients who died were unvaccinated. Out of the 168 deliveries, 54.8%(92) were delivered via caesarean section. 4%(23) of babies delivered had poor APGAR scores. There were 58(36.9%) preterm deliveries, majority of which were iatrogenic (42,68.9%). Analysis showed that unvaccinated mothers who contracted COVID-19 were at higher relative risks of severe COVID-19 (Categories 4&5) 3.92(95% CI 2.23-6.87) and ICU admission 2.78(95% CI 1.74-4.44). Pregnant mothers who developed severe COVID-19 were at increased risks of caesarean delivery 2.44(95% CI 1.82-3.29), preterm delivery 2.88(95% CI 1.87-4.45) and babies born with poor APGAR score 14.46(95% CI 3.51-59.6). **Conclusion:** Unvaccinated pregnant mothers who contract COVID-19 are at increased risks of developing severe COVID-19 requiring ICU admission. Severe COVID-19 increases their risks of caesarean section, preterm delivery, and delivering a baby with poor APGAR score.

Keywords: unvaccinated, COVID-19, pregnant, maternal, neonatal