

The effect of teaching in improvement of five moments of hand hygiene among healthcare workers in Emergency Department Shah Alam

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ABSTRACT

Introduction: Data shows poor hand hygiene compliance in busy emergency department Hospital Shah Alam (HAS) prompted a quality improvement initiative to improve hand hygiene compliance. To date, there have been no comprehensive reviews on hand hygiene in emergency department (ED) within Malaysia. The aim of this study was to investigate hand hygiene compliance rate and to measure the impact of intervention on hand hygiene compliance among staff in the emergency department. **Methods:** This is a clinical audit conducted in emergency department of HSA for 1 month. Prospective 2 phase pre and post intervention study to determine compliance of hand hygiene and the effect of intervention. The intervention included regular reminders via social media, online continuous medical educations, educational hand hygiene video sharing, rewards and interviewed staff with poor compliance of hand hygiene. **Results:** Total of 36 healthcare professionals participated in the study. The compliance rate was 55.6% in the pre intervention phase. Compliance minimally increased to 59.76% after intervention. **Conclusion:** Hand hygiene compliance was low in HSA ED setting. Compliance rates remain unsatisfactory despite measures implemented. The review findings indicate that there is a room for improvement in hand hygiene in EDs. Future multilevel modalities are necessary to advocate hand hygiene compliance in EDs.

The Role of Laboratory Surveillance in Facilitating the Management of the Coronavirus Disease 2019 (COVID-19) Outbreak in Kelantan

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ABSTRACT

Background: Kelantan had the highest Reproductive (Rt) Value of COVID-19 cases recorded in Malaysia on 22 April 2021, contributing to a quarter of the nation's daily cases in Malaysia. This study aimed to describe the adjustment in testing strategies facilitated by laboratory surveillance as a response to the surge of cases. **Method:** All data from the COVID-19 registry of Kelantan between January-June 2021 was analyzed for the sampling and testing characteristics including types, frequencies, capacities, positivity rate and laboratory turn-around-time. Descriptive data analysed using SPSS version 25. **Results:** The daily samples received for the diagnostic Nucleic Acid Amplification Test (NAAT) were within capacity throughout Jan-March. In April, the averages of tests in the second week increased from 1131 tests/day to 1544 tests/day, exceeding the capacity of 1500 tests/day. Subsequently, 16.8% of samples were outsourced, increasing the average testing to 2677 tests/day. However, the average sampling remained persistently high amounting to 3311/day with positivity rate of 14.2%. Lab turn-around-time exceeded 48 hours; signalling for reactive strategies. Rapid Diagnostic Antigen Testing (Ag-RDT) were then amplified averaging 963/day. In high prevalent localities (>15% positivity rate), cases were confirmed with Ag-RDT without NAAT while negative Ag-RDT among high-risk groups were subjected to NAAT. Conversely, positive Ag-RDT results in low prevalent settings required confirmation by NAAT. On 22 June, NAAT was resumed as the confirmatory test as positivity rate reduced and samples remained within the testing capacity. **Conclusion:** Daily laboratory surveillance allowed proactive strategies to be identified in response to different epidemiological conditions, allowing Kelantan to stay within its surge capacity in combatting the COVID-19 pandemic.