

Abstract

Adverse Events Following COVID-19 Immunization Reported Through Hotlines, February-August 2021, Bangladesh: Descriptive Study

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Abstract

Background: For COVID-19 vaccine safety, the vaccination program of Bangladesh started facility-based passive surveillance to address adverse events following immunization (AEFIs) with COVID-19 vaccination. The Institute of Epidemiology, Disease Control and Research (IEDCR), Bangladesh, has been using emergency hotlines for outbreak reporting since 2008. During the COVID-19 pandemic, these hotlines are being used for pandemic-related information and reporting. Thus, COVID-19 vaccinees also use these hotlines to report AEFIs.

Objective: We analyzed the documented AEFIs records of the IEDCR to characterize the vaccinees who reported AEFIs through IEDCR hotlines.

Methods: We performed a descriptive analysis of COVID-19 vaccinees who reported AEFIs through IEDCR hotlines from February to August 2021. We defined AEFIs as untoward medical occurrences that follow immunization and that do not necessarily have a causal relationship with the usage of the vaccines. We analyzed the vaccinees who reported AEFIs through IEDCR hotlines by age, gender, occupation, the severity of AEFIs, and the time intervals of reporting.

Results: Of 819 vaccinees who reported AEFIs through IEDCR hotlines, 555 (67.8%) were male and their median age was 41 years (IQR 32-51 years). Of them, 494 (89%) reported AEFIs following the first dose of vaccination. Among females, 186 (70.5%) of 264 were housewives. Among males, 249 (44.9%) of 555 were service holders, 90 (16.2%) were businessmen, and 46 (8.3%) were students. About 638 (77.9%) of 819 vaccinees were from urban vaccination centers. Mild AEFIs, such as fever (508/819, 62%), injection-site pain (336/819, 41%), and headache (205/819, 25%), were reported through IEDCR hotlines. Although 534 (65.2%) of 819 vaccinees who reported AEFIs through IEDCR hotlines developed symptoms within 24 hours of vaccination, only 196 (23.9%) of 819 vaccinees reported them within 24 hours.

Conclusions: Middle-aged, male, and urban vaccinees who developed mild AEFIs commonly reported AEFIs through IEDCR hotlines. We recommended that AEFI data generated from different reporting systems, including hotline numbers, be incorporated together for an efficient COVID-19 vaccine safety surveillance system.

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KEYWORDS

AEFI; adverse events; Bangladesh; COVID-19 vaccine; hotline.

Multimedia Appendix 1

Poster presentation titled "Adverse Events Following COVID-19 Immunization, February to August 2021, Bangladesh".
[\[PDF File \(Adobe PDF File\), 478 KB-Multimedia Appendix 1\]](#)

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