

中文題目：探討醫護人員接種第一劑新冠疫苗後抗體反應

英文題目：Antibody Response Following the First Dose of COVID-19 Vaccination Among Health-Care Workers

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**Background:** Limited data on antibody response to a single dose of COVID-19 vaccine are available, especially in Asian population. The aim of this study was to investigate immune responses to a single dose of COVID-19 vaccine among Asian health-care workers (HCWs).

**Methods:** We included 98 HCWs from Far Eastern Memorial Hospital, who were vaccinated between May 6 and June 10, 2021. Immune response following vaccination was examined 29-71 days after vaccination by measuring anti-SARS-CoV-2 spike (S) protein antibodies. Natural infection was excluded by measuring antibodies against the SARS-CoV-2 nucleocapsid protein. We examined seropositivity following vaccination which was defined as antibody titer greater than or equal to 0.8 U/mL. We also evaluated the low-titer status which was defined as antibody titer less than 15 U/mL.

**Results:** The mean ( $\pm$  SD) age of study population was  $43 \pm 9$  years, and the vast majority (98%) were female. A total of 93 (95%) were vaccinated with ChAdOx1 nCoV-19 (AstraZeneca) and 5 (5%) with mRNA-1273 (Moderna). The mean time from vaccination was  $53 \pm 8$  days. All participants were seropositive. The median (IQR) titer of anti-SARS-CoV-2 S antibodies was 85 (48, 144) U/mL. Lower antibody titers were observed in 4% ( $n = 4$ ) of the participants.

**Conclusion:** Our work provides evidence that the first dose of COVID-19 vaccine effectively induces antibody response among Asian health-care workers.