

# Insiden COVID-19 pasca Vaksin Booster mRNA-1273 pada Tenaga Kesehatan dan Faktor yang Memengaruhinya = Incidence Rate and Associated Factors of SARS-CoV-2 Infection Post mRNA-1273 Booster Vaccination in Healthcare Workers

Hasibuan, Anshari Saifuddin, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920518700&lokasi=lokal>

---

## Abstrak

Latar Belakang: Pandemi COVID-19 menyebabkan mortalitas dan morbiditas yang tinggi khususnya pada tenaga kesehatan di Indonesia, Studi mengenai manfaat dari vaksin booster mRNA-1273 yang diawali vaksinasi primer Coronavac masih minim sehingga diperlukan penelitian lebih lanjut.

Tujuan: Penelitian ini dilakukan untuk mengetahui faktor yang berhubungan dengan insiden COVID-19 pasca vaksinasi booster mRNA-1273 yang diberikan vaksinasi primer Coronavac sebelumnya serta profil antibodi pada tenaga kesehatan di Indonesia.

Metode: Penelitian ini menggunakan gabungan desain kohort retrospektif dan potong lintang pada 300 tenaga kesehatan yang dipilih secara acak dari data penerima vaksin booster mRNA-1273 di salah satu RS tersier (RSCM). Subjek yang terpilih kemudian dilakukan wawancara mendalam mengenai riwayat vaksinasi COVID-19, riwayat terinfeksi COVID-19, komorbiditas dan dilakukan pengambilan sampel darah untuk menilai kadar antibodi IgG sRBD. Dari hasil wawancara kemudian dinilai faktor-faktor yang berhubungan terhadap kejadian COVID-19 pasca vaksinasi booster mRNA-1273 serta profil antibodi subjek.

Hasil: 56 orang (18,6%) mengalami COVID-19 setelah divaksinasi booster dalam 5 bulan. Incidence rate per person per month sebesar 3,2%. Median antibodi IgG sRBD dalam 8 bulan 6627 AU/ml (min-max, 729-20374 AU/ml) dan tidak berhubungan dengan variabel usia, jenis kelamin, komorbiditas, KIPI pasca booster ataupun riwayat infeksi pasca booster. Usia, jenis kelamin, diabetes melitus tipe 2, hipertensi, obesitas dan KIPI pasca booster tidak berhubungan terhadap insiden COVID-19 pasca booster. Riwayat COVID-19 sebelum vaksinasi booster berhubungan signifikan terhadap penurunan kejadian COVID-19 pasca vaksinasi booster dengan RR 0,20 (95 % CI: 0,09-0,45).

Simpulan: Insiden COVID-19 mencapai 18,6% dalam 5 bulan pasca vaksinasi booster dengan riwayat COVID-19 sebelum vaksinasi booster berperan dalam menurunkan risiko kejadian COVID-19 pasca vaksinasi booster.

.....Background: COVID-19 pandemic has caused high mortality and morbidity especially among healthcare workers in Indonesia. Studies on the benefits of the mRNA-1273 booster vaccine preceded with Coronavac primary vaccine are still minimal so further studies are needed.

Purpose: Knowing the factors associated with the incidence rate of SARS-CoV-2 infection after mRNA-1273 booster vaccination starting with the Coronavac primary vaccination and the antibody profile of healthcare workers in Indonesia.

Method: This study used combined design of retrospective cohort and cross sectional study. Three hundreds healthcare workers at one of tertiary hospital in Indonesia that obtain mRNA-1273 booster vaccine minimal after 5 months were randomly selected. Subjects were then interviewed regarding their history of COVID-19 vaccination, history of SARS-CoV-2 infection, comorbidities and blood samples were taken to assess IgG

sRBD antibody levels. Factors related to antibody profile and incidence of SARS-CoV-2 infection after the mRNA-1273 booster vaccination were then analyzed.

Results: 56 subjects (18.6%) experienced SARS-CoV-2 infection after mRNA-1273 booster vaccination. Median antibody IgG sRBD in 8 months was 6627 AU/ml (min-max, 729-20374 AU/ml) and not related to age, gender, comorbidities, AEFI after booster and infection after booster. Age, gender, diabetes type 2, hypertension, obesity, AEFI after booster were not related to COVID-19 incidence after booster. History of SARS-CoV-2 infection before booster vaccination was significantly associated with reduced risk of SARS-CoV-2 infection after booster vaccination with RR 0,20 (95 % CI: 0,09-0,45).

Conclusion: Cumulative incidence of SARS-CoV-2 infection in 5 months was 18,6% with history of COVID-19 before booster correlated with reduced risk of COVID-19 after booster.