

Immunocompromised individuals are at increased risk of COVID-19 breakthrough infection, hospitalisation and death in the post vaccination era: A systematic review.

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Abstract

Immunocompromised individuals have been shown to mount a reduced response to vaccination, resulting in reduced vaccine effectiveness in this cohort. Therefore, in the post vaccination era, immunocompromised individuals remain at high risk of breakthrough infection and COVID-19 related hospitalisation and death. There has been a marked paucity of systematic review evaluating existing data describing the clinical measures of efficacy of COVID-19 vaccination in protecting immunocompromised individuals, specifically against, breakthrough infections and severe COVID-19. Therefore, we conducted a systematic review which aimed to provide a summary of current clinical evidence of the effectiveness of COVID-19 vaccination in the immunocompromised population. Our findings demonstrated that immunocompromised patients remained at high risk of breakthrough infection and severe COVID-19 outcomes compared to the general population. These groups included those with: cancer, organ transplants, chronic kidney disease, HIV and immunodeficiencies, amongst others. This demonstrated that vaccination does not offer an adequate level of protection in these groups, necessitating further measures such as Evusheld and further boosters.

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