ROYAL COLLEGE OF PHYSICIANS OF IRELAND

National Immunisation Advisory Committee

AN OVERVIEW OF RECOMMENDATIONS REGARDING BOOSTER DOSES OF COVID-19 VACCINE FOR HEALTH CARE WORKERS

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Recommendations

1. All unvaccinated or incompletely vaccinated healthcare workers (HCWs) and their close contacts are strongly encouraged to complete a primary COVID-19 vaccination course. Seasonal influenza vaccine can be given at the same time to those for whom it is recommended.

2. HCWs and their close contacts must continue to observe the recommended public health and social measures. The use of masks, physical distancing, hand hygiene, ventilation of indoor spaces and optimising the physical infrastructure are key to reducing transmission of SARS-CoV-2.

   Booster doses will not immediately contribute to outbreak management or take the place of public health and social measures.

3. A booster dose of an mRNA vaccine is recommended for HCWs who have completed a primary vaccine course with any COVID-19 vaccine. Frontline workers should be prioritised.

   A full dose of Comirnaty (0.3ml/30 micrograms) or half dose of Spikevax (0.25ml/50 micrograms) should be given after an interval of six months or longer, following completion of the primary course. A minimum interval of five months may be used when necessary for operational reasons.

4. Those who have a breakthrough infection following a primary vaccination course should defer booster vaccination for at least six months following the infection.

5. If mRNA vaccines are contraindicated, consideration can be given to boosting with an authorised non-mRNA vaccine following an individual benefit-risk assessment.

These recommendations reflect current evidence and will be reviewed when more information becomes available.

Overview

- Access to and completion of a primary COVID-19 vaccine series by all countries is an essential prerequisite to control the global SARS-CoV-2 pandemic. Until worldwide control is achieved, all countries remain at risk.
- The most effective way to prevent hospitalisations, severe illness and death related to COVID-19, is to ensure that all eligible people are fully vaccinated.
- The highly transmissible Delta variant is the dominant circulating strain of SARS-CoV-2 in Ireland.
- Although COVID-19 antibody levels wane over time, vaccine effectiveness against severe disease and death is generally sustained. However, protection against infection and mild disease declines.
- There is evidence to suggest that neutralising antibodies (NAs), important for protection against infection, decline over time. A booster dose of COVID-19 vaccine, homologous or heterologous, effectively increases NA levels. Booster doses have been shown to reduce breakthrough infections.
- Vaccine effectiveness in preventing symptomatic disease is similar in HCWs and the general population. Age and immune status are the main factors in determining breakthrough disease severity.
- HCWs accounted for less than 5% of confirmed cases reported between 15 and 28 October 2021. The most likely source of transmission was known in about 60% of cases. Of these, less than 2% were acquired in a healthcare setting.
- The main aim of the vaccination programme is to prevent severe COVID-19 disease and death in the vaccinee.
- Decreasing the incidence of HCW infection will reduce the risk of transmission and help protect vulnerable patients.
- The greatest risk of transmission within the healthcare setting is from infected individuals who are unvaccinated. However, vaccinated HCWs with breakthrough infections can unwittingly be a source of hospital or residential outbreaks involving both patients and other HCWs.
- Booster doses for HCWs will reduce their incidence of breakthrough infection, provide additional protection for patients, and may also help support continuity of healthcare services.
- Booster doses of mRNA vaccines have not shown any unexpected short term safety concerns. The risk of myocarditis or other rare adverse reactions following an mRNA booster dose has yet to be characterised and will be closely monitored.
- NIAC continues to examine new evidence regarding the durability of protection of the primary vaccine series in other groups, including those younger than 60 years of age with comorbidities.