

IPCRG practice driven answers on COVID-19 and respiratory questions



Does the evidence support pertussis vaccination for adults with chronic respiratory disease?

What the research says

Among patients with chronic respiratory disease (CRD) pertussis infection can result in severe complications including potentially life-threatening exacerbations. The effectiveness of pertussis vaccination in preventing pertussis infection in adults, including those with CRD, is well established (Van den Steen et al 2022; Zerbo et al 2022). A pertussis-containing Diphtheria, Tetanus, Pertusis (DTAP) booster vaccine for adults is available although not routinely offered in all countries. In 2019, 18 of 42 European countries included pertussis as part of their vaccine program for adults (Cassimos et al 2020). In the US, pertussis booster vaccination is recommended for all adults not previously adequately vaccinated, although uptake rates are low (American Lung Association 2022).

We suggest based on other recommendations (e.g. GOLD 2023) to ensure patients are sufficiently protected by all relevant vaccines.

These might include:

- Single course of a pertussis-containing vaccination for those people not previously adequately vaccinated followed by a booster vaccination every 10 years
- Annual vaccinations for influenza and COVID-19

- Pneumococcal vaccination
- Single course of a shingles vaccination, although in many countries shingles vaccinations are not paid for under national vaccination programmes

What this means for your clinical practice

- Ensure all those with CRD not previously adequately vaccinated receive a DTAP vaccination
- Consider pertussis-containing booster vaccinations every 10 years for all eligible patients, especially those at highest risk such as adults with CRD

Authors

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Useful links and supporting references:

American Lung Association. Good asthma management includes protecting against pertussis. 3 May 2022. Available at: <https://www.lung.org/blog/asthma-management-pertussis/> Accessed January 2023.

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GOLD. 2023 GOLD report. Global strategy for prevention, diagnosis and management of COPD: 2023 report. Available at: <https://goldcopd.org/2023-gold-report-2/>. Accessed January 2023.

Van den Steen P, et al. Impact of obstructive airway diseases (OADs) treatments on adult diphtheria-tetanus-pertussis vaccine (dTap)'s immunogenicity and safety. *Eur Respir J* 2022;60:1048. Available at: https://erj.ersjournals.com/content/60/suppl_66/1048. Accessed January 2023.

Zerbo O, et al. Lessons from a mature acellular pertussis vaccination program and strategies to overcome suboptimal vaccine effectiveness. *Expert Rev Vaccines* 2022;21:899–907. Available at: <https://pubmed.ncbi.nlm.nih.gov/34555994/>. Accessed January 2023.

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