

Reduce Pertussis Rates With Vaccination and Antibiotics

Questions will come up about **proper vaccination and antibiotics for pertussis**...since US cases in 2024 climbed past pre-pandemic levels.

We know pertussis is most serious in infants under 1 year old...and can lead to apnea, hospitalization, and death.

Cases decreased during the COVID-19 pandemic...but the recent rebound to 2019 levels may be due to waning immunity after vaccination.

Review latest immunization guidance. Vaccinate kids against pertussis at the same time as most tetanus immunizations...since we know it's combined with tetanus vaccine (DTaP, Tdap, etc).

Advise nonpregnant adults get at least one Tdap dose at age 19 or over...followed by Td or Tdap boosters every 10 years. Also recommend a single Tdap dose at age 65 or over. For pregnant patients, advise a Tdap dose in the third trimester of EVERY pregnancy regardless of past doses.

Reserve DTaP...even in combo vaccines...for patients under age 7. Older patients should only receive Tdap. To help remember, think about the capital "T" in "Tdap" as meaning it should be used in TALL patients.

Be ready for parent questions about pain and fever control options after vaccination. Recommend nonaspirin options, such as acetaminophen...and ibuprofen for kids at least 6 months old.

Prescribe antibiotics for post-exposure prophylaxis and treatment. These are needed regardless of your patient's pertussis vaccine history.

Be aware of post-exposure prophylaxis recommendations. For example, household members should start prophylaxis within 21 days after the contagious patient began coughing.

Begin treatment antibiotics ASAP to limit spread and symptom severity. Ideally begin within 3 weeks from cough onset...or within 6 weeks for pregnant patients OR kids less than 1 year old.

Keep in mind that antibiotic choices and regimens are the same for prophylaxis and treatment.

Use azithromycin daily for 5 days first-line. Other macrolides have more age limits, GI side effects, and longer courses.

Turn to trimethoprim/sulfamethoxazole bid for 14 days as an alternative for patients 2 months and up with a macrolide allergy.

Encourage nondrug options for cough...humidifiers, up to 2 tsp of honey prn for kids over age 1, etc. But steer patients away from OTC antitussives. Evidence is limited and they may cause harm in kids.

And be prepared to escalate care, if needed. Kids under 12 months old are more likely to need hospitalization for IV meds, oxygen, etc.

Key References:

- CDC. Whooping Cough (Pertussis): Postexposure Antimicrobial Prophylaxis. Apr 2, 2024. <https://www.cdc.gov/pertussis/php/postexposure-prophylaxis/index.html> (Accessed October 28, 2024).
- Tiwari T, Murphy TV, Moran J; National Immunization Program, CDC. Recommended antimicrobial agents for the treatment and postexposure prophylaxis of pertussis: 2005 CDC Guidelines. MMWR Recomm Rep. 2005 Dec 9;54(RR-14):1-16.

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- Havers FP, Moro PL, Hunter P, et al. Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Updated Recommendations of the Advisory Committee on Immunization Practices - United States, 2019. MMWR Morb Mortal Wkly Rep. 2020 Jan 24;69(3):77-83.
- CDC. Whooping Cough (Pertussis): Pertussis Surveillance and Trends. November 7, 2024.
<https://www.cdc.gov/pertussis/php/surveillance/index.html> (Accessed November 11, 2024).

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