

Reduce Pertussis 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.

Pertussis (whooping cough) is most serious in infants under 1 year old...and can lead to hospitalization and death.

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

Ask about immunizations during patient med history interviews...to look for vaccination opportunities.

Kids need pertussis immunization at the same time as most tetanus vaccinations...since pertussis is combined with tetanus vaccine (DTaP, Tdap, etc).

Expect nonpregnant adults to get at least one Tdap dose at age 19 or older...then Td or Tdap boosters every 10 years. Similarly, a single Tdap dose is needed at age 65 or over.

On the other hand, pregnant patients require a Tdap dose in the third trimester of EVERY pregnancy...regardless of past doses.

Prevent mix-ups by choosing the right vaccine based on patient age.

DTaP is for kids under age 7. Older ages should only receive Tdap. To help remember, think about the capital "T" in "Tdap" as meaning it's used in TALL patients.

Limit errors by storing these vaccines separately...or using color-coded bin labels to tell them apart. And continue using barcode-scanning technology, if available...to confirm you're prepping the right vaccine.

Anticipate infected inpatients to need antibiotics...especially for patients less than 1 year old.

Be prepared to dispense azithromycin po or IV daily for 5 days first-line. Other macrolides (erythromycin, etc) have more age limits, GI side effects, and longer courses.

Trimethoprim/sulfamethoxazole (TMP/SMX) po or IV bid for 14 days is an alternative for patients 2 months and up with a macrolide allergy.

Watch for antibiotic dispensing errors. For example, young children and newborns should receive po suspensions...NOT tabs.

Double-check suspension strengths to prevent mix-ups...azithromycin comes as 100 mg/5 mL and 200 mg/5 mL options.

Similarly, avoid dispensing azithromycin EXTENDED-RELEASE suspension packets for pertussis. They are only meant for one-time admin for other infections (chlamydia, etc).

And watch diluent compatibilities when these antibiotics are made IV. For example, TMP/SMX can only be mixed in D5W...not saline.

Key References:

-CDC. Whooping Cough (Pertussis): Postexposure Prophylaxis. April 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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