

## NICD Pertussis Guidelines – post-exposure prophylaxis following a single case Updated February 2011

Post-exposure prophylaxis for contacts of a pertussis case should be provided (if within 21 days of onset of cough in the case) to the following two groups of contacts:

1) Close contacts:

A close contact is a person who had face-to-face exposure within one metre of a symptomatic patient, and includes:

- family members living in the same household (regardless of age or vaccination status)
- contacts living in institutional settings with overnight stays in the same room e.g. healthcare settings
- persons who have direct contact with respiratory, oral or nasal secretions from a symptomatic patient (e.g. cough, sneeze, sharing food and eating utensils, healthcare workers who perform medical examination of the mouth, nose and throat )

2) 'Vulnerable' contacts:

This refers to persons who are not necessarily close contacts according to the definition above, but have been exposed to a symptomatic patient and are themselves at increased risk of complications from pertussis OR are at risk of transmitting the infection to other 'vulnerable' persons at risk of severe pertussis disease.

Vulnerable persons include:

- Newborn infants born to symptomatic mothers
- infants <1 year who have received <3 doses of diphtheria vaccine
- immunocompromised
- chronic cardiac/ lung disease
- pregnant in the third trimester of pregnancy (to protect the newborn infant)
- < 10 years and partially immunised or unimmunised i.e: has not completed at least a primary vaccine series for pertussis (three doses) with the last dose at least 2 weeks before exposure
- Children/adults who attend/work in a healthcare, social care or childcare facility.

The immunisation status of young contacts and cases should be reviewed and vaccination completed where appropriate (and where suitable vaccines are available) after receiving treatment/post-exposure chemoprophylaxis. Symptomatic (coughing) household/"household-like" contacts should be investigated and treated for pertussis.

Erythromycin has been the mainstay of treatment and post-exposure prophylaxis for pertussis. However, the newer macrolides such as clarithromycin and azithromycin have been shown to be equally effective at clearing the organism, have fewer side effects and improved compliance. Duration of treatment AND post-exposure chemoprophylaxis is 7 days for erythromycin and 7 and 5 days for clarithromycin and azithromycin respectively. The choice of macrolide used for treatment and/or chemoprophylaxis should be based on availability, age of the patient and any existing contraindications (Table 1).

**Table 1: Recommended antibiotic treatment and post exposure prophylaxis for pertussis by age group<sup>b</sup>**

Age group	Erythromycin	Clarithromycin	Azithromycin	Co-trimoxazole*
<b>&lt;1 month</b>	Not preferred due to association with hypertrophic pyloric stenosis 12.5mg/kg every 6 hours for 7 days	Not preferred in this age group	<b>Under 6 months:</b> 10mgs/kg once a day for 5 days	Not recommended for infants below 6 weeks
<b>1 -24 months</b>	125mg every 6 hours for 7 days	Under 8kgs: 7.5mg/kg twice a day for 7 days 1-2 yrs: 62.5mg twice a day for 7 days	<b>Infants and children ≥ 6 months:</b> 10mg/kg (maximum 500mg) on day	6 weeks – 5 months: 120mg twice a day for 7 days
<b>2-8 years</b>	250 mg every 6 hours for 7 days	3-6 yrs: 125 mg twice a day for 7 days 7-9 yrs: 187.5mg twice a day for 7 days	1, followed by 5mg /kg (maximum 250mg) on days 2-5	6 months – 5 years: 240mg twice a day for 7 days
<b>Children &gt; 8 years</b>	250-500mg every 6 hours for 7 days	≥10 yrs: 250 mg twice a day for 7 days		6-12 years: 480mg twice a day for 7 days
<b>Adults</b>	250 – 500 mg every 6 hours for 7 days	250mg twice a day for 7 days	500mg on day 1 followed by 250mg once daily on days 2-5	960mg twice a day for 7 days

\*consider if macrolides contra-indicated or not tolerated

**Please note that the doses for treatment and prophylaxis are the same.**

<sup>b</sup> The above information has been taken from BNF 59, Children's BNF. Azithromycin doses based on SPC and CDC Guidelines<sup>3</sup>.



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