



Pertussis (whooping cough) – information for primary healthcare workers

Overview of pertussis

- Pertussis infection is a [notifiable infectious disease](#) in Western Australia.
- **Infectious agent:** *Bordetella pertussis*
- **Clinical features:** Clinical presentations of pertussis may vary by age. Pertussis can present with common cold-like symptoms (rhinorrhoea, cough, mild fever, lethargy) and typically progresses to bouts of paroxysmal coughing after 1-2 weeks, sometimes with post-tussive vomiting, choking or an inspiratory whoop. In very young infants, the cough may be minimal or absent, and the only signs may be apnoea or cyanosis or non-specific signs such as poor feeding or seizures. Most severe disease and deaths occur in infants under 6 months of age who have not completed their primary course of pertussis vaccination.
- **Transmission:** Primarily person-to-person by droplets from coughing or sneezing.
- **Incubation period:** 4-21 days (usually 7-10 days)
- **Infectious period:** Cases are considered infectious from the onset of catarrhal symptoms until:
 - 21 days after the onset of any cough, or
 - 14 days after onset of paroxysmal cough (if the onset is known), or
 - they have completed 5 days of a course of an appropriate antibiotic.

Investigations

- In patients with less than 4 weeks of cough or 3 weeks of paroxysmal cough, obtain a nasopharyngeal swab/aspirate and request pertussis PCR testing.
- If patients present with greater than 3 weeks of cough, consider pertussis serology (although the sensitivity and specificity is low).

Management of pertussis cases

- An appropriate antibiotic should be started as soon as possible and within 3 weeks of onset of cough to reduce symptoms and transmission (see Table 1). Refer to the [Therapeutic Guidelines: Antibiotic](#) for more information.
- Consider referral of neonates with pertussis for urgent specialist assessment or emergency care, and ensure parents are safety netted on the need to seek urgent care if concerns arise.
- Patients with suspected or confirmed pertussis attending health care settings should be managed under droplet precautions while infectious.
- Advise cases to stay home from childcare, school or work, and away from infants and pregnant women and their contacts, until they are no longer infectious.

Management of contacts

- Contacts are people with face-to-face exposure (within 1 metre) to an infectious case for at least one hour.
- Neonates exposed to an infectious case for less than one hour may be considered a contact.
- Family and household members and people who have stayed overnight in the same room as an infectious patient are also usually considered contacts.
- All contacts should be provided with information on pertussis ([Whooping cough \(pertussis\) \(healthywa.wa.gov.au\)](#)).
- High-risk contacts should be offered antibiotic prophylaxis. Prophylaxis should be given within 14 days of first exposure to an infectious case and is the same as for treatment (see Table 1).

High-risk contacts are infants <6 months of age, and people who may transmit pertussis to them, including:

- expectant parents (or carers) in the last month of pregnancy
- all household members where there is an infant <6 months present
- healthcare workers in a maternity or newborn nursery
- childcare staff who look after infants aged <6 months
- children who have close contact in childcare with children <6 months of age.

Table 1. Recommended antibiotics for pertussis cases and high-risk contacts, by age group

Age Group	Macrolides		Non-macrolide alternative
	Azithromycin	Clarithromycin	Trimethoprim + Sulfamethoxazole
<1 month	10mg/kg daily for 5 days*	Not recommended	Not recommended
1 to <6 months	10mg/kg daily for 5 days	7.5mg/kg (max 500mg) twice a day for 7 days	4+20mg/kg (max 160+800mg) twice a day for 7 days
Children ≥6 months	Day 1: 10mg/kg daily (max 500mg)	7.5mg/kg (max 500mg) twice a day for 7 days	4+20mg/kg (max 160+800mg) twice a day for 7 days
	Days 2-5: 5mg/kg daily (max 250mg)		
Adults	Day 1: 500mg daily	500mg twice a day for 7 days	160+800mg twice a day for 7 days
	Day 2-5: 250mg daily		
Pregnancy	Azithromycin (Category B1) has better absorption. Clarithromycin is a Category B3 antibiotic. Erythromycin (Category A in pregnancy) can be considered and is active against <i>B. pertussis</i> but is poorly tolerated and requires more frequent dosing.		Should not be used in the first trimester of pregnancy, or in the last month of pregnancy. Should only be used during pregnancy if the potential benefit justifies the potential risk to the foetus. Folic acid supplementation may be required.
Breastfeeding	Macrolides are compatible with breastfeeding (infant may have loose bowel motions).		Should be avoided in breastfeeding if infant is ill, stressed or preterm and in those with hyperbilirubinaemia or G6PD deficiency.

*treatment should be conducted in consultation with infectious diseases specialist or paediatrician. Macrolides may be associated with infantile hypertrophic pyloric stenosis in this age group.

Prevention

- Immunisation provides good protection from infection, but immunity wanes over time. Pertussis vaccination is a core element of the routine childhood vaccination schedule and is also recommended for:
 - pregnant women during each pregnancy (preferably between 20- and 32-weeks gestation), to provide maternal antibodies to help protect infants in their first few months of life
 - adults who are household members, grandparents or carers of infants <6 months of age
 - healthcare and childcare workers every 10 years.
- For more information, see [Pertussis \(whooping cough\) | Australian Immunisation Handbook](#).

Notification

[Notify](#) pertussis cases to public health. Contact your local public health unit to discuss pertussis clusters and cases with high-risk contacts (see [contact details for public health units](#)).

Additional links and resources

- For health professionals: [Pertussis \(whooping cough\) \(health.wa.gov.au\)](#)
- For the public: [Whooping cough \(pertussis\) \(healthywa.wa.gov.au\)](#)
- [Pertussis \(whooping cough\) | The Australian Immunisation Handbook](#)
- [Pertussis \(whooping cough\) – CDNA National Guidelines for Public Health Units](#)

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