PAEDIATRIC ACUTE CARE GUIDELINE	
Pertussis	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
http://kidshealthwa.com/about/disclaimer/

Pertussis

Pertussis (Whooping Cough) is a highly infectious respiratory illness caused by *Bordatella pertussis*

Background

- Despite immunisation, pertussis epidemics occur every 3-4 years
- Neonates and young infants are at risk of apnoea
- Antibiotic treatment does not shorten the duration of illness but reduces infectivity
- Cough may last for 3 months

General

Incubation Period

- 7-20 days

Infectious Period

- Patients are infectious from the initial catarrhal period to 3 weeks after onset of cough or after completion of antibiotic course

Immunity

- Natural infection does not confer lifelong immunity
- Immunity after infection or immunisation decreases after 5 years

- The current Australian National Immunisation Schedule recommends acellular pertussis vaccine at 2, 4 & 6 months, 4 years and 10-15 years

Complications

- Complications include pertussis pneumonia, seizures, hypoxic encephalopathy and death

Risk factors

- Infants less than 6 months of age
- Unimmunised patients

Assessment

- Paroxysmal cough followed by inspiratory whoop is the classical presentation
- Young infants may not have characteristic inspiratory whoop

History

- Pertussis usually starts with mild coryza and low grade fever for 2-6 days (catarrhal stage) and is difficult to differentiate from viral URTI
- Cattarhal stage develops into a dry, non productive paroxysmal cough which may be associated with cyanosis
- The cough is often worse at night
- Inspiratory whoop may or may not be present
- Post-tussive vomiting is common in children
- Infants younger than 6 months are at risk of apnoea
- Ask for immunisation history

Examination

- Most patients will not have clinical signs of lower respiratory tract infection
- Conjunctival haemorrhage or facial petechiae may be present from forceful coughing
- Assess for hypoxia
- Young infants may be exhausted after coughing paroxysms

Investigations

- Nasopharyngeal aspirate or pernasal swab for pertussis PCR, IgA and culture

Differential diagnoses

- Bronchiolitis
- *Mycolasma pneumonia*

- *Chlamydia pneumonia*

Management

- Patients with cyanosis or apnoea should be admitted for antibiotics and observation
- Non-admitted patients with suspected pertussis should be isolated from child care, school and health care settings until 5 days of antibiotic therapy has been completed

Initial management

- Oxygen for hypoxia
- Respiratory support for apnoea – involve PICU early

Medications

- Antibiotic therapy reduces infectivity but not duration of symptoms
- Antibiotic treatment is not recommended if the duration of the paroxysmal cough is >21 days

Age	Standard protocol
<6 months	Azithromycin 10mg/kg daily for 5 days
>6 months	Azithromycin 10mg/kg (max 500mg) day 1 then 5mg/kg (max 500mg) daily for 4 days

- Antibiotic prophylaxis is only necessary for high risk contacts of pertussis cases:
  - Any woman in the last month of pregnancy regardless of immunisation status
  - Close household contacts of any child <24 months age who have not received 3 doses of pertussis vaccine

Admission criteria

- Have a low threshold for admitting young infants <3 months with suspected pertussis for observation

Referrals and follow-up

- All confirmed cases of pertussis must be reported to public health

Nursing

- Routine nursing care

Isolation

- Isolate suspected cases of pertussis
- Droplet precautions
- Patients are infectious until they have completed 5 days of antibiotics or >21 days of paroxysmal cough

Tags

apnea, apnoea, cough, cyanosis, immunisation, paroxysm, pertussis, PNA, post-tussive, whoop, whooping

References

PMH ED Guidelines: Pertussis – Last Updated August 2014
The Australian Immunisation Handbook. 10th ed. Canberra: Australian Government Department of Health, 2013

This document can be made available in alternative formats on request for a person with a disability.

File Path:			
Document Owner:	Dr Meredith Borland HoD, PMH Emergency Department		
Reviewer / Team:	Kids Health WA Guidelines Team		
Date First Issued:	29 August, 2014	Version:	
Last Reviewed:	13 June, 2017	Review Date:	13 June, 2020
Approved by:	Dr Meredith Borland	Date:	13 June, 2017
Endorsed by:	Medical Advisory Committee	Date:	13 June, 2017
Standards Applicable:	NSQHS Standards:		

Printed or personally saved electronic copies of this document are considered uncontrolled