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

This document should be read in conjunction with this DISCLAIMER
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Cough

- Cough may be the ONLY presenting symptom of an underlying respiratory illness
- However it is most commonly caused by an URTI

Defining the spectrum of paediatric cough

- On duration of cough:
  - Acute cough: cough duration of < 2 weeks(usually5-7 days)
  - Protracted acute cough: cough duration between 2 and 4 weeks
  - Chronic cough: cough duration of > 4 weeks
- On likelihood of an underlying disease or process:
  - Expected cough
  - Specific cough
  - Nonspecific cough
- On cough quality:
  - Classically recognised cough
  - Wet/moist or productive cough versus dry cough
  - Protracted bronchitis

General

- Although cough is burdensome, the function of cough serves as a vital defensive mechanism for lung health
- Cough prevents pulmonary aspiration, promotes ciliary activity and clears airway debris

Assessment

History

- Associated URTI symptons
- Cough characteristics
- Specific features suggestive of an underlying diagnosis
- Wheeze or recurrent lower respiratory tract infections
- Feeding difficulties
- Medications
- Neurodevelomental problems
- Malnutrition
- Failure of previous treatment

Signs and Symptoms (primarily for chronic cough)	
Sign/symptom	**Possible underlying aetiology**
Auscultatory findings (wheeze, crepitations/crackles, differential breath sounds)	Asthma, bronchitis, congenital lung disease, foreign body aspiration, airway abnormality
Cough characteristics (e.g. cough with choking, cough quality, cough starting from birth)	Congenital lung abnormalities
Cardiac abnormalities (including murmurs)	Any cardiac illness
Chest pain	Asthma, functional, pleuritis
Chest wall deformity	Any chronic lung disease
Daily moist or productive cough	Chronic bronchitis, suppurative lung disease
Digital clubbing	Suppurative lung disease
Dyspnoea (exertional or at rest)	Compromised lung function of any lung or cardiac disease
Failure to thrive	Compromised lung function, immunodeficiency, cystic fibrosis
Feeding difficulties (including choking and vomiting)	Compromised lung function, primary aspiration

Haemoptysis	Bronchitis
Immune deficiency	Atypical and typical respiratory infections
Medications or drugs	Angiotensin-converting enzyme (ACE) inhibitors, puffers, illicit drug use
Neurodevelopmental abnormality	Primary or secondary aspiration
Recurrent pneumonia	Immunodeficiency, congenital lung problem, airway abnormality
Symptoms of upper respiratory tract infection	May coexist or be a trigger for an underlying problem

Note: this is a non-exhaustive list; only the more common respiratory diseases are mentioned

Examination

Classically Recognised Cough	
Cough Type	**Suggested underlying process**
Barking or Brassy cough	Croup, tracheomalacia, habit cough
Honking	Psychogenic
Paroxysmal (with or without respiratory “whoop”)	Pertussis and parapertussis
Staccato	Chlamydia in infants
Cough productive of casts	Plastic bronchitis/asthma
Chronic wet cough in mornings only	Suppurative lung disease

Investigations

- Chest Xray
- Spirometry (if age appropriate)

Differential diagnoses

Acute Cough
URTI – Commonest cause
Asthma: ◦ Children with asthma can present with cough ◦ If absent of wheeze and/or dyspnoea on exertion, is usually not representative of asthma
Viral Induced Wheeze
Croup
Pneumonia
Inhaled Foreign Body
Pertussis
Rhinitis: ◦ Cause and effect is unlikely
Atopy: ◦ The presence of atopy (positive skin prick test) does not predict response of cough to asthma therapies
Psychogenic cough: ◦ Habit (“tic” like) ◦ Bizarre honking cough ◦ Symptoms typically disappear at night during sleep or when child is engrossed in an activity

Chronic cough	
Isolated Cough: otherwise healthy child	**Isolated Cough: significant underlying cause**
• Recurrent viral bronchitis • Post infectious cough • Pertussis-like illness • Cough variant asthma • Postnasal drip • Gastro-oesophageal Reflux ◦ In the absence of secondary aspiration, GOR in children rarely causes chronic cough	• Chronic suppurative lung disease: ◦ Cystic fibrosis ◦ Immune deficiencies ◦ Primary ciliary dyskinesia ◦ Recurrent pulmonary aspiration ◦ Retained inhaled foreign body ◦ Chronic bronchitis • Airway lesion: ◦ Compression – e.g. tuberculous gland ◦ Malacia, often with viral infection e.g. trachea-oesphageal fistula

Management

- **Management of Acute Cough-URTI**
  - Over the counter cough and cold medications are not recommended due to lack of proven efficacy and the possibility that they may represent a safety risk
  - Education – Advise that the expected duration of cough is 5-7 days. Resolution in 90% by 1-3 weeks.
  - When to return to the ED and/or GP
  - Avoidance of passive smoke exposure

- **Management of Psychogenic Cough**
  - Treatment can range from benign neglect (shifting the focus of attention away from the symptom)
  - Hypnosis
  - Family therapy

- **Management of the otherwise well child with a persistent dry non productive cough**
  - Reassurance with watchful anticipation as the cough will usually disappear in the next 4-8 weeks
  - Exposure to cigarette smoke should be removed wherever possible
  - Non-prescription cough remedies have not been shown to be efficacious
  - Cough suppressants may have side effects when given to young infant
  - It is reasonable to recommend one teaspoon of honey before bedtime for children aged over one year

Referrals and follow-up

- Common indications for referral in chronic childhood cough:
  - Chronic cough (>4 weeks) of unclear aetiology (with or without failure to thrive)
  - Suspected airway malformation e.g. tracheo-oesophageal fistula, vascular ring
  - Cough and feeding difficulties (suspected aspiration disease)
  - Clinical features of chronic lung disease e.g. clubbing
  - Persisting auscultatory findings e.g. crepitations
  - Recurrent pneumonias
  - Abnormalities on chest x-ray or spirometry
  - Failure to respond to treatment e.g. in asthma

Tags

asthma, bronchiolitis, cough, pertussis

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