Problem coughing in children: acute, prolonged acute and chronic

In the child with no known diagnosis

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Problem Cough in children: what's new - since guidelines published

Recommendations for the assessment and management of cough in children

MD Shields, A Bush, ML Everard, S McKenzie and R Primhak on behalf of the British Thoracic Society Cough Guideline Group

Thorax April 2008; 63 Suppl 3

ERS guidelines on the diagnosis and treatment of chronic cough in adults and children

Alyn H Morice[1], Eva Millqvist[2], Kristina Bieksiene[3], Surinder S Birring[4], Peter Dicpinigaitis[5], Christian Domingo Ribas[6], Michele Hilton Boon[7], **Ahmad Kantar[8]**, Kefang Lai[9*], Lorcan McGarvey[10], David Rigau[11], Imran Satia[12], Jacky Smith[13], Woo-Jung Song[14**], Thomy Tonia[15], Jan WK van den Berg[16], Mirjam J. G. van Manen[17], **Angela Zacharasiewicz[18]**

At the time of writing ---

BTS Recommendations for the assessment and management of cough in children

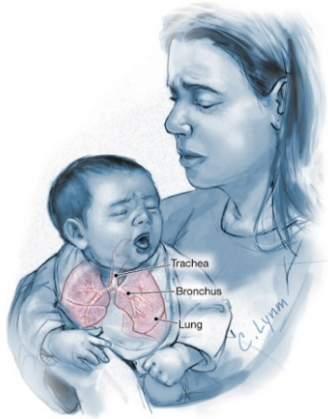
MD Shields, A Bush, ML Everard, S McKenzie and R Primhak on behalf of the British Thoracic Society Cough Guideline Group

Thorax April 2008; 63 Suppl 3

We had grade A evidence *(Cochrane Umbrella Review of the Systematic Reviews)*

that there was 'insufficient evidence' about most Key Questions related to cough

Underlying principles



Although parents are desperate to get their child to stop coughing

- It is NOT logical to try to suppress cough – it is a protective reflex.
  - Almost nothing works to treat acute cough
  - And certainly nothing works really well

- Remember:
  - NO cough – neuromuscular disorders = problem
  - No cough – eg Downs syndrome & silent recurrent pulmonary aspiration

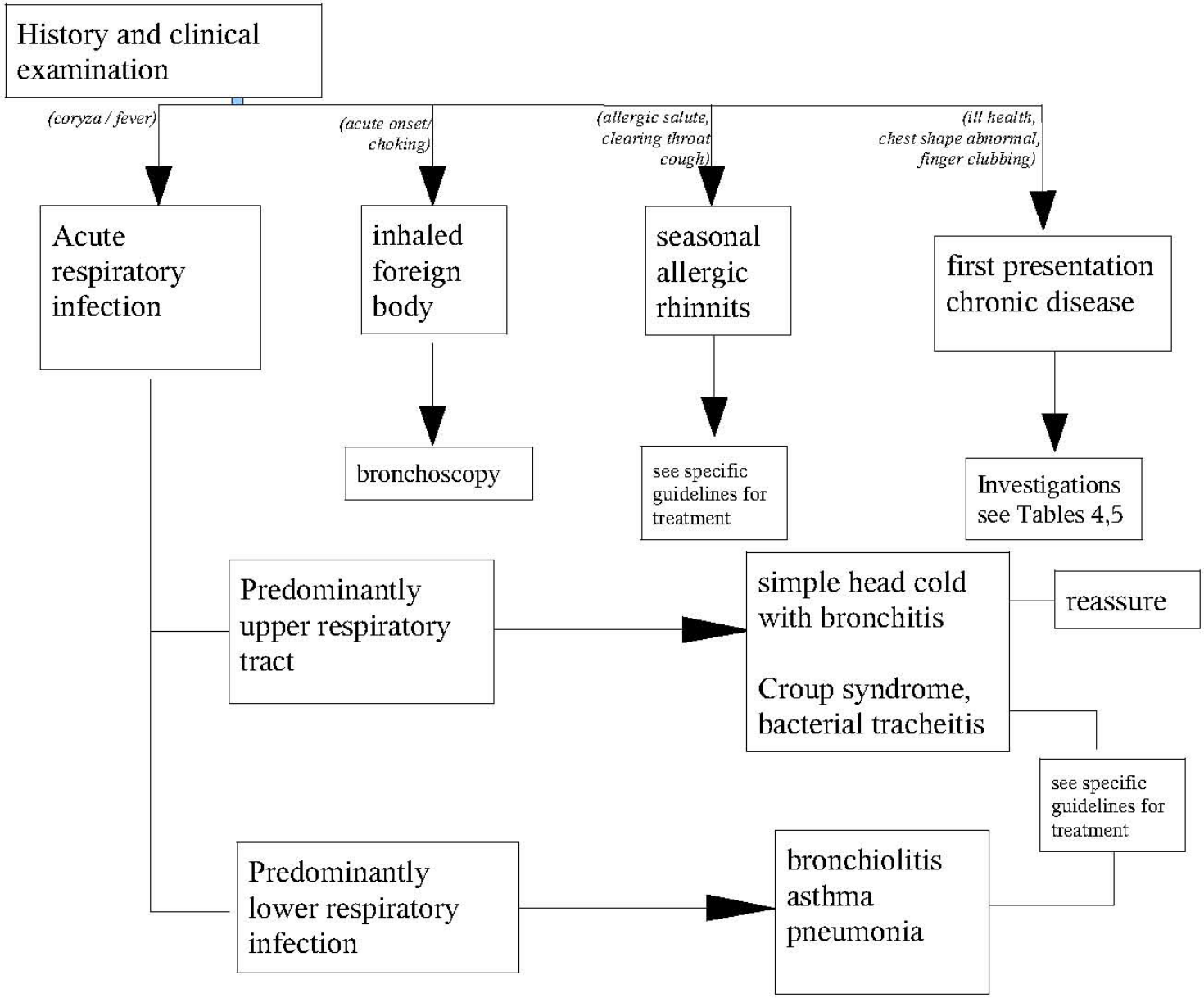
- Doctors feel
  - they have to do something
  - don't want to miss an important diagnosis

- **Find and treat the underlying cause – always holds true**

- **Avoid aero-irritants eg ETS**

Acute Cough

Figure 1. A simplified overview of the assessment and management of the common causes of acute cough < 3 weeks



Acute coughing

- Does any therapy work?
- How long does the cough last?
- What are the alerts?
  - For a complication

Therapy for acute cough – with a head cold

Acute Cough *(BTS 2008)*

Diagnosis

Majority - viral respiratory tract infection.
An attempt should be made to arrive at a specific clinical diagnosis.

Investigations

Most children with cough due to a simple URTI will not need any investigations.

Children in whom an inhaled foreign body is a likely cause of cough should have an urgent bronchoscopy.

Treatments

Over the counter medications – not effective. (assoc with ALTE/SIDS, red flag alert < 2y)
Bronchodilators - not effective
Antibiotics are generally not effective or recommended for treating acute coughs due to simple 'head colds'.

Buckwheat honey product worked in one RCT

Inhaling menthol - worked BUT no better than placebo (eucalyptus oil)

Macrolide antibiotics- early (first 1-2 weeks) pertussis.

Antihistamines/ intranasal steroids 'allergic cough' in the pollen season.

The effect of different types of **honey** and silan date extract on cough

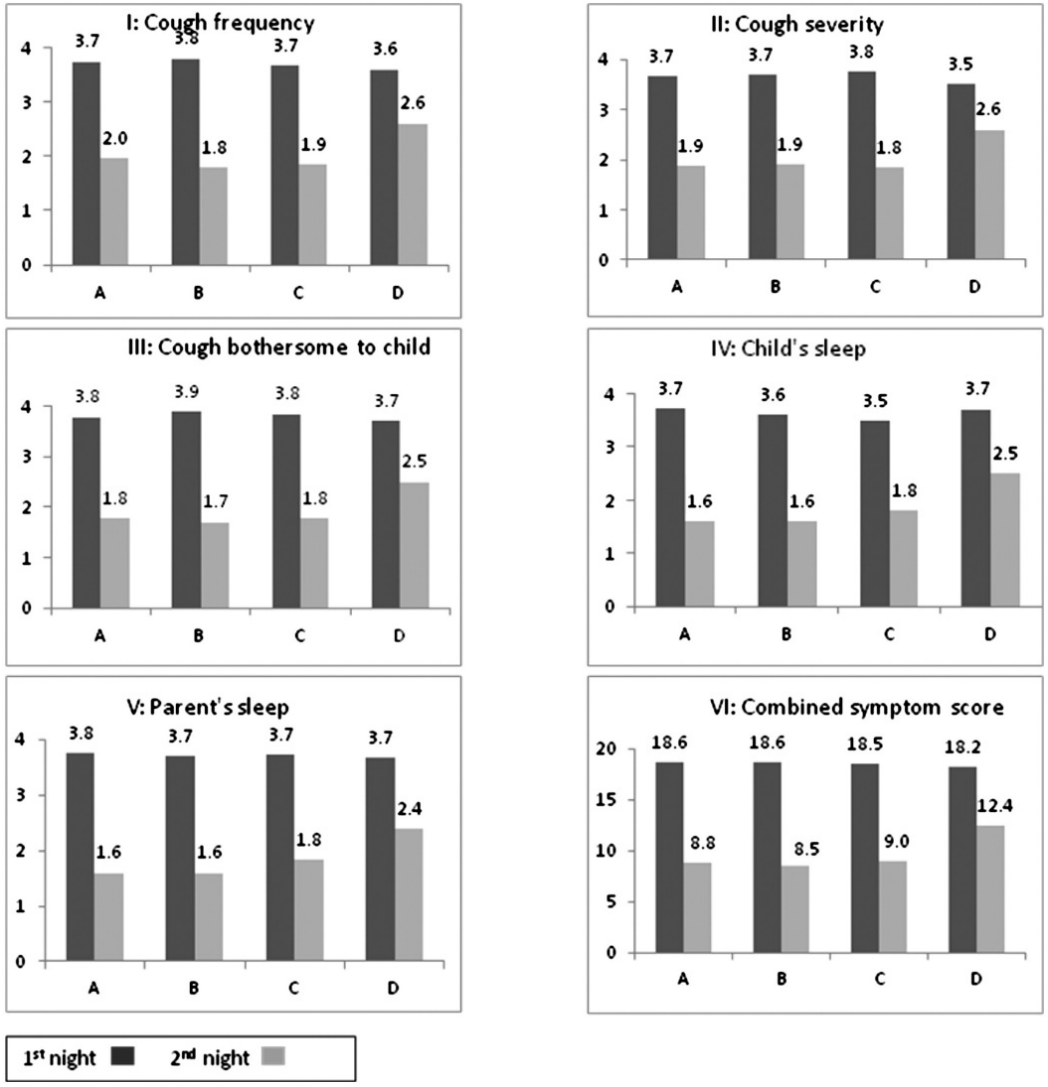
All honey treatments better than silan date

Each honey type equally good

Why honey should work?

Anti-oxidant and other wound healing properties = hard to believe

?? Acting via some reflex pathway in pharynx or oesophagus



Cohen H A et al. Pediatrics 2012;130:465-471

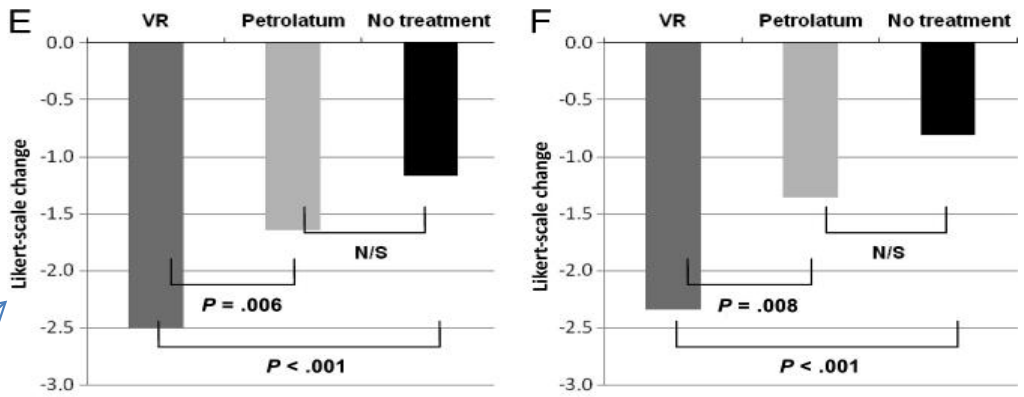
PEDIATRICS®

Vapour Rub v. Petrolatum v. no treatment.

Paul IM et al Pediatrics 2010; 126(6)

Acute nocturnal cough with head cold

- VR or petrolatum applied to chest or nil
- (semi-blind RCT)



Child's ability to sleep

Parent's ability to sleep

A vapour rub combination of camphor, menthol and eucalypytus oils provided nocturnal symptom relief for both children and their parents

How long does acute cough last ?

BMJ 2013;347:f7027 doi: 10.1136/bmj.f7027 (Published 11 December 2013)

RESEARCH

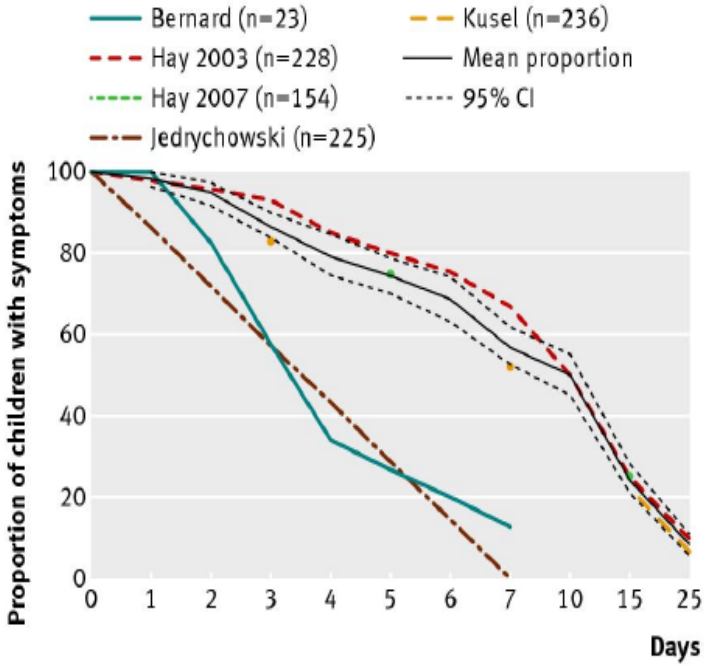
Duration of symptoms of respiratory tract infections in children: systematic review

Matthew Thompson *Helen D Cohen endowed professor of family medicine*[1], Talley A Vodicka *consultant*[2], Peter S Blair *senior research fellow*[3], David I Buckley *assistant professor*[2], Carl Heneghan *professor*[4], Alastair D Hay *professor of primary care and NIHR research professor*[5], on behalf of the TARGET Programme Team

Cough duration

Acute cough with head cold

- 50% had resolved by 10 days
- 90% had resolved by 25 days



Cough with bronchiolitis

- 50% had significantly improved by 13 days
- 90% improved by 21 days

Cough with croup

- 50% resolved by 1 day
- 80% resolved by 2 days

Children recovering from a complicated acute pneumonia (e.g. empyema)

- 30% are still coughing by 4 weeks
- 25% at 6 months reducing to
- around 3% at 12 months.

10 % not resolved by 3-4 weeks

Can we predict who will suffer a complication?

Acute cough in primary care with respiratory tract infection

BMJ 2012;345:e6212 doi: 10.1136/bmj.e6212 G. Hayward

"What factors influence prognosis in children with acute cough and respiratory tract infection in primary care?"

Systematic review

- No systematic reviews, and only
- two primary studies - clinical rule to predict complications of acute cough"

- Presence of **fever** and **chest signs** increased the probability of complications (defined as deterioration in condition due to illness, treatment, or hospital admission) from **10%, to a post-test probability of 40%.**

- A history of fever, and clinical signs of **tachypnoea**, **abnormal respiratory examination findings**, and **hypoxaemia** were associated with pneumonia, and were most useful when absent to help rule out pneumonia.

Development and internal validation of a clinical rule to improve antibiotic use in children presenting to primary care with acute respiratory tract infection and cough: a prognostic cohort study

Alastair D Hay, Niamh M Redmond, Sophie Turnbull, Hannah Christensen, Hannah Thornton, Paul Little, Matthew Thompson, Brendan Delaney, Andrew M Lovering, Peter Muir, John P Leeming, Barry Vipond, Beth Stuart, Tim J Peters, Peter S Blair

Lancet Respir Med 2016; 4: 902–10
Published Online September 1, 2016

Summary

Background Antimicrobial resistance is a serious threat to public health, with most antibiotics prescribed in primary care. General practitioners (GPs) report defensive antibiotic prescribing to mitigate perceived risk of future hospital admission in children with respiratory tract infections. We developed a clinical rule aimed to reduce clinical uncertainty by stratifying risk of future hospital admission.

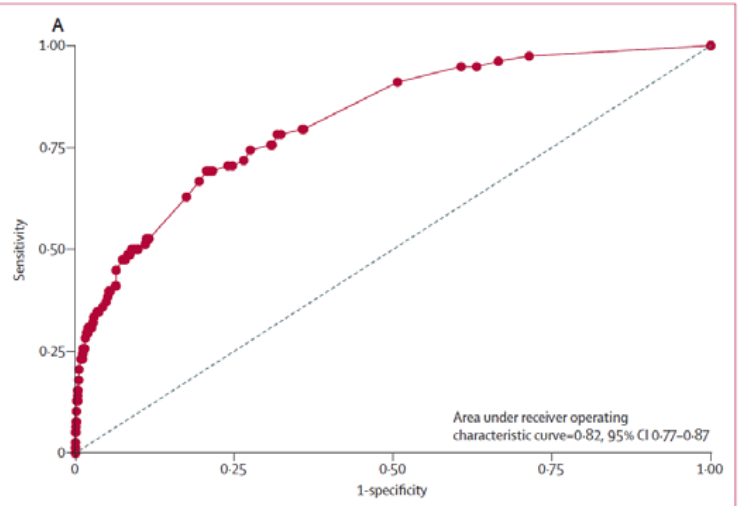
N= >8000, 2-16y
Acute cough

Predictors hospitalisation in next 30 days

	Data source	Odds ratio†	95% CI	p value
Current asthma ‡	Notes review	3·93	2·20–7·03	<0·001
Inter and subcostal recession	Clinician	3·82	2·23–6·62	<0·001
Age of child (<2 years)	Parent	3·42	2·12–5·58	<0·001
Illness duration (<4 days)	Parent	2·77	1·77–4·35	<0·001
Moderate-to-severe vomiting in the last 24 h§	Parent	2·56	1·54–4·31	<0·001
Wheeze	Clinician	2·16	1·28–3·60	0·004
Body temperature >37·8°C or parent-reported severe fever in the last 24 h	Clinician or parent	1·99	1·22–3·25	0·006

*Model includes 8340 (99·4%) of 8394 cohort participants; the original model intercept coefficient was −6·65 (95% CI −7·21 to −6·10), suggesting that the probability of hospital admission for children with no predictors was 0·14%. †Odds ratios calculated using shrunken estimates from the bootstrap internal validation calibration slope. ‡Defined as present if asthma in medical notes and asthma drugs issued in the previous 12 months. §Including after cough.

Table 2: Final multivariable* predictors of hospitalisation (all p<0·01)*



	Number of predictors	Hospitalised children	Non-hospitalised children	Risk of hospital admission*†	
				Risk percentage	95% CI
Very low risk	0 to 1	17 (22%)	5576 (68%)	0·3% (1 in 328)	0·2%–0·4%
Normal risk	2 to 3	37 (47%)	2483 (30%)	1·5% (1 in 68)	1·0%–1·9%
High risk	4 or more	24 (31%)	180 (2%)	11·8% (1 in 8·5)	7·3%–16·2%
Total		78 (100%)	8239 (100%)	0·9% (1 in 106)	0·7%–1·2%

*Risk of hospital admission using Wald estimates were 0·2% (or 1 in 449) for the very low risk group, 1·0% (or 1 in 104) for the normal risk group, and 4·3% (or 1 in 23) for the high risk group. †The sensitivity and specificity using the cutoff of (normal or high risk) versus (very low risk) were 78·2% and 67·7%. The sensitivity and specificity using the cutoff (high risk) versus (normal or very low risk) were 30·8% and 97·8%.

Table 3: Risk of hospital admission: simple scoring system

Discussion

Using a well characterised, large, representative cohort of children presenting to primary care with the most frequently managed acute paediatric health-care problem internationally, we found that subsequent hospital admission was uncommon, and that a simple, one-point-per-item rule consisting of short (≤3 days) illness; temperature; age (<24 months); recession; wheeze; asthma; and vomiting (mnemonic STARWAVe) can be used to identify children at very low (0·3%), normal (1·5%), and high (11·8%) risk of future hospital admission for respiratory tract infection. Most admissions were for lower respiratory tract infection, bronchiolitis, or viral

Inhaled foreign body

Need for more clear parental recommendations regarding foreign body aspiration in children

DAN MED J 2012;59(9) Rikke Haahr Iversen & Tejs Ehlers Klug

TABLE 1

Clinical characteristics of 59 patients with verified foreign body (FB) aspiration.

Suspected FB, n	136
Confirmed FB, n	59
< 3 years, n	44
Male:female, n	35:24
Age, median (range), years	1 (0-15)
Initial symptoms, n (%)	
Cough	58 (98)
Dyspnoea	49 (83)
Symptoms at admission, n (%)	
Fever	10 (17)
General symptoms	9 (15)
Cough	28 (48)
Dyspnoea	24 (41)
Wheezing	30 (51)
Respiration failure	1 (2)
Normal physical examination	11 (19)
Pulmonary auscultation, n (%)	59 (100)
Pathology	37 (63)
Normal	20 (34)
No information	2 (3)
Chest X-ray, n (%)	19 (32)
Pathology	13 (68)
Normal	6 (32)

TABLE 2

Type and localisation of foreign body.

	< 3 years, n (N = 44)	≥ 3 years, n (N = 15)	Total, n (%) (N = 59)
Nuts	20	0	20 (34)
Carrot	8	4	12 (20)
Apple/pear	5	2	7 (12)
Needle	0	4	4 (7)
Seeds	3	0	3 (5)
Pearl	0	2	2 (3)
Popcorn (unpopped)	1	1	2 (3)
Piece of metal	0	2	2 (3)
Pill	1	0	1 (2)
Other organic (pea, pasta, potato)	6	0	6 (10)
Localization			
Right lung	27	13	40 (68)
Left lung	15	2	17 (29)
Trachea	2	0	2 (3)

Inhaled Foreign Body - timely diagnosis is critical

- Delayed diagnosis (> 24 hours)
  - 12% cases, majority suffered pneumonia
  - 2.5 times higher rate of serious acute complications

- Targeted questions regarding choking history (at onset) should be asked when children present with coughing, wheezing, recurrent pneumonia or persistent cough refractory to medical therapy.

- Parental recall of a choking or gagging events followed by a cough is highly suspicious for a FB aspiration

- Physicians´ awareness of the potential "silent" clinical presentation of FB aspiration.

- Parental knowledge of the dangers may be even more important.

"the risk of carrots seems to be greatly underestimated in the Danish society as health visitors even recommend raw carrot to toddlers during dentition to relieve gum pain".

Inhaled Foreign Body – when to do a bronchoscopy?

Cohen et al . J Pediatr 2009; 155: 276-8

- 3 -year prospective study of 142 children
- to define the criteria for bronchoscopy in children with suspected FB aspiration
- concluded that "there was no clinical or radiological finding with a sufficiently high sensitivity and specificity or positive or negative predictive value that could reliably differentiate between children with and without FB aspiration"

If suspect a foreign body – need a bronchoscopy to rule it out or to remove it!

Prolonged acute cough

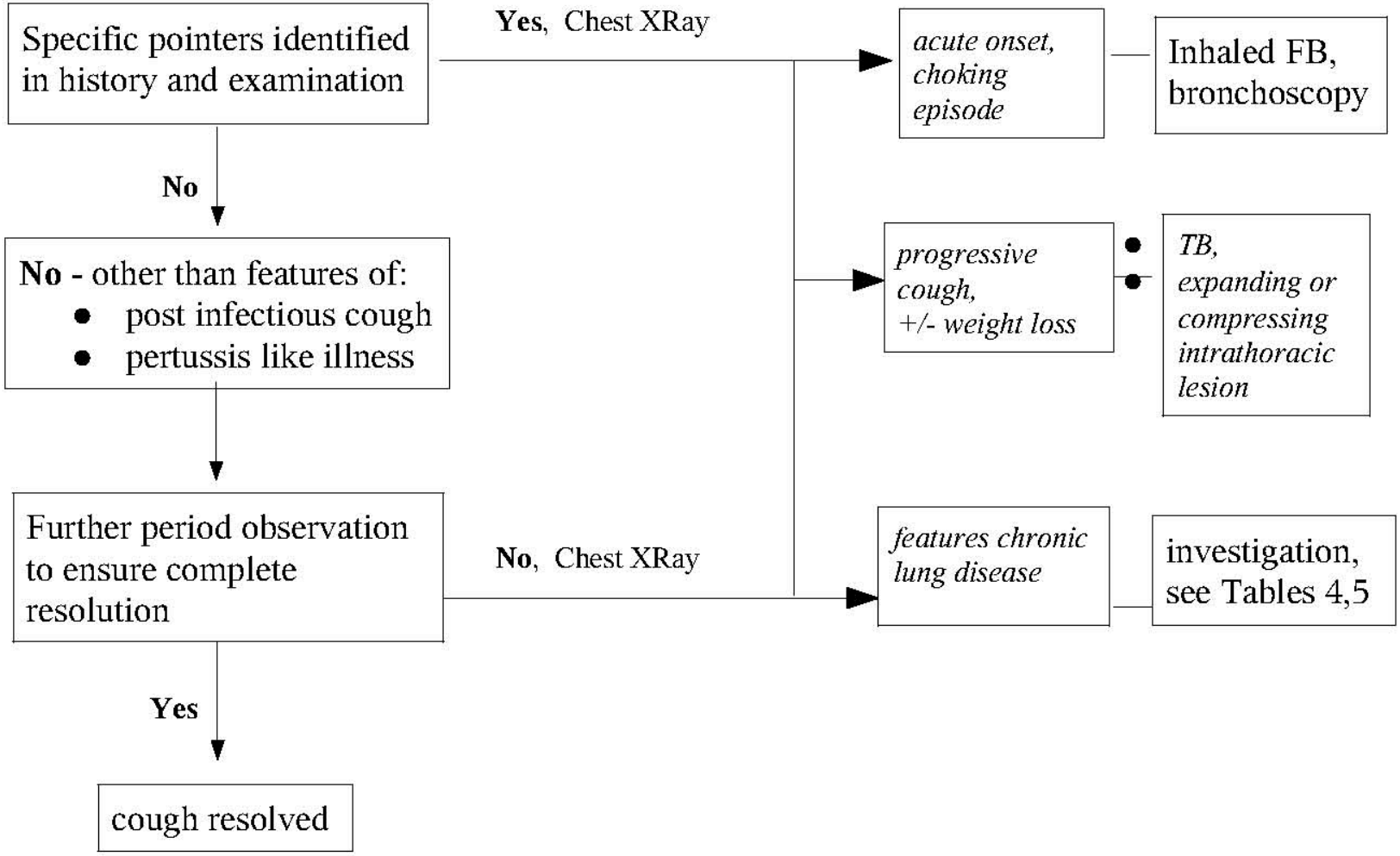
What are the causes of cough that slowly resolves?

10% children with a head cold are still coughing >3 weeks

= normal

Prolonged acute cough

Figure 2. **A simplified overview of the assessment and management of prolonged acute cough (3-8 weeks)**



Pertussis – whooping cough

“100 day cough”, The ‘violent cough’

4 studies, cough > 2 weeks, primary care

- UK
- Holland
- N Zealand
- Italy

17-37% : due to Pertussis

Lower incidence in Estonia — 4%, but studied cough > 7 days

Clin Vacc Immunology 2010, 17 (12), 2016-23
Dec 2010

Seroprevalence of Pertussis Among Danish Patients With Cough of Unknown Etiology

Tine Dalby[1], Zitta B Harboe, Karen Angeliki Krogfelt

•DOI: 10.1128/CVI.00270-10

Abstract

The common perception that pertussis is only a childhood disease is not correct. Vaccination or infection with Bordetella pertussis provides only short-lived protection against pertussis-and the majority of the population is consequently at risk of contracting pertussis. We evaluated the seroprevalence of pertussis antibodies (IgG against pertussis toxin) in serum samples from 265 Danish patients, aged 8 years and older, with coughs of unknown etiology. Depending on the cutoff chosen, we found that 2.6% to 10.9% of these patients were seropositive for pertussis. Of 178 patients with a reported duration of cough between 2 weeks and 3 months, 3.4% to 12.4% were seropositive for pertussis, indicating recent infection. Our study indicates that B. pertussis infection may be underdiagnosed among older children and adults with coughs in Denmark.

Increased pertussis in older children and young adults - a reservoir of pertussis

In 1940 – 90% in <5, now 50%/50% with adolescence

- 32% prolonged acute cough = pertussis in this age group:
- ?? typical features
- Systematic Review – utility of traditional signs of pertussis only 3 papers (non-outbreak studies)

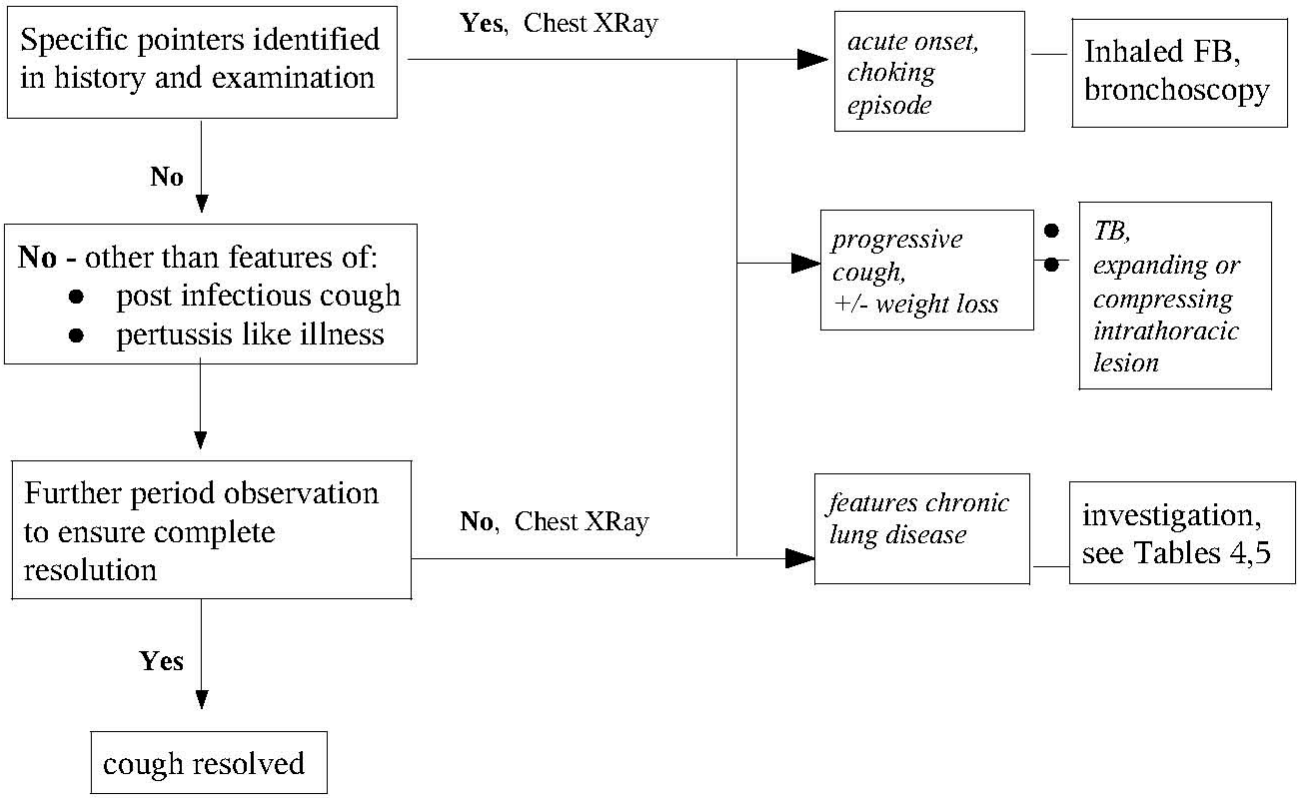
  - Paroxysmal violent cough: Sens 86%, Spec 26%
  - Post-tussive whoop: Sens 50%, Spec 73%
  - Post-tussive vomit: Sens 70%, Spec 61%

  ie presence/absence whoop or vomit only modestly increases likelihood pertussis

JAMA 2010, 304 (8): 890-6 Does this coughing adolescent have pertussis?

Prolonged acute cough

Figure 2. **A simplified overview of the assessment and management of prolonged acute cough (3-8 weeks)**



Wet versus dry cough ?

Thorax April 2008; 63 Suppl 3

Flow chart 1

Cough assessment flow chart in children

Detailed history[1]

Clinical presentation of cough[2]

Physical examination

Identify symptoms and signs suggestive for specific disease [4,5]

↓

Perform chest X-ray

Perform spirometry >5 years (collaborative children)

↙ ↘

Symptom and signs of specific disease present [4,5]

Specific pointers identified

↓

Investigate and treat accordingly

Symptom and signs of specific disease absent

Specific pointers not identified

↙ ↘

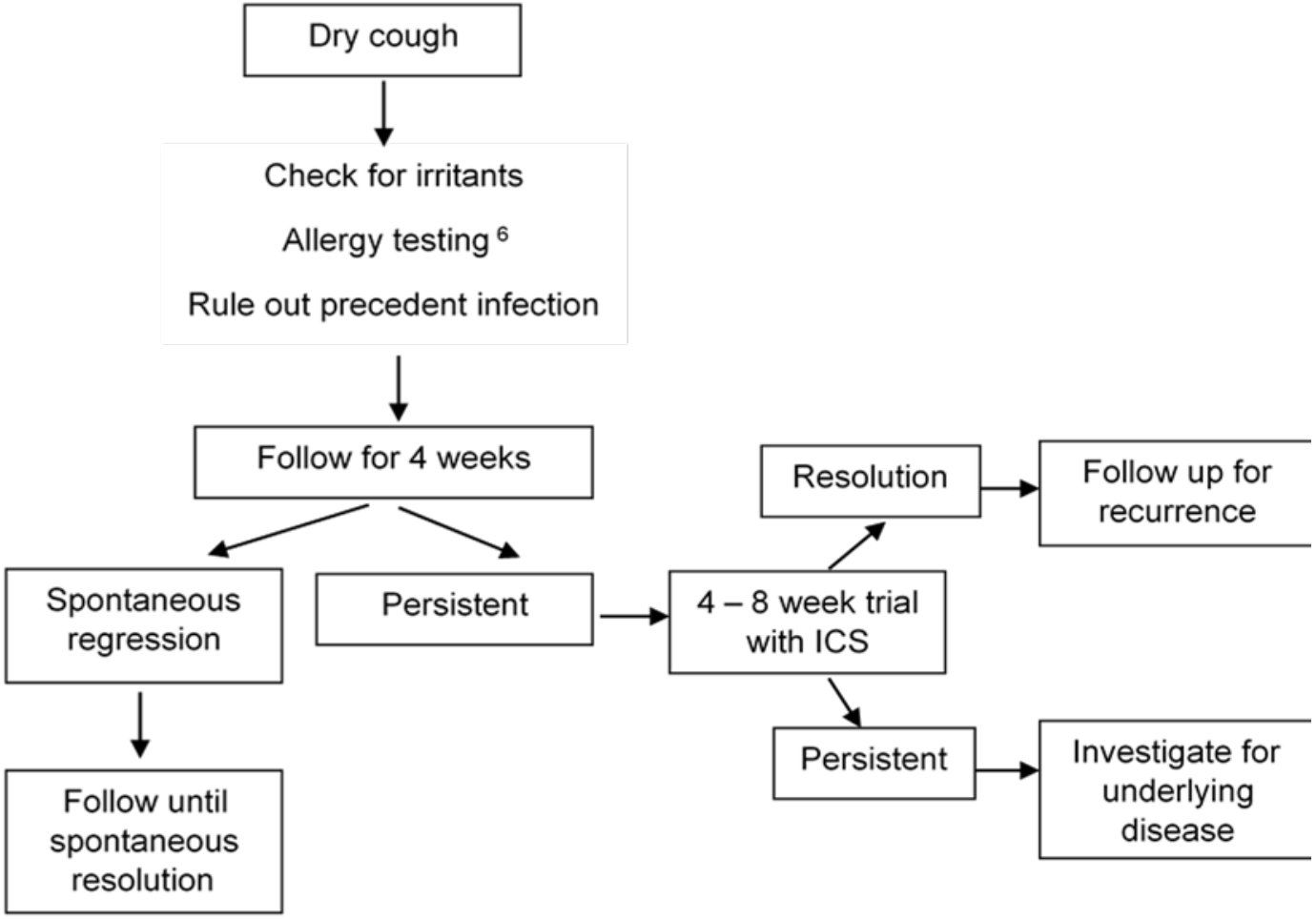
Wet cough

Dry cough

Flow chart 2

ERS guidelines on the diagnosis and treatment of chronic cough in adults and children

Alyn H Morice[1], Eva Millqvist[2], Kristina Bieksiene[3], Surinder S Birring[4], Peter Dicpinigaitis[5], Christian Domingo Ribas[6], Michele Hilton Boon[7], **Ahmad Kantar[8]**, Kefang Lai[9*], Lorcan McGarvey[10], David Bigau[11], Imran Satia[12], Jacky Smith[13], Woo-Jung Song[14*†], Thomy Tonia[15], Ian WK van den Berg[16], Mirjam J. G. van Manen[17], **Angela Zacharasiewicz[18]**



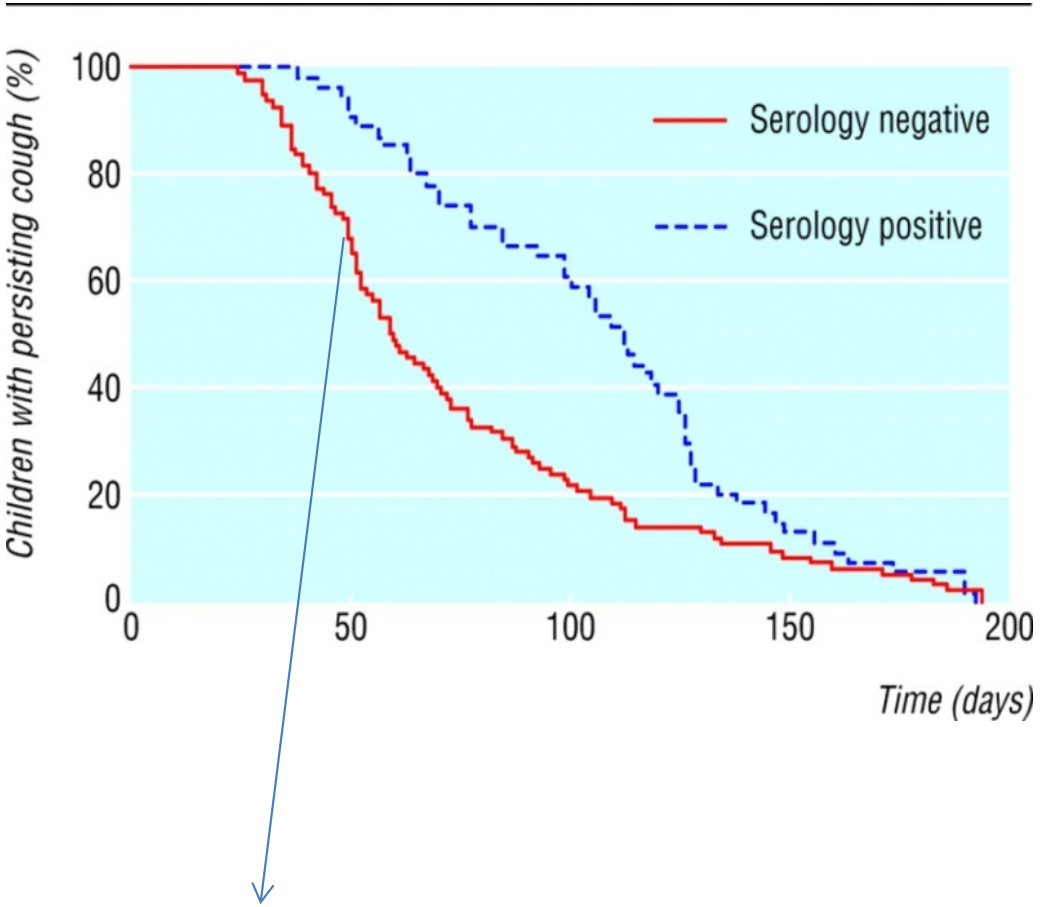
Cough > 2 weeks – a community study

Harnden et al. BMJ 2006, 333: 174-

- Children (5-16y) with cough > 2w
- 37% serology +ve recent pertussis
- Total duration cough:

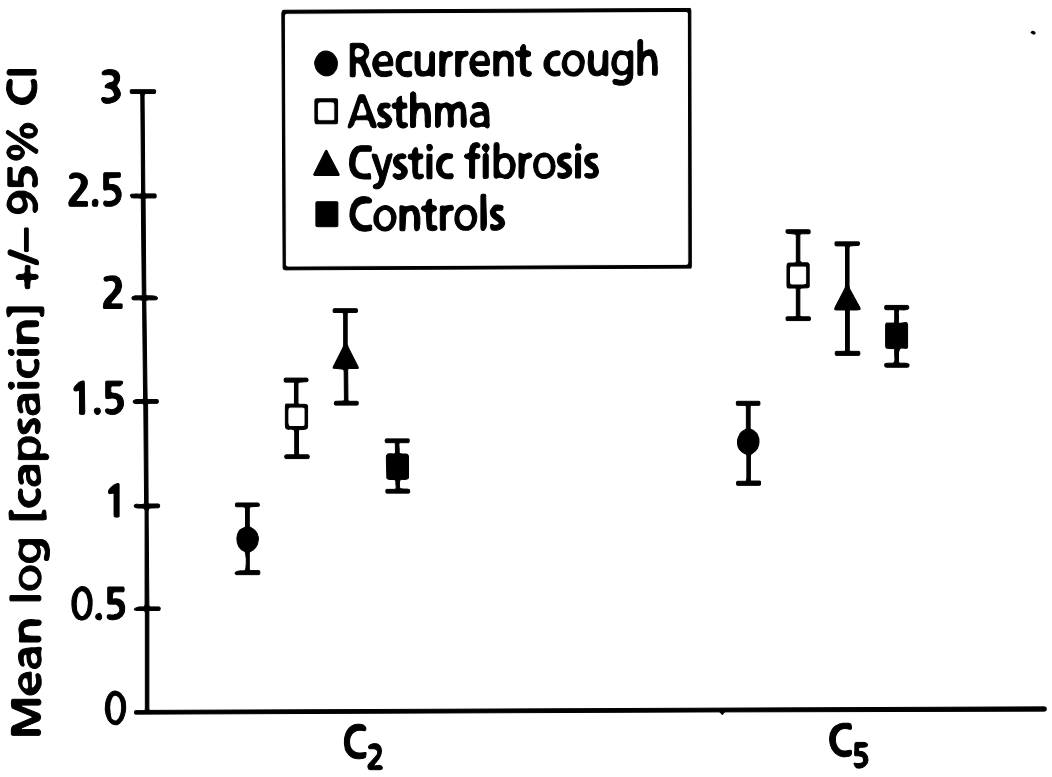
+ve Pertussis - median cough duration 112 days (38-191)

-ve Pertussis - median cough duration 58 days (24-192)



Starting a 'trial of asthma treatment'
Or
Of any treatment - will appear to work

Concept --- Cough receptor hypersensitivity



Arch Dis Child 1998; 79(1): 6-11
Chang A

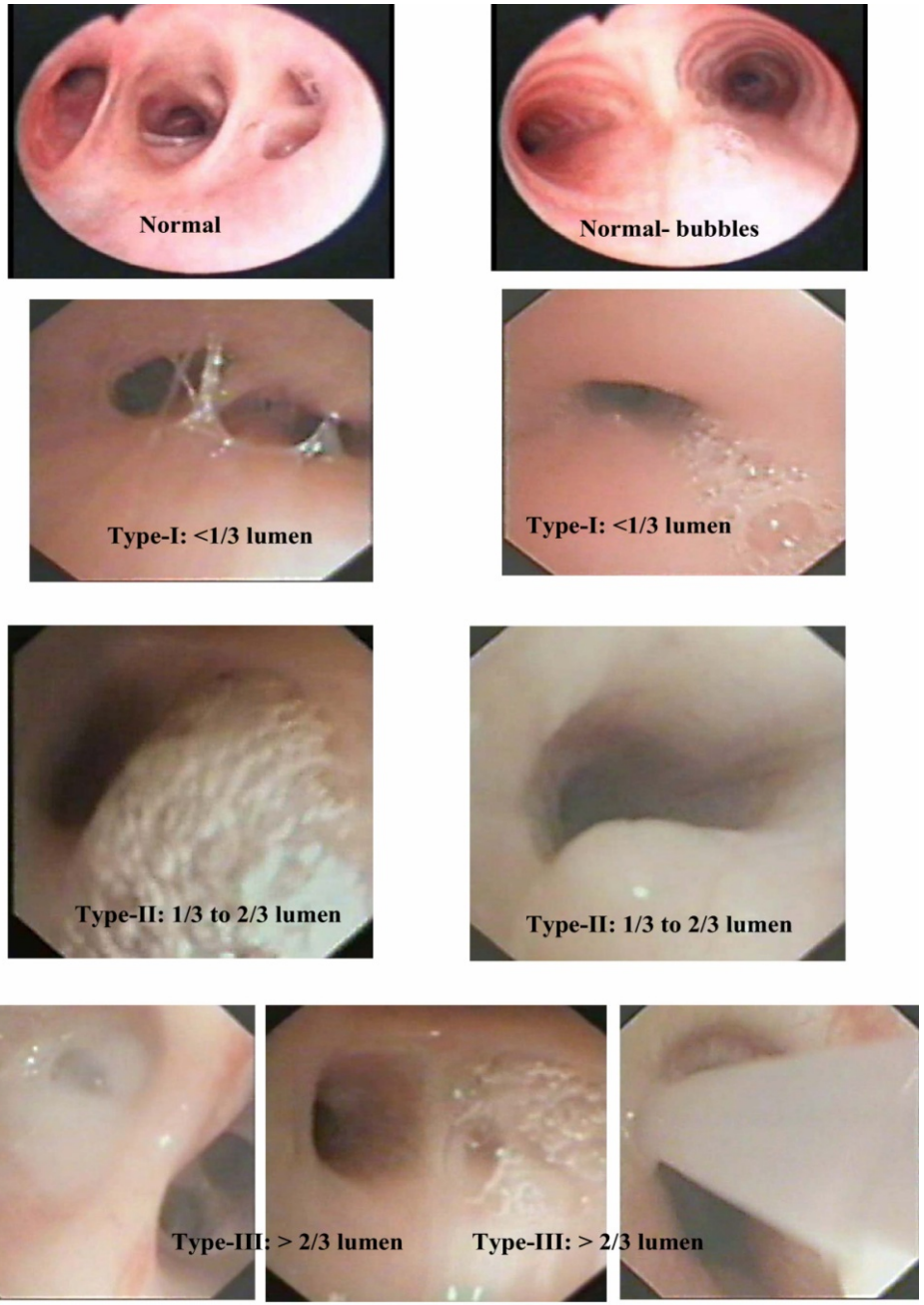
Useful explanation for post infectious cough

Supports watch & wait approach

Key Question:

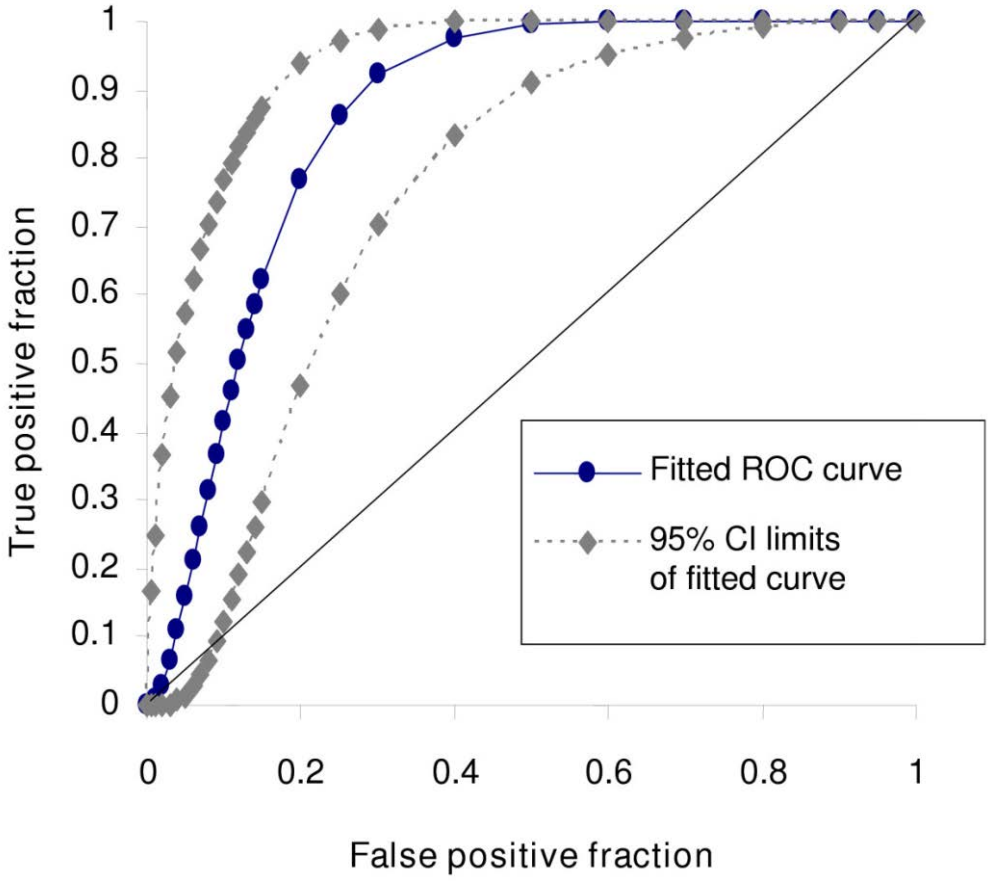
‘Dry’ and ‘wet’ cough: how reliable is parental reporting?

Bronchial Secretions (BS) graded 1-6, at FOB



Clinician assessment of wet/dry cough compared with BS ≥4, SENS=0.75, SPEC=0.79

AUC (*roc*) = *0.85*



Another cause for prolonged cough after an acute cough

- Persistent Bacterial Bronchitis (PBB)

- Has been on algorithm – for ‘chronic cough’

BUT

PBB typically comes out of an acute cough

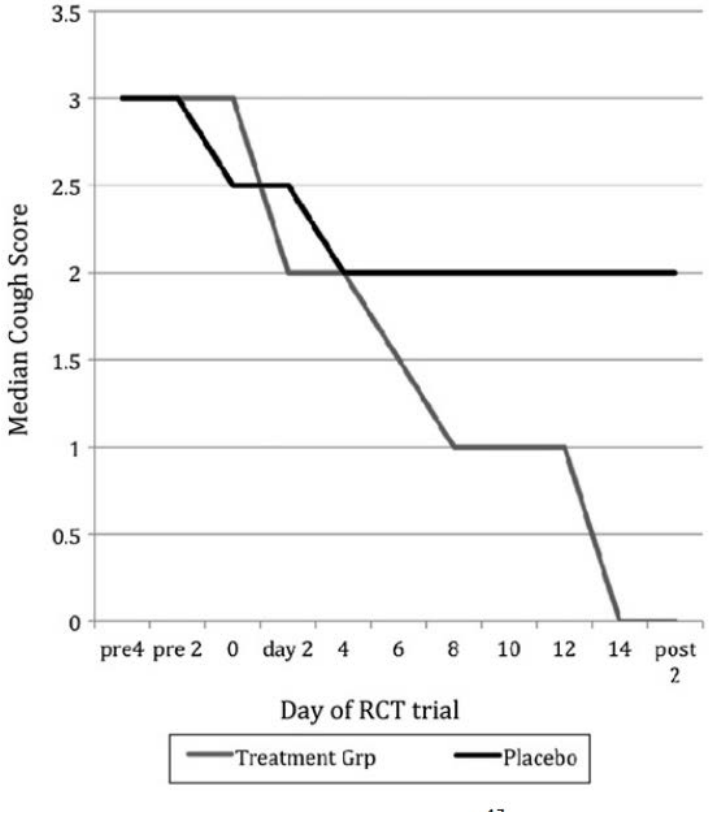
ORIGINAL ARTICLE

Randomised controlled trial of amoxycillin clavulanate in children with chronic wet cough

Julie Marchant,[1,2] Ian Brent Masters,[1] Anita Champion,[3] Helen Petsky,[1] Anne B Chang[1,4]

Thorax 2012;**67**:689–693.

N=50 children, median age 1.9y,
Wet cough > 3 weeks
(75% had coughed greater than 8 weeks)



48% cough resolution with 2 weeks amox-clav

What is the key question?

- Is amoxycillin clavulanate effective in the treatment of children with chronic wet cough?

What is the bottom line?

- Compared with placebo, children with chronic wet cough who received a 2-week course of amoxycillin clavulanate were significantly more likely to achieve cough resolution at the end of 2 weeks.

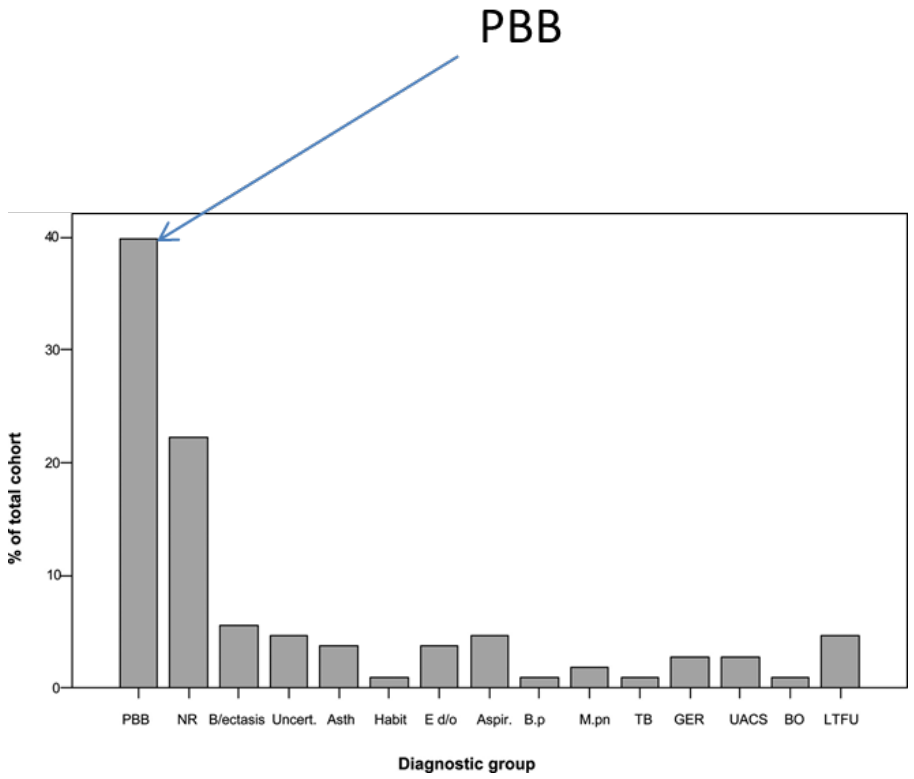
Persistent bacterial bronchitis

- Isolated chronic moist / wet cough for > 3-4 weeks
- Resolution of cough with antibiotic treatment
- CXR- normal/peribronchiolar changes
- When typical course (5 days) a/b used frequently relapses
- Prolonged (2-6 week course) indicated
- Haem Influenza, strep pneumoniae, moraxella most commonly isolated from sputum
- Neutrophils+

Marchant, J. M. et al. Chest 2006;129:1132-1141

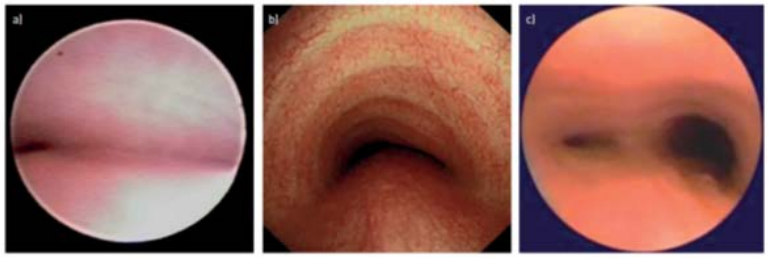
Persistent or Protracted Bacterial Bronchitis (PBB)

- **Persistent wet cough→→ PBB & needs antibiotic treatment**
- **PBB = common**

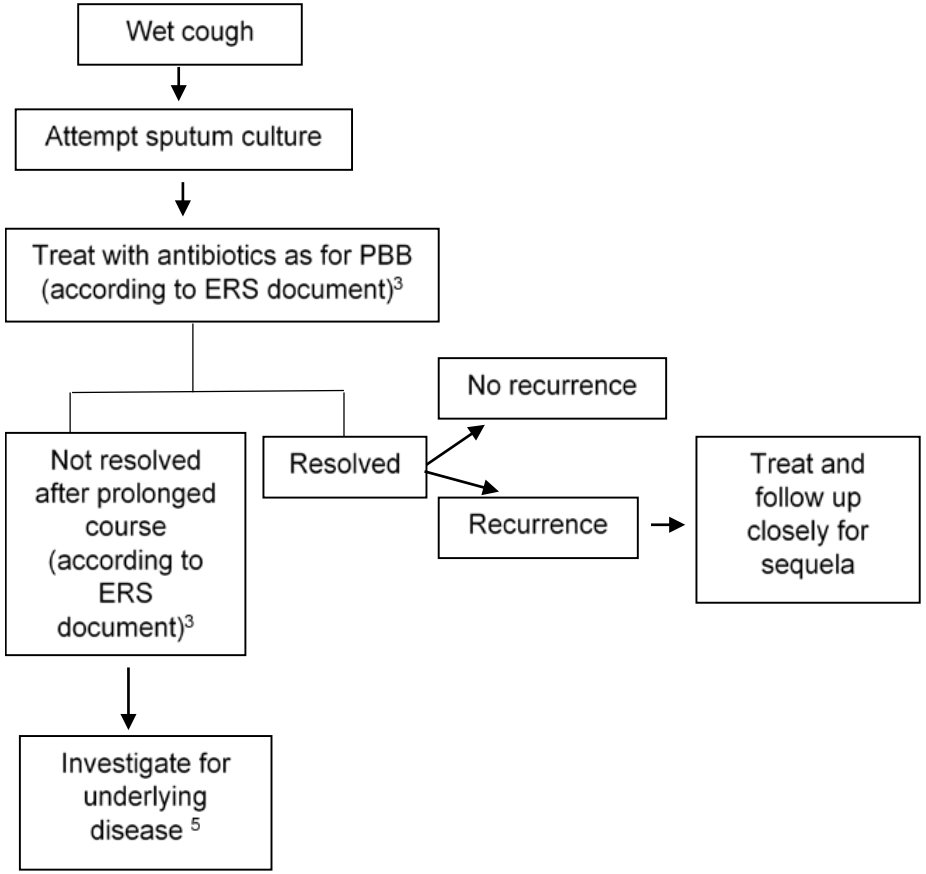


- **30-50% associated with airway malacia**

Protracted bacterial bronchitis in young children: association with airway malacia. Kompare M, Weinberger M. J Pediatr. 2012 Jan;160(1):88-92.



Flow chart 2



ERS statement on protracted bacterial bronchitis in children

Ahmad Kantar[1,13], Anne B. Chang[2,3,4,13], Mike D. Shields[5], Julie M. Marchant[2,3], Keith Grimwood[6], Jonathan Grigg[7], Kostas N. Priftis[8], Renato Cutrera[9], Fabio Midulla[10], Paul L.P. Brand[11] and Mark L. Everard[12]

Duration of initial antibiotic course is associated with recurrent relapse in protracted bacterial bronchitis

Ellen Gross-Hodge,[1] Will D Carroll,[2] Naomi Rainford,[3] Carrol Gamble,[3] Francis J Gilchrist [1,4]

► Additional material is published online only. To view please visit the journal online (http://dx.doi.org/10.1136/archdischild-2019-317917).

[1]Institute of Applied Clinical Science, Keele University, Keele, UK

ABSTRACT

Protracted bacterial bronchitis (PBB) is the leading cause of chronic wet cough in young children from developed countries. Despite its high prevalence there is a paucity of evidence to inform the optimal duration of treatment leading to variation in practice. Relapse of chronic cough is common and recurrent PBB (>3 episodes in

clinical records to determine the factors associated with any relapse and recurrent PBB.

METHODS

A cohort of 113 children with PBB who had been referred to the University Hospitals of North Midlands NHS Trust between 2013 and 2017

Short report

Table 1 Prevalence of PBB subtypes, any relapse and recurrent PBB in children treated with different durations of amoxicillin–clavulanate

	PBB subtype, % (n)		Any relapse, % (n)		Recurrent PBB, % (n)	
Antibiotic duration, weeks	Clinical	Micro	Yes	No	Yes	No
2	59 (17)	11 (12)	69 (20)	31 (9)	45 (13)	55 (16)
3–4	22 (2)	78 (7)	78 (7)	22 (2)	33 (3)	67 (6)
6	18 (5)	82 (23)	64 (18)	36 (10)	14 (4)	86 (24)
Total	36 (24)	62 (42)	68 (45)	32 (21)	30 (20)	70 (46)

PBB, protracted bacterial bronchitis

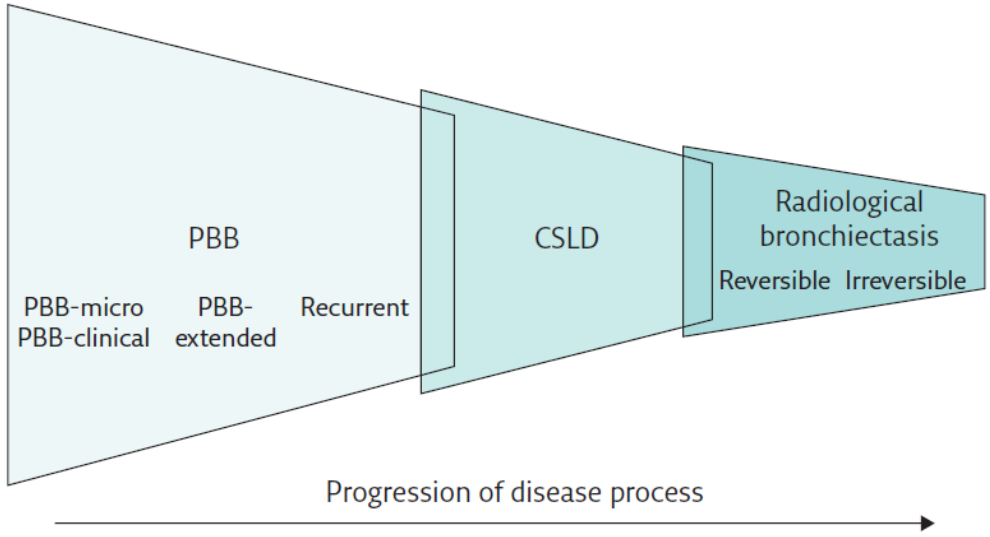
Editorial

Protracted bacterial bronchitis is a precursor for bronchiectasis in children: myth or maxim?

Cite as: Chang AB, Marchant JM. Protracted bacterial bronchitis is a precursor for bronchiectasis in children: myth or maxim? *Breathe* 2019; 15: 167–170.

Introduction

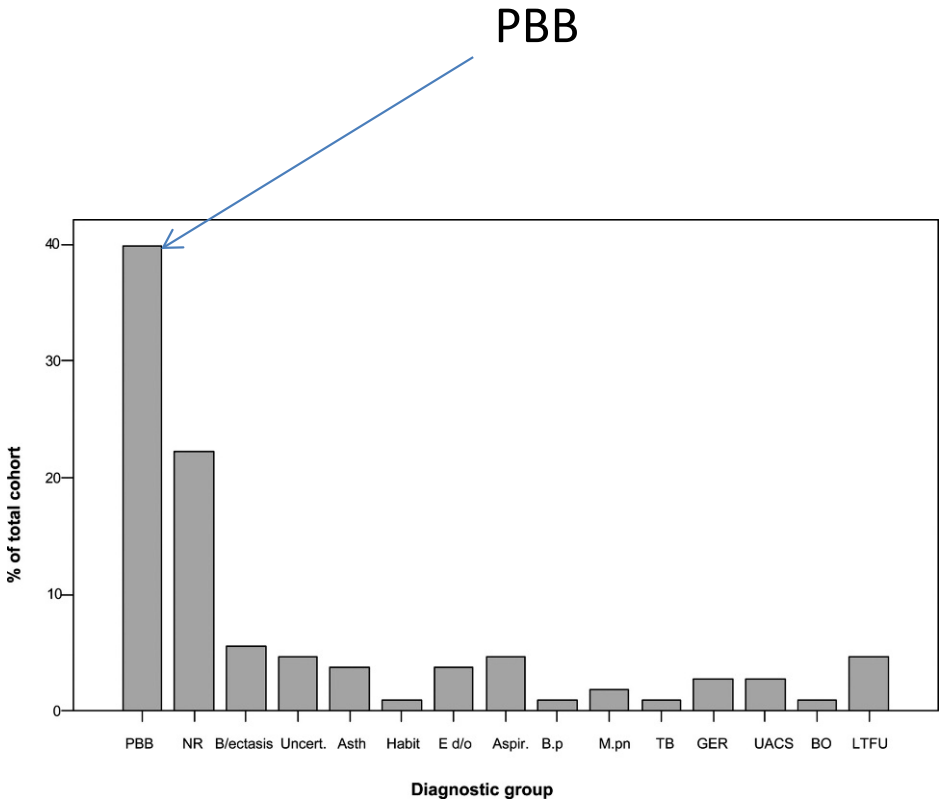
"… from present knowledge, it seems justifiable to state that with better social conditions and prophylactic care much irreversible bronchiectasis can be prevented while with judicious treatment and skilled surgery many can be cured. Even with simple treatment the pre-bronchiectasis state [1, 3] and advocated aggressive treatment (predominantly antibiotics) for prevention and cure of bronchiectasis. In the same era, FINKE [7] opened his paper with the statement "The common background of chronic bronchitis and bronchiectasis is, in the majority of cases, non-tuberculous broncho-pulmonary infection". In that era, tools that are now widely available (e.g. flexible bronchoscopy



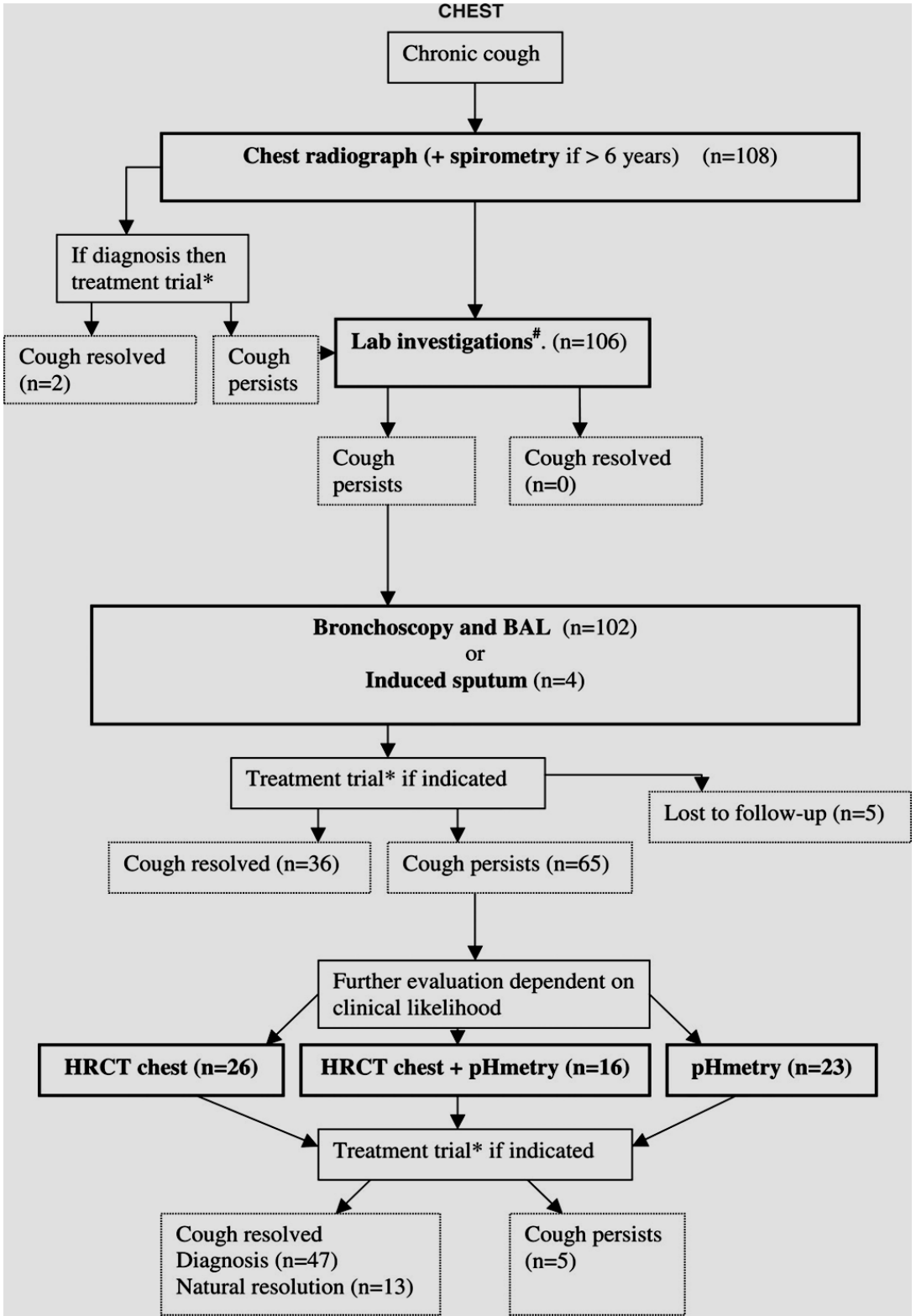
What are the causes of chronic cough in children?

Protocol of investigation for children with chronic cough (3 weeks), Royal Children's Hospital, Brisbane, Australia

Marchant, J. M. et al. Chest 2006;129:1132-1141



CHEST
The Cardiopulmonary and Critical Care Journal



Prospective studies of aetiology of chronic cough in children

	Marchant (Aust)	Khoshoo (USA)	Asilsoy
Patients	108, to tertiary centre	40, to pulm clinic	108, to Children's Hospital & Research Centre
Age	Median 2.6y	Mean 9.3y	Mean 8.4y
Definition	➢ 3 weeks	➢ 8 weeks	➢ 4 weeks
Evaluation (varying combinations and compete datasets)	CXR, FEV1, bronch/BAL Sweat, IgGs, allergy, HRCT, pH studies, mycoplasma/pertussis	CXR, FEV1, bronch/BAL Sweat, IgGs, allergy, HRCT, pH studies, mycoplasma/pertussis	CXR, FEV1, bronch/BAL Sweat, IgGs, allergy, HRCT, pH studies, mycoplasma/pertussis
Findings	PBB – 40% NR – 22% Bronchiectasis – 6% Asthma – 4% UACS – 3% GERD – 3% Habit – 1%	GERD – 28% UACS – 23% Asthma – 13%	Asthma – 25% PBB – 23% UACS – 20% GERD – 5%

Older children are more like small adults

Care:

1] referral process ie selected patients were studied

2] within each algorithm – 'trial treatments' – problem due to "NR"

Original Investigation

Chronic Cough in Children

ENT perspective

Harrison Cash, MS; Samuel Trosman, MD; Thomas Abelson, MD; Robert Yellon, MD; Samantha Anne, MD, MS

IMPORTANCE Chronic cough is a common complaint among pediatric patients, but little information exists on the types of diagnoses in these patients and therapeutic outcomes.

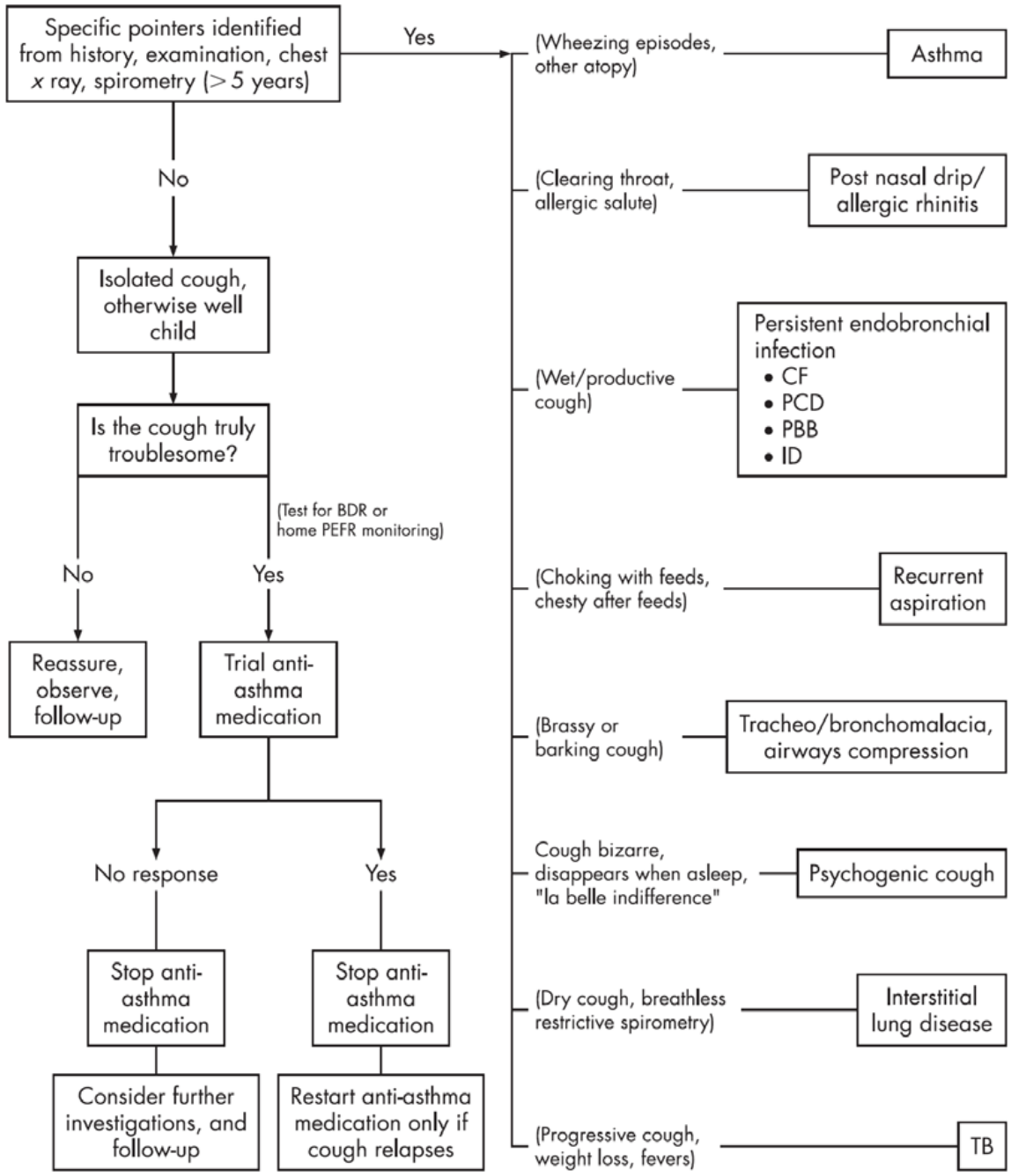
OBJECTIVE To characterize pediatric patients with chronic cough presenting to otolaryngology clinics, identify common causes and treatments, and evaluate therapeutic outcomes.

JAMA Otolaryngol Head Neck Surg. 2015;141(5):417-423. doi:10.1001/jamaoto.2015.0257
Published online March 19, 2015.

Table 5. Causes of Chronic Cough in Pediatric Patients

Cause	Patients, No. (%)[a] (n = 58)
Infectious (URTI, sinusitis, UACS, and/or LRTI)	23 (34)
Airway hyperreactivity (Asthma and/or RAD)	14 (24)
GERD	14 (24)
Unresolved	8 (14)
Allergic rhinitis	6 (10)
Laryngomalacia	5 (9)
Habit	4 (7)

Figure 4 A simplified overview of the assessment and management of the common causes of chronic cough (>8 weeks). Boxes on the right hand side suggest diagnoses that are likely or at least need to be excluded. CF, cystic fibrosis; PCD, primary ciliary dyskinesia; PBB, protracted bacterial bronchitis; ID, immune deficiency; TB, tuberculosis; BDR, bronchodilator responsiveness; PEFR, peak expiratory flow rate.



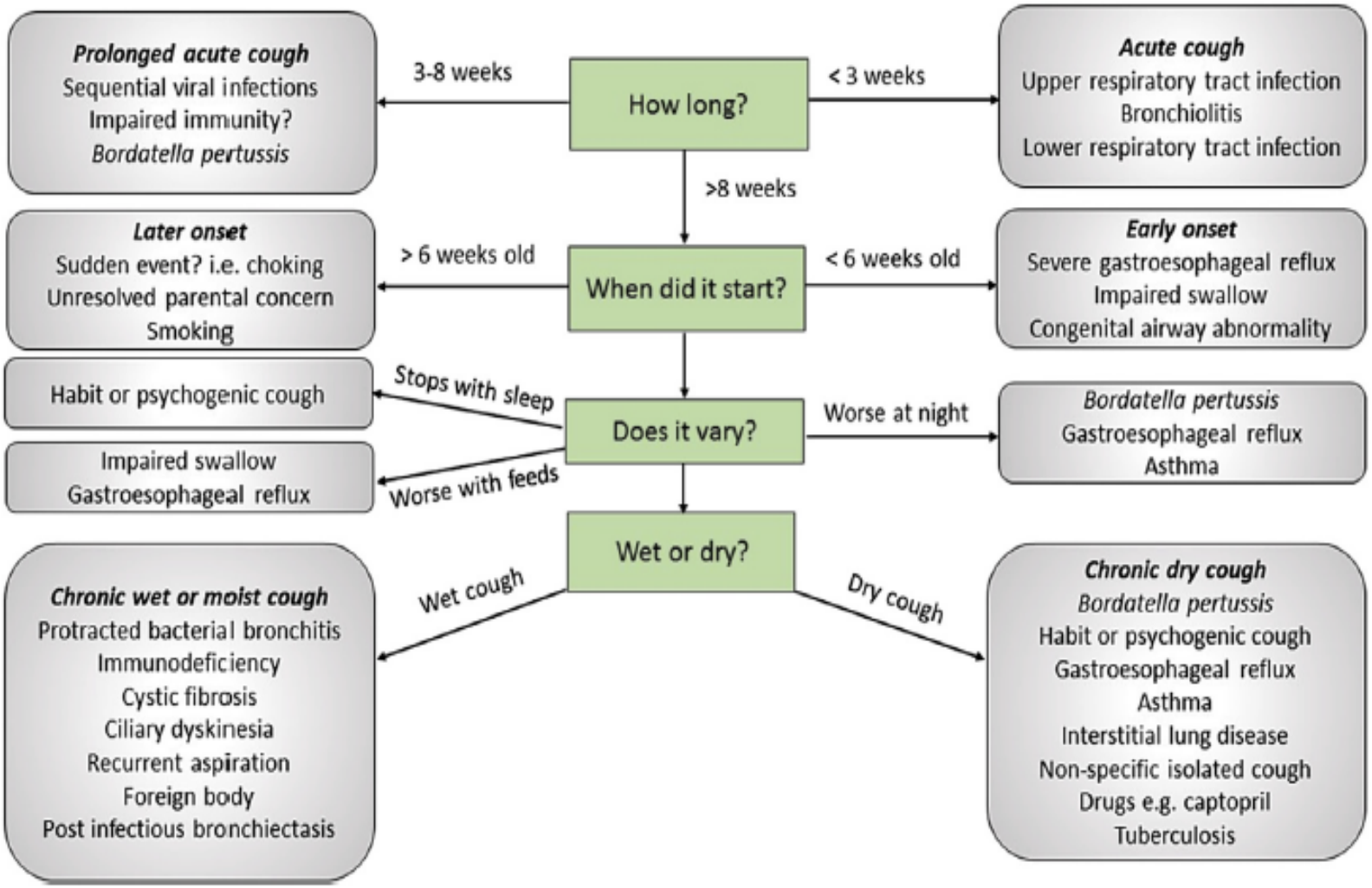
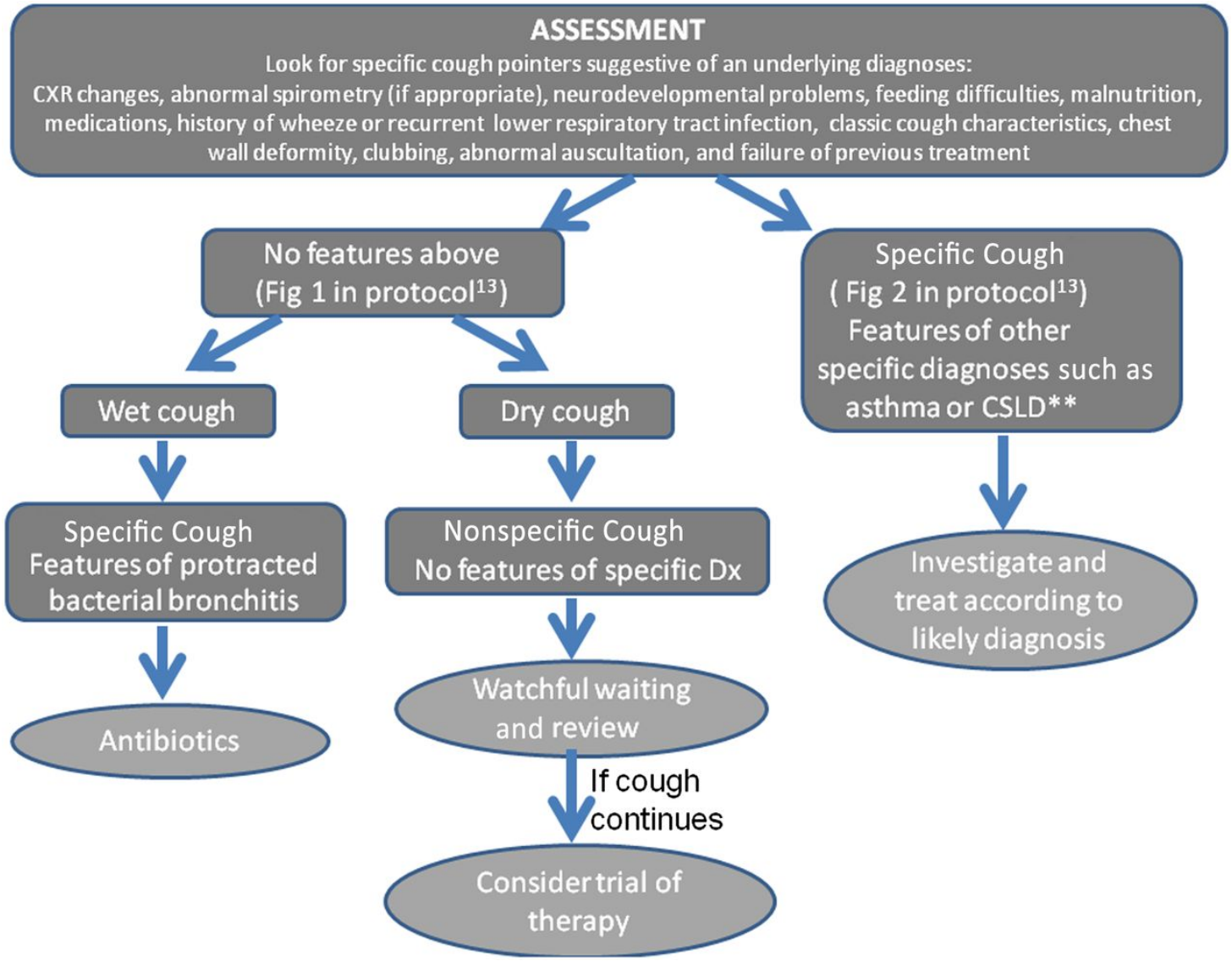


Figure 2 Assessment of cough in children.

Please cite this article in press as: Hine C, et al., Chronic cough in children, Paediatrics and Child Health (2017), http://dx.doi.org/10.1016/j.paed.2017.02.001

Summary - chronic cough

Simplified version of the chronic cough algorithm showing the initial assessment and treatment strategy.



Chang A B et al. Pediatrics 2013;131:e1576-e1583

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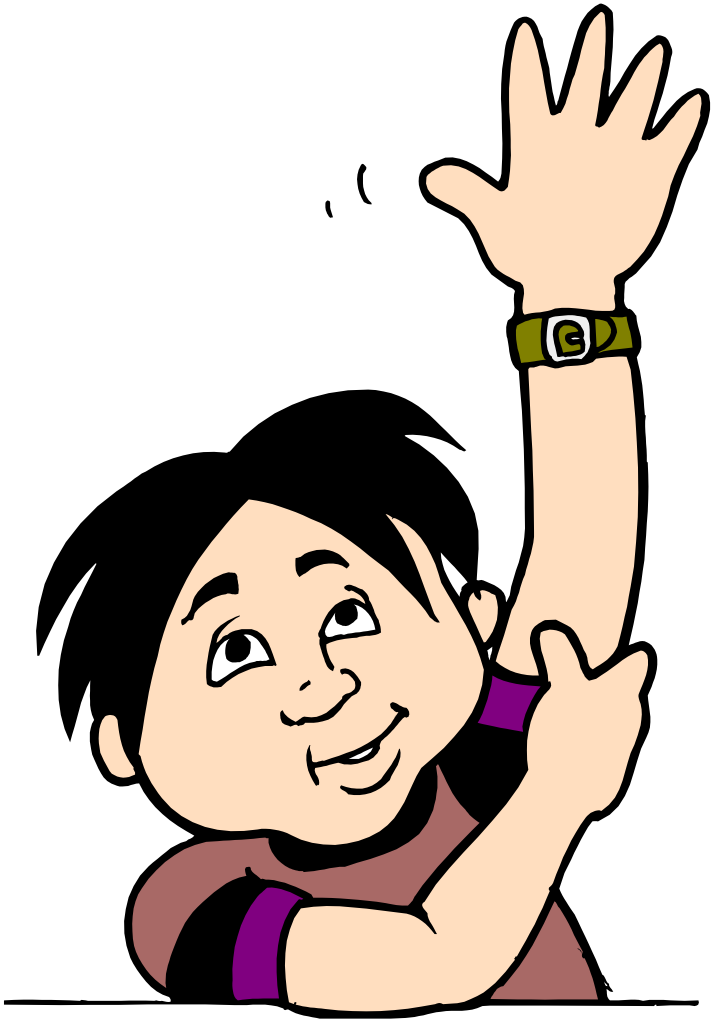
ANY QUESTIONS –



ERS statement on protracted bacterial bronchitis in children

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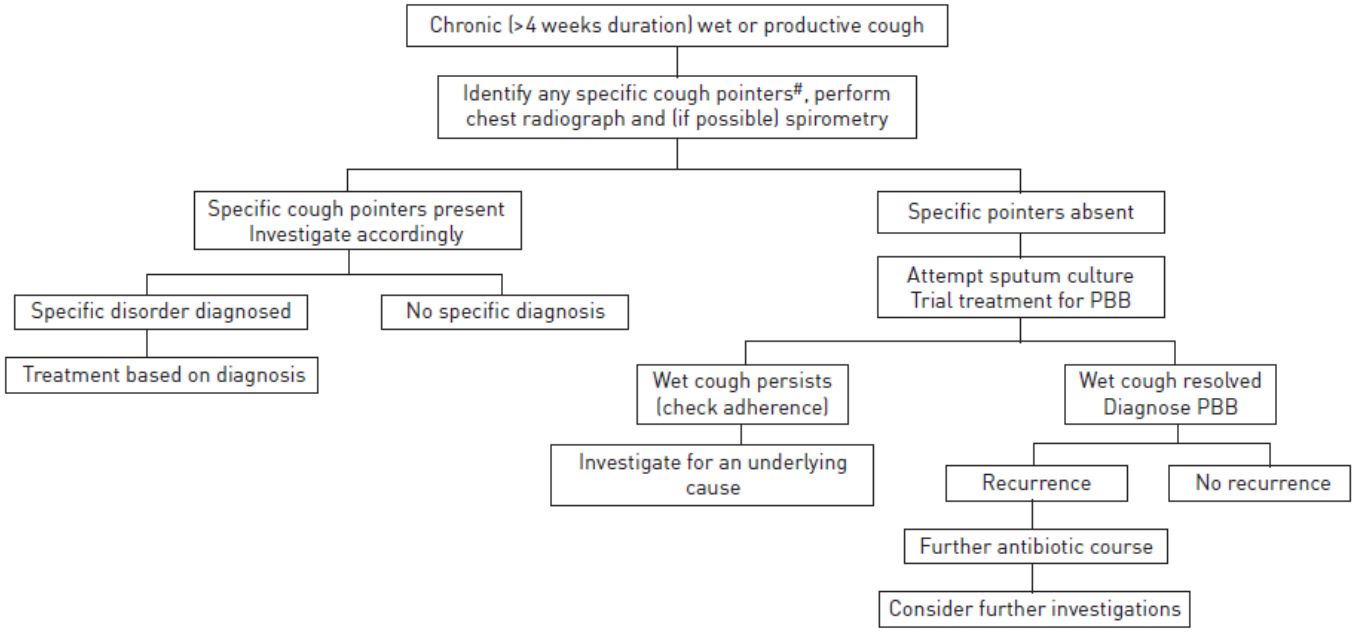

FIGURE 1 Possible approach to managing a child with a chronic (>4 weeks) wet cough. It is not a management guideline. #: see box 2.

BMJ Open Respiratory Research

'Dry' and 'wet' cough: how reliable is parental reporting?

Deirdre Donnelly,[1] Mark L Everard[2]

To cite: Donnelly D, Everard ML. 'Dry' and 'wet' cough: how reliable is parental reporting?. *BMJ Open Resp Res* 2019;**6**:e000375. doi:10.1136/bmjresp-2018-000375

Received 20 January 2019

ABSTRACT

Introduction Chronic cough in childhood is common and causes much parental anxiety. Eliciting a diagnosis can be difficult as it is a non-specific symptom indicating airways inflammation and this may be due to a variety of aetiologies. A key part of assessment is obtaining an accurate cough history. It has previously been shown that parental reporting of 'wheeze' is frequently inaccurate. This

Key messages

- Does the quality of cough reported by parents of children with chronic cough provide a reliable indication of the nature of a child's cough?
- The use of terms such as 'wet' and 'dry' to characterise a cough is very subjective, and parental

as part of the overall assessment. These results suggest that parental reporting of the nature of a cough can on occasions be quite subjective and that one person's 'dry' cough may be another person's 'wet' cough.

Key messages

- Does the quality of cough reported by parents of children with chronic cough provide a reliable indication of the nature of a child's cough?
- The use of terms such as 'wet' and 'dry' to characterise a cough is very subjective, and parental descriptions frequently do not reflect the clinician's view.
- Eliciting information regarding the characteristics of a child's chronic cough is one of the key components of the history when formulating a presumptive diagnosis, but clinicians should not rely solely on the accuracy of the parent's assessment of whether the cough is 'dry' or wet'.

Nicotine & Tobacco Research, Volume 15, Number 2 (February 2013) 603–607

Brief Report

Impaired Cough Sensitivity in Children of Smokers

Paul M. Wise, Ph.D., Julie A. Mennella, Ph.D., & Susana Finkbeiner, B.S.

Monell Chemical Senses Center, Philadelphia, PA

Cough receptor hypersensitivity

Arch Dis Child 1998; 79(1): 6-11
Chang A