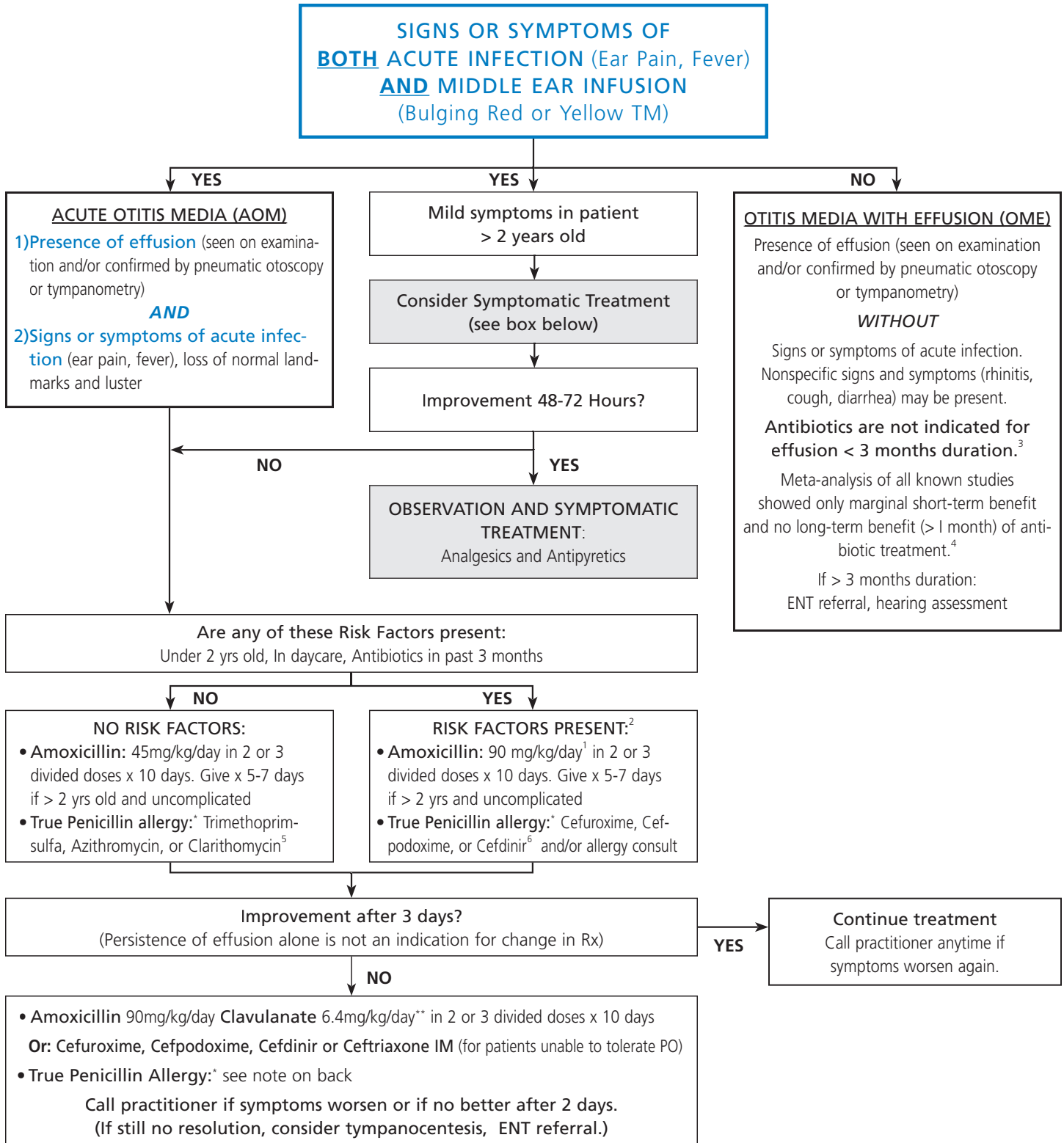


Practice Guidance for JUDICIOUS USE OF ANTIBIOTICS

OTITIS MEDIA^{1,2}

“Otitis Media with Effusion does not require antibiotic treatment.”



COMMON PATHOGENS IN AOM

Organism	Incidence Rates	Spontaneous Remission
<i>Streptococcus pneumoniae</i>	30-35%	10%
<i>Hemophilus influenzae</i>	20-25%	50%
<i>Moraxella catarrhalis</i>	10-15%	90%

WHEN TO USE ANTIBIOTIC PROPHYLAXIS⁷

- Limit to recurrent otitis media:
 - At least 3 distinct, well documented episodes in a six month period, or
 - At least 4 episodes in a 12 month period
- Amoxicillin 20 mg/kg/day (single dose hs) is the preferred agent
- Treatment should be limited to 3-6-month courses

PREVENTION:⁸

- Vaccination:
 - All newborns and children < 2 yrs should receive Prevnar.^{9,10}
 - Children with recurrent infections should receive Influenza vaccine if > 6 mo
 - 23-valent Pneumococcal vaccine if > 2 yrs¹¹
- Cigarette smoke avoidance/cessation
- Consider allergen and irritant avoidance
- Consider tubes
- Encourage breast feeding
- Consider daycare avoidance

NOTES:

* **True Penicillin Allergy:** history of urticaria or anaphylaxis to a penicillin are indicative of true allergy. Morbilliform and maculopapular rashes are not indicative of true allergy.
If history of penicillin anaphylaxis, consult an allergist before prescribing a cephalosporin.

** This dose ratio may not be available as a fixed combination. Clavulanate dose should not exceed 10mg/kg/day.

References:

1. Dowell SF, Butler JC, Giebink GS, *et al.* Otitis Media: Management and Surveillance in an era of pneumococcal resistance—a report from the Drug-resistant Streptococcus pneumoniae Therapeutic Working Group, *Pediatr Infect Dis J*, 1999;18:1-9.
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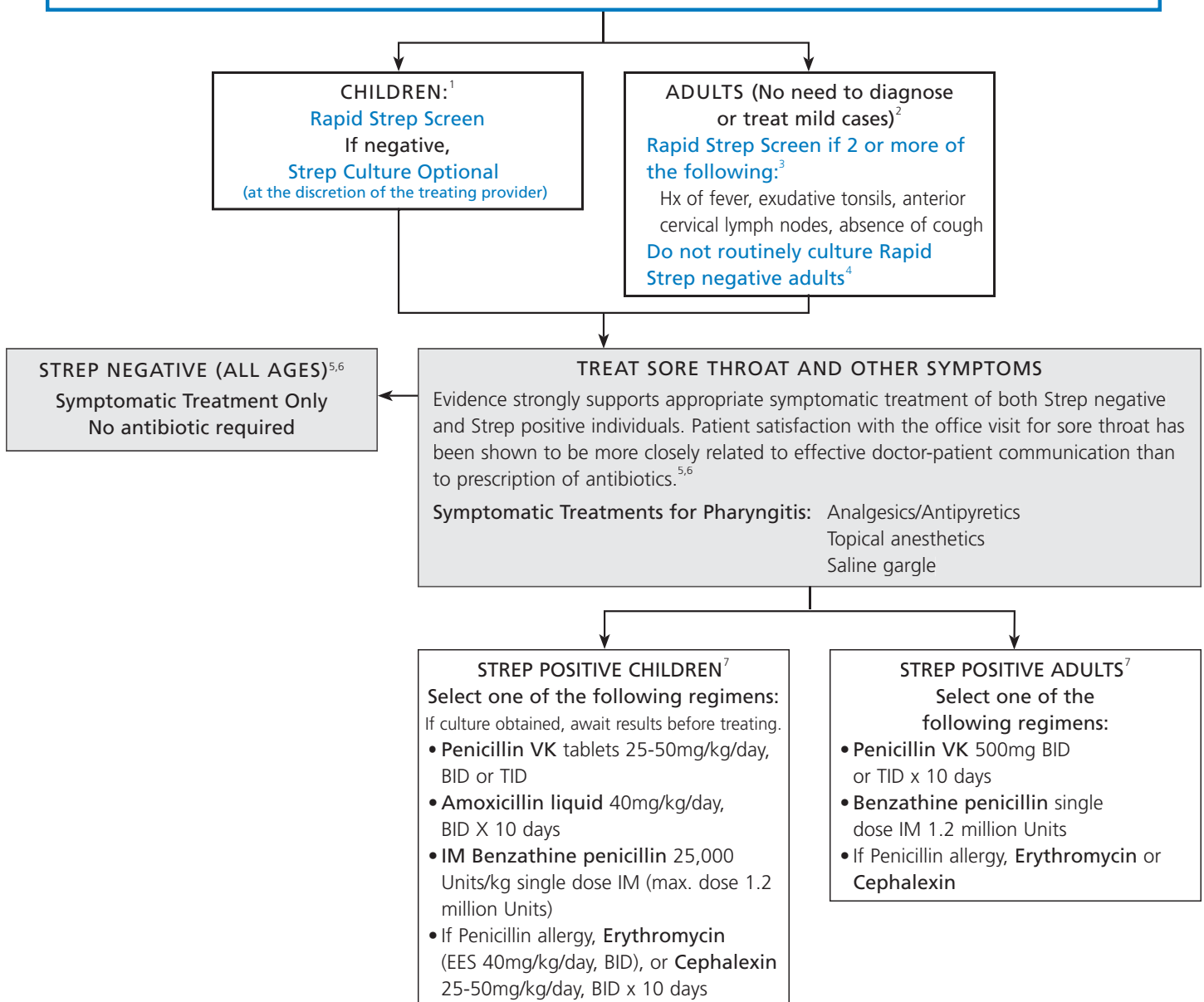
Practice Guidance for JUDICIOUS USE OF ANTIBIOTICS

ACUTE PHARYNGITIS

“Use antibiotics only for proven Group A Beta-hemolytic *Streptococcus*.”

PRESENTING WITH: FEVER, ERYTHEMA, PURULENT EXUDATE IN PHARYNGEAL-TONSILLAR AREA, PROMINENT ANTERIOR CERVICAL LYMPH NODES*

(This guideline does not apply to adults with a history of rheumatic fever, valvular heart disease, immunosuppression, or recurrent or chronic pharyngitis.)



NOTES:

- * Even with this constellation of symptoms, Group A beta-hemolytic streptococcus (GABS) is present only in a minority of patients.⁸
- Antibiotic treatment will effectively prevent Rheumatic Fever if given within 9 days of onset of illness.
- Antibiotic treatment for symptomatic relief is only effective for GABS, and only if initiated within 48 hours of symptom onset.
- Other organisms to consider: rhinovirus, corona virus, parainfluenza, influenza, adenovirus, Epstein-Barr virus, CMV, coxsackie virus, Herpes simplex, Neisseria gonorrhoea, Mycoplasma pneumoniae, Chlamydia pneumoniae.
- Beta hemolytic Streptococcus Groups C and G infections are self-limited and rheumatic fever does not occur. They are not detected by rapid Streptococcal antigen testing.
- Satisfaction with the practitioner visit predicts duration of illness and closely relates to how well concerns are dealt with—unless patients are very ill, practitioners should consider exploring concerns and should avoid or delay prescribing antibiotics.⁵

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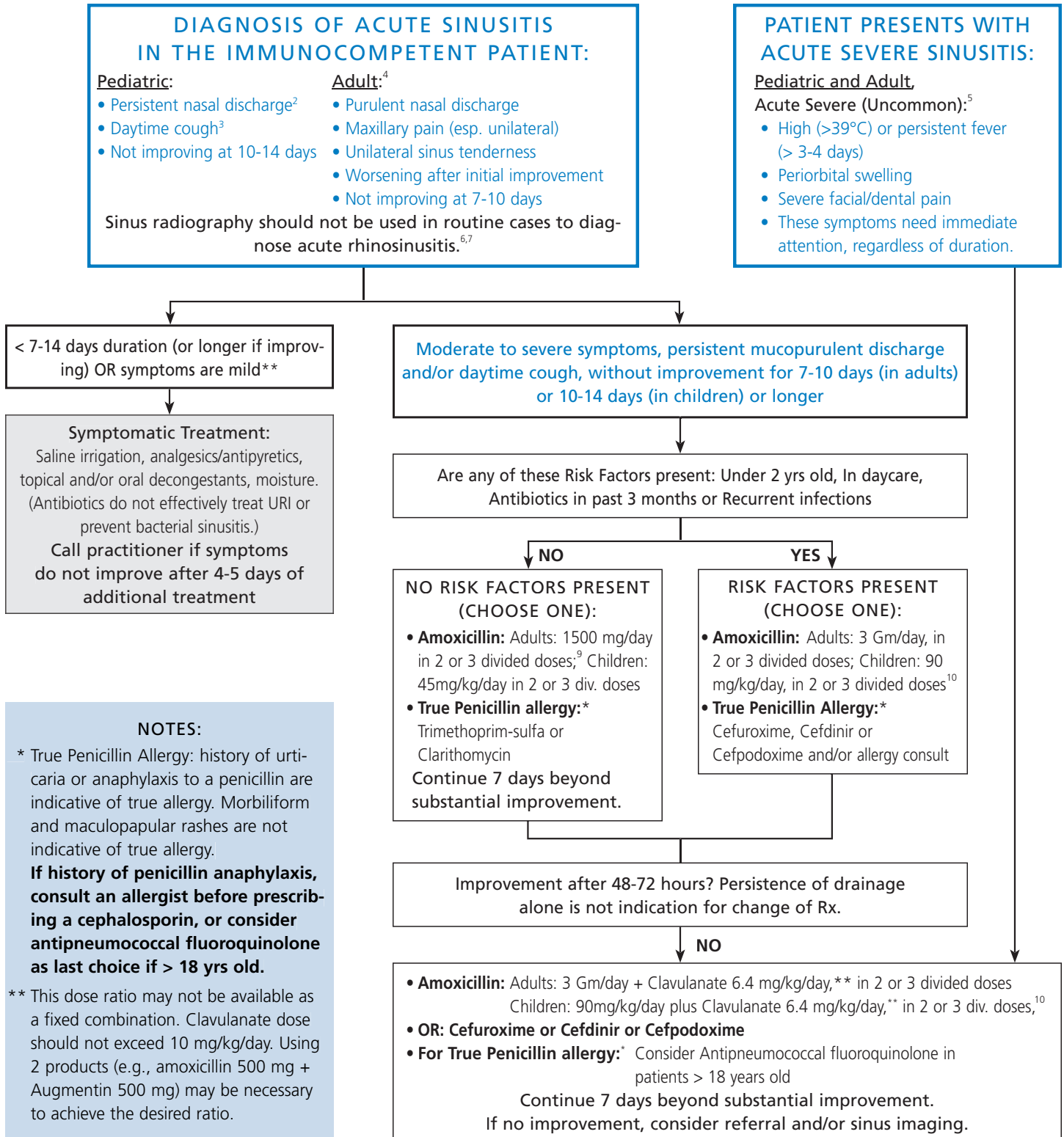
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Practice Guidance for JUDICIOUS USE OF ANTIBIOTICS

ACUTE UNCOMPLICATED SINUSITIS

"Approximately 2/3 of sinus infections resolve without antibiotics."^{1,19}



NOTES:

* True Penicillin Allergy: history of urticaria or anaphylaxis to a penicillin are indicative of true allergy. Morbiform and maculopapular rashes are not indicative of true allergy.
If history of penicillin anaphylaxis, consult an allergist before prescribing a cephalosporin, or consider antipneumococcal fluoroquinolone as last choice if > 18 yrs old.

** This dose ratio may not be available as a fixed combination. Clavulanate dose should not exceed 10 mg/kg/day. Using 2 products (e.g., amoxicillin 500 mg + Augmentin 500 mg) may be necessary to achieve the desired ratio.

WHEN BACTERIAL INFECTION IS PRESENT

<i>Streptococcus pneumoniae</i>	30-66%
<i>Hemophilus influenzae</i>	20%
<i>Moraxella catarrhalis</i>	10%

KEY POINTS

- Three meta-analyses have shown that newer and broad-spectrum antibiotics are not significantly better than narrow-spectrum agents.⁹
- However recent emergence of resistant bacteria must be kept in mind.⁴
- Most viral rhinosinusitis is well or nearly well at 7-10 days; about 25% are still symptomatic at 14 days.⁸
- Color and type of nasal discharge do not predict bacterial infection.¹¹
- Bacterial infection is uncommon when symptom duration is less than seven days, unless patient is acutely ill.
- Imaging should be considered only when sinusitis is recurrent, complications are suspected, diagnosis is unclear, or surgery is being considered.

PREVENTION:⁸

- **Vaccination:**
All newborns and children < 2 yrs should receive Prevnar.^{9,10}
Children with recurrent infections should receive
Influenza vaccine if > 6 mo
23-valent Pneumococcal vaccine if > 2 yrs¹¹
- Cigarette smoke avoidance/cessation
- Consider allergen and irritant avoidance

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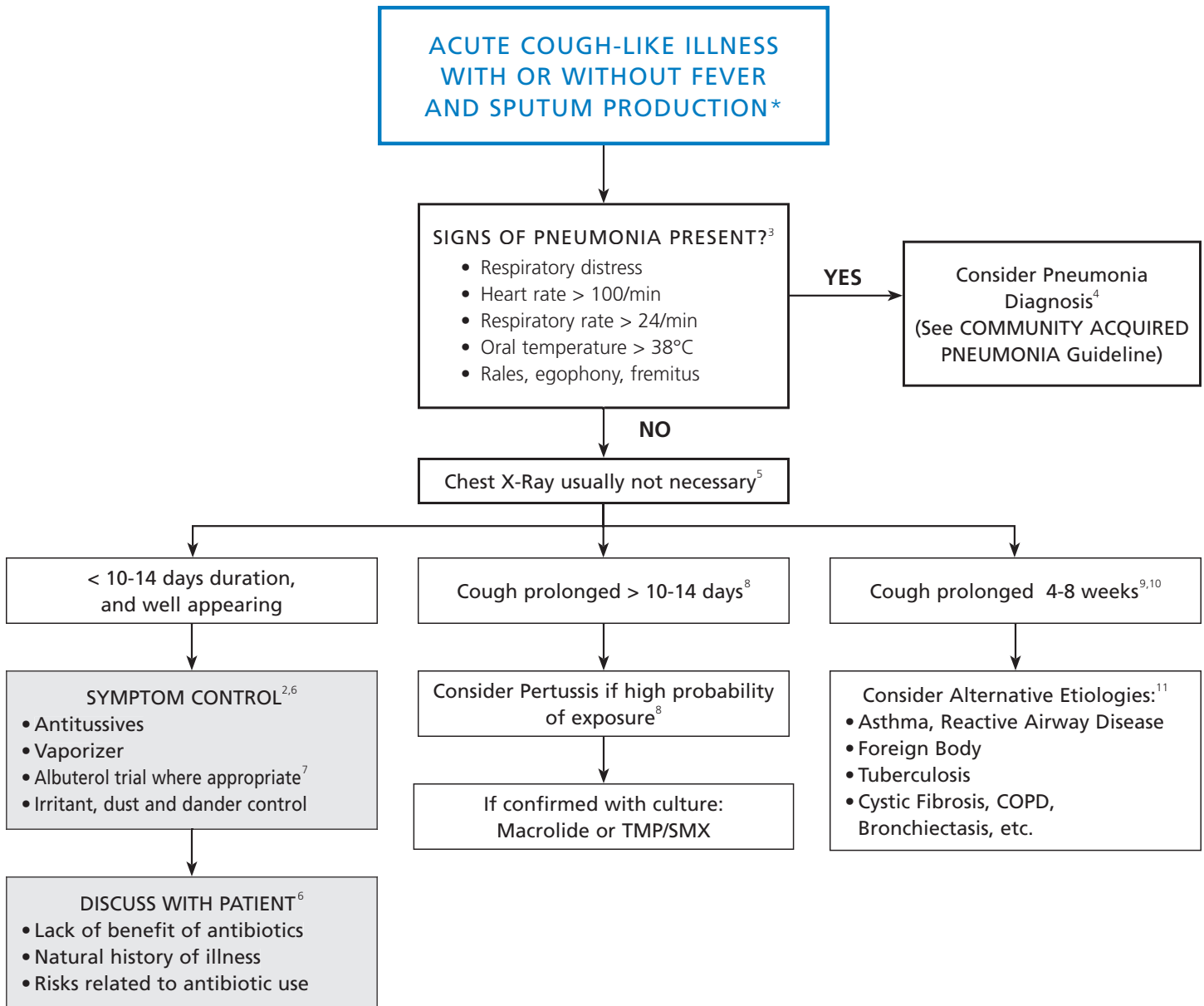
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Practice Guidance for JUDICIOUS USE OF ANTIBIOTICS

ACUTE UNCOMPLICATED BRONCHITIS

(In Otherwise Healthy Individuals)

“Evaluation should focus on clinically ruling out more serious illness, particularly pneumonia.”¹
 “Patient satisfaction with care for acute bronchitis depends most on practitioner-patient communication, rather than whether an antibiotic is prescribed.”²



* Acute bronchitis is a clinical diagnosis referring to an acute respiratory tract infection lasting less than 3 weeks in which cough is the predominant feature.

TREATMENT OF ACUTE BRONCHITIS KEY POINTS:

- The Infectious Diseases Society of America recommends using antibiotics only when severe or persistent disease (>14 days)⁸ and when reasonable likelihood of Pertussis exists.¹²
- 90% of uncomplicated acute bronchitis has nonbacterial cause.
- Randomized, placebo-controlled studies fail to support a role for antibiotics.¹³
- Routine antibiotic treatment is not recommended, regardless of cough duration.
- Causes of ambulatory illness with chief symptom of cough: 70% acute URI, 6% asthma, 5% pneumonia.¹⁴

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