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The Thoracic Society of Australia & New Zealand
LEADERS IN LUNG HEALTH

TOP-FIVE RECOMMENDATIONS on low-value practices

Better care. **Better** decision-making. **Better** use of resources.

The **Thoracic Society of Australia and New Zealand (TSANZ)** is the only health peak body representing a range of professions (medical specialists, scientists, researchers, academics, nurses, physiotherapists, students and others) across various disciplines within the respiratory/sleep medicine field in Australia and New Zealand.
The Paediatric Special Interest Group (SIG) of the society takes a special interest in respiratory medicine as applied to paediatric patients.

1. Do not prescribe combination therapy (inhaled corticosteroids with long-acting beta2 agonist) as initial therapy in mild to moderate asthma before a trial of inhaled corticosteroids alone
2. Do not prescribe antibiotics for exacerbation of asthma
3. Do not use oral beta2-agonists as bronchodilators in asthma, wheeze or bronchiolitis
4. For children with bronchiolitis without other co-morbidities, do not delay discharge from an inpatient admission based on oxygen saturations alone if saturations are ≥90%
5. Do not delay immunisation/s based on presence of mild respiratory symptoms in the absence of fever

1 Do not prescribe combination therapy (inhaled corticosteroids with long-acting beta2 agonist) as initial therapy in mild to moderate asthma before a trial of inhaled corticosteroids alone

Even for children with persistent asthma, the most recent evidence suggests that adding long-acting beta2 agonists (LABA) to inhaled corticosteroids (ICS) does not result in a statistically significant reduction in exacerbations. However, there is some evidence that LABA/ICS combination therapy increases the risk of hospital admissions and severe asthma-associated adverse events, particularly among asthmatic children aged four to 11 years old. Due to the limited paediatric evidence on the safety and efficacy of long-acting beta2 agonists, the use of ICS alone is therefore recommended for the initial preventative therapy and the only therapy for children with mild to moderate asthma.

2 Do not prescribe antibiotics for exacerbation of asthma

The most recent Global Initiative for Asthma (GINA) report does not recommend a role for antibiotics in management of asthma exacerbation unless there is strong evidence of lung infection, such as fever and purulent sputum or radiographic evidence of pneumonia. This is supported by recent trials involving azithromycin (a commonly prescribed antibiotic for management of asthma), which found that this drug had no statistically significant impacts on severity of symptoms during an exacerbation. One small randomised controlled trial (RCT) in young children with recurrent asthma-like symptoms showed that azithromycin reduced the duration of asthma-like symptoms. No RCT has been conducted in children who have a diagnosis of asthma to determine if the rate of severe asthma exacerbation or the severity of asthma symptoms or duration of an asthma exacerbation is reduced by azithromycin. A potential role for azithromycin in reducing the duration of an episode of asthma-like symptoms in children less than three years of age requires further investigation. Antibiotic treatment in addition to its lack of efficacy also increases the risk of bacteria resistance for those on long term treatment regimes.

3 Do not use oral beta2-agonists as bronchodilators in asthma, wheeze or bronchiolitis

The weight of evidence does not support the use of oral beta2 agonists as bronchodilators in children with asthma, wheeze or bronchiolitis. In the case of asthma, oral beta2-agonists have not been shown to have a significant impact on symptom score or length of hospital stay for acute asthma in infancy when compared to placebo. For wheeze inhalation is the recommended route for delivering relievers for all children and adults. For bronchiolitis, according to the latest evidence, oral bronchodilators are no better than placebo at reducing the time to resolution of illness among infants treated at home or affecting the probability or rates of hospital admission after treatment.

4 For children with bronchiolitis without other co-morbidities, do not delay discharge from an inpatient admission based on oxygen saturations alone if saturations are ≥90per cent

Clinical guidelines and recent evidence indicate that oxygen supplementation need only be commenced for children with uncomplicated bronchiolitis (i.e. bronchitis without other co-morbidities) if oxygen saturation levels fall below percentage levels around the early 90s. While one guideline cites 92 per cent as the minimum acceptable level, other research shows that management of infants with bronchiolitis to an oxygen saturation target of 90 per cent or higher is as safe and clinically effective as one of 94 per cent or higher. On the balance of evidence, we recommend that children with bronchiolitis without other co-morbidities can be safely discharged if oxygen saturation levels are 90 per cent or higher.

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Do not delay immunization/s based on presence of mild respiratory symptoms in the absence of fever

Major guidelines on immunisation/vaccination do not cite the presence of minor or moderate acute illness (including mild respiratory symptoms), whether with or without fever, as a contraindication for immunisation. Australian immunisation guidelines explicitly state that 'mild illness without fever' is not a contraindication while US guidelines state that mild acute illness 'with or without fever' are 'commonly misperceived' as contraindications. Failure to immunise children with minor illnesses can reduce the effectiveness of immunisation campaigns. Given these considerations we adopt the conservative formulation that at least in the absence of fever, immunisation should not be delayed due to the mere presence of mild respiratory symptoms.

For the list of references supporting these recommendations and further information on the development process, see **evolve.edu.au/published-lists/thoracic-society-of-australia-and-new-zealand-paediatrics**

WHAT IS EVOLVE?

Part of a global movement, Evolve is an initiative led by physicians and the Royal Australasian College of Physicians (RACP) to drive high-value, high-quality care in Australia and New Zealand.

As medical practice and medical research continues to grow in volume and complexity, physicians can be inundated with new guidelines, new research and new information. Evolve helps physicians to stay abreast of the current evidence and recommended best practice to support the provision of high-value, high-quality care to patients.

How Does Evolve Work?

Evolve identifies a specialty's top-five clinical practices that, in particular circumstances, may be overused, provide little or no benefit, or cause unnecessary harm.

Evolve recommendations are developed through a rigorous, peer-reviewed process; led by clinical experts, informed by in-depth evidence reviews, and guided by widespread consultation.

Evolve contribution to the Choosing Wisely campaigns

RACP is a founding member of Choosing Wisely in Australia and New Zealand, and all Evolve recommendations are also available via these campaigns.

By bringing together recommendations from multiple medical colleges and healthcare organisations, together with expertise in consumer and patient care, Choosing Wisely helps healthcare providers and consumers start important conversations about improving the quality of healthcare.