



Five Things Physicians and Patients Should Question

1

Avoid routine use of anti-reflux medications for treatment of symptomatic gastroesophageal reflux disease (GERD) or for treatment of apnea and desaturation in preterm infants.

Gastroesophageal reflux is normal in infants. There is minimal evidence that reflux causes apnea and desaturation. Similarly, there is little scientific support for the use of H2 antagonists, proton-pump inhibitors, and motility agents for the treatment of symptomatic reflux. Importantly, several studies show that their use may have adverse physiologic effects as well as an association with necrotizing enterocolitis, infection and, possibly, intraventricular hemorrhage and mortality.

2

Avoid routine continuation of antibiotic therapy beyond 48 hours for initially asymptomatic infants without evidence of bacterial infection.

There is insufficient evidence to support antibiotic treatment for more than 48 hours to rule out bacterial infection in asymptomatic term and preterm infants. Current blood culturing systems identify the great majority of pathologic organisms prior to 48 hours. Prolonged antibiotic use may be associated with necrotizing enterocolitis and death in extremely low birthweight infants.

3

Avoid routine use of pneumograms for pre-discharge assessment of ongoing and/or prolonged apnea of prematurity.

Cardio-respiratory events are common in both term and preterm infants. Although there may be a role for pneumograms in selected cases where the etiology of the events is in doubt, they have not been shown to reduce acute life-threatening events or mortality from their routine use.

4

Avoid routine daily chest radiographs without an indication for intubated infants.

Although intermittent chest radiographs may identify unexpected findings, there is no evidence documenting the effectiveness of daily chest X-rays to reduce adverse outcomes. Further, this practice is associated with increased radiation exposure.

5

Avoid routine screening term-equivalent or discharge brain MRIs in preterm infants.

Findings on term-equivalent magnetic resonance imaging (MRI) correlate with neurodevelopmental outcomes at discharge and at 2 and 5 years of age. There is, however, insufficient evidence that the routine use of term-equivalent or discharge screening brain MRIs in preterm infants improves long-term outcome.

How This List Was Created

The American Academy of Pediatrics Section on Perinatal Pediatrics (SoPPE) Executive Committee employed a national survey of representative newborn medicine providers from SoPPE and the Vermont-Oxford Network. Survey recipients were asked to consider the range of testing and treatments conducted on high and low risk newborns. They were then asked them to provide examples of tests and treatments that, in their opinion, best met any or all of the following criteria: there is evidence of lack of efficacy, there is insufficient evidence of efficacy, or the test or treatment unnecessarily utilized staffing or material resources. Among the recipients, 1047 responded with a total of 2870 suggestions of tests and treatments. These responses were then collated and presented to an expert panel of 51 individuals representing 28 national and regional stakeholder perinatal care organizations. A modified Delphi process utilizing electronic survey techniques was used to narrow the list to the Top 5 over three rounds. During the initial round, the panel reduced the top 22 general categories of tests and treatments to 13. The reintroduction of specific clinical contexts, derived from the original survey, resulted in 24 items that were reduced to 12 in the second round. In the final round, the panel was provided with GRADE (Grades of Recommendation, Assessment, Development and Evaluation) literature summaries of the top 12 to ensure that all current evidence was considered. The final list was reviewed and approved by the Academy's Board of Directors and Executive Committee.

The guidance in this list does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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