

 **Severe pneumonia can be managed at home**  
(*Lancet* 2008; 371: 49-56)

WHO case management guidelines for severe pneumonia involve referral to hospital for treatment with parenteral antibiotics. If equally as effective as parenteral treatment, home-based oral antibiotic treatment could reduce referral, admission, and treatment costs. This randomized, open-label equivalency trial was done at seven study sites in Pakistan. 2037 children aged 3-59 months with severe pneumonia were randomly allocated to either initial hospitalization and parenteral ampicillin (100 mg/kg per day in four doses) for 48 h, followed by 3 days of oral amoxicillin (80-90 mg/kg per day; n=1012) or to home-based treatment for 5 days with oral amoxicillin (80-90 mg/kg per day in two doses; n=1025). There were 87 (8.6%) treatment failures in the hospitalized group and 77 (7.5%) in the ambulatory group by day 6. Five children died within 14 days of enrolment, one in the ambulatory group and four in the hospitalized group.

**COMMENTS** This large study which is relevant to most developing countries clearly indicates that home treatment with high-dose oral amoxicillin is equivalent to currently recommended hospitalization and parenteral ampicillin for treatment of severe pneumonia without underlying complications, suggesting that WHO recommendations for treatment of severe pneumonia need to be revised.

 **Relationship of *H. pylori* and idiopathic thrombocytopenic purpura** (*J Pediatr Hematol Oncol* 2008; 30: 53)

Recent reports have suggested that *Helicobacter pylori* infection may be a causative agent of adult chronic idiopathic thrombocytopenic purpura (cITP) and antimicrobial treatment may increase platelet counts. As there is limited experience in pediatric age, the authors investigated the prevalence of *H. pylori* infection and the effects of *H. pylori* eradication therapy in a series of children with cITP. Twenty-four children with cITP were investigated for *H. pylori* infection using the C-urea breath test or *H. pylori* fecal antigen. In cases of *H. pylori* infection, antimicrobial treatment was given with

amoxicillin, clarithromycin, and proton pump inhibitors. *H. pylori* infection was found in 8 patients (33%) and 3 of them showed a response after eradication therapy, but 2 of them relapsed later on. Two patients had a spontaneous increase in platelet count in the group of *H. pylori*-negative patients. The authors were unable to demonstrate that *H. pylori* plays a major role in pediatric cITP.

**COMMENTS** Given the difficulty in managing cases of cITP, it maybe worthwhile to try and conduct larger multicentric trials to find if *H. pylori* is indeed responsible for another human disease.

 **Arginine-vasopressin and terlipressin in refractory shock** (*Anaesthesia* 2007; Dec 13. Epub ahead of print)

Severe septic and cardiogenic shock is associated with a high mortality. Common therapies include the administration of fluids and the use of conventional inotropes. However, in severe forms of shock, cardio circulatory failure may be secondary to profound vasoparalysis and unresponsive to conventional therapies. The authors identified 17 reports (11 case series, 6 case reports) on a total of 109 patients for use of arginine-vasopressin (AVP) and terlipressin (TP) as a rescue therapy in neonates, children and adolescents with catecholamine-refractory shock or circulatory arrest. Administration of AVP/TP resulted in a rapid increase in systemic arterial blood pressure, an increase in urine output, and a decrease in serum lactate. AVP and TP had a significant impact on the required dose of inotropes which could be reduced. Despite the use of AVP/TP, mortality was high (52/109). There is a need for larger prospective trials assessing the efficacy and safety profiles of these drugs in a defined setting.

**COMMENTS** Refractory shock is a major killer in pediatrics, and if the positive results with AVP/TP in adults are replicated in pediatric trials they would be a worthwhile addition to our armamentarium.

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