

Clippings

□ Dengue virus has caused several outbreaks across the country in the last few years and occurrence of Dengue Shock Syndrome (DSS) has shown increased preponderance among children. So what are the predictive markers of DSS? An analysis of children with DSS during an outbreak in Mumbai showed that factors like a younger age at onset, altered sensorium, paralytic ileus, and significantly deranged PTT were predictive of DSS. A total of 39 children with positive IgM titre on ELISA were evaluated with regards to clinical and lab data and of these, 20 had DHF, 18 had DSS and only 1 had DF. Overall, patients with DSS also had a longer recovery period and required more supportive management in the form of component therapy and inotropic support. The case fatality rate for DSS was 16.6 per cent as against no deaths among those with DF/DHF. It is therefore imperative to recognize and to treat aggressively all children with suspected Dengue infection who have any of predictive markers for DSS in order to reduce the mortality. *J Trop Pediatr* 2004; 50: 301-305.

□ Malaria still continues to be a scourge in developing countries and efforts at several preventive measures have failed to control this public health menace. Could the production of an effective vaccine contribute towards disease control? A phase II trial assessing the safety, immunogenicity and efficacy of a pre-erythrocytic vaccine based on *P. falciparum* circumsporozoite surface antigen among African children showed promising results. The primary endpoint was time to first clinical episode of *P. falciparum* malaria over a 6-month surveillance period. At the end of 6 months, the prevalence of *P. falciparum* was 37% lower in the vaccine group as compared to

the control group. *Lancet* 2004; 364: 1411-1420.

□ What are the predictors of the outcome of myocarditis in children? The presence of shortening fraction <15%, left ventricular dilatation, and moderate to severe mitral regurgitation on admission as well as arrhythmia were significantly associated with development of unremitting severe cardiac failure and overall poor outcome. By the time of discharge 39% of the patients had developed unremitting severe cardiac failure, 25% had depressed systolic function, and only about 36% had normal systolic function. *Pediatr Cardiol* 2004; 25: 379-384

□ Are bedside features of shock reproducible between different observers? Clinical signs like capillary refill time, temperature gradient, pulse volume, and signs of dehydration are used in assessment of critically ill children. However, their validity and reproducibility between observers is not known. In an analysis of 100 consecutive children admitted to a Kenyan hospital, the assessment showed moderate agreement for features of cardiovascular compromise (delayed capillary refill 4 sec, = 0.49; and weak pulse volume, = 0.4) and only substantial agreement for temperature gradient (= 0.62). For hydration status, only in the assessment of skin turgor was there a moderate level of agreement (= 0.55). Capillary refill times and assessment of pulse volume achieved only a "low" moderate to poor inter-rater agreement, thus questioning the reliability and objectiveness of these parameters. *Arch Dis Child* 2004; 89: 977-979.

□ Can Ursodeoxycholic Acid (UDCA) therapy help very-low-birth-weight (VLBW)

infants who develop cholestasis associated with parenteral nutrition (PN)? Retrospective analysis of infants receiving UDCA within 14 days of onset of cholestasis associated with PN was done against controls who received no treatment. The demographic data, total fasting duration, onset of cholestasis, age to tolerance of full feeds, and the duration of parenteral nutrition (PN) before the onset of cholestasis were comparable between the two groups. It was found that infants who received UDCA therapy with doses of 10 to 30 mg/kg/day had a shorter duration of cholestasis than the control group (62.8 vs. 92.4 days, $P = 0.006$) and their peak serum levels of direct bilirubin also was significantly lower. *J Pediatr* 2004; 145: 317-320.

❑ Can oral amoxicillin be used for children with severe pneumonia instead of injectable penicillin recommended by WHO? There are several potential benefits of oral treatment, which include decreases in risk of needle-borne infections, need for referral or admission, administration costs, and costs to the family. In a multicenter, randomised, open-label equivalency study undertaken at tertiary-care centers in eight developing countries in Africa, Asia, and South America, children aged 3-59 months with severe pneumonia were admitted for 48 h and, if symptoms improved, were discharged with a 5-day course of oral amoxicillin. Primary outcome was treatment failure (persistence of lower chest indrawing or new danger signs) at 48 hours and it was seen in 19% of each group. Infancy (age 3-11 months), very fast breathing, and hypoxia at baseline predicted treatment failure by multivariate analysis. *Lancet* 2004; 364: 1141-1148.

❑ What are the predictors of mortality in children with diabetic ketoacidosis (DKA) in a developing country setting? Retrospective data

from 68 children with DKA admitted to pediatric ICU showed that impaired consciousness (66%), rapid breathing (60%), and vomiting (51.4%) were common presenting symptoms with 50% patients having clinically evident dehydration. Precipitating events identified were new-onset diabetes with sepsis (37%), new-onset diabetes alone (31%), insulin omission (15%), and infection with insulin omission (7%). The overall mortality was 13.2%, with the causes of death being septic shock, cerebral edema, pulmonary edema, and hypokalemia with ventricular tachycardia. On multiple logistic regression analysis, osmolality at admission was the most significant predictor of death. *Pediatr Crit Care Med* 2004; 5: 427-433.

❑ Vitamin A overdose fiasco, which led to the death of over 30 children in Assam in 2001 refuses to die down, with experts pointing out that such large single doses of vitamin A are unprecedented in the annals of human health care exposures. Even though surveys conducted by the Indian Council of Medical Research (ICMR) in Dibrugarh and Nagaon of Assam found only 0.3 per cent of children to have Bitot's spot, a marker of Vitamin A deficiency which suggests that Vitamin A deficiency was not a public health problem, yet it was administered by a campaign approach as if there were an epidemic of Vitamin A deficiency. The replacement of the 2-ml spoon with the 5 ml cup coupled with inadequate training of the health care workers led to this tragic incident. *Am J Clin Nutr* 2004; 80: 1082-1083.

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