

Clippings

❑ Trachoma caused by repeated ocular infection with *Chlamydia trachomatis* is an important cause of blindness. Current recommended dosing intervals for mass azithromycin treatment for trachoma are based on a mathematical model. Conjunctival swabs for quantitative polymerase chain reaction assay of *C. trachomatis* before and 2, 6, 12, 18 and 24 months after mass treatment with azithromycin was collected in a Tanzanian community in which trachoma was endemic. For ethical reasons, at 6, 12 and 18 months, tetracycline eye ointment was given to residents with clinically active trachoma. At baseline 956 of 978 residents (97.8%) received either one oral dose of azithromycin or (if azithromycin was contraindicated) a course of tetracycline eye ointment. The prevalence and intensity of infection fell dramatically and remained low for two years after treatment. One round of very high coverage mass treatment with azithromycin, perhaps aided by subsequent periodic use of tetracycline eye ointment for persons with active disease, can interrupt the transmission of ocular *C. trachomatis* infection. *N Engl J Med* 2004; 351: 1962 - 1971.

❑ African - American children have lower lung volumes than white children. However the contributions of anthropometric, socioeconomic, nutritional and environmental factors to this difference are unknown. From participants in the Third National Health and Nutrition Examination Survey (1988 - 1994), the authors selected 1462 healthy nonsmoking children (623 white and 839 African - American) aged 8 -17 years. The African - American children were taller and heavier but had lower lung function. The authors performed regression analysis using data on

anthropometric, socioeconomic and nutritional factors and smoke exposure. Adjustments for sitting height explained 42 - 53% of the racial difference. Socioeconomic factors and antioxidant vitamin levels accounted for an additional 7 - 10%. Overall the authors could account for only 50 - 63 % of the racial difference. In children aged 8 - 12 years (n = 752), birth weight explained 3 - 5% of the racial difference, whereas in utero exposure to maternal smoking had no significant effect. The authors concluded that in healthy children, the major explanatory variable for the racial difference in lung function is body habitus, socioeconomic, nutritional, and environmental confounders play a smaller role. *Am J Epidemiol* 2004; 160: 893 - 900.

❑ Using current WHO guidelines, children with wheezing are being over prescribed antibiotics and bronchodilators are underutilized. To improve the WHO case management guidelines more data is needed about the clinical outcome in children with wheezing/pneumonia overlap. In a multicentre prospective study, children aged 1 -59 months with auscultatory/ audible wheeze and fast breathing and /or lower chest indrawing were screened. Response to upto three cycles of inhaled bronchodilators was recorded. The responders were enrolled and sent home on inhaled bronchodilators and followed up on days 3 and 5. A total of 1622 children with wheeze were screened from May 2001 to April 2002 of which 1004 (61.8%) had WHO defined nonsevere and 618 (38.2%) severe pneumonia. Wheeze was audible in only 595 (36.7%) of children of 1004 non severe pneumonia children, only 621 (61.8%) responded to upto three cycles of

bronchodilator. Of 618 severe pneumonia children only 166 (26.8%) responded. To conclude two third of children with wheeze are not identified by current WHO ARI (acute respiratory infections) guidelines. Antibiotics are over prescribed and bronchodilators under utilized in children with wheeze. Children with wheeze constitute a special ARI group requiring a separate management algorithm. In countries where wheeze is common it would be worth while to train health workers in use of the stethoscope to identify wheeze. Arch Dis Child 2004; 89: 1049 - 1054.

□ Ceftriaxone, a third generation cephalosporin is widely used for treating infection during childhood. The kidneys eliminate approximately 33 - 67% of this agent and the remainder is eliminated via the biliary system. Ceftriaxone may bind with calcium ions and form insoluble precipitate leading to biliary pseudolithiasis. The aim of this study was to assess whether Ceftriaxone associated nephrolithiasis develops by the same mechanism and whether this condition is dose related. The study involved 51 children with various infections. Serum urea, creatinine and calcium levels were normal in all patients before and after treatment. Post treatment ultrasound identified nephrolithiasis in four (7.8%) of the 51 subjects. The stones were all of small size (2mm). The renal stones disappeared spontaneously in three of the four cases, but were still present in one patient 7 months after Ceftriaxone treatment. The study showed that children taking a 7 day course of normal or high dose Ceftriaxone may develop small sized asymptomatic renal stones. The overall incidence of nephrolithiasis in this study was 7.8%. Arch Dis Child 2004; 89 : 1069 - 1072.

□ A prospective randomized study at a medical center - based tertiary pediatric intensive care unit was carried out for

secondary confirmation of endotracheal tube position by ultrasound image. A total of 59 patients aged from newborn to 17 years old underwent endotracheal tube insertion because of cardiopulmonary arrest or impending respiratory failure. Ultrasound imaging was performed immediately before and after the ET tube placement procedure. The most frequently used ultrasonic scanning window was the subxiphoid window at the mid-upper abdomen, just beneath the xiphoid process and the lower margin of liver. Using the ultrasound imaging method, they successfully identified two esophageal intubations and eight incidents of initial ET tube misplacement which had been positioned down to the right main bronchus. Finally they successfully identified all 59 of the correct placements of ET tubes in the trachea. To conclude ultrasound imaging is a useful, quick, noninvasive portable and direct anatomic method for assessment of ET tube position. Crit Care Med 2004; 32: S374 - 377.

□ India has a third of the world's tuberculosis cases. Large scale expansion of a national programme in 1998 has allowed for population based analysis of data from tuberculosis registries. Seasonal trends were assessed using quarterly reports from districts with stable tuberculosis control programmes (population 115 million). In northern India tuberculosis diagnosis peaked between April and June and reached a nadir between October and December whereas no seasonality was reported in the South. Overall rates of new smear positive tuberculosis cases were 57 per 100000 population in peak seasons versus 46 per 100000 in trough seasons. Seasonality was highest in pediatric cases, suggesting variation in recent transmission. Lancet 2004; 364: 1613 -16 14.

□ Previous research suggests that multivitamin use before and during pregnancy

can diminish diet related deficiencies of certain micronutrients and potentially prevent preterm births. To assess this association, the authors performed an analysis by using data from the Pregnancy, Infection and Nutrition study (n = 2010). Women were recruited at 24-29 weeks of pregnancy from four prenatal care clinics in North Carolina from August 1995 to June 2000. For women who took multivitamins prior to pregnancy compared with non-users the adjusted risk ratio was 0.50 (95% CI: 0.20, 1.25) for delivering preterms (<37 weeks). In contrast, prenatal and periconceptional use, compared with nonuse were not related to preterm births. These results suggest that, compared with non-users, women who take multivitamin supplements prior to conception may have a reduced risk of preterm birth but further studies are needed with a larger sample of preconceptional users. *Am J Epidemiol* 2004; 160: 886 - 892.

□ Iron deficiency is common in early childhood and has been associated with developmental delay. It is not known how reliably markers of iron deficiency identify true iron deficiency; defined as a therapeutic response to oral iron. The subjects were members of the Millenium baby study cohort. At age 13 months a venous blood sample was taken for mean cell volume (MCV), hemoglobin, mean cell hemoglobin (MCH), ferritin and zinc protoporphyrin (ZPP). Children with abnormal values were offered treatment with oral iron and dietary modification and resampled after 3 months. Children with a hemoglobin or an MCH below the screening cut off, or with abnormal values for two or more of the remaining three measures, showed a large therapeutic response to iron, but isolated abnormalities of MCV, ZPP or ferritin were not consistently associated with a response. Of the screened

population 13% could be defined as iron deficient (abnormal hemoglobin or MCH, or abnormal levels of two or more of the remaining three markers) but this was not strongly associated with any dietary demographic or anthropometric characteristic. To conclude low total or mean cell hemoglobin in isolation is a specific marker of iron deficiency but other markers are only predictive when found in combination with other abnormal values. *Arch Dis Child* 2004; 89: 1028 - 1031.

□ Topiramate is helpful for some adults and children (aged over 4 years) with partial or generalized epilepsy, when combined with an inadequate ongoing treatment. The indications of topiramate have now been extended in France to cover single agent therapy of refractory epilepsy, from the age of 2 years. The license extension to children over 2 years of age is based solely on the results of previous trials. A dose finding study of 48 patients with refractory partial epilepsy suggests that the efficacy of topiramate monotherapy is dose dependent. In a non-comparative trial in 170 patients with refractory partial or generalized epilepsy 12 patients were able to switch to topiramate alone after a phase of combining topiramate with their ongoing treatment. In practice, some patients whose epilepsy is refractory to an optimally administered treatment may improve when topiramate is added; and a small minority of them can gradually discontinue their previous treatment. *Prescrire Int* 2004; 13: 165 - 167.

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