

Clippings

❑ Failure to thrive (FTT), and the evaluation of this universal pediatric problem, poses a frequent diagnostic dilemma to practitioners. The authors of this study wanted to determine how often Renal RTA was found to be the cause of FTT, and whether venous blood gas bicarbonate testing was more accurate. They evaluated 36 children for FTT during a 5-year period. Of that group, only 14% had both height and weight < 5th percentile. Twenty-seven patients had metabolic panel bicarbonate levels that were considered abnormally low, but only 1 patient had an abnormally low venous blood gas bicarbonate level. Only 1 of the patients was diagnosed with renal tubular acidosis. The authors concluded that venous blood gas bicarbonate levels are more accurate than biochemical panel measurement of bicarbonate. *Pediatrics*. 2003; 112: e463

❑ How long does fever last in a UTI? When should we re-culture a patient of UTI? The 364 patients meeting study criteria ranged in age from 1 week to 18 years. *Escherichia coli* (E coli) was the most common organism identified (87%). Almost 80% of the children had repeat urine cultures ordered within the first 72 hours; none were positive. Almost a third of the patients (32%) were febrile beyond 48 hours. The authors concluded that routine re-culture of urine is not indicated in hospitalized patients with UTI, and that fever beyond 48 hours' duration is common, suggesting that 48 hours (as per AAP guidelines) is not a useful time point to evaluate clinical response based on fever. *Arch Pediatr Adolescent Med*. 2003; 157: 1237

❑ In view of their side-effects & controversial efficacy, over-the-counter cold

(URI) medicines are being increasingly replaced by herbal alternatives like echinacea. Although there are some data on the efficacy of echinacea in adults, the authors contended that pediatric data were needed. This randomized trial enrolled children aged 2-11 years from Washington State. An assessment of the number of URIs in children who had at least 1 URI showed that the echinacea group had fewer repeat URIs. However, the groups experienced no difference in duration of symptoms (the primary outcome), severity of symptoms, number of days of fever, or any other parental assessment. Overall, adverse events were very similar between the groups, though the Echinacea group had higher incidence of rash. Two subjects who received echinacea developed stridor that required an emergency department visit and steroid administration. The authors concluded that echinacea is not helpful in treating URIs in children. *JAMA* 2003; 290: 2824

❑ Is the newly available R-isomer of salbutamol (Levosalbutamol) more effective in preventing hospitalizations during acute asthma exacerbations? The authors evaluated known asthmatics aged 1-18 years presenting to the ED. There were 278 enrollees in the levalbuterol group and 269 in the racemic albuterol group. With respect to hospitalization, the children receiving racemic albuterol were 1.25 times more likely to be admitted. There were no differences between groups on any of the secondary outcomes in the ED, such as length of stay, number of aerosols administered, or respiratory or heart rate at discharge. The authors concluded that levalbuterol reduced hospital admissions when used for treatment of acute asthma

exacerbations in the ED. *J Pediatr.* 2003; 143: 731

❑ Low doses of ionising radiation administered to the brain prior to the age of 18 months may adversely affect intellectual development! A group of 2,211 men and high school attendance among a cohort of 2,551 men who had received radiotherapy for cutaneous haemangioma between 1930 and 1959 was analysed. The men were a mean age of 7 months at first treatment and the average estimated absorbed radiation dose to the brain was 52 mGy. An analysis of testing administered when the men were 18 to 19 years old revealed significant trends for decreasing results in concept discrimination, general instruction, and technical comprehension with increasing radiation doses. High school attendance rates were about 32% among those men not exposed to radiation compared with 17% in those who received greater than 250 mGy. In view of radiation doses overlapping those by conventional head CT the authors conclude, "The risk and benefits of computed tomography scans in minor head trauma need re-evaluating." *BMJ* 2004; 328: 19

❑ There has been a lot of interest in the use of Metered dose inhalers with spacers (MDI/S) in acute asthma management & their efficacy versus Nebulisers in this setting. A Cochrane review of 10 randomised controlled trials along with individual randomised trials and review articles was conducted, which included a total of 880 children aged 2 or older. They found a substantial trend toward improved hospital admission rates (0.65 RR) associated

with the use of MDI/S as compared to nebulisers. MDI/S were equivalent to or better than nebulisers in other outcomes measured, including changes in respiratory rate, blood gases, pulse, tremor, lung function, symptoms score, and use of steroids. Some researchers recommended that MDI/S be used because of lower cost, safety, clinical benefit, personnel time, and speed and ease of administration. *J Fam Pract* 2004; 53: 55.

❑ Growth failure is a leading problem in uncontrolled juvenile idiopathic arthritis. The objective of the current study was to evaluate effects of highly active antirheumatic treatment with tumour necrosis factor antagonist Etanercept on growth retardation. Upon treatment with etanercept, growth velocity increased from 3.7 +/- 1.2 cm before the beginning of the therapy to 7.6 +/- 1.2 cm in the first year of treatment ($p < 0.001$). Prior to the therapy, serum levels of insulin-like growth factor-1 and of insulin-like growth factor binding protein-3 were within the normal range but increased significantly upon treatment ($p < 0.001$). The study indicates that etanercept has a beneficial effect on growth in children with a so far uncontrolled inflammatory disease. This effect might be related to the cessation of the inhibitory effect of proinflammatory cytokines on the synthesis of IGF-1 and IGF-BP-3 in the liver. *Clin Exp Rheumatol.* 2003; 21: 779

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