

Probiotics are needed for formula fed preterm newborns (*J Pediatr* 2008; 152: 801-806).

This study was done at University of Bari, Italy to investigate the effect of dietary supplementation with a probiotic on feeding tolerance and gastrointestinal motility in healthy formula-fed preterm infants. Thirty preterm new-borns were enrolled; 10 were exclusively breast-fed, and the remaining 20 (formula fed) were randomly assigned in a double-blind manner to receive either *Lactobacillus reuteri* ATCC 55730 (1×10^8 colony forming units a day) or placebo for 30 days. Weight gain was similar in the 3 groups. Newborns receiving probiotics+formula showed a significant decrease in regurgitation and mean daily crying time and a larger number of stools compared with those given formula+placebo. Gastric emptying rate was better in newborns receiving breastmilk and those on formula+probiotics as compared with those receiving formula alone.

COMMENTS: The study reaffirms that breastfeeding is the best. Formula milk supplemented with probiotics still can not be considered superior to breastmilk.

Urine obtained from collection pads is reliable for routine and metabolic biochemistry tests (*Eur J Pediatr* 2008; May 21: Epub ahead of print).

This study from Edinburgh evaluated whether specifically designed urine collection pads for children give reliable results for routine and metabolic biochemistry tests in urine. Routine, catecholamine, and metabolic analyses were performed on pad/non-pad aliquots of urine from patients with diagnosed inborn errors and urine containing added metabolites to simulate metabolic disorders. Routine tests (urea, electrolytes, creatinine, osmolality; and ratios of creatinine to calcium, phosphate, magnesium, urate and oxalate), and catecholamines showed good or acceptable concordance with no clinically significant pad/non-pad differences. Metabolic tests in infants and children without metabolic disorders

all showed good pad/non-pad concordance for amino acids, organic acids and glycosaminoglycans. In patients with phenyl-ketonuria, cystinuria, mucopolysaccharidoses, organic acid disorders, and urine containing added orotic acid to simulate urea cycle disorders, there was also good pad/non-pad concordance for diagnostic urinary metabolites. No extraneous organic acids were eluted from the pads. Sugar chromatography showed identical staining intensity in pad/non-pad samples.

COMMENTS: Urine collection pads give reliable results for routine and metabolic biochemistry tests. However, their availability and cost remains a major limiting factor for routine use in resource poor settings.

First day of life pulse oximetry screening can detect congenital heart defects (*J Pediatr* 2008; 152: 761-765)

This population-based prospective multicenter study from Norway screened 50,008 apparently healthy newborns for postductal (foot) arterial oxygen saturation (SpO₂) after transfer from the delivery room to the nursery. SpO₂ < 95% led to further diagnostic evaluations. Of the infants screened, 324 (0.6%) failed the test. Of these, 43 (13%) had CHDs (27 critical), 134 (41%) had pulmonary diseases, remaining 147 infants (45%) were healthy. The median age for babies with CHDs at failing the test was 6 hours (range, 1-21 hours). For identifying critical CHDs, the pulse oximetry screening had a sensitivity rate of 77.1% (95% CI, 59.4-89.0), specificity rate of 99.4% (95% CI, 99.3-99.5), and a false-positive rate of 0.6% (95% CI, 0.5-0.7). CHDs were prospectively registered and diagnosed in 658 newborns (1.1%), of whom 35 (5%) were classified as critical.

COMMENTS: Pulse oximetry screening promotes early detection of critical CHDs. The challenge however remains to identify those with moderately severe CHD at an earlier age, which may be missed by this screening test.

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