

# JOURNAL WATCH

## PEDIATRICS & ADOLESCENT MEDICINE

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### Probiotics for infants: two studies, two successes

Probiotics are nonpathogenic bacteria that, when ingested, might improve immunity, particularly resistance to gastrointestinal disease. Investigators in Israel conducted a double-blind, randomized trial, sponsored by a formula manufacturer, that involved 201 healthy infants (age range, 4 to 10 months) who attended day care. They received either plain formula or formula supplemented with probiotics (*Bifidobacterium lactis* or *Lactobacillus reuteri*). During the 12-week study, infants who received *L. reuteri* were significantly healthier on 7 of 9 outcome measures (fewer days with fever or diarrhea, episodes of fever or diarrhea, clinic visits, absences from child care, and antibiotic prescriptions) than were infants who received plain formula. Infants who received *B. lactis* were healthier than controls on 3 measures. Respiratory illness measures were similar in all groups.

Investigators from China randomized 214 very-low-birth-weight infants (age, >7 days), who began enteral feeding, to receive either breast milk only or breast milk supplemented with two probiotics (*L. acidophilus* and *B. infantis*). Compared with infants in the probiotic group, those in the breast-milk-alone group were more likely to die (3.9% vs. 10.7%) or to develop necrotizing enterocolitis (1.1% vs. 5.3%).

**Comment** ▶ Should all infants receive probiotics? The authors of three separate editorials raise the issue of safety. These trials, and a handful of others on this topic, have involved relatively small numbers of subjects, so concerns about safety remain. Although probiotics aren't quite ready for prime time, they likely exemplify future therapeutic interventions.

Howard Bauchner, MD  
Published in *Journal Watch* February 11, 2005

- ▲ Weizman Z *et al.* Effect of a probiotic infant formula on infections in child care centers: Comparison of two probiotic agents. *Pediatrics* 2005;115:5-9.
- ▲ Lin H-C *et al.* Oral probiotics reduce the incidence and severity of necrotizing enterocolitis in very low birth weight infants. *Pediatrics* 2005;115:1-4.
- ▲ Kliegman RM, Willoughby RE. Prevention of necrotizing enterocolitis with probiotics. *Pediatrics* 2005;115:171-2.
- ▲ Bell EF. Preventing necrotizing enterocolitis: What works and how safe? *Pediatrics* 2005;115:173-4.
- ▲ Van Niel CW. Probiotics: Not just for treatment anymore. *Pediatrics* 2005;115:174-7.

### The missed PPD reading: can this wait a week?

The interpretation of purified-protein-derivative (PPD) skin tests for tuberculin sensitivity is difficult when the patient does not return within 48 to 72 hours. QuantiFERON-TB is a blood-based interferon- $\gamma$  release assay (IGRA) that measures the response to *Mycobacterium tuberculosis* and other nontuberculous mycobacteria. To determine the validity of skin-test results at 7 days, Tat and colleagues compared readings on days 2 and 7 for each of the two available tuberculin skin tests and evaluated them against IGRA results.

They tested 116 adults at increased risk for tuberculosis, using one of the skin-test products on each arm, and obtained blood samples for IGRA. Fifty-two had positive skin-test readings on day 2. Agreement between the two skin-test products was 93% on day 2. Overall, 13% of the day-7 skin-test readings were discordant with the day-2 readings; in 10 cases, readings that were initially positive were negative by day 7. Agreement between the IGRA results and the skin-test readings was 88% on day 2 and 85% on day 7.

**Comment** ▶ These findings demonstrate that although delayed reading of the PPD skin test may be reliable, the standard must remain at 2 to 3 days. The recent commercial availability of the IGRA, which may help clinicians discriminate the response to *M. tuberculosis* from the response to nontuberculous mycobacteria or BCG vaccination, is an interesting highlight of this report.

Peggy Sue Weintrub, MD  
Published in *Journal Watch Pediatrics and Adolescent Medicine*  
February 14, 2005

- ▲ Tat D *et al.* Comparing interferon- $\gamma$  release assay with tuberculin skin test readings at 48-72 hours and 144-168 hours with use of 2 commercial reagents. *Clin Infect Dis* 2005;40:246-50.

### Will adolescents use sexual health services if parental notification is required?

How many parents know about their teenage daughter's use of sexual health services? How would mandatory parental notification affect teens seeking services? To find out, these investigators surveyed 1526 adolescent girls younger than 18 who were receiving services at 79 publicly funded family planning clinics.

Of those who had sexual experience, 90% reported use of contraception the last time they had sex. More than 60% said their parents knew they were seeking sexual health services. Most of these teens (56%) had voluntarily informed their parents or sought care at a parent's suggestion. Teens younger than 15, non-Latino blacks, those who had visited the clinic more than twice in the past year, and those cared for by a single mother or a single female guardian were more likely to notify parents about receiving sexual health services.

Asked what they would do if parental notification were required, 59% said they would come to the clinic for birth control, 45% would use over-the-counter contraception, 18% would use a private physician, 7% would not have sex, and 6% would have unprotected sex. Ninety-five percent said they would come for STD treatment even if parental notification were mandated.

**Comment** ▶ Parents often know when their daughters seek birth control, and many adolescents indicated that mandatory parental notification would not deter them from using the clinic or seeking care for STDs. On the other hand, requiring parental involvement would not deter teenage sex and would increase risky sexual behaviors in some.

F. Bruder Stapleton, MD  
Published in *Journal Watch Pediatrics and Adolescent Medicine*  
February 14, 2005

- ▲ Jones RK *et al.* Adolescents' reports of parental knowledge of adolescents' use of sexual health services and their reactions to mandated parental notification for prescription contraception. *JAMA* 2005;293:340-8.

**Recurrent abdominal pain** ▶ Recurrent abdominal pain (RAP) – defined as three episodes of pain that limits activity within 3 months – is a common pediatric complaint for which an organic etiology is seldom found. To determine the causes of RAP, identify features that aid in its evaluation, and define when RAP meets the criteria for irritable bowel syndrome (IBS), the authors of this study prospectively evaluated 102 patients older than 3 years (mean age, 10 years) referred to a pediatric gastroenterologist.

Seventy-two of the patients (70%) had no identifiable organic cause of RAP. Gastroesophageal reflux disease was the most common diagnosis among the patients with an organic pathology,

followed by *Helicobacter pylori* gastritis, Crohn disease, and celiac disease. Nocturnal pain that awakened the child and abdominal tenderness on palpation were features associated with an organic etiology. Periumbilical pain, a low-fiber diet, perception of incomplete evacuation, and alleviation of pain by defecation were features of nonorganic pain. The authors note that an organic etiology was more often found in this study than it was in previous studies, probably due to better identification of *H. pylori* and gastroesophageal reflux.

The authors further note that symptoms in 37 patients (36%) met the criteria for IBS, making it the most common cause of RAP. The criteria for IBS are at least 12 weeks or more (not necessarily consecutive), in the preceding 12 months, of abdominal discomfort or pain that has two of the following features: relieved by defecation; onset associated with change in frequency of stool; onset associated with a change in appearance of stool.

**Comment** ► Clinicians, family, and patients alike are often frustrated by the problem of recurrent abdominal pain. These findings suggest that the prevalence of organic disease may be significant and that we clinicians should be careful and thorough in our analysis. Although IBS appears to have been a frequent cause of abdominal pain in this pediatric population, the findings are from a selected referral population, and we do not have good data on prevalence in the general population.

William P. Kanto, Jr., MD

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▲ El-Matary W *et al.* Irritable bowel syndrome: The commonest cause of recurrent abdominal pain in children. *Eur J Pediatr* 2004;163:584-8.

## Repeated unexplained infant deaths are usually not criminal ►

When more than one infant within the same family dies unexpectedly without apparent cause, the deaths are often suspected to be homicides. Researchers in the 'Care of Next Infant' program in the U.K. followed 6373 infants from 5229 families that had experienced at least one unexplained infant death.

Fifty-seven of these children died during the first year of life (8.9 per 1000). Seven deaths were found to be homicides, 9 were ascribed to congenital anomalies or other natural causes, and 41 were unexplained. In this cohort, the rate of unexplained infant death was 5.7 times that in the general population during the same period. Interviews were completed by 27 of the families with unexplained deaths; one additional homicide was uncovered, and noncriminal causes of death were identified in five additional cases. All of the 18 families with a previous SIDS death that lost an infant to SIDS during the study had SIDS-related risk factors: smoking, co-sleeping, or social disruption. Two families had three infant deaths: In one family, all three were homicides; in the other family, the death of twins was the index event.

**Comment** ► Even among families enrolled in a prevention program, SIDS and homicide can recur, and some risk factors for SIDS cannot be eliminated. While most recurrent deaths are natural, thorough investigation is required to identify cause.

F. Bruder Stapleton, MD

Published in *Journal Watch Pediatrics and Adolescent Medicine* February 14, 2005

▲ Carpenter RG *et al.* Repeat sudden unexpected and unexplained infant deaths: Natural or unnatural? *Lancet* 2005;365:29-35.