New Childhood Vaccine Targets Meningitis, Other Infections

For the first time, a vaccine is available to help protect infants and toddlers from so-called "invasive pneumococcal" diseases that can cause brain damage and even death.

The Prevnar Pneumococcal 7-valent Conjugate Vaccine (diphtheria CRM, protein) was approved in February for preventing diseases caused by the organism Streptococcus pneumoniae (also known as pneumococcus). The bacteria can cause an infection of the bloodstream called bacteremia as well as meningitis, an infection of the lining of the brain or spinal cord.

This first-of-a-kind vaccine for children under 2 targets the seven most common strains of pneumococcus, which account for about 80 percent of invasive diseases (mostly blood infections) in infants.

Generally, infants will receive the vaccine in a series of four inoculations given at 2, 4, and 6 months, and again between 12 and 15 months of age. If children can't get the vaccine starting at 2 months, parents should see their health-care providers for alternative schedules.

Each year, in the United States, there are an estimated 16,000 cases of pneumococcal bacteremia and 1,400 cases of pneumococcal meningitis among children under 5. Children under 2 are at highest risk for infection. As many as half of meningitis cases result in brain damage and hearing loss, and about 10 percent of cases are fatal.

In a scientific study involving some 38,000 children, participants received either Prevnar or a different investigational vaccine, along with other recommended childhood vaccines. Prevnar was 100 percent effective in preventing invasive pneumococcal disease caused by the seven strains of pneumococcus in the vaccine and was about 90 percent effective against invasive diseases caused by all pneumococcal types.

Side effects were generally mild and included local reactions at the place of injection, irritability, drowsiness and decreased appetite. About 21 percent of children receiving Prevnar developed fevers over 100.3 degrees Fahrenheit, compared with about 14 percent of those in the control group.

Prevnar is not approved for use in adults or as a substitute for other approved pneumococcal vaccines for high-risk children older than 2. FDA has not evaluated the vaccine's effectiveness in preventing ear infections caused by pneumococcus.

Prevnar is marketed by a unit of Wyeth-Ayerst Laboratories, a division of American Home Products Corp., Philadelphia.

Consider Flu Shots for Healthy Kids, Too

Routine flu shots should be considered for healthy infants and toddlers, say researchers, following two studies that showed these young children can suffer serious complications from an influenza infection. The studies found few deaths but lots of hospital stays and doctor visits. It also found unnecessary treatment with antibiotics in healthy children younger than 2, as well as in older, high-risk children with asthma, diabetes or other chronic conditions.

Currently, pediatric vaccination guidelines (established by the Advisory Committee on Immunization Practices) call for annual flu shots only for high-risk children 6 months and older and others in their households, and reports show that only about 10 percent of high-risk children actually get the shots. Flu shots cannot be given to children less than 6 months old. (New England Journal of Medicine, January 2000)

Whooping Cough Antibiotic Linked with Stomach Illness

A common antibiotic given to newborns with whooping cough is causing a severe stomach disorder, according to the Centers for Disease Control and Prevention (CDC). The report marks the first time that the antibiotic, erythromycin, has been strongly linked to pyloric stenosis, an illness among newborns that blocks digestion and causes projectile vomiting. While CDC urges physicians and parents to be aware of this potentially serious side effect of the drug, the agency does not recommend that physicians stop prescribing it for whooping cough, which can be fatal. An average of about 1,900 cases of whooping cough a year was found among infants in the United States between 1994 and 1996.

Risk of Lung Cancer Found Higher in Women Smokers

Women smokers may be more than twice as likely to develop lung cancer as male smokers, say researchers at Pennsylvania State University who recently discovered that a gene linked to the abnormal growth of lung cells is not as active in men. The study showed that the action of the gastrin-releasing peptide receptor, or GRPR, which plays a key role in the development of the lungs, increased lung cancer risk in both women and men smokers. But that risk was much higher for women smokers compared with their male counterparts. Differences in the action of the gene in women made the risk associated with GRPR 12 times higher for women and only 2.4 times higher for men smokers. Researchers say that GRPR becomes active in men only in the presence of tobacco smoke or some other respiratory attack, but remains active in women whether they smoke or not. (Journal of the National Cancer Institute, January 2000)