Take Precautions for Young International Travelers

BY GREG MUIRHEAD
Contributing Writer

MAUI, HAWAII — Foreign travel can pose particular dangers to infants and children. If it is important that young children travel internationally, specific precautions can reduce the risk of infectious complications and increase the likelihood that the trip will be safe and enjoyable, instructed Dr. Jay M. Lieberman.

In general, there should be risk assessment for children traveling to other countries to determine the risks of the destination, mode of travel, and the special conditions of the traveler. Vaccinations should be given when indicated, and chemoprophylaxis should be used when appropriate, he added.

A key source of information for foreign travel is the Centers for Disease Control and Prevention Web site, www.cdc.gov/travel, Dr. Lieberman said at a meeting sponsored by the University Children's Medical Group and the American Academy of Pediatrics.

Common travel problems and preventives include sun hazards, countered by sunscreen; travel safety, enhanced with car seats and seat belts; mosquitoes, warded off by repellents and nets. Other problems may include animal bites, envenomation, sexually transmitted infections for adolescents, travelers' diarrhea, and altitude illness, Dr. Lieberman said at the meeting, which was also sponsored by California Chapter 2 of the AAP.

Dr. Lieberman, professor of clinical pediatrics at the University of California, Irvine, provided the following advice on taking preventive measures prior to travel:

► **Routine immunizations.** Review and complete the age-appropriate immunization schedule. DTaP, polio, *Haemophilus influenzae* type b (Hib) conjugate, and pneumococcal conjugate vaccines may be given at 4-week intervals, if necessary, to complete the primary series before travel. Hepatitis B vaccine should be given if patients are not vaccinated already. "Infants 6-11 months old should receive one dose of measles vaccine—preferably monovalent," he recommended. Consider a second dose of measles, mumps, and rubella (MMR) and varicella vaccines before travel for children who have received only their first dose.

► **Travelers' diarrhea.** "Travelers' diarrhea is among the most common travel-related problem affecting young children," especially infants, he warned. This results from ingesting food and water contaminated by feces, and is caused by bacteria (85%), parasites (10%), and viruses (5%). For young infants, breast-feeding is the best way to avoid water- and food-borne illnesses. Otherwise, be scrupulous about washing hands and use only purified water in ice cubes and for drinking, brushing teeth, and mixing infant formulas. Avoid food from street vendors, raw or undercooked meat and seafood, and unpasteurized dairy products. Fresh fruits and vegetables must be adequately cooked or washed well and peeled. Other potential preventive measures include the use of probiotics and bismuth subsalicylate; antibiotics generally are not recommended for this purpose but may be brought along for empiric treatment, if needed.

► **Malaria.** "For chemoprophylaxis, the standard for a long time was chloroquine given weekly, but the emergence of resistance has dramatically limited its use," observed Dr. Lieberman. Options include mefloquine given weekly, although it has CNS side effects; doxycycline given daily, but not for children younger than 8 years; or atovaquone/proguanil given daily, but not for infants weighing less than 5 kg. Chemoprophylaxis should begin prior to travel and should be used continuously while in malaria-endemic areas and for 4 weeks (using chloroquine, mefloquine, or doxycycline) or 7 days (using atovaquone/proguanil) after leaving those areas. Detailed recommendations for preventing malaria are available 24 hours a day at 877-394-8747 or at the www.cdc.gov/travel Web site.

► **Hepatitis A.** Vaccination now is recommended routinely for all children, with the first dose at 12-23 months of age. Immune globulin is indicated for infants younger than 12 months; it can be given with the vaccine to ensure immediate protection if travel is imminent (although it's probably unnecessary, according to Dr. Lieberman).

► **Meningococcal vaccine.** The conjugate vaccination now is recommended routinely for all children aged 11-18 years. For

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Dexamethasone Fails to Benefit in Bronchiolitis

BY MARY ANN MOON
Contributing Writer

Dexamethasone neither prevented hospital admission nor improved the respiratory status of babies aged 2-12 months who presented to the emergency department with moderate to severe bronchiolitis, reported Dr. Howard M. Corneli of the University of Utah, Salt Lake City, and his associates.

The corticosteroid also did nothing to reduce the patients' visits to the hospital or to physicians during the week following the emergency department visit, the researchers said.

Treatment for bronchiolitis is controversial. An estimated 25% of babies hospitalized with the disorder are given corticosteroids, even though the agents' efficacy has never been established definitively.

Dr. Corneli and his associates assessed outcomes in 600 babies treated for a first episode of moderate to severe bronchiolitis at 20 emergency departments throughout the United States during flu seasons in 2004-2006. The patients were randomly assigned to receive oral dexamethasone or placebo, as well as any bronchodilators or other therapies that their treating physicians deemed necessary.

Four hours after treatment, the proportion of patients admitted to the hospital for observation and further treatment was 40% in the dexamethasone group and 41% in the placebo group, a difference that was not statistically significant.

Similarly, there was no significant difference between the two groups in mean scores on a measure of respiratory distress 4 hours after treatment. For patients who were admitted to the hospital, there was no significant difference in length of stay between those who received dexamethasone and those who received placebo.

The two study groups also showed no significant differences in the rates of hospitalization, physician visits, or adverse drug reactions in the week following their emergency department visits, the investigators said (N. Engl. J. Med. 2007;357:331-9).

These results held true regardless of whether or not the babies had eczema or a family history of asthma, which indicates that the response to corticosteroids was no different whether or not they had atopy.

Because respiratory syncytial virus can cause bronchiolitis, the researchers assessed outcomes according to whether or not patients tested positive for the virus. Again, they found no significant difference in response to dexamethasone between babies who had the virus and those who did not.

Given these findings, "we recommend evaluation of other treatments and preventive strategies for bronchiolitis," Dr. Corneli and his associates said. ■

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children aged 2-10 years, only the polysaccharide vaccine is licensed.

► **Typhoid fever.** There are two "moderately effective" vaccines available: Ty21a live attenuated oral vaccine, given as a four-dose series on alternate days for persons 6 years of age or older; or Vi capsular polysaccharide vaccine, single dose, for persons 2 years of age or older.

► **Yellow fever.** This is endemic in equatorial Africa and South America, Dr. Lieberman noted, and proof of vaccination is required for entry in some countries. A live, attenuated virus vaccine is available. Vaccine side effects include headaches, myalgias, fever, and encephalitis. Infants are at increased risk for encephalitis from the vaccine. Travelers with infants younger than 9 months should be strongly advised to not travel to yellow fever–endemic areas.

► **Japanese encephalitis.** This is endemic in Southeast Asia, he said. Immunization for this is given as a series of three injections on days 0, 7, and 30, with a booster given 24 months later. Children aged 1-2 years receive a 0.5-mL dose. There may be associated local reactions and mild systemic effects such as fever, headache, and myalgias. For a short-term stay in an urban area, immunization is not recommended.

► **Rabies.** The decision to vaccinate should be based on the itinerary and expected activities. As prophylaxis, the vaccine should be given as a four-dose series of injections on days 0, 7, 21, and 28.

Dr. Lieberman disclosed that he has a financial relationship as a consultant and as a member of the speakers' bureaus for GlaxoSmithKline, Sanofi Pasteur, and Merck & Co. ■