

portant to understand that everything is a balance.

"We want children to play outside, but we want them to do it safely. And there are all sorts of ways to do that. One is that we prevent bites from insects that convey infection—but we also don't douse them with so much repellent that it causes harm."

The CDC on its Web page on West Nile virus cites the Environmental Protection Agency's advice: "Do not allow children to handle the [insect repellent]. When using on children, apply to your own hands first and then put it on the child."

Likewise, the AAP warns not to apply DEET (N,N-diethyl-m-toluamide) to the hands of young children and to avoid areas around the eyes and mouth.

Dr. McMillan noted that a new version of the AAP Red Book is being delivered in the coming weeks and will be available online this month.

The new book will include an updated, more specific statement on DEET and will address other insect repellents, such as picaridin.

She said she believes it's too early to say there's a relationship between global warming and any upswing in insect-borne diseases. ■

Fever-Petechiae Dilemma: To Admit or Not to Admit

BY KATE JOHNSON
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CHICAGO — A child's death from unsuspected meningococcal disease can keenly heighten an emergency physician's awareness that there are few clues about which children with fever and petechiae are safe to send home, Dr. Jane Knapp said at a meeting sponsored by the American

College of Emergency Physicians.

"You can't pick them out," cautioned Dr. Knapp, professor of pediatrics at the University of Missouri–Kansas City and a pediatric emergency physician at Children's Mercy Hospital in Kansas City, Mo. "But we can't admit every child with fever and petechiae."

Neither clinical nor hematologic features are reliable predictors of meningococcal infection, she added.

Dr. Knapp presented a case from early in her career of a 7-year-old boy who was afebrile on admission. Mental status changes followed by the development of a petechial rash in the emergency department prompted treatment for meningococcemia, but he died shortly afterward.

The case highlights the fact that lack of fever is not always a reassuring sign and does not exclude meningococcal infection, she said.

One study of 24 children with meningococcal disease found that 5 had axillary temperatures of less than 37.5° C (Arch. Dis. Child. 2001;85:218).

Another study of 381 febrile children with meningococcal infection found that 10% did not have a petechial/purpuric rash, although they did appear unwell (Pediatrics 1999;103:E20). An additional 45 (12%) of the children had what the authors called "unsuspected meningococcal disease" (UMD), meaning they were seen in the hospital and discharged with a later positive culture. Of those 45 children, 24 were recalled when their blood culture results came in positive, 14 returned because they had worsened or developed a rash, 5 returned for a scheduled follow-up, and 2 returned because of persistent fever. Two children in the UMD group died after returning to the hospital—one 6 hours and the other 12 hours later.

Comparing the children with UMD to a control group of culture-negative febrile patients, the authors found that the UMD group was on average significantly younger (9 months vs. 14 months), with 82% of them aged between 3 and 36 months. The UMD group also had significantly higher band counts on average (14 vs. 7), compared with the culture-negative patients. However, the authors concluded that the predictive value of the band count is low in this group, because UMD is uncommon in young febrile pediatric patients.

"That study suggests that neither the clinical examination nor the CBC [complete blood count] reliably distinguishes young children with UMD from those with viral illnesses," Dr. Knapp said.

Because this is an area of legal risk for physicians, she said, they are left with a perplexing challenge. One guideline to follow for managing children with a non-blanching rash is whether they appear unwell. If they appear unwell, Dr. Knapp suggested simply admitting them and treating for invasive meningococcal infection. "Could you compromise and send someone home with antibiotics?" she asked. "I would be pretty liberal." ■

...AND STILL PREVALENT

CHILDREN 2 TO 17 YEARS OLD ARE OFTEN CONTACTS OF HIGH-RISK PERSONS, YET ARE RARELY IMMUNIZED

The CDC/ACIP recommend influenza vaccination for children who are household contacts of high-risk individuals.² Nearly 1 in 3 children aged 2 to 17 years is a household contact of a high-risk person (29.3% according to a CDC estimate).⁶ Yet in a recent study, the vaccination rate for this group was only 12.3%—even lower than the rate for non-targeted persons <50 years (see chart).⁶ Since children play a major role in influenza transmission, this statistic is especially alarming.

ACIP HAS EXPANDED ITS RECOMMENDATIONS FOR THE 2006-2007 INFLUENZA SEASON

Children Aged 2 to 5 Years and Their Close Contacts⁸

During its February meeting, the ACIP expanded the original recommendation for vaccinating children aged 6 to 23 months to include children aged 24 to 59 months. The ACIP also recommends expanding routine influenza vaccination for household contacts and out-of-home caregivers of children aged 24 to 59 months. Approximately 5.3 million more children and 11.4 million more healthy close contacts will be included in the new recommendations.

THE CHALLENGE—AND OPPORTUNITY—AT HAND

There is a pressing need for increasing vaccination rates among children in the ACIP-recommended priority groups: children aged 6-59 months, and children who are household contacts of these and other high-risk individuals. The newly expanded recommendations may present further challenges to immunization efforts, particularly among the 24- to 59-month age group and their household contacts. Moreover, studies have shown that increasing vaccination rates among all children aged 2-17 years can decrease influenza morbidity and mortality in the general population.⁵

WHAT YOU CAN DO TO HELP: INITIATE THE VACCINATION CONVERSATION

Immunization outcomes are strongly influenced by physicians' recommendations.⁹ This holds true for both healthy and high-risk children. Immunization outcomes showed that 70% of children were vaccinated if the parents recalled a physician's recommendation versus only 3% if they did not. Physicians must therefore play a proactive role in 1) identifying children who are recommended by the ACIP for influenza vaccination and 2) educating parents about the importance of immunization. Such grassroots efforts, combined with comprehensive vaccination strategies, will better help protect children, their families, and the entire community against influenza.

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