

ed. Efficacy was estimated by comparing the incidence of *S. aureus* bacteremia in the patients who received the vaccine with the incidence of *S. aureus* bacteremia in the control patients.

Reactions to the vaccine were found to be generally mild to moderate, and most resolved within 2 days. The capsular polysaccharides elicited an antibody response of at least 80 µg/mL (the estimated minimal level conferring protection) in 80% of patients for type 5 and in 75% of patients for type 8. The efficacy during weeks 3 to 54 was only 26% ($P = .23$). However, between weeks 3 and 40 after vaccination, *S. aureus* bacteremia developed in 11 of 892 patients in the vaccine group who could be evaluated for bacteremia, as compared with 26 of 906 patients in the control group (estimate of efficacy, 57%; 95% confidence interval, 10% to 81%; nominal $P = .02$).

The researchers concluded that for patients receiving hemodialysis, a conjugate vaccine can confer partial immunity against *S. aureus* bacteremia for approximately 40 weeks, after which protection wanes as antibody levels decrease.

FROM: Shinefield H, Black S, Fattom A, et al. Use of a *Staphylococcus aureus* conjugate vaccine in patients receiving hemodialysis. *N Engl J Med* 2002;346:491-496.

Promotion of Prescription Drugs to Consumers

Spending on prescription drugs is the fastest growing component of the healthcare budget. There is public concern about the possibility that direct-to-consumer advertising of prescription drugs will result in inappropriate prescribing and higher costs of care. Guidelines issued in 1997 by the Food and Drug Administration (FDA) regarding advertising to consumers through electronic media are considered by some to be responsible for unleashing a flood of direct-to-consumer advertising.

Rosenthal and colleagues from the Harvard School of Public Health examined industry-wide trends for various types of promotion using data on spending for promotional purposes and sales of prescription drugs. They also tracked the relation between promotional efforts and sales over time. They documented the variation in direct-to-consumer advertising among and within five therapeutic classes of drugs and compared the variation in the intensity of such advertising with the variation in the intensity of promotion to healthcare professionals.

The results indicated that annual spending on direct-to-consumer advertising for prescription drugs tripled between 1996 and 2000, when it reached nearly \$2.5 billion. Despite this increase, such advertising accounts for only 15% of the money spent on drug promotion and is highly concentrated on a subgroup of products. Within a therapeutic class, there is marked variation in the intensity of direct-to-consumer advertising, and the amount of such advertising for specific products fluctuates over time. The initial surge in direct-to-consumer advertising preceded the 1997 FDA guidelines that clarified the rules for electronic

direct-to-consumer advertising, and thus the 1997 guidelines may not have been the most important reason for the overall increase.

The researchers concluded that although the use of direct-to-consumer advertising has grown disproportionately in relation to other forms of promotion, it continues to account for a small proportion of total promotional efforts. Nevertheless, physicians must assist patients in evaluating health-related information obtained through direct advertising.

FROM: Rosenthal MB, Berndt ER, Donohue JM, Frank RG, Epstein AM. Promotion of prescription drugs to consumers. *N Engl J Med* 2002;346:498-505.

Community-Acquired Outbreak of Foodborne Illness Caused by MRSA

Infections with methicillin-resistant *Staphylococcus aureus* (MRSA) are increasingly community acquired. Jones and colleagues from the Tennessee Department of Health, the Centers for Disease Control and Prevention, and Vanderbilt University School of Medicine investigated an outbreak in which a food handler, a food specimen, and three ill patrons had positive results on culture for the same toxin-producing strain of MRSA.

The investigation began when three members of the same family became ill within 3 to 4 hours of eating barbecued pork and coleslaw purchased from a convenience store. *S. aureus* was recovered from the stool cultures of these individuals, from one sample from the coleslaw, and from five nasal swabs from the three food handlers at the convenience store. Isolates from the stool cultures of the three family members, from the sample from the coleslaw, and from the nasal swab of one of the food handlers were indistinguishable by pulsed-field gel electrophoresis. This strain produced enterotoxin C and was identified as MRSA (resistant to penicillin and oxacillin, but sensitive to all other antibiotics tested). The food handler with MRSA did report visiting an elderly relative in a nursing home approximately two to three times the month before the outbreak. The relative had an MRSA infection and subsequently died.

This outbreak suggests that as MRSA becomes increasingly common in the community, it will be implicated in clinical manifestations of staphylococcal infection. This is the first report of an outbreak of gastrointestinal illness caused by community-acquired MRSA.

FROM: Jones TF, Kellum ME, Porter SS, Bell M, Schaffner W. An outbreak of community-acquired foodborne illness caused by methicillin-resistant *Staphylococcus aureus*. *Emerg Infect Dis* 2002;8:82-84.

Interactive Education Increases Sinkless Hand Washing

Despite current guidelines that recommend hand cleansing before and after patient contact, the adherence of