In Brief: Prevention of Meningococcal B Disease ................................................................. p 97
IN BRIEF

Prevention of Meningococcal B Disease

An outbreak (8 cases to date) of meningococcal disease at Princeton University caused by Neisseria meningitidis serogroup B has led the FDA and CDC to permit importation and investigational use (at Princeton University only) of a meningococcus B vaccine (4CMenB; Bexsero – Novartis) that has not been approved in the US. Bexsero has been approved for use in the European Union and in Australia.

THE VACCINE — Until recently, no serogroup B vaccine was widely available because the polysaccharide capsule of the B serogroup, unlike those of the other main meningococcal serogroups (A, C, Y, and W-135), is only weakly immunogenic. The 4CMenB vaccine contains 3 protein antigens identified in the N. meningitidis serogroup B genome and membrane components from a New Zealand outbreak strain. The vaccine has been tested in more than 8000 adults and children, has proved to be immunogenic, and appears to be safe.1 Its efficacy has not been established clinically, but laboratory testing, according to the CDC, has found that the vaccine should be protective against the strain causing the Princeton University outbreak. Bactericidal antibody levels develop about 2 weeks after one dose of the vaccine; a second dose is needed 1-6 months after the first to maintain protection.

CHEMOPROPHYLAXIS — Close contacts of patients with invasive meningococcal disease (e.g., same household, roommates, boyfriend or girlfriend) should receive antimicrobial chemoprophylaxis. Antimicrobial drugs can prevent secondary cases and eradicate the organism from the nasopharynx of healthy carriers. The susceptibility of serogroup B meningococci to antimicrobial agents is the same as that of other meningococcal serogroups. Regimens recommended by the CDC’s Advisory Committee on Immunization Practices are: oral rifampin 600 mg (10 mg/kg for children) q12h for 2 days; oral ciprofloxacin 500 mg once (not recommended for children); or a single IM injection of ceftriaxone 250 mg (125 mg for children).2

CONCLUSION — The new vaccine against serogroup B meningococcal disease, which is investigational in the US, appears to be immunogenic and safe. For immediate protection after close contact with an infected patient, antimicrobial prophylaxis is recommended.
