**COMMITTEE:** Infectious Diseases  
**TITLE:** Surveillance for invasive pneumococcal disease in children < 5 years of age.

**ISSUE:** *Streptococcus pneumoniae* causes 3000 cases of meningitis, 60,000 cases of bacteremia, over 125,000 hospitalizations for pneumonia and 10-15,000 deaths annually. Increasing resistance of *S. pneumoniae* to antibiotics in the last decade is a serious public health concern. Children less than 5 years of age are disproportionately affected by invasive pneumococcal disease and drug-resistant infections. With the licensing of the conjugate pneumococcal vaccine, infections in this age group are now preventable. Despite the seriousness of this organism, there is no national disease surveillance for *S. pneumoniae*.

**POSITION TO BE ADOPTED:** Invasive pneumococcal disease in children < 5 years of age should be made a nationally notifiable disease through national surveillance according to the National Public Health Surveillance System (NPHSS). (change to appropriate surveillance language).

Although this Statement addresses invasive pneumococcal disease in children less than 5 years of age, states and territories are encouraged to institute surveillance for invasive pneumococcal disease in all age groups, especially using legally mandated notification from laboratories.

CDC should work with states to identify resources needed to support the additional surveillance activity required.

**GOALS FOR SURVEILLANCE:** National surveillance will allow for assessment of the impact of the recently licensed conjugate pneumococcal vaccine in children and the impact of increasing pneumococcal vaccination coverage among older adults. On a state level, surveillance will allow states to raise awareness of vaccine recommendations, identify areas or populations in which vaccine use is sub-optimal, and monitor implementation of pneumococcal vaccine programs. Surveillance of invasive pneumococcal disease will complement the current reporting of drug-resistant strains and will enable tracking of the proportion of pneumococcal isolates that are drug-resistant. Pneumococcus is also a target organism for judicious antibiotic use campaigns and surveillance will assist in evaluating the impact and progress of these campaigns.
METHODS FOR SURVEILLANCE: Core surveillance elements from all cases of invasive pneumococcal disease in a child less than 5 years of age should be collected from laboratories and transmitted weekly to CDC by states and territories.

CASE DEFINITION: For purposes of this surveillance recommendation, invasive pneumococcal disease is defined as S. pneumoniae isolated in a child <5 years from a normally sterile site (e.g., CSF, blood, joint fluid, pleural fluid, pericardial fluid, other).

DATA TO BE COLLECTED: Epidemiologically important data, including demographics, antimicrobial susceptibility, underlying illnesses that are indications for pneumococcal conjugate vaccine, and vaccination status.

PERIOD FOR SURVEILLANCE: Permanent

BACKGROUND AND JUSTIFICATION: Each year in the United States, invasive Streptococcus pneumoniae causes approximately 3,000 cases of meningitis, 60,000 cases of bacteremia, over 125,000 cases of pneumonia requiring hospitalization, and 10-15,000 deaths. The Food and Drug Administration (FDA) recently approved a conjugate heptavalent pneumococcal vaccine (Prevnar®) for prevention of invasive pneumococcal disease in infants and children. The Advisory Committee on Immunization Practices (ACIP) will recommend vaccination in all children at the ages of 2, 4, 6 and 12-15 months and a catch-up schedule for children through age 59 months. National Healthy People 2010 objective 14-5 calls for reduction of invasive pneumococcal disease to 46 per 100,000 children less than 5 years of age aged <5 years.

As of January 1, 1999, 23 states required reporting of invasive pneumococcal disease and 28 required reporting of drug-resistant S. pneumoniae (Roush et al., JAMA 1999:282). Currently there is no national reporting system for invasive pneumococcal disease. Establishing a national system would help to monitor the impact of immunization programs, tracking progress toward the Healthy People 2010 objectives, and, in conjunction with reporting of drug-resistant strains, permit the assessment of the proportion of pneumococcal isolates that are drug-resistant.

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