

Council of State and Territorial Epidemiologists Position Statement

04-ID-08

Committee: Infectious Disease

Title: Meningococcal Serogroup Surveillance

Statement of the Problem:

CSTE has previously called upon states to conduct laboratory-based surveillance for *Neisseria meningitidis* (1) and to collect all *N. meningitidis* isolates from normally sterile sites to determine the serogroup (2). A quadrivalent, conjugate meningococcal vaccine is likely to be licensed for use in the United States within the next two years. Monitoring the impact of the vaccine on meningococcal disease will require enhanced efforts to collect surveillance data that include the serogroup of each isolate.

Desired Actions to be taken:

CSTE recommends that:

1. State, territorial and local health departments encourage that bacterial culture be obtained for all suspect cases of meningococcal invasive disease and that every isolate of *Neisseria meningitidis* from normally sterile sites be serogrouped.
2. State, territorial and local health departments collect serogroup information for all reported cases and report this information to CDC.
3. State and territorial public health laboratories contact clinical laboratories within their jurisdictions to request that all isolates of *Neisseria meningitidis* from normally sterile sites be serogrouped as quickly as possible and that this information be reported to the state health department in addition to information routinely reported for this infectious disease.
4. CDC provide technical assistance to states and territories to implement meningococcal serogroup surveillance and testing including quality assurance, and provide funding to state and territorial public health laboratories to enable them to obtain and test all meningococcal isolates from normally sterile sites.

Goals of Surveillance:

The goals of surveillance at both the state/local and national levels are:

1. To detect and track outbreaks of meningococcal disease so that appropriate control measures can be promptly instituted.
2. To assess changes in the epidemiology of meningococcal disease over time to permit the most efficient allocation of resources and the formulation of the most effective disease control and prevention policies.

Methods of Surveillance:

Invasive cases of disease caused by *N. meningitidis* confirmed by culture of the organism from a normally sterile site are reported through NETSS.

Background and Justification:

Approximately 2400-3000 cases of meningococcal disease occur each year in the United States, of which 3% are associated with outbreaks (3). There are 13 serogroups of *N. meningitidis*; five serogroups (A, B, C, W-135, and Y) are responsible for the vast majority of human cases worldwide. A conjugate vaccine that protects against four serogroups (A, C, W-135, and Y) is likely to be licensed in the United States within the next two years for use in adolescents and

Council of State and Territorial Epidemiologists Position Statement

adults. There is no immediate prospect of a vaccine effective against serogroup B which causes approximately one quarter of cases in the U.S. Monitoring the impact of the new vaccine on meningococcal disease will require surveillance data that permits vaccine-preventable disease caused by serogroups A, C, Y, and W-135 to be differentiated from non-vaccine-preventable disease caused by other serogroups. In addition to helping measure the impact of the new conjugate vaccines, serogroup information also helps to determine the linkage between cases and the options for public health response should a cluster occur. Making the serogroup part of the routine case report at local, state, and national levels will provide data essential for assessing the impact of the new vaccine and for making policy decisions regarding its use.

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References:

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Council of State and Territorial Epidemiologists
Position Statement

2. CSTE Position Statement 1994-18. Meningococcal Disease Serogrouping and Vaccine Evaluation. Available at <http://www.cste.org/ps/1994/1994-18.htm>.
3. Raghunathan PL, Bernhardt SA, Rosenstein NE. Opportunities for Control of Meningococcal Disease in the United States. *Annu Rev Med* 2004;55:333-53