



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

group A *Streptococcus*, 1998



ABCs Areas

California (3 county San Francisco Bay area); Connecticut; Georgia (20 county Atlanta area); Maryland (6 county Baltimore area); Minnesota (7 county Twin Cities area); New York (7 county Rochester area); Oregon (3 county Portland area)

ABCs Population

The surveillance areas represent 17,520,505 persons.
Source: U.S. Bureau of the Census, 1998

ABCs Case Definition

Invasive group A streptococcal disease: isolation of group A *Streptococcus* (*S. pyogenes*) from a normally sterile site or from a wound culture accompanied by necrotizing fasciitis or Streptococcal Toxic Shock Syndrome in a resident of a surveillance area in 1998.

ABCs Methodology

Project personnel communicated at least monthly with contacts in all microbiology laboratories serving acute care hospitals in their area to identify cases. Standardized case report forms that include information on demographic characteristics, clinical syndrome, and outcome of illness were completed for each identified case. Strains were typed by the *emm* system at CDC. Regular laboratory audits assess completeness of active surveillance and detect additional cases.

All rates of invasive group A Streptococcal disease were calculated using U.S. Bureau of the Census postcensal population estimates for 1998. For national projections of cases, race- and age-specific rates of disease were applied from the aggregate surveillance area to the age and racial distribution of the 1998 U. S. population. Cases with unknown race were distributed by site based on reported race distribution for known cases within the eight age categories.

Reported ABCs Profiles:

Race	No. (Rate*)
White	443 (3.2)
Black	179 (6.7)
Other	39 (3.E)
Unknown race (n=67) distributed among knowns.	
*Cases per 100,000 population for ABCs areas.	
Ethnicity	No. (Rate*)
Hispanic	31 (2.7)
Non-Hispanic	273 -----
Unknown	357 -----

*Cases per 100,000 population for ABCs areas.

Age (years)	Cases No. (Rate*)	Deaths No. (Rate*)
<1	18 (7.5)	2 (0.8)
1	11 (4.6)	0 (0.0)
2-4	20 (2.8)	0 (0.0)
5-17	43 (1.4)	1 (0.03)
18-34	96 (2.2)	5 (0.1)
35-49	159 (3.6)	10 (0.2)
50-64	116 (4.8)	17 (0.7)
≥65	198 (10.0)	44 (2.2)
Total	661 (3.8)	79 (0.5)

* Cases or deaths per 100,000 population for ABCs areas

Most Common *emm* types*

ABCs Area	Types	% of area isolates
California	1,ST-NS5,ST-2967,ST-2974,28,33	59
Connecticut	1, 28, 3, 4, 11	59
Georgia	1, 3, 28	51
Maryland	43, 12,1, PT-4245, 6, 28	59
Minnesota	1, 12, 28, 3, 77	51
New York	1	27
Oregon	1	30
Total	1, 28, 3, 12, PT-4245, 6, 11	55

*Requires a minimum of 4 isolates

Syndrome	No. (%)
Cellulitis	226 (34.2)
Necrotizing fasciitis	34 (5.1)
Pneumonia	77 (11.6)
Primary Bacteremia	235 (35.6)
Streptococcal Toxic Shock	34 (5.1)

Note: Some cases had more than one syndrome.

Potentially preventable invasive group A streptococcal disease:

During 1998, 10 cases (age in years: 1, 2, 3, 4, 5, 6, 6, 26, 43, and 94) of invasive GAS disease were detected in patients with varicella.

National Projection of Invasive Disease:

Cases: 10,200 (3.8/100,000)
Deaths: 1,300 (0.5/100,000)

For more information, visit our web site at:

<http://www.cdc.gov/ncidod/dbmd/abcs>