



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

group A *Streptococcus*, 1997



ABCs Areas

California (3 county San Francisco Bay area); Connecticut; Georgia (20 county Atlanta area); Minnesota (7 county Twin Cities area); Oregon (3 county Portland area)

ABCs Population

The surveillance areas represent 13,736,348 persons.
Source: U.S. Bureau of the Census, 1997

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 1997.

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 1997. 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 1997 U. S. population. Cases with unknown race were distributed by site based on reported race distribution for known cases within the seven age categories.

Reported ABCs Profiles:

Race	No. (Rate*)
White	355 (3.3)
Black	101 (5.5)
Other	30 (2.9)
Unknown race (n=56) distributed among knowns.	
Ethnicity	No. (Rate*)
Hispanic	35 (3.5)
Non-	220 -----
Unknown	231 -----

*Cases per 100,000 population for ABCs areas.

Age (years)	Cases	Deaths
	No. (Rate*)	No. (Rate*)
<1	16 (8.3)	0 (0.0)
1	7 (3.7)	0 (0.0)
2-4	17 (2.9)	0 (0.0)
5-17	29 (1.2)	0 (0.0)
18-34	74 (2.1)	3 (0.1)
35-49	116 (3.3)	10 (0.3)
50-64	86 (4.7)	12 (0.7)
≥65	141 (9.2)	27 (1.8)
Total	486 (3.5)	52 (0.4)

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

Most Common *emm* types*

ABCs Area	Types	% of area isolates
California	1, 12, ST-2967, 28, 33	58
Connecticut	1, 12, 4, 28, 77	66
Georgia	1, 12, 22, 3, 59	69
Minnesota	1, 12, PT-4245, 3, 11	54
Oregon	28, 1	33
Total	1, 12, 28, 3, 4, 11, 33	61

*Requires a minimum of 4 isolates

Syndrome	No. (%)
Cellulitis	164 (33.7)
Necrotizing fasciitis	38 (7.8)
Pneumonia	55 (11.3)
Primary Bacteremia	146 (30.0)
Streptococcal Toxic Shock	29 (6.0)

Note: Some cases had more than one syndrome.

Potentially preventable invasive group A streptococcal disease:

During 1997, 4 cases (age in years: 2, 5, 6, and 27) of invasive GAS disease were detected in patients with varicella.

National Projection of Invasive Disease:

Cases: 9,700 (3.6/100,000)

Deaths: 1,100 (0.4/100,000)

For more information, visit our web site at:

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