Active Bacterial Core Surveillance (ABCs) Report
Emerging Infections Program Network
Group A *Streptococcus,* 2017

ABCs Areas

California (3 county San Francisco Bay area); Colorado (5 county Denver area); Connecticut; Georgia (20 county Atlanta area); Maryland (6 county Baltimore area); Minnesota; New Mexico; New York (15 county Rochester and Albany areas); Oregon (3 county Portland area); Tennessee (20 urban counties).

ABCs Population

The surveillance areas represent 34,242,171 persons.
Source: National Center for Health Statistics bridged-race vintage 2017 postcensal file.

ABCs Case Definition

Invasive group A streptococcal disease: isolation of group A *Streptococcus* 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 2017.

ABCs Methodology

ABCs personnel routinely contacted 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. All group A *Streptoccocus* (GAS) isolates were subject to whole genome testing (WGS) to derive emm types and T types. A strategic subset was targeted for conventional MIC determination. Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

All rates of invasive group A streptococcal disease were calculated using population estimates for 2017 from the bridged-race vintage 2017 postcensal file. For national estimates of cases, race- and age-specific rates of disease were applied from the aggregate surveillance area to the age and racial distribution of the 2017 U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using sequential regression imputation methods.[¶]

Reported ABCs Profiles

Race	No.	(Rate*)
White	1,853	(7.3)
Black	397	(6.9)
Other	216	(6.6)

* Per 100,000 population for ABCs areas

Ethnicity	No.	(Rate*)
Hispanic	307	(6.4)
Non-Hispanic	1,745	------
Unknown	414	------

* Per 100,000 population for ABCs areas

[¶] Surveillance Note

Missing race (n=251) data were multiply imputed using sequential regression imputation methods.

Age (years)	Cases No.	Cases (Rate*)	Deaths No.	Deaths (Rate*)
< 1	23	(5.7)	1	(0.25)
1	11	(2.7)	1	(0.25)
2-4	40	(3.2)	0	(0.00)
5-17	89	(1.6)	1	(0.02)
18-34	396	(4.9)	10	(0.12)
35-49	516	(7.6)	26	(0.38)
50-64	640	(9.5)	51	(0.76)
65-74	348	(11.7)	41	(1.38)
75-84	254	(18.3)	40	(2.87)
≥ 85	149	(23.4)	30	(4.70)
Total	**2,466**	**(7.2)**	**201**	**(0.59)**

* Per 100,000 population for ABCs areas

ABCs Area	Most common *emm* types*	% of area isolates
California	49,1,82,60,12,89,43,77,92	71.3
Colorado	49,89,92,1,11,82,76	73.8
Connecticut	1,6,89,11,3,12,4,2,28	76.0
Georgia	1,3,89,28,6,4,12	67.1
Maryland	82,1,49,12,77	62.7
Minnesota	1,89,12,28,82,6,77	71.2
New Mexico	92,1,89,59,4,12,83	72.8
New York	3,1,89,28,11,75	75.4
Oregon	49,83,1,89	65.9
Tennessee	92,1,89,12,11,6,3,28,77	77.5
Total	1,89,49,92,12,82,3,28	62.4

*Requires ≥3 or more isolates and ≥ 5% of isolates typed

Syndrome	No.	(%)
Cellulitis	1,097	(44.5)
Necrotizing fasciitis	121	(4.9)
Pneumonia	310	(12.6)
Primary bacteremia	499	(20.2)
Streptococcal toxic shock syndrome	59	(2.4)

Note: Some cases had more than one syndrome.

Potentially preventable invasive group A streptococcal disease

During 2017, 2 cases of invasive GAS disease were detected in two female patients with varicella, age 63 and 88 years.

National Estimates of Invasive Disease

Cases: 23,650 (7.26/100,000)
Deaths: 1,980 (0.61/100,000)

Citation

Centers for Disease Control and Prevention. 2017. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A *Streptococcus*—2017. Available via the internet: http://www.cdc.gov/abcs/reports-findings/survreports/gas17.pdf