



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

Group A *Streptococcus*—2015



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 33,711,881 persons. Source: National Center for Health Statistics bridged-race vintage 2015 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 2015.

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. Strains were *emm* typed at CDC. 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 2015 from the bridged-race vintage 2015 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 2015 U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using sequential regression imputation methods.[†]

Reported ABCs Profiles

Race	No.	(Rate [*])
White	1201	(4.8)
Black	276	(5.0)
Other	144	(4.7)

* Per 100,000 population for ABCs areas

Ethnicity	No.	(Rate [*])
Hispanic	184	(4.0)
Non-Hispanic	1116	-----
Unknown	322	-----

* Per 100,000 population for ABCs areas

† Surveillance Note

Missing race (n=193) data were multiply imputed using sequential regression imputation methods.

Age (years)	Cases		Deaths	
	No.	(Rate [*])	No.	(Rate [*])
< 1	18	(4.4)	2	(0.49)
1	17	(4.2)	0	(0.00)
2-4	38	(3.1)	0	(0.00)
5-17	83	(1.5)	3	(0.05)
18-34	226	(2.8)	9	(0.11)
35-49	319	(4.7)	26	(0.39)
50-64	455	(6.8)	49	(0.73)
65-74	233	(8.5)	24	(0.88)
75-84	136	(10.4)	24	(1.83)
≥ 85	97	(15.6)	24	(3.85)
Total	1,622	(4.8)	161	(0.48)

* Per 100,000 population for ABCs areas

ABCs Area	Most common <i>emm</i> types [*]	% of area isolates
California	82, 1, 92, 89, 49, 12	68.0
Colorado	1, 82, 12, 89, 92, 28	76.6
Connecticut	1, 11, 89, 28, 12, 81	70.2
Georgia	1, 89, 12, 28	64.5
Maryland	1, 89, 3, 4, 75, 77, 28	72.9
Minnesota	1, 89, 12, 28, 4, 3, 77	75.5
New Mexico	59, 89, 1, 12	67.1
New York	1, 89, 12, 28	70.8
Oregon	1, 92, 89, 12, 83, 28, 82	67.0
Tennessee	1, 82, 77, 89, 28	71.7
Total	1, 89, 12, 82, 28	57.1

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

Syndrome	No.	(%)
Cellulitis	632	(39.0)
Necrotizing fasciitis	122	(7.5)
Pneumonia	228	(14.1)
Primary bacteremia	317	(19.6)
Streptococcal toxic shock syndrome	43	(2.7)

Note: Some cases had more than one syndrome.

Potentially preventable invasive group A streptococcal disease

During 2015, 4 cases (age range 25-68 years) of invasive GAS disease was detected in patients with varicella.

National Estimates of Invasive Disease

Cases: 15,540 (4.8/100,000)
Deaths: 1,570 (0.49/100,000)

Citation

Centers for Disease Control and Prevention. 2015. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A *Streptococcus*—2015.

Available via the internet: <http://www.cdc.gov/abcs/reports-findings/survreports/gas15.pdf>