Active Bacterial Core Surveillance (ABCs) Report
Emerging Infections Program Network
Group A *Streptococcus*—2014

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 33,395,186 persons. Source: National Center for Health Statistics bridged-race vintage 2014 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 2014.

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 2014 from the bridged-race vintage 2014 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 2014 U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using sequential regression imputation methods.[¶]

Reported ABCs Profiles

Race	No.	(Rate[*])
White	1178	(4.7)
Black	278	(5.1)
Other	149	(4.9)

[*] Per 100,000 population for ABCs areas

Ethnicity	No.	(Rate[*])
Hispanic	169	(3.7)
Non-Hispanic	1084	------
Unknown	352	------

[*] Per 100,000 population for ABCs areas

[¶] Surveillance Note

Missing race (n=188) data were multiply imputed using sequential regression imputation methods.

Age (years)	Cases No.	Cases (Rate[*])	Deaths No.	Deaths (Rate[*])
< 1	17	(4.2)	0	(0.00)
1	18	(4.4)	1	(0.25)
2-4	35	(2.8)	1	(0.08)
5-17	73	(1.3)	1	(0.02)
18-34	238	(3.0)	6	(0.08)
35-49	304	(4.5)	26	(0.39)
50-64	448	(6.8)	50	(0.75)
65-74	205	(7.9)	24	(0.92)
75-84	168	(13.1)	35	(2.72)
≥ 85	99	(16.2)	22	(3.60)
Total	1,605	(4.8)	166	(0.50)

[*] Per 100,000 population for ABCs areas

ABCs Area[*]	Most common *emm* types[†]	% of area isolates
California	92, 1, 89, 82, 87	68.4
Colorado	1, 28, 4, 12, 76, 92	69.4
Georgia	1, 89, 12, 4, 3	69.9
Maryland	1, 89, 28, 12, 3, 11, 4, 77	72.0
Minnesota	1, 4, 89, 28, 12	69.3
New Mexico	59, 1, 12, 89, 82, 118	69.0
New York	89, 1, 12, 28, 4, 77	88.8
Oregon	1, 59, 76, 89, 92, 12, 81	73.4
Tennessee	1, 89, 12, 77, 4, 28	72.7
Total	1, 89, 12, 4, 28, 92	62.9

[*]Connecticut contributed cases but no isolates.

[†]Requires ≥3 or more isolates and ≥ 5% of isolates typed

Syndrome	No.	(%)
Cellulitis	701	(43.7)
Necrotizing fasciitis	123	(7.7)
Pneumonia	231	(14.4)
Primary bacteremia	312	(19.4)
Streptococcal toxic shock	41	(2.6)

Note: Some cases had more than one syndrome.

Potentially preventable invasive group A streptococcal disease

During 2014, 1 case (aged 71 years) of invasive GAS disease was detected in patients with varicella. A second case (aged 4 months) was detected in a patient with varicella but who was too young to receive varicella vaccine.

National Estimates of Invasive Disease

Cases: 15,360 (4.8/100,000)
Deaths: 1,640 (0.51/100,000)

Citation

Centers for Disease Control and Prevention. 2014. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A *Streptococcus*—2014.
Available via the internet: http://www.cdc.gov/abcs/reports-findings/survreports/gas14.pdf