



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

Group A *Streptococcus*, 2013



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 33,066,756 persons.
Source: National Center for Health Statistics bridged-race vintage 2013 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 2013.

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 2013 from the bridged-race vintage 2013 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 2013 U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using sequential regression imputation methods.[†]

Reported ABCs Profiles

| Race | No. | (Rate [*]) |
|-------|-----|----------------------|
| White | 911 | (3.7) |
| Black | 187 | (3.5) |
| Other | 109 | (3.8) |

* Cases per 100,000 population for ABCs areas

| Ethnicity | No. | (Rate [*]) |
|--------------|-----|----------------------|
| Hispanic | 126 | (2.9) |
| Non-Hispanic | 763 | ----- |
| Unknown | 318 | ----- |

* Cases per 100,000 population for ABCs areas

† Surveillance Note

Missing race (n=149) data were multiply imputed using sequential regression imputation methods.

| Age (years) | Cases | | Deaths | |
|-------------|-------|----------------------|--------|----------------------|
| | No. | (Rate [*]) | No. | (Rate [*]) |
| < 1 | 12 | (3.0) | 0 | (0.00) |
| 1 | 12 | (2.9) | 0 | (0.00) |
| 2-4 | 26 | (2.1) | 0 | (0.00) |
| 5-17 | 58 | (1.0) | 0 | (0.00) |
| 18-34 | 152 | (1.9) | 7 | (0.09) |
| 35-49 | 211 | (3.1) | 16 | (0.24) |
| 50-64 | 333 | (5.1) | 30 | (0.46) |
| 65-74 | 195 | (7.9) | 27 | (1.09) |
| 75-84 | 133 | (10.6) | 22 | (1.75) |
| ≥ 85 | 75 | (12.5) | 18 | (3.00) |
| Total | 1,207 | (3.7) | 120 | (0.36) |

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

| ABCs Area [*] | Most common <i>emm</i> types [†] | % of area isolates |
|------------------------|---|--------------------|
| California | 92, 82, 12, 89, 1, 77 | 68.0 |
| Colorado | 1, 89, 12, 28, 77, 118, 75 | 68.4 |
| Georgia | 89, 1, 12, 28, 11, 3, 77 | 70.6 |
| Maryland | 1, 89, 28, 4, 87, 12, 77 | 76.3 |
| Minnesota | 1, 59, 89, 4, 28, 12 | 74.6 |
| New Mexico | 1, 82, 89, 12, 59, 2, 28, 118, 87 | 85.1 |
| New York | 89, 1, 12, 28, 4, 11, 118, 77 | 83.3 |
| Oregon | 89, 28, 92, 59, 1, 2, 12 | 73.7 |
| Tennessee | 89, 1, 12, 28, 77 | 68.8 |
| Total | 1, 89, 28, 12, 4, 77 | 60.0 |

* Connecticut contributed cases but no isolates.

† Minimum of ≥3 isolates and ≥ 5% of isolates typed

| Syndrome | No. | (%) |
|---------------------------|-----|--------|
| Cellulitis | 508 | (42.1) |
| Necrotizing fasciitis | 88 | (7.3) |
| Pneumonia | 166 | (13.8) |
| Primary bacteremia | 237 | (19.7) |
| Streptococcal toxic shock | 26 | (2.2) |

Note: Some cases had more than one syndrome.

Potentially preventable invasive group A streptococcal disease

During 2013, 1 case (aged 54 years) of invasive GAS disease was detected in patients with varicella.

National Estimates of Invasive Disease

Cases: 11,600 (3.7/100,000)

Deaths: 1,175 (0.37/100,000)

Citation

Centers for Disease Control and Prevention. 2013. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A *Streptococcus*, 2013.

Available via the internet: <http://www.cdc.gov/abcs/reports-findings/survreports/gas13.pdf>