



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

Methicillin-Resistant *Staphylococcus aureus*, 2006



ABCs Areas

California (3 county San Francisco Bay area); Colorado (1 Denver area county); Connecticut; Georgia (8 county Atlanta area); Maryland (Metro Baltimore area); Minnesota (1 metro Twin Cities county); New York (1 Rochester county); Oregon (3 county Portland area); Tennessee (1 Nashville county). Note the population under surveillance changed from 2005.

ABCs Population

The surveillance areas represent 14,954,451 persons
Source: National Center for Health Statistics bridged-race vintage 2006 postcensal file

ABCs Case Definition

Invasive methicillin-resistant *Staphylococcus aureus* (MRSA) disease: isolation of MRSA from a normally sterile site in a resident of the surveillance area in 2006. Cases of disease are classified into one of three epidemiologic classifications. A case is classified as hospital-onset (HO) if the MRSA infection was identified more than 48 hours after hospital admission; as healthcare-associated community-onset (HACO) if the MRSA infection was identified less than 48 hours after admission and had one of more of the following: 1) previous positive MRSA culture, 2) a history of hospitalization, surgery, dialysis or residence in a long term care facility in the previous year, or 3) the presence of an indwelling catheter or current percutaneous medical device. If none of the previously mentioned criteria are met, a case is classified as community-associated (CA).

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. Selected isolates were collected and sent to CDC for routine testing including; antimicrobial susceptibility testing, pulsed field gel electrophoresis (PFGE), toxin testing and *SCCmec* typing. Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

Rates of invasive MRSA disease were calculated using population estimates for 2006. 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 2006 U.S. population. Cases with unknown race were distributed by site based on reported race distribution for known cases.

For more information, visit our web site:

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

Reported ABCs Profiles

Race	No. (Rate*)
White	3131 (29.8)
Black	2132 (70.7)
Other	200 (13.9)

Unknown race (n=525) distributed amongst known

*Cases per 100,000 population for ABCs areas

MRSA Class	No. (Rate*) Cases^	No. (Rate*) Deaths~	PFGE Type (N,%)	
			USA100	USA300
HO	1409 (9.4)	366 (2.5)	105 (56.8)	45 (24.3)
HACO	3244 (21.7)	489 (3.3)	300 (55.6)	157 (29.1)
CA	748 (5.0)	74 (0.5)	28 (18.5)	103 (68.2)

*Cases per 100,000 population for ABCs areas

^n=83 ~n=11; could not be classified after chart review

PFGE Type (%)	% PVL Pos.	Clinda-R^T/S-R~	Levo-R*
USA100 (49.2)	0.6	97.5	0.6
USA300 (34.7)	94.2	8.1	0.7
USA500 (2.3)	3.9	53.9	92.7
USA800 (1.3)	0	21.4	7.1
IBERIAN (1.7)	5	61.9	61.9
OTHER (4.3)	20	28.6	0

n=1012 for PFGE Type, n=752 for all other

^% Clindamycin resistant; ~% Trimethoprim-sulfamethoxazole resistant;

* % Levofloxacin resistant

Syndrome	CA (n=748)	HACO (n=3244)	HO (n=1409)
Bloodstream Infection			
with other syndrome	521	2569	1077
with no other syndrome	169	1340	727
Pneumonia	102	289	180
Osteomyelitis	74	245	82
Endocarditis	71	167	39
Cellulitis	176	284	59
Skin abscess*	37	73	14

Note: Some cases had more than one syndrome.

*Category includes skin abscess, necrotizing fasciitis, gangrene, wounds

National Estimates of Invasive Disease

Cases: 104,228 (34.83/100,000)

Deaths: 18,964 (6.33/100,000)

Citation

Centers for Disease Control and Prevention. 2006. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Methicillin-Resistant *Staphylococcus aureus*, 2006.

Available via the Internet:

<http://www.cdc.gov/ncidod/dbmd/abcs/survreports/mrsa06.pdf>