

Arctic Investigations Program (AIP) Alaska Invasive Bacterial Disease Surveillance Report Group A *Streptococcus* – 2015

Background

AIP has conducted statewide surveillance of invasive group A *Streptococcus* (GAS) since 2000. Beginning in January 2007, invasive GAS became a reportable condition to the State of Alaska Division of Public Health (DPH). Reports of cases of disease caused by this organism are shared between AIP and DPH.

Population

The population of the State of Alaska in 2015 was 737,625; 144,274 (19%) were Alaska Native people. Source: AK Dept. of Labor & Workforce Development population estimates.

Case Definition

An isolate of GAS from a normally sterile site that has been taken from a resident of Alaska. Cases are also included when GAS has been isolated from a wound culture and accompanied by necrotizing fasciitis or streptococcal toxic shock syndrome.

Methods

Participating laboratories send isolates recovered from sterile sites to the AIP laboratory in Anchorage; materials and forms for isolate shipment and data collection are provided to each laboratory by AIP. Demographic and clinical information on the cases are collected from a review of medical records. Annually, AIP asks that each laboratory review their records and provide information on any cases that may have been overlooked.

Invasive Group A *Streptococcus* Cases by Race – Alaska, 2015

Race	Cases n (%)	Age Adjusted Rate*	% Male	Deaths n (%)
Alaska Native	37 (41)	28	54%	3 (8)
Non-Native†	54 (59)†	8.5	63%	7 (13)
Total	91		59%	10 (11)

*Cases per 100,000 per percent distribution of Alaska 2010 population

†Includes 5 cases for which race was unknown

Invasive Group A *Streptococcus*, Cases & Rates by Age Group & Race – Alaska, 2015

Age (years)	Alaska Native		Non-Native	
	No. Cases	Rate*	No. Cases	Rate*
<2	3	53.9	3	19.2
2-4	1	10.9	0	0
5-18	2	5.2	4	3.8
19-54	16	24	12	7.7
55-64	8	58.5	13	15.3
65+	7	67.1	11	17.1
Total	37	25.7	54	9.1

*Cases per 100,000 population

Invasive Group A *Streptococcus*, Clinical Presentations – Alaska, 2015

	No.	%*
Cellulitis	32	35
Bacteremia	18	20
Pneumonia with bacteremia	9	10
Necrotizing fasciitis	8	9
Osteomyelitis	7	8
Septic arthritis	6	7
Empyema	4	4
Strep toxic shock syndrome	3	3
Other	4	4

*Percent of cases

Invasive Group A *Streptococcus emm* types – Alaska, 2015

<i>emm</i> type	No.	%*
91	23	25
11	12	13
1	8	9
4	4	4
28	4	4
89	3	3
108	3	3
6	2	2
12	2	2
49	2	2
75	2	2
87	2	2
Other†	1	2
Unknown	2	4

*Percent of cases

†Includes one case each of *emm* types 22, 34, 53, 81, 95, 101, 111, 113