



Infectious Disease Epidemiology Report



Invasive Group A Streptococcal disease, 2006 – provisional*

Background

The Infectious Disease Epidemiology program of the Maine Center for Disease Control and Prevention monitors the incidence of invasive Group A Streptococcal (GAS) disease through mandatory reporting by health care providers, clinical laboratories and other public health partners. This report summarizes surveillance data on cases of invasive GAS from 2006.

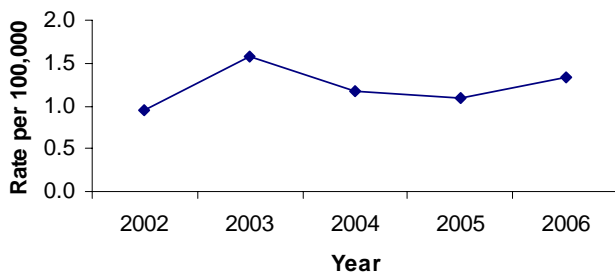
Methods

Invasive GAS was defined as isolation of Group A *Streptococcus* (*Streptococcus pyogenes*) by culture from a normally sterile site (e.g., blood or cerebrospinal fluid [CSF] or, less commonly, joint, pleural, or pericardial fluid). Standardized case report forms were completed for each reported case in 2005. Rates were calculated using U.S. Bureau of Census Maine population counts for 2000.

Results

A total of 17 cases of invasive GAS were reported in 2006. The rate of GAS in Maine was 1.3 cases per 100,000 population in 2006 (Figure 1).

Figure 1: Rate of invasive GAS by year - Maine 2002-06



The majority of cases were found among females (58.8%) and persons of white racial background (94.1%). Three deaths were associated with invasive GAS in 2006. Invasive GAS infections were found primarily among older adults (Table 1).

Table 1: Invasive GAS by age – Maine, 2006

Age	Cases		Deaths	
	No.	Rate*	No.	Rate*
<1	0	0.0	0	0.0
1	0	0.0	0	0.0
2-4	0	0.0	0	0
5-17	2	0.9	0	0.0
18-34	0	0.0	0	0
35-49	5	0	2	0.6
50-64	1	0.5	0	0.0
≥65	9	4.9	1	0.5
Total	17	1.3	3	0.2

* Cases per 100,000 population

Cases of invasive GAS were most commonly diagnosed with a primary bacteremia (Table 2). One case was diagnosed with Toxic Shock Syndrome.

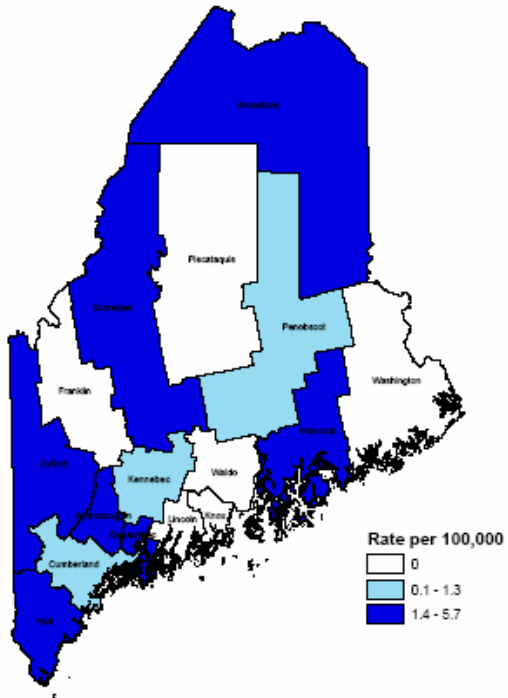
Table 2: Invasive GAS by syndrome* – Maine, 2006

Syndrome	No.	(%)
Cellulitis	3	17.6
Pharyngitis	1	5.9
Pneumonia	3	17.6
Primary bacteremia	11	64.7
Toxic Shock Syndrome	1	5.9
Other	2	11.8

* Some cases had more than one syndrome

Invasive GAS was identified among residents of ten Maine counties in 2006: Androscoggin, Aroostook, Cumberland, Hancock, Kennebec, Oxford, Penobscot, Sagadahoc, Somerset, and, and York (Figure 2).

Figure 2: Invasive GAS by county – Maine, 2006



Discussion

Seventeen cases of invasive GAS disease were reported in Maine in 2006. The majority of these infections occurred among adults 35 years and older. GAS is spread through person to person contact with infectious secretions, including saliva.

The elderly, immunocompromised persons, and persons with chronic cardiac or respiratory disease, diabetes, skin lesions (i.e. children with varicella [chicken pox], intravenous drug users) are at highest risk of invasive GAS disease. Promoting personal hygiene, including hand washing and respiratory etiquette, may help prevent infection.