

Streptococcal Disease, Group A (GAS), Invasive or Toxic Shock Syndrome

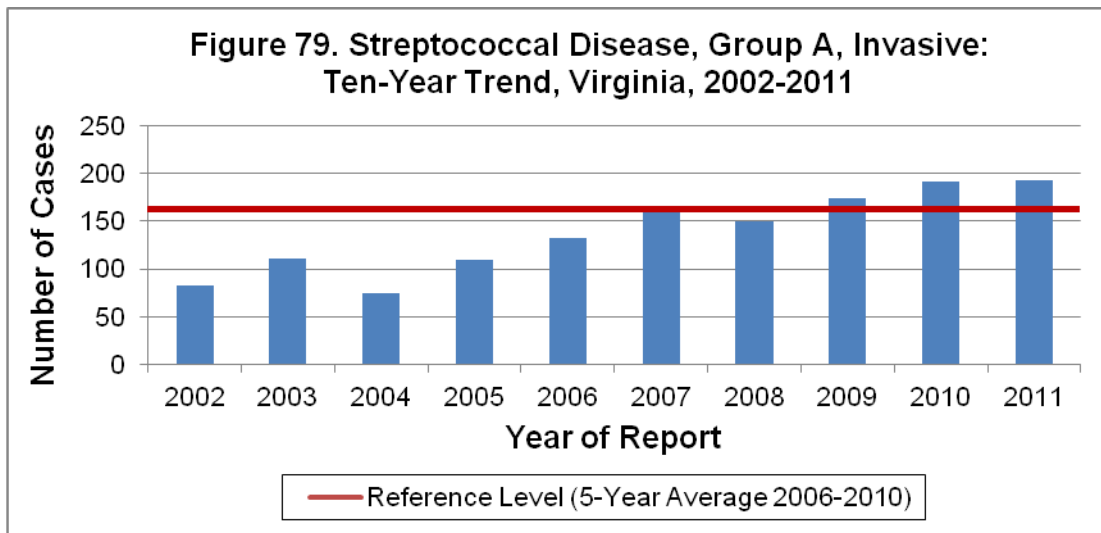
Agent: *Streptococcus pyogenes* (bacteria)

Mode of Transmission: Person-to-person transmission through direct contact with mucus from the nose, throat or other body fluids of persons who are infected with GAS, or through contact with infected wounds or sores.

Signs/Symptoms: These bacteria can cause common infections, such as strep throat and skin infections. Rarely, they can lead to severe invasive infections of the blood or other internal body fluids if they enter a normally sterile site. These infections often require hospitalization.

Prevention: Preventive measures include prompt identification and treatment of non-invasive cases and temporary exclusion of infected healthcare employees from work for the first 24 hours of antibiotic therapy. Wounds should be kept clean and medical care should be sought at the first signs of infection.

Other Important Information: Persons at higher risk for developing invasive GAS infections are older persons, immunocompromised persons, and those with chronic, underlying conditions. The two most severe, but least common, forms of invasive GAS infections are necrotizing fasciitis (NF) and streptococcal toxic shock syndrome (STSS). NF infections present with severe pain and rapid destruction of tissue. STSS infections are characterized by shock and rapid organ failure.



During 2011, 192 cases of invasive GAS infection were reported in Virginia. This is very similar to the 191 cases reported in 2010, and is a 19% increase from the five-year average of 161.8 cases per year (Figure 79).

The highest number and incidence rate of invasive GAS infections occurred in the 60 year and older age group (91 cases, 6.4 per 100,000). This was followed by the <1 year age group with five cases and an incidence rate of 5.0 cases per 100,000. The other age groups had rates between 0.7 and 3.1 per 100,000. Race information was missing for 26% of reported cases. Among cases for which race was reported, the rate in the black population (2.2 per 100,000) was higher than the rates in both the white and “other” race populations (1.8 and 0.7 per 100,000, respectively). Incidence rates were similar in males and in females (2.4 and 2.3 per 100,000, respectively).

Geographically, rates were highest in the northwest and eastern regions (3.2 and 2.9 per 100,000, respectively) and lowest in the southwest and central regions (1.5 and 1.9 per 100,000, respectively).

While cases occurred throughout the year, a seasonal trend was observed with 47% of cases occurring during the first quarter (Figure 80). This general pattern is also typically seen with “strep throat”, a non-invasive GAS infection. Among cases reported in 2011, 15 deaths were attributed to invasive GAS infection. Nine (60%) of the deaths occurred in those aged 60 years and older, and two (13%) occurred in infants <1 year of age. Of the 192 cases reported in 2011, seven developed into streptococcal toxic shock syndrome, and three of these resulted in fatalities. No outbreaks attributed to invasive GAS infection occurred in 2011.

