

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

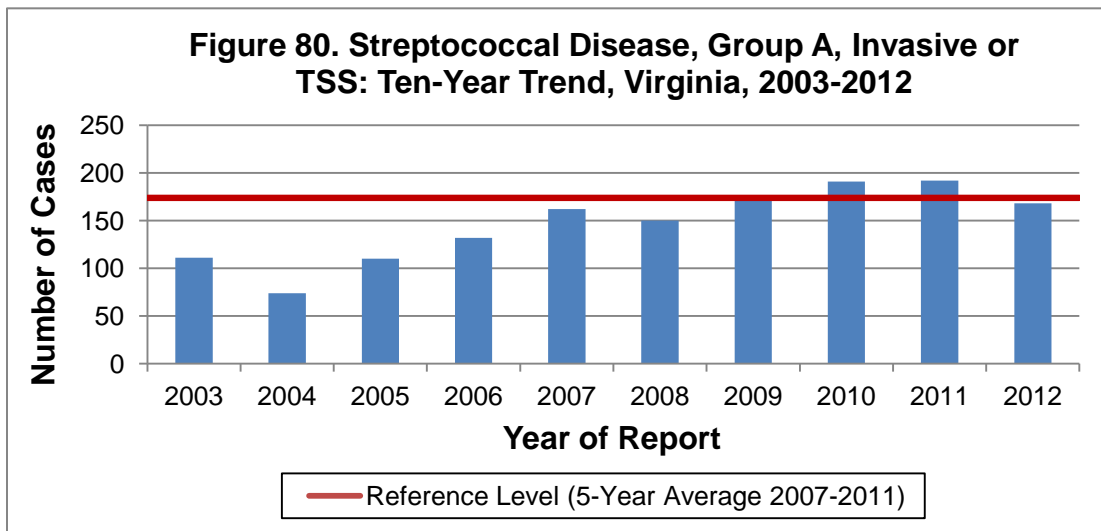
Agent: *Streptococcus pyogenes* (bacteria)

Mode of Transmission: Person-to-person transmission through respiratory droplets, direct contact with objects contaminated with the body fluids of infected persons, or contact with infected wounds or sores.

Signs/Symptoms: People may carry group A streptococci in the throat or on the skin and have no symptoms of illness. Most GAS infections are relatively mild, such as “strep throat” or impetigo (a skin infection). Rarely, they can lead to severe invasive infections of the blood or other internal body fluids if they enter a normally sterile site. Invasive infections often require hospitalization.

Prevention: Preventive measures include prompt identification and treatment of non-invasive cases and temporary exclusion of infected healthcare employees/others from work and other group settings 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 include 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 (TSS). NF infections present with severe pain and rapid destruction of tissue. Streptococcal TSS infections are characterized by shock and rapid organ failure.



During 2012, 168 cases of invasive GAS infection were reported in Virginia. This is a 13% decrease from the 192 cases reported in 2011 and similar to the five-year average of 173.8 cases per year (Figure 80).

The highest number and incidence rate of invasive GAS infections occurred in the 60 year and older age group (80 cases, 5.4 per 100,000). This was followed by the less than one year age group, with an incidence rate of 4.9 cases per 100,000. The other age groups had rates between 0.3 and 3.4 per 100,000. Race information was missing for 31% of reported cases. Among cases for which race was reported, the incidence rate was higher in the white

population (1.6 per 100,000) than in the black or “other” populations (1.1 and 0.4 per 100,000, respectively). Incidence was higher among males than among females (2.3 and 1.7 per 100,000, respectively). Geographically, rates were highest in the northwest and central regions (both 3.1 per 100,000), while rates in the remaining regions ranged from 1.4 to 1.7 per 100,000.

While cases occurred throughout the year, a seasonal trend was observed with 57% of cases occurring during the months of January through April, including a peak of 31 cases in March (Figure 81). This general late-winter pattern is also typically seen with “strep throat”, a non-invasive GAS infection. Among the 168 cases reported in 2012, there were 16 deaths attributed to invasive GAS infection. Two of the deaths were due to streptococcal toxic shock syndrome and 11 occurred in those aged 60 years and older. Five outbreaks were attributed to invasive GAS infection in 2012; four occurred in healthcare facilities and one was in an assisted living facility.

