

Streptococcal Disease, Group A (GAS), Invasive

Agent: *Streptococcus pyogenes* (bacteria)

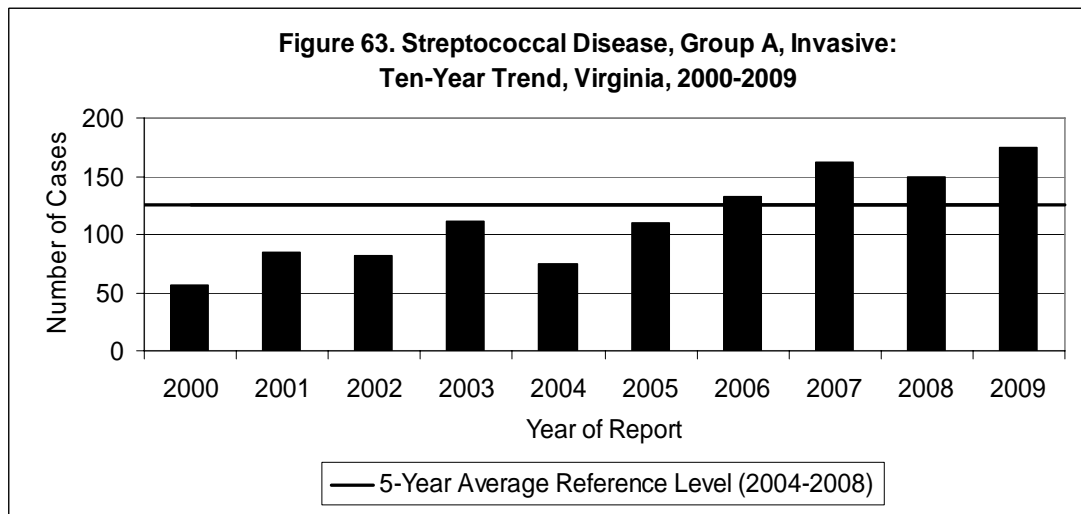
Mode of Transmission: Person-to-person transmission through direct contact with mucus from the nose, throat or other body fluids of persons who are infected with GAS, or through contact with infected wounds or sores.

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. 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 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 illnesses. 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 2009, 174 cases of invasive GAS infections were reported in Virginia. This is a 16% increase from the 150 cases reported in 2008, and a 39% increase above the five-year average of 125.6 cases per year (Figure 63).



The highest incidence of invasive GAS infections occurred in the 60 year and older age group (69 cases, 5.2 per 100,000). This was followed by the 50-59 year age group (32 cases, 3.1 per 100,000). The other age groups had rates between 0.6 and 2.0 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 (2.3 per 100,000) was more than twice the rate in the white population (1.6 per 100,000), and was almost six times the rate in the “other” population. Females had slightly higher incidence than males (2.4 and 2.0 per 100,000, respectively). By region, the northwest region had the highest rate (3.2 per 100,000), while the other regions in the state had rates ranging from 1.2 to 2.7 per 100,000. A seasonal trend was noted with 37% of cases

occurring during the first quarter of the year and peaking in March (Figure 64). This trend is also typically seen with “strep throat” infections and highlights the importance of transmission of GAS by these persons. Among cases reported in 2009, fourteen deaths were attributed to invasive GAS infection. Nine (64%) of the deaths occurred in those aged 60 years and older, and nine (64%) were in males. In 2009, one case of STSS was reported.

