



## HOMES AND SENIORS SERVICES

**POLICY & PROCEDURE NUMBER: 4.31**

**DEPARTMENT:** *Infection Control*

**SUBJECT:** *Management of Group A Streptococcus*

**APPROVAL DATE:** April 2004

**REVISION DATE:** March 2016

**REVIEW DATE:** March 2017; November 2018

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### **MANAGEMENT OF GROUP A *STREPTOCOCCUS***

Group A *Streptococcus* (GAS) is the most common cause of bacterial pharyngitis (strep throat) and a frequent cause of cutaneous infections (e.g. impetigo, cellulitis, pyoderma). GAS can also cause scarlet fever, rheumatic fever, glomerulonephritis and can also cause invasive infections such as necrotizing fasciitis and toxic shock syndrome.

Very few people who come in contact with a virulent strain of GAS will develop invasive GAS disease; some may develop sore throat or localized skin infections, and most remain asymptomatic. Factors that increase the risk of disease include the elderly and those with chronic illnesses such as HIV, cancer, diabetes, and kidney disease requiring dialysis, and those on steroid medications. In addition, breaks in the skin such as cuts, wounds or chickenpox may provide an opportunity for the bacteria to enter.

GAS is found only in humans. It is transmitted by large respiratory droplets of the oral or nasal mucous membranes with infectious respiratory secretions and/or direct contact with wounds or skin lesions on residents or carriers. The incubation period for GAS is relatively short, between one and three days.. Individuals with GAS may carry the bacteria for weeks unless they are treated. Prompt identification and treatment of individuals infected with GAS is important in limiting the spread in the long-term care setting. Once adequate treatment has been started, they usually cannot transmit the bacteria when they have received 24 hours of therapy.

Outbreaks of invasive GAS have been documented in long-term care facilities in Canada and the United States. The presence of an untreated GAS carrier in the long-term care setting can lead to infections in other residents. Outbreaks have proven difficult to control and have had significant morbidity attached to them.



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Any case of invasive GAS<sup>1</sup> in a LTCH must be investigated to reduce the risk of subsequent infections in residents in the facility.

### PROCEDURE

As soon as the Manager of Resident Care/designate is aware of the existence of a case of invasive GAS the following steps must be taken:

- Laboratory reports should be reviewed for any cases of recent infection (e.g. pharyngitis, pneumonia, cellulitis, and conjunctivitis) and GAS positive cultures investigated to determine the source of acquisition. (Recent infection should include any infections in the 4-6 weeks.)
- Initiate droplet/contact precautions
- Post signage
- Guidelines from the Ontario Ministry of Health state that an excess rate is identified as >1 case per 100 residents or at least 2 cases in one month in facilities with less than 200 residents.

A low percentage of the population (<10%) may be asymptomatic carriers of GAS.

### DEFINITION OF CASES:

**Sporadic case** - A single case of invasive GAS disease where there is no evidence of an epidemiological link (by person, place or time) to another case.

**Index case** - The first case identified.

**Subsequent case** - A case with onset of illness occurring within 21 days and caused by the same strain as another case (including sporadic or index cases) and with whom an epidemiological link can be established.

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**Severe case** - Case of STSS, soft-tissue necrosis, meningitis, GAS pneumonia, other life-threatening conditions or a confirmed case resulting in death.

**OUTBREAK  
DEFINITION:**

A GAS outbreak is defined as an increase in transmission of GAS causing invasive disease in the facility. An outbreak would be considered if either of the following criteria is met:

- One case of culture confirmed invasive GAS infection combined with 1 or more suspect invasive or non-invasive case(s) on the same resident unit in a one month period; or
- >2 cases of suggested invasive or non-invasive GAS infections on the same resident unit in a one month period.

**MANAGEMENT  
OF INVASIVE  
GAS DISEASE:**

When a probable or confirmed case of invasive GAS disease occurs the following will occur:

The Registered Staff will:

1. Ensure the responsible physician is aware.
2. Ensure the resident receives prompt medical attention.
3. Notify the Manager of Resident Care or designate.
4. Place an Isolation Station with a “Droplet/Contact Precaution” isolation sign on the resident’s door.
5. Initiate added droplet/contact precautions in addition to Routine Practices for all direct health care providers when caring for the resident with known or suspected invasive GAS disease until 24 hours of effective antibiotic therapy is completed. This includes the use of the following personal protective equipment: gloves for all direct hands on care, surgical/procedure mask and eye protection or face shield when contamination of the mucous membranes is likely (i.e. wound irrigation) and gowns if soiling of clothing likely; along with ensuring consistent adherence to hand hygiene practice.



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The Manager of Resident Care or designate will:

1. Ensure Routine Practices with added droplet/contact precautions have been implemented.
2. Report the case to the St. Thomas Elgin Public Health.
3. Conduct a retrospective review of the entire facility (chart review, laboratory report review, verbal report from unit registered staff, staff illness reports etc.) for the previous 4-6 weeks to identify any culture confirmed cases of GAS disease and any suggested cases of non-invasive or invasive GAS infection, including skin and soft tissue infections (e.g. pharyngitis and cellulitis) and excluding pneumonia and conjunctivitis not confirmed by culture.
4. Assess the potential for a source of infection from outside the facility (e.g. regular visits from children who have recently been ill, etc.).

If no excess is identified, especially if there is evidence of an outside source of infection for the index case, then active surveillance alone for 2-4 weeks to establish the absence of additional cases is warranted.

If an excess of GAS infection is identified as above and an outbreak of GAS is suspected a meeting of the Infection Control Committee should be arranged. The following actions should be considered:

1. Screen all residents within the same care unit as the infected case and an additional 25% of residents throughout the facility. In choosing the additional residents, start with residents who may have some contact with the infected resident (i.e. through events or activities).
2. Screen all staff that provides resident care on the affected resident's unit for GAS with throat and, if indicated, skin lesion cultures.
3. Any staff that is suspected of being symptomatic should be



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- screened. These staff should also be evaluated by their physician and if treatment is indicated for a GAS infection should be excluded from work until they have completed 24 hours of antibiotic therapy.
4. Consider screening all affected Elgin County Home-wide resident care staff.
  5. Non-resident care staff should be asked about possible recent GAS infections. Those with a positive history should be screened for GAS, and those who are positive should be evaluated and treated with antibiotics as per the recommended regimen.
  6. All GAS positive residents and staff should be re-screened, including throat and skin lesions 14 days after chemoprophylaxis has been started; this should be followed by screening at two (2) weeks and at four (4) weeks after the first re-screening. If the person is found to be positive, a second course of chemoprophylaxis should be offered. If colonized after the second course, discontinue chemoprophylaxis unless the facility has an ongoing problem with GAS infection.
  7. Anyone colonized with GAS should receive chemoprophylaxis.
  8. It is recommended that treatment and prophylaxis medication be based on current recommended guidelines.
  9. The ICP will work with Public health to ensure that all GAS isolates undergo further typing.
  10. Active surveillance for GAS infection should be initiated and continued for 1-2 months.
  11. Appropriate specimens should be taken for culture to rule out GAS when suspected infections are detected by active surveillance.



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