Winnipeg Regional Health Authority
Caring for Health
Office régional de la santé de Winnipeg
À l'écoute de notre santé

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Dear Primary Care Provider:

Severe Invasive Group A Streptococcal (iGAS) Disease

The Winnipeg Regional Health Authority Communicable Disease Unit has been tracking an increasing number of cases of severe iGAS disease including necrotizing fasciitis (NF), necrotizing myositis (NM) and streptococcal toxic shock syndrome (STSS) dating back to December 2007. A total of 15 cases have been documented when only 3-4 were expected. Most of the cases have occurred in the Downtown/Point Douglas area among First Nations or homeless persons, with no evidence of any direct links or secondary transmission between cases. Cases have also been associated with heavy alcohol use and preceding injuries including burns. Thunder Bay has recently reported a large outbreak of iGAS (75 cases, 10 deaths) in a similar population (First Nations, homeless, injection drug users).

CLINICAL

- Any patient with the following signs and symptoms, with or without fever, should be suspected of having a Group A streptococcal (GAS) infection:
    - pharyngitis, scarlet fever, cellulitis, erysipelas, inflamed joints, bursitis, impetigo, abscess
- Severe iGAS infection is defined as isolation of GAS bacteria AND STSS or soft-tissue necrosis (including NF, NM, or gangrene):
    - STSS: hypotension PLUS 2 or more of: renal impairment; coagulopathy; liver function abnormality; ARDS; or generalized erythematous macular rash that may desquamate.
    - NF: a deep-seated subcutaneous tissue infection resulting in rapid destruction of fascia and fat, but may spare the skin; initial subtle but painful erythema with subsequent rapid spread.
    - NM: essentially same presentation as NF, with deep tissue involvement including muscle.
- Risk factors for severe iGAS include injection drug use, homelessness, alcohol abuse, chronic underlying medical conditions, varicella in the past month, recent or recurrent non-invasive GAS disease such as strep throats or skin infections.
- Any patient with signs and symptoms of severe iGAS should be referred immediately to an emergency physician, as STSS, NF, and NM are all medical and/or surgical emergencies requiring prompt assessment from infectious diseases and/or surgical specialists.

TESTING

- Any patient suspected of having a GAS infection should have appropriate specimens (throat swab, wound swab, blood cultures, tissue biopsy, synovial fluid, CSF, etc) sent for culture and sensitivities (indicate “suspect GAS” or “suspect severe iGAS” on requisition).

TREATMENT

- At this time of increasing incidence of GAS infection in the community, any patient suspected of having a GAS infection should be prescribed appropriate antibiotics such as penicillin or first generation cephalosporins. Antibiotics may be subsequently discontinued or changed if microbiology results indicate another diagnosis.
- The Manitoba Health and Healthy Living *Invasive Group A Streptococcal Disease: Information Sheet for Physicians* (www.gov.mb.ca/health/publichealth/cdc/fs/nts.pdf) can assist with case management of severe iGAS infections. Advice should be sought from surgical/infectious disease specialists and infection control practitioners.

REPORTING

- Any patient with a clinical presentation consistent with severe iGAS infection as defined above should be reported to the Medical Officer of Health at 926-8083 (or 788-8666 after hours and weekends).