

Invasive Group A Streptococcus (GAS)



Cause



- caused by a bacterium commonly found on the skin and in the throat
- transmitted by direct, indirect or droplet contact with secretions from the nose, and throat of infected person or by contact with wound secretions or skin lesions of infected person

****Note: Staff should consider themselves exposed to Invasive GAS only if they have had direct contact on their non-intact skin or mucous membranes with secretions from wounds, nasal and oral cavities of a patient with Invasive GAS (e.g. mouth-to-mouth resuscitation, intubation without mask and eye protection, contact with wound drainage, etc)**

If fluid from the nose, mouth, or wound of infected person did not contact your mucous membranes or non-intact skin, you have not been exposed and do not require prophylactic antibiotics.

Symptoms



- can be present in the throat or on the skin and cause no symptoms, but can possibly cause disease that ranges from mild to severe (e.g strep throat or impetigo ranging to necrotizing fasciitis or toxic shock syndrome)
- most people who come into contact with GAS will remain asymptomatic

Treatment



- concern about transmission generally ends after 24 hours of treatment with appropriate antibiotics
- prophylaxis is not indicated for most HCW's who have been in contact with an infected person



Invasive Group A Streptococcus (GAS)

Public Health recommendations for Chemoprophylaxis

(from the NS Communicable
Disease Control Manual)

These should be administered as soon as possible and preferably within 24 hours of case identification, but can be taken for up to 7 days after last contact with an infectious person.

Drug	Dosage	Comments
First generation cephalosporins: Cephalexin, cephadroxil, cephradine	First Line: Children & adults: 25-50 mg/kg/day, to a maximum of 1 g/day, in 2-4 divided doses x 10 days	Recommended drug for pregnant and lactating women. Should be used with caution in patients with allergy to penicillin. Use of cephalosporins with nephrotoxic drugs (e.g. aminoglycosides, vancomycin) may increase risk of cephalosporin-induced nephrotoxicity).
Erythromycin	Second Line: Children: 5-7.5 mg/kg every 6 hours or 10-15 mg/kg every 12 hours (base) x 10 days (not to exceed maximum adult dose) Adults: 500 mg every 12 hours (base) x 10 days	Erythromycin estolate is contraindicated in persons with pre-existing liver disease or dysfunction and during pregnancy. Sensitivity testing is recommended in areas where macrolide resistance in unknown or known to be $\geq 10\%$.



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Drug	Dosage	Comments
Clarithromycin	Second Line: Children: 15 mg/kg/day in divided doses every 12 hours to a maximum of 250 mg PO BID x 10 days Adults: 250 mg PO BID x 10 days	Contraindicated in pregnancy. Sensitivity testing is recommended in areas where macrolide resistance in unknown or known to be $\geq 10\%$.
Clindamycin	Second Line: Children: 8-16 mg/kg/day divided into 3 or 4 equal doses x 10 days (not to exceed maximum adult dose Adults: 150 mg every 6 hours x 10 days	Alternative for persons who are unable to tolerate beta-lactam antibiotics.

Work Restrictions



- **If diagnosed with clinically significant GAS infection**, staff must remain out of the workplace until completion of 24 hours of effective antibiotic therapy. **Contact Occupational Health.**
- **If exposed to GAS**** (including family members), there are no work restrictions or modification of work practices.

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If fluid from the nose, mouth, or wound of infected person did not contact your mucous membranes or non-intact skin, you have not been exposed and do not require prophylactic antibiotics.

Prevention



- consistent use of routine practices & adherence to Infection Control guidelines
- always wear proper PPE, including gloves, mask and eye/face protection, when contamination with respiratory droplets is possible or HCW skin may contact patients wound
- good hand hygiene practices, especially after coughing or sneezing, and before and after preparing or eating foods
- checking all wounds to ensure cleanliness and to observe for signs of infection (i.e. redness, swelling, drainage, and pain at wound site). All persons with signs of wound infection, especially with fever, should seek medical advice.