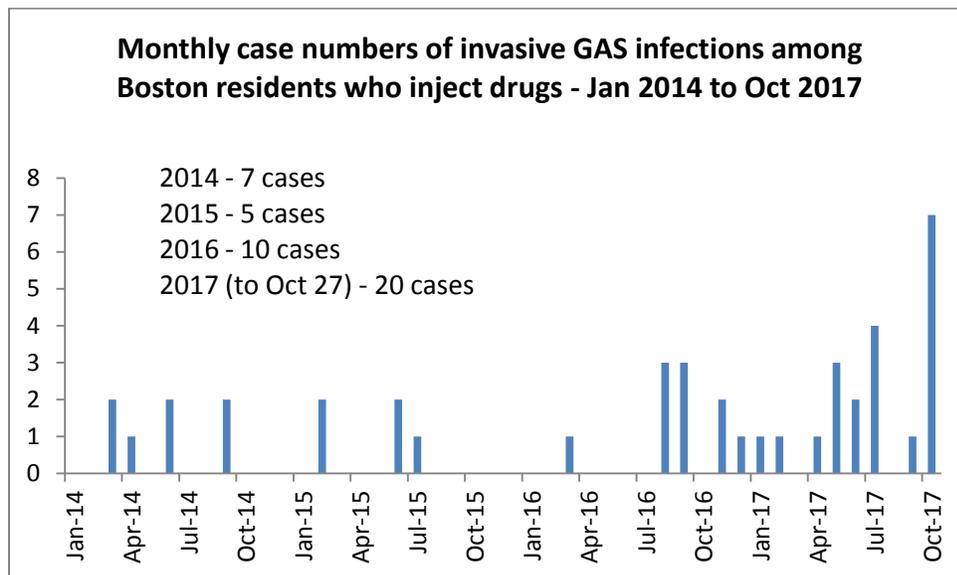




PUBLIC HEALTH ALERT:

Invasive group A streptococcus infections among people who inject drugs.

Boston Public Health Commission (BPHC) has received an increased number of notifications of invasive group A streptococcus (GAS) infections among Boston residents who inject drugs. Year to date, there have been 20 notifications, seven of which occurred this October, compared with 10 reports throughout 2016 (see chart).



Initial investigation of recent cases indicates that the predominant manifestation of GAS infection in this population is cellulitis with bacteremia (11/20, 55%). Other associated diagnoses include infective endocarditis, sepsis, necrotizing fasciitis, and septic arthritis. Of the reported 2017 cases to date, there have been no deaths.

Invasive GAS infection carries significant morbidity and mortality¹, and the abrupt increase in case reports suggests that preventive measures and vigilance is warranted.

Careful adherence to safe injecting practices is the most important preventive measure for GAS infection. Anecdotal reports indicate that some infections may be associated with licking the needle prior to skin penetration. BPHC has also received anecdotal reports of increases in MRSA abscesses linked to injecting drugs. Previous published case reports suggest that hiding drugs in the mouth can increase the chance of GAS spread².

Healthcare workers, addiction specialists, and others working with people who inject drugs are encouraged to be alert for persons at risk for GAS infection, counsel people who inject drugs on safe injecting practices, provide education on signs/symptoms of infective endocarditis to facilitate early presentation to care, and offer referral to appropriate services for treatment of substance use disorders.

City and state regulations require healthcare providers and institutions to report all cases of invasive GAS infection diagnosed in Boston to BPHC (Phone: 617-534-5611, 24/7 coverage available). Cases diagnosed outside Boston should be reported to the local board of health where the diagnosis is made or to MDPH (Phone: 617-983-6800, epidemiologists available 24/7).

Reporting forms for healthcare providers are available at: <http://www.bphc.org/cdc>

Common Signs/Symptoms of Infective Endocarditis

- Flu-like symptoms: fever, chills, fatigue, aching muscles/joints, night sweats, headaches, skin pallor.
- Shortness of breath, chest pain during inspiration, or a cough that won't go away.
- Swelling in the feet, legs, or abdomen.
- A new heart murmur or a change in an existing heart murmur.
- Decreased appetite, weight loss.

Uncommon Manifestations of Infective Endocarditis

- Small, painful, red or purplish bumps under the skin on the fingers or toes.
 - Small, dark, painless flat spots on the palms of the hands or the soles of the feet.
 - Tiny spots (petechiae) under the fingernails, on the whites of the eyes, on the roof of the mouth and inside of the cheeks, or on the chest.
- Blood in the urine.

References:

1. Stevens DL, Bryant AE. Severe Group A Streptococcal Infections. 2016 Feb 10. In: Ferretti JJ ed. *Streptococcus pyogenes : Basic Biology to Clinical Manifestations*. University of Oklahoma Health Sciences Center; 2016-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK333425/>
2. Böhlen LM, Mühlemann K, Dubuis O, Aebi C, Täuber MG. Outbreak among drug users caused by a clonal strain of group A streptococcus. *Emerging Infectious Diseases*. 2000;6(2):175-179.
3. Endocarditis; Cleveland Clinic, 2/2016. Available from: <https://my.clevelandclinic.org/health/articles/endocarditis-protection>.
4. Cooper HLF, Brady JE, Ciccarone D, Tempalski B, Gostnell K, and Friedman SR. Nationwide Increase in the Number of Hospitalizations for Illicit Injection Drug Use–Related Infective Endocarditis. *Clinical Infectious Diseases* 2007; 45:1200–3.