NJDOH Guidance for the Investigation and Prevention of Post-Partum / Post-Surgical Invasive Group A *Streptococcus* Infections in Healthcare Facilities

Background:

While group A *Streptococcus* (GAS) is an uncommon cause of surgical site or postpartum infections, it may lead to severe disease or mortality. Since healthcare associated transmission may in some cases be traced to carriers of GAS involved in direct patient care, even a single case of postpartum or postsurgical GAS infection should be investigated because of the potential to prevent additional cases. Any case of iGAS in a postpartum or postsurgical patient could be a warning sign that other potential healthcare-associated infections may exist. Clinicians should remain alert for the possibility of other postpartum or postsurgical infections, and evaluate and treat suspected cases promptly. Invasive group A Streptococcus (iGAS) refers to infection with GAS involving a normal sterile area of the body (see Case Definitions). Healthcare facilities include acute care hospitals, ambulatory surgical centers, birthing centers or other healthcare facilities where surgical procedures or deliveries are performed.

Case Definitions:

1. iGAS – postpartum: Isolation of GAS during the postpartum period in association with a clinical postpartum infection (e.g., endometritis), or from either a sterile site or a wound infection during the time frame that includes all inpatient days and the first seven days after discharge.

2. iGAS – postsurgical: Isolation of GAS during the hospital stay or the first seven days after discharge from a sterile site or a surgical wound in a postsurgical patient for whom the indication for surgery was not a preexisting GAS infection.

Recommendations for a Healthcare Facility with one or more associated Postpartum or Postsurgical iGAS Cases:

1. If a case of postpartum or postsurgical iGAS is identified, the local health department (LHD) and the infection control department at the health care facility should both be notified.

2. iGAS Isolates from all postpartum/postsurgical cases should be held by the clinical laboratory. NJDOH's Communicable Disease Service (CDS) will work with facilities to facilitate molecular analysis for strain relatedness if indicated – typically when two or more potentially linked isolates are available.

3. The facility should establish retrospective surveillance of cases for six months before the earliest case and active surveillance for six months after the latest case. Surveillance includes reviewing microbiology records from the previous six months, consulting with obstetricians and/or the surgical teams, review of records to identify additional possible cases, identifying any symptomatic HCP/staff (pharyngitis, skin infections), and obtaining a culture on all suspected

new cases. Any additional culture-positive isolates should also be held by the lab while the investigation is ongoing.

4. If more than one healthcare facility may be involved in the care of a case (e.g., a long-term care facility and a hospital), LHD consultation with NJDOH/CDS should occur.

5. Facilities should notify their LHD if additional cases are identified through either retrospective review or prospective surveillance

6. Screening of healthcare providers (HCPs) with a potential epidemiological link to the case may be considered when one case has been identified; it is strongly recommended to screen HCP when two or more linked cases have been identified. Screening should be done VIA CULTURE (to enable molecular-level epidemiologic analysis). When HCP screening is undertaken, sites from which specimens should be obtained and cultured include all of the following: throat, anus, vagina, and any skin lesions. (See Figure 1 for recommended public health action, based on CDC guidance, for the management of postpartum/postsurgical iGAS infections).[2]

    a. Screening of HCPs should include all those who were present at delivery and those who performed vaginal examinations before delivery (for postpartum cases), all HCPs present in the operating room during surgery and those who changed dressings on open wounds (for postsurgical cases). Screening of all other HCPs who have had contact with the patient(s) during the post-partum/post-surgical period is also recommended if the onset of symptoms occurs 72 hours or more after delivery/surgery. Additional screening may be recommended for other specific scenarios.
    b. When screening of HCPs is undertaken, screened asymptomatic HCPs may continue to work pending the culture results; however, HCPs who are symptomatic, or who are asymptomatic and identified as colonized with GAS who are epidemiologically linked to transmission of the organism in the healthcare setting should be treated following CDC recommendations AND
        - Should be excluded from work until 24 hours after the start of effective antimicrobial therapy[4] AND
        - Should culture the affected site for GAS 7 to 10 days after completion of chemoprophylaxis unless the HCP isolate is determined to be unrelated to the patient isolate; if positive, they should receive additional administration of chemoprophylaxis, further investigation of contacts and repeat exclusion from work until 24 hours after the start of effective antimicrobial therapy.

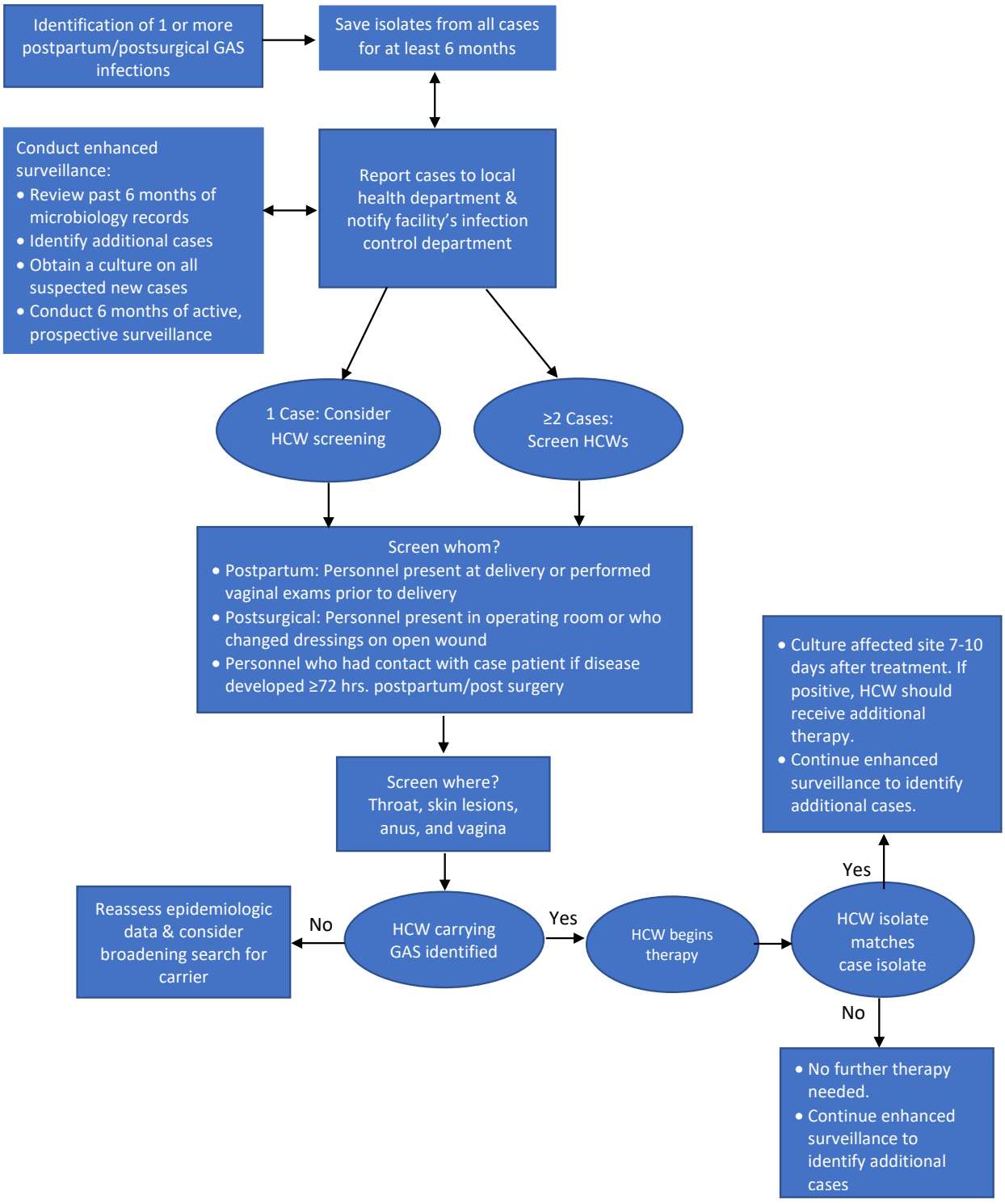
7. Assess infection control measures, and review and audit adherence to the following infection control practices.
    - Hand hygiene, preferably using alcohol-based hand rub/sanitizer
    - Appropriate selection and proper use of isolation protocols and personal protective equipment (PPE)
    - Cleaning and disinfection of environmental surfaces and reusable wound care equipment
    - Maintaining separation between clean and soiled equipment to prevent cross-contamination

- Dedicating multidose vials to a single patient whenever possible. If multidose vials are used for more than one patient, restrict the medication vials to a centralized medication area and do not bring them into the immediate patient treatment area (e.g., operating room, patient room/cubicle).
- Wound care and respiratory care.
- Educating HCP on signs and symptoms of GAS infection manifestations (pharyngitis, impetigo).
- Reviewing sick leave policies and educating HCPs on the importance of not working while ill.

Post-exposure prophylaxis

Post-exposure prophylaxis (PEP) is not necessary for healthcare workers who have been exposed to GAS. Close household contacts of a patient with iGAS are not routinely recommended to receive PEP, but in consultation with their healthcare provider, PEP may be considered for those who are at high risk for severe outcomes from GAS infection.

Figure 1. Recommended public health action for cases of postpartum/postsurgical GAS infections.



Adapted from: The Prevention of Invasive Group A Streptococcal Infections Workshop Participants, Prevention of Invasive Group A Streptococcal Disease among Household Contacts of Case Patients and among Postpartum and Postsurgical Patients: Recommendations from the Centers for Disease Control and Prevention, Clinical Infectious Diseases, Volume 35, Issue 8, 15 October 2002, Pages 950–959, https://doi.org/10.1086/342692

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2. Prevention of Invasive Group A Streptococcal Infections Workshop Participants, Prevention of Invasive Group A Streptococcal Disease among Household Contacts of Case Patients and among Postpartum and Postsurgical Patients: Recommendations from the Centers for Disease Control and Prevention, Clinical Infectious Diseases, Volume 35, Issue 8, 15 October 2002, Pages 950–959, https://doi.org/10.1086/342692

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