

Group B Streptococcal Infections

Epidemiology

Source: GI tract of humans

Transmission

- Perinatally, from mother to infant
- Person-to-person

Incubation
<7 days

for early onset

Unknown

For others

~25% of
pregnant women
are carriers

0.3 cases per 1000 live births; 7-25
cases per 100,000 adults

Clinical case definition

Infants: bacteremia, pneumonia, meningitis, fever, difficulty feeding, irritability, lethargy, difficulty breathing, bluish color to skin

Early onset- (infants <7 days old)

Respiratory distress, apnea, shock, sepsis, pneumonia

Late onset- (infants ≥7 days old)
meningitis or osteomyelitis

Pregnant women: UTI, chorioamnionitis, endometritis, wound infection

Non-pregnant adults: Skin or soft tissue infection, bacteremia, genitourinary infection, pneumonia

Complications:

deafness, developmental disabilities, cerebral palsy, miscarriages, stillbirths, preterm deliveries

Death: 4-6% babies;
8% adults

Outbreaks can occur
in nurseries at
hospitals.

Diagnosis

Streptococcus agalactiae is a gram-positive aerobic diplococci that causes perinatal bacterial infections. There are 9 serotypes.

Confirmed: Case that is laboratory-confirmed

Lab Diagnosis

- **Isolation** of group B Streptococcus by culture from a normally sterile site (blood, CSF, pleural fluid)

Treatment, Prophylaxis

Treatment

- Antimicrobial therapy– usually penicillin or ampicillin– given intravenously

Prophylaxis for Pregnant Women

- **Intrapartum antibiotic prophylaxis (IAP)** should be used on women who have previously delivered an infant with GBS disease, who are colonized with GBS, or those at risk. (antibiotics given before labor will not be effective)
- **Identify Carriers-** pregnant women should be screened for anogenital GBS colonization between 35 and 37 weeks. Selective enrichment broth should be used for culture.
- **Risk factors:** If a woman is not cultured before labor, use intrapartum antibiotics if: preterm labor (<37 weeks), preterm premature rupture of membranes (<37 weeks), prolonged rupture of membranes (>18 hrs), previous child affected by GBS, or maternal fever during labor.
- **Penicillin** (5 million units every 6 hrs) or **ampicillin** (2 grams IV initially, followed by 1 gram every 4-6 hrs)
- **Penicillin-allergic women** should be given **cefazolin** (2 g IV initial dose then 1 g IV every 8 hrs until delivery) for low risk anaphylaxis; or for high risk anaphylaxis: **Clindamycin** (900 mg IV every 8 hrs until delivery) or **erythromycin** (500 mg IV every 6 hrs)

Control

Screening all women 35-37 weeks into the pregnancy and intrapartum antibiotic prophylaxis are the most effective ways of preventing Strep Group B infections in newborns.

Breastfeeding is still encouraged and will not harm the baby.