

Group B *Streptococcus* (Group B Strep)

The Bacteria

Streptococcus agalactiae (*S. agalactiae*) is a bacteria that causes Group B *Streptococcus*, or Group B Strep (GBS) infection in pregnant women and newborns. GBS can also cause illness in people of all ages, especially the elderly or those immunocompromised. Life-threatening illnesses caused by Group B Strep include sepsis, pneumonia, and meningitis in newborns. In adults, it can cause bloodstream infections, pneumonia, skin and soft-tissue infections, bone and joint infections, as well as meningitis.

The Problem

According to the [Centers for Disease Control and Prevention](#) (CDC), approximately 25 percent of pregnant women carry Group B Strep. [The American College of Obstetricians and Gynecologists](#) (ACOG) and the CDC recommend that all pregnant women be screened between weeks 35 and 37 of their pregnancies to determine if they are carriers of Group B Strep. In addition to advising all pregnant women who are found to be carriers of GBS to be treated with intravenous antibiotics during labor, the CDC and ACOG advise women who fit the description of “at risk” also be administered antibiotics while physicians wait for test results to return from the lab. With intravenous antibiotic treatment for the mother, a newborn is approximately twenty percent less likely to be infected with Group B strep.

Due to lengthy wait times of 48 to 72 hours to receive conventional Group B Strep test results, most physicians treat preemptively for the infection with penicillin or ampicillin. However, exposure to antibiotics for Group B Strep can increase an infant’s risk of other blood infections, such as antibiotic-resistant *E. coli* and *Salmonella* spp.

There is a growing concern in the medical community that the practice of this preventative treatment over the past 30 years has resulted in the onset of Group B Strep and other strains with a stronger resistance to antibiotics.

The NanoLogix Solution - Live-threat bacteria detection in 6 hours

With drug-resistant strains of bacteria posing serious threats to the effective treatment of Group B Strep, faster testing has become a high priority. A study at the [University of Texas Health Science Center-Houston](#) (UTHSC-Houston) demonstrates the ability of NanoLogix BNF Quick Test Kits to rapidly detect and identify live-cell Group B Strep in 6 hours. This is at least 8 times faster than conventional Petri methods. [Learn more about the clinical study.](#)

In addition, recent protocol changes at UTHSC-Houston reveal detection and identification in **less than 1 hour.**

Long wait times delay diagnosis. Likewise, preemptive treatments can contribute to strains of antibiotic-resistant bacteria. Therefore, it is clear that faster results are the key to targeting treatment for Group B Strep and combating the development of antibiotic-resistant strains.

