

Third trimester group B streptococcus test doesn't accurately predict presence during labor

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In a study to be presented today at the Society for Maternal-Fetal Medicine's (SMFM) annual meeting, The Pregnancy Meeting, in San Francisco, researchers will present findings that show that many women are having different test results for Group B streptococcus (GBS) between their routine third trimester screening and a rapid test performed at the time of labor.

GBS early-onset sepsis is a leading cause of neonatal infection. GBS is a bacterium that normally exists in the genital tracts of one-third of women; this bacterium comes and goes in the genital tracts of many women – often without women knowing that they have it. It can lead to an infection and can put an infant at risk if it is present in the mother during delivery. Women are routinely tested for GBS in their third trimester. If the [bacterium](#) is present, these women are given antibiotics during labor. Two days are needed to obtain results from the standard culture, which prevents women from being screened in labor. However, a new rapid test that returns results in approximately one hour can be administered at the time of labor.

"Most women are currently screened for GBS in their last trimester, but even if the test is negative, GBS can still develop before women give birth," said Brett Young, M.D, an obstetrician undergoing training in high risk obstetrics at Massachusetts General Hospital. "We know that two-thirds of infants with GBS [sepsis](#) are born to mothers with negative

third-trimester cultures, so we wanted to see how many women with a negative GBS test in the third trimester have a positive GBS result right before delivery. These babies in particular are at risk for acquiring GBS infection because the mothers are not given appropriate antibiotics in labor."

Young and her colleagues enrolled women in their study who presented to labor and delivery with an antepartum GBS culture. GBS cultures and rapid tests were performed during labor and compared to the third trimester GBS culture results

Among 559 women, GBS prevalence was 19.5% with the third-trimester culture and 23.8% with culture performed on samples collected during labor. Compared with the culture obtained during labor, the third-trimester culture correctly predicted GBS positivity at the time of labor only 69% of the time versus the rapid test which correctly predicted GBS positivity 91% of the time. The incidence of GBS discordance from the late third trimester to labor was 10%. Compared with women who identified as Caucasian, African-American and Hispanic women were significantly more likely to have discordant culture results.

The study found that the rapid GBS test used when women present in labor has excellent test characteristics and may be a useful adjunct to the third trimester culture for accurately detecting the presence of GBS at the time of labor.

"We found that African-American and Hispanic women were significantly more likely to have results that converted from the third trimester to the time of labor, so the use of the rapid test might be even more beneficial in those groups," said Young.

Provided by Society for Maternal-Fetal Medicine

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