Researchers say more rapid test for Group B strep successful

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A more rapid laboratory test for pregnant women to detect potentially deadly Group B strep (GBS) has been successful at identifying GBS colonization in six and a half hours, according to the results of a study from The University of Texas Health Science Center at Houston (UTHealth).

The more rapid test could be helpful for the 13 percent of patients who experience pre-term labor before they are screened for GBS, which usually occurs between 35 and 37 weeks of gestation. The current standard test takes 48 hours. Antibiotics can be administered at the time of delivery to kill the bacteria.

"This new test could change the management of patients who present to labor and delivery with threatened preterm labor and are not expected to deliver right away," said Jonathan Faro, M.D., Ph.D., assistant professor in the Department of Obstetrics, Gynecology and Reproductive Sciences at The University of Texas Medical School at Houston, part of UTHealth. "It would likely gain use in this patient population, which is a small number, but still very significant clinically. We could target this population and this would help cut down on overuse of resources and minimize our contribution to the increased level of bacterial resistance."

The new test, developed by NanoLogix, can also detect antibiotic sensitivities for women who are allergic to penicillin, saving the additional 48 hours the standard test for antibiotic sensitivity takes, Faro said.

GBS is the most common cause of sepsis (blood infection) and meningitis and a frequent cause of pneumonia in newborns, according to the Centers for Disease Control (CDC). The CDC estimates the bacterium, which is passed from mother to child through the birth canal, is carried by 25 to 30 percent of women at any one time. Because GBS has few symptoms, many women do not know they are carriers. In 2001, 1,700 babies less than 1 week old contracted GBS, which can lead to disability and death.

In the study, 356 patients at 35 to 37 weeks of gestation at UT Physicians clinics were tested for GBS using two standard tests and the new test, which provided a high level of validity according to the study results.

Faro is studying an even faster version of the test with the hope it could detect GBS in as little as 30 minutes. That could make a difference for the up to 15 percent of pregnant women who arrive for full-term delivery and have not been screened. Right now, obstetricians must determine whether to give these women intravenous antibiotics automatically or use risk factors, which have been shown to be only half as effective as laboratory tests, to assess whether the patient has the bacteria.

"Typically, if a patient comes into the emergency room in labor and you don't know if she carries GBS, you have to treat her with antibiotics," Faro said. "Everyone is concerned that the overuse of antibiotics is leading to greater resistance to them. Some have expressed concern that by giving penicillin to everyone, we are increasing the number of babies who are getting sick from E. coli sepsis."

The study was published in a recent online edition of *Infectious Diseases in Obstetrics and Gynecology* and presented at the 33rd annual Society of Maternal Fetal Medicine meeting last month.

More information: www.hindawi.com/journals/idog/2013/367935/