Nitrazine pH Test for Amniotic Fluid

AUDIENCE: LABOR AND DELIVER & OB/GYN PROVIDERS

Nitrazine pH Test for Amniotic Fluid

Nitrazine paper is used to detect small quantities of amniotic fluid in vaginal secretions. It is used in conjunction with the Fern Test to help detect ruptured membranes. Premature rupture of the membranes before onset of labor may lead to fetal infection and subsequent mortality. The risk is largely eliminated by induction of labor.

Nitrazine pH Test for Amniotic Fluid

- Specimen Requirements
- Interferences
- Quality Control
- Procedure
- Results
- Procedure Notes

Specimen Requirements

- Vaginal secretions from the posterior vaginal pool
- Do not touch the pH Nitrazine paper to the mucus plug in the cervix
- Test sample immediately after collection
- Note: Bloody specimens are not acceptable

Interferences

- False positive results may occur from specimen contamination due to heavy vaginal discharge, blood, cervical mucus, semen, alkaline urine, and soap.
- False negative results may be produced by prolonged rupture of membranes (longer than 24 hours) or when a small volume of fluid has leaked.
- Specimen contamination will result in erroneous pH results.

Quality Control

- Quality Control should be performed once a day, on days when patient testing is performed
- Quality Control consists of using two pH buffers
  - PH 6.0 Buffer (acidic)
  - pH 8.0 Buffer (alkaline)
- Record the Quality Control test results on the QC log
- Acceptable Criteria: results are within $\pm$ 0.5 of their designated pH

Procedure

- Tear off a piece of pH Nitrazine paper of the desired length
- Apply patient sample to the Nitrazine paper
- Immediately match the strip color with the closest color on the dispenser color chart

Results

Reference Range

- A pH equal or greater than 7.0 is considered indicative of the presence of amniotic fluid

- A pH of less than 7.0 is considered negative or indeterminate

Procedural Notes

- The Nitrazine test is highly sensitive but not specific
- If the Nitrazine and Fern Test are positive, probable membrane rupture has occurred
- If the Nitrazine Test is negative, but the Fern Test is positive, there is probable rupture of the membranes due to the Fern Test's greater specificity
- If the Nitrazine Test is positive, but the Fern Test is negative, a second specimen should be collected and tested

Nitrazine pH Test for Amniotic Fluid

- This is the end of the Nitrazine Paper Competency
- Please click the “Take Test Button” to complete the Nitrazine Paper competency test and to receive credit