

LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER-SHREVEPORT
PHYSICIAN PERFORMED TESTING/MICROSCOPY

FERN TEST PROCEDURAL GUIDELINES

Principle:

The Fern Test detects the leakage of amniotic fluid from the membranes surrounding the fetus during pregnancy. A positive test is indicated by the presence of fern-like patterns characteristic of amniotic fluid crystals.

Premature rupture of the membranes may lead to fetal infection and subsequent mortality. The risk may be eliminated by the induction of labor.

Specimen Requirements:

Vaginal swab obtained from the posterior vaginal pool

1. Avoid the use of any lubricants or antiseptics.
2. Use a sterile swab and do not touch the mucus plug.
3. Prepare a thin smear on a glass slide by spreading evenly.

Reagents And Supplies:

1. Clean glass slide
2. Microscope

Calibration:

Not Applicable.

Quality Control:

Not Applicable.

Procedure:

NOTE: Always wear gloves when performing procedure.

1. Immediately after collection, rub swab against glass slide, creating a very thin smear. Do not coverslip.
2. Allow slide to dry—do not apply heat and do not coverslip.
3. Examine the fully-dried slide microscopically, under low power (10X objective).
4. Observe for “fern-like” crystals. Presence of crystals indicates that the fluid is amniotic fluid.
5. Record the results in the medical record and on the Fern Test Log (see “reporting results below”).

Calculations:

Not Applicable.

Reporting Results:

1. **Record results as in the patients chart.**
2. **Record** patient name and medical record number (can adhere addressograph label), date, test results, and initials of person performing the test on the **Fern Test Log for Provider Performed Testing.**

Procedural Notes:

1. Allow slide to air-dry, do not apply heat.
2. Do not coverslip slide.

Limitations of Procedure:

1. Blood, urine, or cervical mucus can result in false positive findings.
2. False negative findings can result from prolonged rupture of membranes (>24 hours).

References:

1. Addison, Lois Anne. Laboratory Medicine, July 1999 p 451.
2. St. Peter's Hospital, POCT procedures, www.stpetes.org
3. MCL POCT procedures, www.mclno.org