System Policy: Fern Test by Microscopic Examination - SCL Health	
Department(s) Initiating: Point of Care Testing (POCT)	
Application: This policy applies to SCL Health and all its Controlled Corporations, as that term is defined in the SCL Health Bylaws, and to any entity owned in part by SCL Health or an affiliate and/or managed by SCL Health or an affiliate, if that entity's governing body has adopted the policy [as its own].	
Document Owner: Theresa Mayer (Mgr Sys Laboratory Quality)	**Last Review Date:** 08/01/2021
Effective Date: 08/01/2021	**Next Review Date:** 08/01/2023
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Purpose:

To provide standardized guidelines to providers performing fern testing. This test is intended for use as an aid in detecting leakage of amniotic fluid from membranes surrounding the fetus during pregnancy. Test results should be used in conjunction with other information relevant to determine the clinical status of patient.

Scope:

This policy applies to specific roles/functions including Physicians, Advanced Practice Practitioners (APP), and Residents.

Care Site Exceptions:

Caritas Clinics - Saint Vincent & Duchesne, Holy Rosary Healthcare, Lutheran Hospice, Marian Clinic, Mount Saint Vincent, SCL Health Medical Group Clinics, SCL Home Health, West Pines Behavioral Health

Definitions:

Advanced Practice Practitioners (APP) — a Licensed Independent Practitioner or dependent Practitioner who provides specific patient care services to patients in the Hospital under the supervision or collaboration of a licensed Physician who is a member of the Medical Staff. Advanced Practice Practitioners are limited to APRNs (Nurse Practitioners, Clinical Nurse Specialists, Certified Registered Nurse Anesthetists, and Certified Nurse Midwives), Anesthesiology Assistants, and Physician Assistants. Advance Practice Practitioners shall be credentialed in the same manner as Practitioners and may be granted Clinical Privileges by the Governing Body.

Residents — physician enrolled in an accredited graduate medical education program who is authorized by State law and the hospital's residency program to practice as a physician under appropriate direct or indirect faculty supervision. A medical student is not a resident or a Licensed Independent Practitioner (LIP).

Policy:

1. Fern testing will be performed in the Point of Care Testing (POCT) setting within the established federal and voluntary guidelines to provide accurate results.

2. Physicians and Advanced Practice Practitioners (APPs) will be trained and evaluated to do POCT at either his/her primary clinic or applicable hospital department.
3. All testing associates must have their competency assessed according to Quality Management for Point of Care Testing (POCT) - SCL Health.
4. Proficiency testing micrographs are read by physicians/APPs and results are graded by the vendor providing the proficiency survey.
5. Registered nurses (RNs) are not allowed to perform this test. If an authorized individual is not available, all testing should be referred to Lab.
6. Patient Preparation
    a. Examine patient in the dorsal lithotomy position.
    b. Avoid use of any lubricants or antiseptics as these may interfere with the test.
    c. Collect sample using a sterile collection device.
    d. Do not disturb mucous plug while collecting sample.
7. Specimen Acceptability and Rejection
    a. Acceptable Specimen:
        i. Vaginal secretions collected with sterile device.
8. Microscopic Examination
    a. Observe pattern under low power objective (10X). Refer to procedure below for instructions.
9. Limitations in Test Methodology
    a. False negatives may be seen in amniotic fluid contaminated with blood or meconium.
    b. False negative results may occur from prolonged rupture of membranes (longer than 24 hours).
    c. False positive results may occur from specimens contaminated with blood, urine, or cervical mucus.
    d. Fern test is a very subjective test and therefore cannot be considered conclusive evidence of amniotic fluid. It is to be used as a screening aid only.
    e. Erroneous results can be obtained from the following:
        i. Slide was examined before it was dry.
        ii. Slide was dried under a circulating air current, such as a fan.
        iii. Slides or pipette were dirty or contained with a detergent.
        iv. Slide was heat fixed.
        v. Cytology fixatives or preservatives were used on slide.
10. Reference Intervals
    a. None
11. Critical Values
    a. None

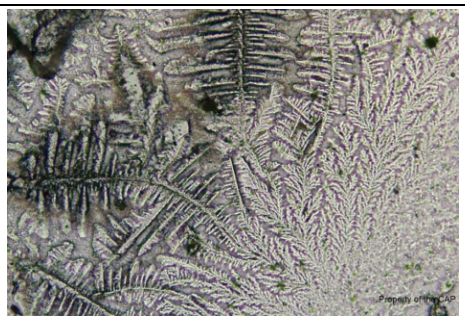
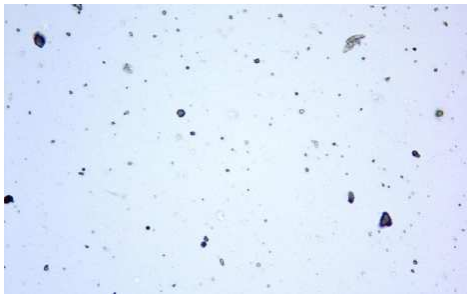
12. Calibration and Verification Procedures
    a. Microscope:
        i. Inspected, cleaned and checked with each day of use or a minimum of once a week to verify it is in proper working order.
        ii. Professionally inspected semi-annually.
    b. POCT coordinator or designee will maintain policies and procedures and provide consultation as needed. Proficiency testing will be monitored at their respective facility.
13. Course of Action if Test System is Inoperable
    a. None

Materials:		
Equipment	**Reagents**	**Supplies**
• Microscope	• None	• Clean glass slides • Transfer pipette / sterile swab

Procedural Notes:

1. Biohazardous precautions must be strictly followed in handling specimens and all materials used in the procedure.

Procedure: Fern Test – SCL Health			
#	**Required Action Step** (step by step process)	**Performed By**	**Supplemental Guidance**
1	Label clean slide.	Physician or APPs	Identify patient using two (2) identifiers a. Name b. Medical Record Number (MRN)
2	Collect vaginal secretions from posterior vaginal pool with sterile device.	Physician or APPs	Do not touch mucus plug in cervix.
3	Rub swab against a glass slide, creating a very thin smear.	Physician or APPs	
4	Allow slide to air dry for approximately five (5) minutes.	Physician or APPs	Do not apply heat or blow on slide to shorten dry time. Do not add a coverslip.
5	Examine slide under low power, 10X, for a fern-like pattern.	Physician or APPs	Microscope should be clean and in proper working order. Amniotic fluid will produce a fern-like pattern (positive). See below:

			 All other vaginal fluids will produce a beaded or atypical pattern (negative). See below: 
6	Document Results.	Physician or APPs	Report results in patient's electronic medical record (EMR). Must include: a. Patient's full name b. Date of collection c. Name of performing personnel d. Test result

References:

- CAP. Point-of-Care-Testing Checklist, current
- CLSI. Physician and Nonphysician Provider-Performed Microscopy Testing: Approved Guideline Second Edition. CLSI Document POCT10-A2. Wayne, PA: Clinical And Laboratory Standards Institute: 2011
- UTMB Point of Care Testing Procedures Policy, June 2003: FERN TEST-Amniotic Fluid Crystallization Test

Other Related Policies:

- Quality Management for Point of Care Testing (POCT) - SCL Health

Supporting Documents:

- None

Monitoring:

Providers performing fern testing must complete competency assignments as scheduled.