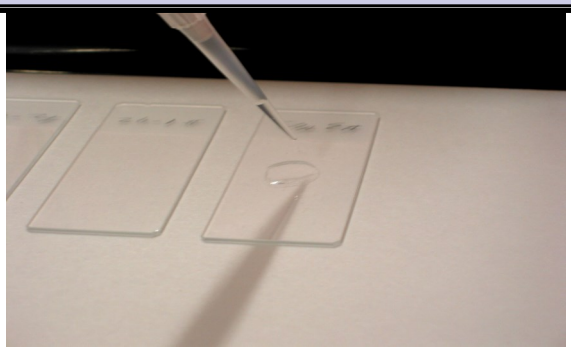
Liqui-PREP®
The Next Generation of Liquid Cytology

Technical Tips



Number: 00016

Date: 07/09/22

SUBJECT: Endometrial Biopsy Using **Liqui-PREP® Reagents**

TECHNICAL TIP OVERVIEW:

This Technical Tip offers suggestions on processing endometrial biopsy specimen using the **Liqui-PREP® System**. This Technical Tip does not reference any specific endometrial collection brush. The Technical Tip begins after the specimen is collected using an endometrial collection brush.

TECHNICAL TIP: 00016

PRESERVATION OF THE SPECIMEN:

Immediately after the specimen is collected, the head of the endometrial biopsy brush is placed into a **Liqui-PREP® Collection Vial**. The head of the brush should be vigorously stirred 6 to 8 times to remove the harvested cells from the head of the brush. The vial cap is tightened on the inoculated specimen. The patient identification is placed on the collection vial label and the specimen is sent to the laboratory for processing.

Note: The specimen is ready for processing after 30 minutes to allow for fixation and is stable for up to 60 days at ambient temperature.

Processing:

- After the specimen is logged into the laboratory, the specimen is mixed well using a vortex mixer.
- Immediately after mixing, the specimen is poured into a labeled 15ml centrifuge tube.

Note: If low cellularity is a concern, after initially pouring the specimen into the centrifuge tube, 3ml to 4ml of **Liqui-PREP® Preservative Solution** is added to the empty Collection Vial, the vial is mixed well using a vortex mixer and poured into the 15ml centrifuge tube containing the original specimen.

- Centrifuge the specimen centrifuge tube for ~10 minutes at ~1000xg.

Encapsulation and Microscope slide production:

- Decant the supernatant by rapidly inverting the centrifuge tube resulting in a well formed cellular pellet.

<u>Cell Pellets Less Than 1mm “In Centrifuge Tube” Encapsulation Method</u>:

- Mix the cellular pellet well using a vortex mixer.
- Add 50µl to 100µl of **Liqui-PREP® Cellular Base Solution** to the cellular pellet in the centrifuge tube.
- Mix the Pellet/Cell Base solution well using a vortex mixer.
- Immediately after mixing, take a 50µl aliquot of the well mixed pellet/Cell Base solution and inoculate it to a clean microscope slide.
- Dry, Stain and Read.

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Encapsulation and Microscope slide production: (continued)

- Decant the supernatant by rapidly inverting the centrifuge tube resulting in a well formed cellular pellet.

Cell Pellets OVER 1mm "Working Tube" Encapsulation Method:

- Pipette 200µl to 500µl of **Liqui-PREP® Cellular Base Solution** into the "Working Tube".
- Mix the specimen cell pellet well and pipette 50µl into the "Working Tube".
- Mix the Working Tube well and pipette 50µl of the specimen onto a clean dry microscope slide

Allow the slides to dry, stain and read.

Example preparations:

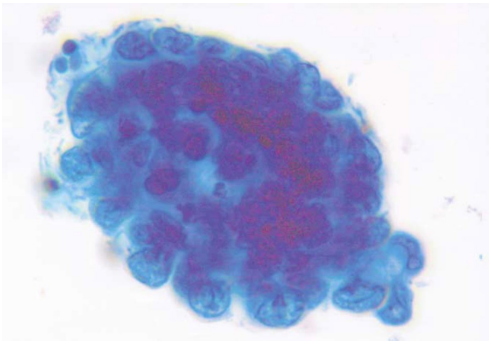

Figure 1. High power view of benign endometrial cells from a liquid based preparation. The cells are in a three dimensional cluster. Cells are small without nucleoli or pleomorphism and the chromatin is granular. Nuclear details are easier to see than in conventional preparations. Single cell necrosis (apoptosis) is present deep in the cell group. (Papanicolaou stained preparation, 100x).

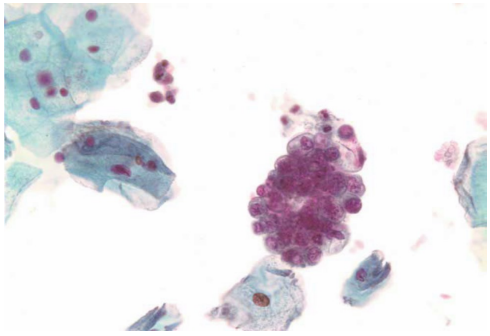

Figure 2. Endometrial adenocarcinoma. There is nuclear and cellular enlargement. Nuclear irregularity and pleomorphism are present. Nucleoli can be seen from this power. The three dimensional array is still apparent in these exfoliated cells of endometrial adenocarcinoma. (Papanicolaou stained liquid) based preparation, 40x).

Any Questions, Contact your local Liqui-PREP® Representative :

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