

FLUID – BODY CAVITY

(Pleural, Peritoneal)



Key Components for Submission

- Stained direct (unconcentrated) preparation
- Stained sediment (concentrated) preparation

Highly Recommended for Submission

- Total protein measurement
- Cell count

Fluid Sample Collection

- The fluid sample should be promptly placed into an EDTA tube. If enough fluid remains, place a portion into a red top tube
- Fluid in the EDTA tube should be used for slide preparation. Fluid in the red top tube may be needed for additional testing

Total Protein Measurement

- Use a refractometer
- It is best to use the fluid supernatant for measurement, but the unspun fluid can be used for measurement if the fluid is clear
- EDTA can cause overestimation of protein. Red top tube is best

Cell Count

- A CBC analyzer can be used to obtain a WBC count on the fluid if the fluid does not contain particulate material
- Please see analyzer manufacturer's directions for fluid analysis

Direct (Unconcentrated) Preparation

1. Label the slide direct with a pencil.
2. Gently invert the tube of EDTA fluid several times to ensure it is well mixed.
3. Place a drop of fluid near the label end of the slide and use the blood smear technique to spread the fluid, making sure to leave a feathered edge.
4. Rapidly dry the slide (a hair dryer on cool setting can be used). Do not heat fix.
5. Stain the slide and allow to dry.
6. Place immersion oil and coverslip prior to submission.

Sediment (Concentrated) Preparation

1. Label the slide sediment with a pencil.
2. Aliquot a portion of well-mixed fluid into a separate tube for centrifugation.
3. Spin down the fluid, decant the supernatant, and gently resuspend the pellet in the small amount of remaining fluid (similar to preparation of urine sediment).
4. Place a drop of the sediment near the label end of the slide and use the blood smear technique to spread the fluid, making sure to leave a feathered edge.

Continue with Steps 4-6 under Direct Preparation

Submission

Make sure it is clear which slide is the direct preparation and which slide is the sediment preparation.

Abdominal Fluid Not Centrifuged



Abdominal Fluid Centrifuged Sediment



When Scanning Make Sure That

- Slide is sample side up, pointing toward scanner lens
- Slide lock is engaged
- There are no objects preventing movement of scanner (including no operating centrifuges)