

**Date:** September 18, 2015  
**To:** South Zone West: Physicians, Nursing Unit Managers, Laboratory Staff  
**From:** Dr. Csaba Hegedus, Pathologist, Cytology Department Consultant  
**Re:** Body Fluid Collection for Cytology Testing

---

## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

---

### Key Messages:

- The Chinook Regional Hospital Cytology Department has recently received body fluid samples containing less than 30 mL of fluid.
- Submission of a body fluid sample that is less than 50 mL may increase the risk of an indeterminate or false negative diagnosis.

### Why this is important:

- A body fluid sample that is collected for Cytology testing can often yield a small number of diagnostic cells.
- Blood and inflammation found in some body fluids may obscure the diagnostic abnormal cells.
- To mitigate the influence of sample size on diagnostic adequacy, please collect a minimum volume of 50 mL of body fluid, where feasible.

### Action Required:

- Collect a minimum volume of 50 mL when submitting a body fluid to Cytology for testing, where feasible.

### References:

1. "An investigation of adequate volume for the diagnosis of malignancy in pleural fluids" / Cytopathology, Volume 22, Issue 3, pages 179 – 184, June 2011 / S.C. Thomas, L.R.R. Davidson and M.E. McKean.
2. "[475] A Minimum Volume of 50ML is Necessary to Ensure That a Pleural Effusion of Benign: A Retrospective Review of 2,536 Cases." Lisa Rooper, Syed Z Ali, Matthew T Olson. The Johns Hopkins Hospital, Baltimore, MD.
3. "A prospective study of the volume of pleural fluid required for accurate diagnosis of malignancy pleural effusion." / Chest. 2009 Apr;135(4):999-1001. Doi: 10.1378/chest.08-2002. Epub 2008 Nov 18./Abouzgheib W1, Bartter T, Dagher H, Pratter M, Klump W.

### Inquiries and feedback may be directed to:

Dr. Csaba Hegedus, Pathologist at 403-388-6162 or [Csaba.Hegedus@ahs.ca](mailto:Csaba.Hegedus@ahs.ca)

### This bulletin has been reviewed and approved by:

Dr. Michael Greeff, AHS Zone Clinical Department Head (Co-Lead) Laboratory Medicine, South Zone  
Dorothy Ward, South Zone Laboratory Director