PAPLYR00002 Implementation of the provincial lymphoma protocol FAQ

Is the new, provincial Client Resource document for lymphoma protocol reflecting a change in process for flow cytometry samples - from collection in saline/fresh to Tissue Transport Medium (TTM)?

Correct, this is to protect the tissue from degradation during transport from collection location to Anatomical Pathology (AP) and Flow Cytometry laboratories.

When will this be implemented?

Edmonton and Calgary: The new Lymphoma Diagnostic Pathway was implemented on Monday, November 2, 2020.
Regional Centers (Grande Prairie Regional Hospital, Red Deer Regional Hospital, Chinook Regional Hospital and Medicine Hat Regional Hospital): Cancer SCN is targeting Monday, May 10, 2021

Is collection/handling different at different sites in the province?

Yes, applicability and impact is as follows:

- Hospital sites in Edmonton and Calgary: The pathway applies whether or not the patient is enrolled in the Provincial Lymphoma Diagnostic Pathway for diagnostic assessment. Previous Lymphoma Protocol pathways and documents are replaced by the **Client Resource – Lymphoma Protocol** document.

- Hospital sites in Grande Prairie, Edmonton, Red Deer, Calgary, Lethbridge and Medicine Hat: Cases identified as “Lymphoma Diagnostic Pathway” to follow the new process. No change to lymph node or query lymphoma cases outside of the Lymphoma Diagnostic Pathway – maintain local anatomical pathology collection/handling process.

- Collection sites/clinics/programs outside of the above locations should continue to submit samples in formalin only – refer to the Laboratory Test Directory.

Where do we collect TTM from?

If your DI department has a monitored reagent fridge, depending on volume collected per week, your site may want to keep some in the department. If not, someone will need to come to the lab to pick up the vials as needed.

Labs at all acute care locations will keep a minimum stock to support this.

Ordering and maintenance of TTM may vary at Regional Centers (Grande Prairie, Red Deer, Lethbridge, Medicine Hat). Please contact your local anatomical pathology department to established a process for your department.

Not sure that we have a dedicated, monitored fridge available in our department, therefore, we will likely need to collect TTM the morning of. What time will it be available?

This varies depending on the site. Please contact the site AP department to confirm hours of operations. Specimens must be handed directly to a pathology staff member during working hours.

How long does this medium last before expiry?

The expiry date is listed on the vial. The vials must also be observed for color change as noted in the Client Resource document. A color change from orange/peach to hot pink indicates the pH has changed and the reagent cannot be used, even if it has not expired.

Is on site histotechnology support needed to process these samples for flow i.e. with TTM, do we still need to arrange the day prior for a histotechnologist/designate to prepare/process the sample?

This new process will eliminate the need to arrange the day prior as the sample will no longer be submitted fresh. However, shipment of the TTM sample should be delivered within a few hours, as stated in the **Client Resource – Lymphoma Protocol**.

Do we still need to call the lab in advance that a flow specimen will be en route?

No, however it is very important that the samples be delivered directly to a laboratory staff member as soon as procedure is completed. TTM stability is only 4 hours at room temperature.

If my core biopsy needle touches TTM when depositing sample 1, can it go back into the patient?

No

The small table in the Client Resource document, on core biopsy specimen length, is complex. Please clarify collection/sample length requirements for the following scenarios:

a) **4 x 2.0 cm 16 gauge core biopsy samples obtained - do I put 2 cores in TTM for flow and 2 in formalin?**

The primary sample and priority is formalin. Flow cytometry requires one, single 1.0 cm core, the rest should always be put in formalin.

b) **2 x 2,0 cm 14-gauge cores are obtained- total is about 3.8 cm:**

As per **Client Resource – Lymphoma Protocol** document, detach a 1.0 cm-long piece for TTM (flow cytometry). The rest goes into formalin (2.8 cm)

c) 1 x 3.0 cm 18-gauge core sample obtained; then last pass yields a 1 x 0.7 cm core of tissue:

18-gauge samples are discouraged. Their relatively thin diameter results in rapid exhaustion of the specimen upon processing for diagnosis.
Place the last core (0.7 cm) into TTM for flow; take a small piece (0.3 cm) of the long core (3.0 cm) and place in TTM (0.7 + 0.3 cm = total of 1.0 cm in TTM for flow);
the rest goes into formalin 2.7 cm.

d) **3 x 1,0 cm 18-gauge core sample obtained; then last pass yields a 1 x 0.4 cm core of tissue:**

18-gauge samples are discouraged. Their relatively thin diameter results in rapid exhaustion of the specimen upon processing for diagnosis.
Preferred option is to put the last core sample into TTM, complemented by a small 0.4 cm long portion from the remaining tissue samples (total for TTM is 0.8 cm), and then to put the rest into formalin (2.6 cm).

e) **3 x 14-gauge cores, each about 1 cm, or less, how many go into TTM?**

None; all three into formalin. Flow Cytometry will not be performed.
Formalin is the default priority when material is limited and overall insufficient for both TTM and formalin collection. For example, in this case, the sample (total length approx. 3.0 cm) exceeds the minimum expected for formalin (2.5 cm) but the total size does not yield enough for a meaningful TTM flow cytometry sample (0,8 cm minimum).

Please summarize the minimum length of sample that is required for TTM and formalin:

- **Core biopsy minimum requirements = number of 1.0 cm cores OR (length of tissue sample):**
  - **In formalin:** 3 X 1cm cores OR (total 2.5 cm)
  - **In TTM (flow cytometry):** A single 0.8 - 1cm core
  - **Total tissue required:** 4 X 1 cm cores OR (3.3 cm)

- **Incisional or Excisional Biopsy minimum requirements**:
  - **In formalin**: 1.0 cm^3
  - **In TTM (flow cytometry)**: 0.3 cm^3
  - **Total tissue required**: =/> 1.5 cm^3

Contact Information:
Questions may be directed to your local Anatomical Pathology Department