

# **The University Health Network**

## **Laboratory Medicine Program Review**

**of**

## **Eastern Health Laboratory Medicine Program**

**March 06, 2015**

### **Overall Engagement**

The University Health Network (UHN) Laboratory Medicine Program (UHN-LMP) was requested by the Eastern Health (EH) to provide a review of the Eastern Health Laboratory Medicine (EHLM) Immunohistochemistry and histology technical services. In addition to the clinical review of the above noted areas, UHN was requested to comment on the general administrative structures and processes in place to facilitate overall quality management and oversight.

### **Engagement Process**

On December 16 and 17, 2014, Dr. Runjan Chetty and Mr. Brad Davis from UHN conducted information sessions with clinical and technical at the EH. A second follow-up visit was completed on February 03 and 04, 2015, by Dr. Sylvia Asa, Dr. Runjan Chetty and Mr. Brad Davis. The information sharing sessions were jointly conducted in a peer review format. The information sharing sessions were also held with EHLM administrative and clinical Leadership. We would like to first comment on the very positive attitudes that we all experienced in all of our sessions. EHLM staff demonstrated a very clear commitment to quality patient care,

transparency and a desire to enhance laboratory medicine quality, sustainability and accessibility.

## **Histology**

### **Background**

The histology review was conducted via information sessions with EHLM clinical and technical staff directly involved in the technical oversight and provision of surgical pathology specimens. It had been identified that there are material delays in specimen processing and the focus was to investigate the cause(s), as such directly affects report turn-around time (TAT). On February 04, 2015 there was a backlog of 90 cases, with 48 cases greater than 72 hours that will impact fixation in general.

The annual workload in surgical pathology ranges from 32,000 to 33,000 specimens, with approximately 30% of these constituted by large specimens. In addition, there are 600 pediatric cases and EHLM also provides 6 weeks of grossing coverage for Carbonear and 4 weeks for Clarenville.

The current staffing budget consists of 5 pathology assistants (PAs) , with one individual identified as the “Lead” and one position remains unfilled. With respect to the skill and productivity, 2 of 4 PAs are relatively inexperienced and need a further year of in-service training to function independently and cover a full caseload. With the current staffing level and skill, there is insufficient capacity to meet the current specimen complexity and volumes. In addition, PAs conduct delegated medical procedures on behalf of the pathologists and currently there is a need for greater direct medical supervision.

## **Recommendations**

1. Establish a formal PA training program in-house which can be jointly developed/provided with other academic health centers. Highly recommend the EHLM focus on training local candidates with the understanding that such training requires a 12-18 month commitment and resources. The additional PA position would allow the Lead PA time to be involved in the training and overall oversight. The challenge of securing PA resources is experienced across Canada and long-term sustainability is best achieved by training “local” and EHLM has identified candidates that would be appropriate for the program.
2. Immediately fill the fifth funded position and secure an additional sixth PA position.
3. Establish more specific guidelines for specimens that are regarded as “gross only” (not requiring histology processing). This will help in decreasing workload and such are available from other pathology programs such as UHN.
4. Formally assign medical supervision as part of the responsibilities and authority of the director of surgical pathology. Strongly encourage involvement/input from each of the sub-specialty site groups to ensure specimens are appropriately triaged.

5. Implement a formal employee recognition program within EHLM to recognize, respect and involve staff to a greater level in decision-making. We are confident that with the right training and staffing levels, EHLM can build a high quality/high functioning PA team and currently have an excellent PA Lead.

## **Immunohistochemistry (IHC)**

### **Background**

In October 2014, an internal report prepared by Scientific Director of IHC for EHLM formed the key reason for the December visit by UHN. The thrust of this report addressed concerns around fixation times of specimens and the potential impact on IHC results. EH has now instituted a caveat in reports stating that the results could not be guaranteed as a result of long fixation periods as result of backlogs in grossing of specimens. It should be noted that time-sensitive specimens, most notably breast and prostate, were prioritized and fell within the guidelines for acceptable fixation times. It is against this backdrop the following report has been formulated. The UHN review team met with the Scientific Director and the Chief Technologist in IHC, and concerns were expressed regarding fixation of specimens impacting negatively on immunohistochemical stains. The IHC lab expressed that they could not take responsibility for results on specimens falling outside of the 48-hour fixation period. The concern, while completely understandable has to be interpreted in context. IHC staining of class II antibodies, especially in breast cancer cases, were not impacted. Those cases with prolonged fixation were, in fact, interpreted in conjunction with light microscopy and the reporting pathologists

would be aware of “unusual” or discordant IHC results, and interpret such results with morphological features. Thus, no misinterpretation and resultant patient harm was likely.

A further concern expressed in the information sessions was the lack of nominated medical input/directorship in the IHC lab and a major deficiency.

With respect to the technical quality, it did not appear to be an issue in the light of EQA performance results and an external expert pathologist’s opinion. It was noted that volumes were increasing and challenges with staffing had resulted in longer than expected TAT. The lab is well–equipped with state of the art immunostainers and offers an extensive panel of markers.

We were all impressed by the enthusiasm and commitment of the entire team to IHC. Their concerns were a reflection of their interest in delivering a high-quality service. We had no concerns about technical or scientific ability/factors. Their concerns were legitimate, but needed to be interpreted in context of safe practice. We did not feel there was imminent harm to patient care and/or change in the diagnosis, but support that the following actions be taken:

**Recommendations:**

1. The establishment of a medical director position in IHC to work closely with Scientific Director and IHC Technical Team.
2. Strengthen working relationship between Lab Medicine administration and the IHC Medical and Technical team.
3. Conduct a workload/staffing analysis to confirm resource requirements for current test volumes and develop a process of continuous oversight and report to EHLM administration.

4. Establish an IHC partnership with another Canadian based pathology department to enhance opportunities for information sharing and collaboration.

### **Administrative Organization & Processes**

Information sessions were held with EHLM Medical and Administration Leadership and included sessions with the EH Quality Management Office. The sessions included the above noted areas under review and overall assessment of management organization and processes. The following key observations/ recommendations came forward from these sessions.

#### **Organizational Reporting Structure**

Recommend that EH establish a direct reporting relationship for the Laboratory Director to the Senior Management Vice President responsible for laboratory medicine. This would establish a dual medical & lab administration reporting function, which currently has the laboratory director reporting directly to the laboratory medical director.

#### **Reporting of Discrepant Results from External Quality Assurance (EQA) Programs**

Recommend that all such reports/findings be reported immediately to both the Laboratory Medical Director, Administrative Laboratory Director and oversight be provided by the Quality Management Committee, with completion of a hospital-wide risk incident report. This ensures a comprehensive investigation, discussion and learnings to correct the issue and avoid future similar incidents. The investigation should be completed in a non-punitive and continuous quality improvement culture.

## **Communications**

There was a consistent voicing and desire from all of the staff we spoke with to enhance and formalize communications. This speaks to the EHLM staff positive attitude to actively participate in the department and need to have timely and meaningful involvement. We would recommend that staff meetings be standardized and that minutes be recorded to document decisions and actions to be taken.

## **EHLM Strategic Plan & Operational Priorities**

It was noted that there was a need for greater alignment on the strategic directions and operational priorities of the program. This can be achieved by more formal planning and communication sessions with all the staff and input/direction from Senior EH Leadership. A challenge shared by all health care providers is the availability of resources and need to carefully prioritize activities and services to optimize the provision of safe/quality care. We recommend that EH consider the establishment of laboratory medicine partnerships with other health care organizations as one strategy to meet the increasing complexity and demand for laboratory medicine services. The partnerships could be involved in knowledge transfer, service provision and training of laboratory medicine professionals in technical, medical and management disciplines.

## **Human Resource Strategy - Knowledge Acquisition & Sharing**

It is crucial that EHLM develop a comprehensive 5 year human resource strategy in both the

medical and technical resource areas that reflects the specific weaknesses and strengths of Newfoundland and Labrador. We would recommend that the strategy consider key partnerships with the other health care centers in the Atlantic Region and across Canada. In addition to strategic partnerships with other laboratory medicine programs, EH should also actively engage local, regional and national educational institutions involved in the education of laboratory medicine professionals. This could be designed not only to meet the needs of the Province, but also be an international business opportunity.

### **Employee Satisfaction – A Quality Work Place**

Information sessions identified the need to address overall employee satisfaction and trust levels in these particular areas – involving both medical, technical and management areas. The history and events that have contributed to low morale and trust within the program are well known and require immediate attention. Staff satisfaction is foundational and a critical first step to enhancing the quality and sustainability of all the services. In saying, such, we were impressed with the positive attitude, spirit and commitment of staff to the program and their patients.

Strongly recommend a workplace satisfaction program be implemented to address employee satisfaction and create a quality work place, that people feel safe and valued.