



Plan régional de pandémie

Coronavirus (COVID-19)

Section 5d – v – Laboratoire

Dernière révision: 2020-05-11

V. Laboratoire

INTRODUCTION

The Laboratories of Vitality Health Network are essential services and will require competent trained personnel and sufficient appropriate reagents and supplies during a pandemic to ensure provision of laboratory testing within an acceptable turn around time. The hours of operation may be adjusted accordingly

Clinicians will require testing on samples from patients with COVID-19 illness in order to identify the viruses present and rule out circulation of the pandemic strain. Testing for diagnosis treatment and follow up of patients, some critically ill from other illness and diseases other than influenza, will also be provided as required.

Laboratories will see an increase in testing requests for secondary infections resulting COVID-19 and an increase in nosocomial testing due to increased numbers of hospital admissions.

ROLES AND RESPONSIBILITIES

Every effort will be made to support patients with respiratory disease while maintaining normal essential services

In the event that more than 30% of personnel are absent laboratory services will be reduced to urgent and STAT requests only and if over 50% only the tests on the Essential Test List (LAB Appendix A) will be processed.

Laboratory services will be provided on a 24hour / 7 day a week basis at the Georges Dumont University Hospital center (Zone 1B), Chaleur Regional Hospital (Zone 6), Campbellton Regional Hospital (Zone 5) and Edmundston Regional Hospital (Zone 4) however the hours of operation and services provided at the satellite laboratories will depend on resources available as priority will be put towards uninterrupted operations at the regional hospital level.

The community laboratories are:

- Zone 1B : St Anne de Kent
- Zone 4 : Grand Falls
St Quentin
- Zone 6 : Caraquet
Tracadie Sheila

The Director of Laboratory Services and the Laboratory Managers will communicate on a regular basis to determine the level of testing to be offered per facility. Communication of cancelled outpatient services and all elective testing will be announced through the zone communication network such as regular radio announcements and prominent signage in the facilities. Non-elective testing will be prioritized as per resources available.

Cooperation with the physicians in limiting the ordering of STAT tests is essential. The provision of patient travel and exposure information will assist in the prioritization of testing in our Laboratories.

PLANNING ASSUMPTIONS

Proactive

- ▶ Prepare orientation plans for the efficient and effective use of personnel as per their competence and training in each section/discipline. Staff may be requested to assist in other sections or laboratories within the zone. Changes to the testing schedule may be necessary to maximize workflow and efficiency.
- ▶ Policies and procedures in the technique manuals in each section/discipline to be kept up to date.
- ▶ Prepare techniques for the preparation of certain media and transport culture
- ▶ Strategies for the prioritization of workload and specimen processing to be updated as per the stage of the pandemic.
- ▶ Verify surveillance information on a weekly basis and be in contact with the Infection Control Department, Public Health and Provincial Virology Department at the CHU Dumont
- ▶ Inform staff of the contingency plan and update regularly.
- ▶ Educate clients on test requirements associated with the associated pandemic in relations to the COVID-19 viruses.
- ▶ Establish a list of minimal staffing required for each section/ discipline (LAB Appendix B) to ensure continual provision of the tests listed on the Essential Test List. Staff working in disciplines not required to perform the tests on the Essential Test list may be deployed to assist in other disciplines.
- ▶ Staff to follow biosafety precautions in handling specimens as per the recommended biosafety guidelines and updates as provided.

OPERATIONAL STRATEGY

- **Staff shortages 10% to 30%**
 - No change required to workflow and testing schedule. Delays in turn around time may occur for some tests.
- **Staffing shortages 30% to 50%**
 - Cancel all out patient appointments except coagulation therapy, dialysis, cardiac, oncology and Extra Mural patients.
 - Cancel services offered to physicians' offices, medical clinics, foyers, special care home, third party clients, etc.
 - Reduce services offered to STAT and Urgent requests only.
 - Bedside glucose testing and all point of care testing will be discontinued until normal services are resumed. Nursing units may continue testing however laboratory staff may not be able to provide support and no training will be provided during this period.
- **Staffing shortages >50%**
 - Perform only tests on the Essential Test List. Delays in turn around time may occur for some tests depending on availability of appropriately trained staff.
 - Tests requested not on the Essential Test List must be approved by a Clinical Specialist or Laboratory Physician.
 - Tests referred out must be approved by referral laboratory.
- **Staffing levels below the essential staffing** per facility (Lab Appendix B) will necessitate concentration of services to the regional laboratories with on call only at satellite laboratories and relocation of technologists where feasible to the regional laboratories. If redirection of staff is not feasible then testing will be redirected to the nearest site having sufficient staff and supplies.
 - The turn around time of reporting results may increase accordingly.

OPERATIONAL ELEMENTS

General laboratory

- In the event of sporadic interruptions of supply chains each laboratory will have a 16 week supply of both COVID-19 and non-COVID-19 related materials, with a focus on the tests listed in the Essential Test List. Supplies used on a daily basis will significantly decrease upon reduction or canceling of routine outpatient testing and elective surgeries therefore these supplies should allow sustainability for a few weeks during possible delays in delivery of supplies. Inventory of supplies required to complete testing as per the Essential Test List and lists of additional stock to be established in each laboratory.
- Items that will increase in demand even with the reduction in outpatient tests have to be stockpiled and this should include sufficient supplies for transporting specimens to Provincial Virology Laboratory for a period of 8 weeks possibly on a daily basis.

- Secure extra swabs, viral transport media and other reagents needed for COVID-19 diagnosis from the Provincial Virology Laboratory
- Inventory on a regular basis the supplies and reagents required for workload received and plan for shortages
- Prepare staffing and workflow schedules as per the volume and type of specimens received and the available personnel

Determine if alternate testing is available in the event of shortages

MICROBIOLOGY LABORATORY (Zone 4, 5 and 6)

- Secure extra swabs, viral transport media and other reagents needed for COVID-19 diagnosis using the GeneXpert platform.
- Influenza testing performed provincially at the George Dumont Microbiology Laboratory in Moncton. Specimens will be couriered or taxied, in the event that courier services are not available, to the Public Health Laboratory 7 days a week including weekends and holidays. Referrals on weekends and holidays must be approved for testing by the George Dumont Microbiology Laboratory.
- Read and distribute publications on COVID-19 surveillance
- Inventory on a regular basis the supplies and reagents required for workload received and plan for shortages
- In the event of a shortage of staff trained for dispatching specimens to the Provincial Virology Laboratory, microbiology staff will assume the responsibility of verifying adherence to the appropriate Transportation of Dangerous Goods (TDG) regulations
- Assess the possibility of reallocating staff to the provincial virology laboratory
- Disinfection of surfaces, medical equipment, contaminated waste before disposal and reusable protective clothing before laundering to be monitored by Microbiology staff.

PROVINCIAL MICROBIOLOGY PANDEMIC LABORATORY

Refer to Georges Dumont Hospital Laboratory Provincial Pandemic plan. The Provincial Pandemic Laboratory will report all positive cases to the Provincial Public Health Department and send results to the referral laboratories in a timely manner. The ordering laboratory will report all positive COVID-19 cases to the local Public Health in a timely manner.

COMMUNICATIONS

Cancellation of routine outpatient services and elective surgeries to be coordinated with the Communication Department. Announcements will be issued by Radio, Printed Media and Social Media, and in facility by clear signage detailing appropriate process.

Memos to be issued to all users of laboratory services detailing limitations of testing provided

Daily communication to Laboratory Manager by Chief Technologists or supervisors on issues and problems encountered, staffing patterns, testing volumes, etc.

Daily communication on operational status to Regional Laboratory Director by Laboratory Managers.

Microbiology designates to communicate regularly, at least daily, with the Infection Control Department and the Local Emergency Operations Centre and regularly to local Public Health and the Provincial Public Health Laboratory.

Data Management

- Specimens already entered Meditech will be processed in the usual manner
- If the Admissions module of Meditech is nonoperational, a paper requisition must accompany each specimen. The requisition must include the following data or will not be processed:
 - Patient Name
 - Date of birth
 - Sex
 - Hospital medical record number or Medicare number
 - Location
 - Ordering physician
 - Type of specimen
 - Date and time of collection
 - Test/procedure requested
 - Symptoms: MINOR/ MODERATE/SEVERE
 - Date Symptoms started:
 - Travel - WHERE AND DATE RETURNED:
 - Contact with known case: YES/ NO /UNKNOWN

If the LIS module in Meditech is non-operational each laboratory section will have to create a specimen log in order to document specimen acquisition.

All paper requisitions will be preserved in order to complete proper data entry when Meditech is operational and when staffing permits.

MORGUE

- Capacity for storage of bodies in the refrigerator to be detailed for each zone (Refer to Morgue Regional Pandemic Plan). Coroner cases will be processed as per regulations.
- Mass casualties to be coordinated with local funeral homes.

AUTOPSY SUITE

- All requests for autopsies are to be approved by the department pathologist and will depend on the availability of pathologists and support staff.
- Coroner cases to determine cause of death will be coordinated with the concerned pathologist assigned to the case and prioritized as per pathologist and support staff available.
- Requests for autopsies by families will be channeled through the zone pathologists, and the Coroner.
- In the event that autopsy services are not available efforts will be made by the Pathology Department and the Coroner to obtain services from a neighboring Pathology Department.

POST PANDEMIC

- Arrangements will have to be made for the cancelled outpatients to be rescheduled for testing and due to lengthy waiting times in most laboratories without excessive overbooking and strain on laboratory services. Triage of patients may have to be done however this must be done by qualified personnel as the health and treatment of the patient may be affected.
- Hours of operation may have to be modified to accommodate increased workload in an effort to accommodate cancelled patients after the pandemic however this will depend on available personnel, reagents, supplies and allocated budgets.

Any issues that arose during the pandemic to be reviewed to determine whether there are changes to the pandemic plan that could be implemented.

Appendix A
New Brunswick Laboratory Essential Services
Essential Test List

Consultation with the Regional Laboratory Medical staff is required for special requests

<p>Hematology (tests provided by all NB laboratories)</p>	<ul style="list-style-type: none"> • CBC including differential and platelet count • PT/INR • PTT • CSF count and differential • ESR (in certain vasculitis) • DDimer
<p>Chemistry (tests provided by all NB laboratories)</p>	<ul style="list-style-type: none"> • <i>Glucose</i> • <i>Electrolytes (Na, K, Cl,)</i> • <i>Creatinine</i> • <i>Urinalysis</i> • <i>Pregnancy Test</i> • <i>Blood Gases</i> • <i>Cardiac Enzymes</i> • <i>Liver Enzymes</i> • <i>Toxicology</i> • <i>Amylase or Lipase</i>
<p>Transfusion Medicine (tests provided by all NB laboratories)</p>	<ul style="list-style-type: none"> • <i>Group/ Type and screen</i> • <i>Group and Crossmatch</i> • <i>Direct Coombs</i>
<p>Microbiology (tests provided by all NB Regional Laboratories except Miramichi)</p>	<ul style="list-style-type: none"> • <i>Influenza testing (Provincial testing site -GDH)</i> • <i>Gram smear on CSF</i> • <i>Blood Culture</i>
<p>Histopathology (tests provided by all NB Regional Laboratories)</p>	<ul style="list-style-type: none"> • <i>Frozen Section</i>

LAB Appendix B

Minimal Staffing Required per Laboratory

Zone 1B

- Georges Dumont Hospital

○ Technologists		
Hematology/Blood Bank	6.2	(MLT)
Chemistry	6.2	(MLT)
Microbiology	19.61	(MLT)
Histology	1.4	(MLT)
Cytology	1.0	(MLT)
Molecular Genetics	1.0	(MLT)
○ Support staff		
Reception/Dispatch	2.0	(1007 or LA 3041)
Phlebotomist	2.0	(LA 3041)

- St Anne De Kent

Hemato/BBK/ Chem	1.4	(MLT)
Reception /Phlebotomy	1.0	(1007 and LA 3041)

Zone 4

- Edmundston Regional Hospital

○ Technologists		
Hemato/BBK/Chem	10.2	(MLT)
Microbiology	3.2	(MLT)
Histology	1.0	(MLT)
Cytology	1.0	(MLT)
○ Support Staff		
Reception/ Dispatch	2.0	(LA 3041)
Phlebotomist	2.0	(LA 3041)
Micro / media	2.0	(LA 3041)

- Grand-Sault

Technologists	4.5	(MLT)
Lab Assistant	1.0	(LA 3041)

- Saint-Quentin

Technologist	1.7	(MLT)
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Zone 5

- Campbellton Regional Hospital

○ Technologists		
Hemato/BBK/Chem	7.6	(MLT)
Microbiology	2.4	(MLT)
Histology	1.0	(MLT)
Cytology	1.0	(MLT)
○ Support Staff		
Phlebotomist	2.0	(LA 3041)
Reception / Dispatch	2.0	(1007 and LA 3041)
Microbiology	1.0	(LA 3041)

- Dalhousie

Lab Assistant	1.0	(LA 3041)
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Zone 6

- Chaleur Regional Hospital

○ Technologists		
Hematology/Blood Bank	5.2	(MLT)
Chemistry	5.2	(MLT)
Microbiology	3.4	(MLT)
Histology	1.4	(MLT)
Cytology	1.0	(MLT)
○ Support staff:		
Dispatch	1.0	(LA 3041)
Reception	1.0	(1007 or LA 3041)
Media	1.0	(LA 3041)
Phlebotomist	2.0	(LA 3041)

- Caraquet

Hematology/Blood Bank/ Chemistry	4.8	(MLT)
Reception /Phlebotomy	2.0	(1007 and LA 3041)

- Tracadie-Sheila

Hematology/Blood Bank/ Chemistry	6.6	(MLT)
Reception /Phlebotomy	2.4	(1007 and LA 3041)

- Lamèque

Reception/ Phlebotomy	1.0	(1007 or LA 3041)
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