## Document History:

| Title: | Critical Results Reporting: Rural Clinical Microbiology Labs | Site(s): | Shared Health Diagnostic Services The Pas, Thompson |
|---|---|---|---|

| Document #: | 120-20-03 | Version #: | 08 |
|---|---|---|---|
| Section: | Clinical Microbiology | Subsection: | Rural |

| Approved by: *(approval on file)* | Joelle Carlson | Date: | 4-DEC-2024 |
|---|---|---|---|
| | | Effective Date: | 5-DEC-2024 |

**Details of Recent Revisions:**

- Appendix I Reporting Protocols – 8.0 SARS-CoV-2 (COVID-19) NAAT: section removed

**1.0 Purpose**

To provide a policy outlining the process for communicating critical microbiology test results from rural Shared Health Microbiology laboratories.

**2.0 Definitions**

A critical microbiology test result is one that requires immediate notification from the microbiology laboratory, as the information will have an immediate impact on care, therapy, or isolation precautions for the patient.

**3.0 Policy**

The Shared Health clinical microbiology laboratories at different rural sites communicate these critical test results using a variety of rapid methods (e.g. fax, phone, and computer-generated fax) but in all cases there will also be a traditional result report sent using the standard reporting format.

**4.0 Procedure** (when applicable)

- Any microscopy result (Gram) requested STAT should be processed, read and reported in WebMicro within one hour. Only results deemed critical in Appendix I require further notification (i.e., phone call, fax, etc.).
- Phoned results:
  - Preference is to give results to nurse in charge of the patient or physician (ward clerk may be given results if other staff unavailable).
  - Verbal report will be given to caregiver by lab technologist.
  - Read back verbal confirmation is required from caregiver to lab technologist.
  - The name of the person to whom the results are given must be recorded in the PHONED format in the LIS: First Name and Last Name. The individual who receives the report must read the results back. This information must be documented in the LIS.
  - On-call physicians may be contacted via the paging operator.
- Faxed results:
  - Manual fax: A standardized fax form may be used. Necessary information will be provided on the fax form, refer to Shared Health policy# 10-60-12 “Transmission of Personal Health Information via Fax”. A copy of the faxed page as well as the “confirmation” of fax sent will be retained for records.
  - LIS-fax: These faxes are generated directly by the lab computer and all tracking of sender, recipient and time sent are automatically captured.
- The rural site-specific instructions for whom to phone or fax is given in Appendix I.
- If the results are amended (i.e., errors corrected, or additional results added) the amended results will be reported urgently as well.
- Deceased Patients:
  When a critical result is phoned and you are informed the patient is deceased, please add this information to the scratch pad along with the first and last name of the person providing this information. Do not record any information in Mphone. Subsequent ward and ID notifications are not required. All other procedures (IP&C, public health) remain notifiable at the time of identification, where appropriate.
- Only send IP&C results to the IP&C professional responsible for the site where the sample originated if applicable, e.g., send inpatient notifiable results from TGH to TGH IP&C. (This excludes automatic results generated by the TCP.)

**5.0 Appendices**

APPENDIX I: Reporting Protocols
APPENDIX II: Microbiology Lab: Reportable Organisms

**6.0 References**

- Clinical Microbiology Blood Culture Procedure Manual, Shared Health document# 120-10-07
- Clinical Microbiology Sterile Fluids & Tissues Procedure Manual, Shared Health document# 120-10-15
- Clinical Microbiology Bench Procedure Manual Rural, Shared Health document# 120-20-02
- Principles and Procedures for Blood Cultures; Approved Guideline, Clinical Labs Standards Institute (CLSI) M47-A Vol. 27, No. 17, 2007

- Mycobacterial Culture Procedure Manual, Clinical Microbiology Discipline, Microbiology Laboratory, St. Boniface General Hospital, and Health Sciences Centre.
- Manitoba Health – Reportable Diseases and Conditions by Laboratories March 2015
- Reporting Critical Values, Shared Health Manitoba, doc# 100-10-06

## 7.0 Abbreviations

CDC .....Communicable Diseases
CSF .....Cerebrospinal fluid
dx .....Diagnosis
FR .....Fax report
IC.....Infection Control
ICP .....Report to Infection Control
LIS.....Laboratory Information System
NA .....Not applicable – test referred out
NU .....Nursing units
P.....Phone
PR .....Paper Report
TGH.....Thompson General Hospital
TPHC .....The Pas Health Centre

## APPENDIX I Reporting Protocols

### 1.0 Blood

| Initial Gram Stain | TPHC |
|---|---|
| Nursing Units | P & FR |
| Transfusion Medicine – submitted product or blood culture | P[a] |

[a]Contact on-call Transfusion Medicine Physician – obtain number from hospital switchboard

### 2.0 CSF

| Initial Gram Stain (Positive results only i.e. organisms seen) | TPHC |
|---|---|
| Nursing Units | P & FR |
| **Culture (+) Results** | |
| Nursing Units | P & FR |

### 3.0 Sterile Sites

| Initial Gram Stain (Positive results only i.e. organisms seen) | TPHC |
|---|---|
| Nursing Units | P & FR |
| **Culture (+) Results (Significant isolates only)[b]** | |
| Nursing Units | P & FR |

[b]In consultation with Microbiologist (if significance of isolate is questionable). Call only if original Gram was negative or if the culture is discordant with the original Gram stain.

### 4.0 Reportable Organisms (any site) – refer to Appendix II for list

| Appendix II listing | TPHC |
|---|---|
| Confirmed (IC, CDC) | FR |
| Nursing Units | P & FR |

### 5.0 *C. difficile* Toxin

| Positive Toxin Result | TPHC |
|---|---|
| Nursing Units | P & FR |
| CDC | NA |
| IC | FR |

### 6.0 Wound or Sterile Site Cultures

| Any β-Haemolytic *Streptococcus* spp. or *S. aureus* with dx of necrotizing fasciitis | TPHC |
|---|---|
| Nursing Units | P |
| IC | FR |

### 7.0 MRSA & VRE[d]

| | TPHC |
|---|---|
| Nursing Units[c] (Inpatients) – applies to MRSA only | P & FR |
| IC | FR |

[c]Phone notification is not required if the patient has been discharged or if previous MRSA in the last 3 months.
[d]Phone notification to the ward is not required for VRE.

**APPENDIX II Microbiology Lab: Reportable Organisms**

| Microorganism | CPL (Send isolate) | IP&C**** (Report result) | CDC (Report result) | CMOH****** (Notify) | Phone Nursing Unit |
|---|---|---|---|---|---|
| *Acinetobacter* species resistant to ≥3 antimicrobics, or resistant to Carbapenems | ✓ | ✓ | | | N |
| *Bacillus anthracis* (suspect) | ✓ | ✓ | ✓ | ✓ | Y |
| *Blastomyces dermatiditis* | | | ✓ | | Y |
| *Bordetella pertussis* | No culture done | ✓ | ✓ | | Y |
| BORSA (Borderline Oxacillin Resistant *S. aureus*) – for CF patients only (HSC) | | ✓ | | | N |
| *Brucella* species (suspect) | ✓ | ✓ | ✓ | | Y |
| *Burkholderia cepacia* (new CF patient) | ✓ (Isolates to NML via CPL, once per year) | ✓ (HSC & WL) | | | N |
| *Campylobacter* species | | ✓ | ✓ | | Y |
| *Candida auris* | ✓ | ✓ | | | Y |
| Carbapenem resistant Enterobacterales | ✓* | ✓ | | | N |
| Carbapenemase-producing Gram-negative (confirmed) | ✓ | ✓ | | | Y |
| *Clostridium difficile* (toxin positive, enterics only) | | ✓ | ✓ | | Y |
| *Clostridium tetani* | | ✓ | ✓ | | Y |
| *Corynebacterium diphtheriae*/*ulcerans*/*pseudotuberculosis* | ✓ | ✓ (toxigenic only from wounds; all isolates from throats) | ✓ (toxigenic) | ✓ (toxigenic) | Y (toxigenic) |
| *Coxiella burnetii* | | | ✓ | ✓ | |
| CSF Gram stain Gram-negative diplococci | | ✓ (ID also) | ✓ | ✓ | Y |
| Dermatophytes (ring worm) | | ✓ (WL – inpatients only) | | | N |
| *Enterobacterales* resistant to all aminoglycosides | | ✓ (HSC & WL) | | | N |
| *Escherichia coli* O157 | ✓ | ✓ | ✓ | | Y |
| *Escherichia coli* – other verotoxin producing | | ✓ | ✓ | | Y |
| *Francisella* species (suspect) | ✓ | ✓ | ✓ | | Y |
| *Haemophilus influenzae* – all serotypes (normally sterile body sites) | ✓ | ✓ | ✓ | ✓ (LIS Fax MOH: 204-948-3044) | Y, as per sections 1.0, 2.0, 3.0 |
| *Influenza***** | ✓* | ✓ (pos and neg) Automatic reporting by LIS | ✓ (pos only) Automatic reporting by LIS | | Site specific, see footnotes 120-10-01 |
| *Legionella* species (includes + *Legionella* Urinary Antigen) | ✓ | ✓ | ✓ | | Y |
| *Listeria monocytogenes* – normally sterile body site | ✓ | ✓ | ✓ | | Y, as per sections 1.0, |

| Microorganism | CPL (Send isolate) | IP&C**** (Report result) | CDC (Report result) | CMOH****** (Notify) | Phone Nursing Unit |
|---|---|---|---|---|---|
| | | | | | 2.0, 3.0 |
| *Listeria monocytogenes* from stillborn | ✓ | | ✓ | | |
| Methicillin Resistant *Staphylococcus aureus* – MRSA | | ✓ | | | As per 7.0 |
| *Mycobacterium* (AFB smear positive) | | ✓ | ✓** | | Y |
| *Mycobacterium tuberculosis* complex (culture and/or PCR positive) *M. leprae* (PCR positive) | | ✓ | ✓** | | Y |
| *Neisseria gonorrhoeae* | ✓ | ✓ | ✓ | | Y |
| *Neisseria meningitidis* (invasive disease) | ✓ | ✓ | ✓ | ✓ | Y |
| *Neisseria meningitidis* (non-invasive – conjunctival and pneumonia) | | ✓ | | | Y |
| *Pseudomonas* species resistant to all antibiotics (including colistin) | | ✓ | | | Y |
| RSV | ✓* | ✓ | | | Site specific, see footnotes 120-10-01 |
| SARS-CoV-2 (COVID-19) | ✓* | ✓ (pos and neg) Automatic reporting by LIS | ✓ (pos only) Automatic reporting by PHIMS | | N |
| *S. aureus* (TSST-1/2 pos) | ✓ | ✓ | | | N |
| *S. maltophilia* resistant to all antibiotics | | ✓ (HSC) | | | N |
| *Salmonella* species (including *S. typhi*) | ✓ | ✓ | ✓ | | Y |
| *Shigella* species | ✓ | ✓ | ✓ | | Y |
| *Streptococcus* β-hemolytic (normally sterile body sites***) | ✓ (Group A & B only) | ✓ | ✓ (Group A from all pts and group B from neonates only (≤28 days) only)) | | Y, as per sections 1.0,2.0,3.0 |
| *Streptococcus agalactiae* from stillborn | ✓ | | ✓ | | |
| *Streptococcus pneumoniae* (normally sterile body sites***) | ✓ | ✓ | ✓ | | Y, as per sections 1.0,2.0,3.0 |
| Vancomycin Resistant *Enterococcus* species (VRE – *E. faecalis, E. faecium,* or other ENTC known to have Van A/B) | | ✓ | | | N |
| Vancomycin Intermediate or Resistant *Staphylococcus aureus* | ✓ | ✓ | | | Y |
| *Vibrio cholera* | ✓ | ✓ | ✓ | ✓ | Y |
| *Yersinia enterocolitica* | ✓ | ✓ | | | Y |
| *Yersinia pestis* (suspect) | ✓ | ✓ | ✓ | ✓ | Y |
| *Yersinia pseudotuberculosis* | | ✓ | | | Y |

*Do not send isolate. CPL only requires a copy of patient report and/or monthly summary and does not require isolate. For positive *Influenza* and SARS-CoV-2 forward the specimen and a copy of the patient report to CPL.
**Report to Manitoba Health only.
***Refer to JA120-10-01B for list of sterile body sites

****For Cancer Care patients: LIS-Fax &CCMB (refer to 4.0 in 120-10-01). Smear positive AFB, PCR positive AFB and culture positive *M. tuberculosis* should be faxed to Dr. Eric Bow from result search in the LIS; search by his name or enter his Dr. code (01528).

*****For Cancer Care patients: Call positive influenza results.

******Microbiologist or administrator on call to phone CMOH: 204-788-6836

Emergency After-hours: 204-788-8666

http://www.gov.mb.ca/health/publichealth/contactlist.html

**Note:** If Gram (-) diplococci are seen on a direct Gram smear for CSF, follow up with second call when organism has been identified.