Ministry of Health

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Directorate/Institution	Diagnostic Laboratories Services at Directorate General of Specialized Medical Care (DGSMC) at Ministry of Health (MOH)
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Acknowledgment

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Acronyms:

A&E	Accident & Emergency
MDRO	Multidrug Resistant Organism
MOH	Ministry of Health
MRSA	Methicillin Resistant Staph. Aureus
OPD	Outpatient Department
SOP	Standard operating procedure
TAT	Turnaround time

1. **Purpose**

   This document describes the procedure for notification of critical microbiology results.

2. **Scope**

   This document is applicable for all medical laboratories under MOH and other collaborative governmental and non-governmental health institutions.

3. **Definitions**

   3.1 **A Critical Result:** a test result which may signify a patho-physiological state that is potentially life threatening or that could result in significant patient morbidity or irreversible harm or mortality and therefore requires urgent medical attention and action.

   3.2 **Notifiable disease:** A disease that, by legal requirements, must be reported to the public health or other authority in the pertinent jurisdiction when the diagnosis is made.

   3.3 **Communicable disease** (synonym: infectious disease) An illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal, or reservoir to a susceptible host, either directly or indirectly through an intermediate plant or animal host, vector, or the inanimate environment.

   3.4 **Read Back Verification:** for any verbal report of a test with critical value, the recipient must record and then read back the message to the caller at the same time result is given.

4. **Procedure of Critical Results communication:**

   4.1 Critical results in microbiology describe the detection of clinically important findings that require notification and immediate action by the concerned physician, and sometimes notification of other hospital or MOH departments for example infection control, communicable diseases and public health.

   4.2 Once the result is confirmed, must be telephoned as soon as possible or within one hour on suspicion, refer to the List of Critical Microbiology Results.

   4.3 Only authorized healthcare provider shall accept critical values.

   4.4 Each hospital should have its own detailed calling algorithm.

   4.5 A clear escalation procedure should be in place.

   4.6 The communication should start from first line moving to the second line after failure of two attempts to call the first line. If second line failed to respond a clear next step should be in place. For example, calling a third line or calling pathologist on-call.

4.7 The policy should take in consideration the patient source e.g. OPD, A&E or Inpatient, for which a specific detailed communication procedure might be followed.

4.8 To comply with patient safety goals, the person taking the call must read back the patient's name, the hospital number and the received laboratory results.

4.9 All phone calls must be documented in the Laboratory information system (Al Shifa System) and released provisionally.

4.10 Document the following in Al Shifa System at the lab comment section:

- Name of the lab staff (Caller).
- Name of the doctor/ receiver who received the result.
- The date and time of notification.
- Verification that read back was obtained.
- Document any failure of attempts to notify.

4.11 For communicable diseases, reporting should follow the guidelines in communicable diseases manual third Edition.

5. List of Critical Microbiology Result

- Bacteria seen CSF Gram stain
- Positive CSF antigen detection for pneumococci, Streptococcus agalactiae, Neisseria meningitidis, and Haemophilus influenzae type b (now rare)
- Positive Cryptococcal antigen test
- Positive blood cultures
- AFB smear-positive
- Streptococcus pyogenes (group A Streptococcus) in a surgical wound
- Presence of potential B. anthracis or any bioterrorism agent such as Francisella tularensis, Yersinia pestis etc.
- Detection of a significant pathogen (e.g. Legionella, Brucella, vancomycin-resistant Staphylococcus aureus)
- Positive eye cultures growing Pseudomonas aeruginosa or Bacillus spp.
- Positive or suspicious for any pandemic (Influenza or SARS) or Bioterrorism Agents (Smallpox, viral hemorrhagic fever agents)

6. Responsibilities

6.1 Responsible staff:

- To ensure the adherence to critical result communication procedure
- To facilitate the alternative channels once needed

6.2 Quality manager /officer

- To follow up the implementation of the procedure
- To monitor regularly communication of critical results and raise non-conformance with corrective action once needed.

6.3 All lab staff:

- To adhere to the procedure.
- To document record and release results as recommended
- To report test failures or incident

7. Document History and Version Control

Version	Description	Review Date
1	Initial Release	May 2026

8. References

Title of book/ journal/ articles/ Website	Author	Year of publication	Page
Reporting of critical and urgent result procedure	Toronto medical laboratories / Mount Sinai hospital, department of microbiology	2022	
Critical values/ critical result list	Myo clinic laboratories		
Clinical Microbiology Procedures Handbook, 4th edition , American Society for Microbiology	Amy L. Leber	2016	
Manual of communicable diseases Third Edition	Directorate General for Disease Surveillance and Control, Ministry of Health, Sultanate of Oman	2017	