

Microbiology Critical and Alert Value Result Notification

Purpose

This procedure provides instructions for Microbiology **Critical** and Alert Value Result Notification.
Results of **Critical** and Alert Values need to be called as soon as the results are available.

Principal and Clinical Significance

Critical and Alert Values encompass the detection of clinically important microorganisms and viruses that require notification and immediate action by the physician.

Policy Statements

This procedure applies to all staff who perform work in the Microbiology lab.

Procedure

Critical and **Alert Value Results** are reported within **60 minutes** with the exception of the BioFire FilmArray BCID which will be reported within **30 minutes** of result.

Results that require a "Called to and read back by:" comment are the following **POSITIVE** laboratory results:

Test Code	Critical or Alert Value
CSF	Positive CSF Gram stains and Positive CSF culture results.
BC	Blood culture gram stains, excluding those with pending BioFire FilmArray BCID results. BioFire FilmArray BCID results within 30 minutes to the physician and pharmacy. Any additional organisms isolated or Gram stain results not previously reported.
BCF/BMCF	Fungal blood or bone marrow Gram stain and positive culture results.
BMC	Positive Bone Marrow Gram stain and positive culture results.
BF	Positive Body Fluid Gram stain and positive culture results.
TRXN	Transfusion Reaction positive Gram stains and positive culture results.
FUNG	Positive Fungal culture (systemic infection)
AFBB	All positive AFB smears and All cultures positive for <i>Mycobacterium</i> spp.
GC/GENC	<i>Neisseria gonorrhoeae</i> , <i>Listeria</i> species, <i>Salmonella</i> species, and/or <i>Shigella</i> species isolated.
TC/SPUC	CF Sputum or CF Throat culture: <i>Streptococcus pyogenes</i> (Group A strep) or <i>Burkholderia</i> species
TISC	<i>Streptococcus pyogenes</i> (Group A strep), <i>Francisella</i> , <i>Bacillus anthracis</i> , <i>Yersinia pestis</i> , <i>Brucella</i> species isolated.
STLC	Stool culture positive for: <i>Salmonella</i> <i>Shigella</i>

	• <i>E. coli</i> O157 • <i>Campylobacter</i> spp. • <i>Vibrio</i> • Shiga Toxin positive GN broth. • Exception: ED patients do not need to be called.
CGPCR	Positive <i>Chlamydia trachomatis</i> (CT) and/or <i>N. gonorrhoeae</i> (NG) results for patients <=12 y/o, any source. Positive <i>Chlamydia trachomatis</i> (CT) and/or <i>N. gonorrhoeae</i> (NG) results on conjunctiva sources.
COVC FLRVD	Positive and Presumptive Positive SARS-CoV2 for perioperative and CVOR patients only.
RESP2	Positive for <i>B. pertussis</i> Positive SARS-CoV2 for perioperative and CVOR patients only.
GI	BioFire GI panel positive for: • <i>Salmonella</i> • <i>Shigella/Enteroinvasive E. coli</i> (EIEC) • <i>E. coli</i> O157 • Shiga-like toxin producing <i>E. coli</i> (STEC) <i>stx1/stx2</i> • <i>Campylobacter</i> • <i>Vibrio</i> and <i>Vibrio cholerae</i> • Exception: ED patients do not need to be called.
MEPNL	Any positive result
BORDP	Positive for <i>B. pertussis</i>
HSVPP/ HSVPB	<i>HSV-1</i> and/or <i>HSV-2</i> positive on Blood, CSF, or Eye samples. <i>HSV-1</i> and/or <i>HSV-2</i> positive on NICU patients.
CCMVU	Any positive result

Additional situations requiring a "Called to and read back by:" comment are the following **POSITIVE** laboratory results from any culture type:

MRSA isolation

- **Exceptions:**
 - E.D. patients do not need to be called
 - repeat isolates (or PCR positive) in the same admission
 - repeat isolates from Cystic Fibrosis Clinic
 - Outpatients, except from Urine cultures

Gram negative rods identified as MDROs, including ESBL or confirmed Carbapenem resistant organisms.

- When alerting the caregiver with a KPC or resistant Carbapenem result, inform them that consultation with an Infectious Disease physician is necessary

VRE Vancomycin Resistant Enterococci isolates

***Corynebacterium diphtheriae* isolates**

Changes in reported susceptibility results

Any culture positive for potential agents of Bioterrorism:

- ***Bacillus anthracis***
- ***Brucella***

- **Burkholderia mallei/pseudomallei**
- **Francisella tularensis**
- **Yersinia pestis**
 - Notification of Infectious Disease physician is also necessary.
 - Use AMION application to get the on-call doctor.

Fungal isolation :

- Mucorales-all genera included in this Order, including those listed below
 - *Mucor spp.*
 - *Rhizomucor spp.*
 - *Rhizopus sp.*
 - *Syncephalastrum spp.*
 - *Lichtheimia spp.*
 - **Cunninghamella spp.**
- *Cryptococcus neoformans*
- *Coccidioides immitis*
- *Histoplasma capsulatum*
- *Blastomyces dermatitidis*
- *Sporothrix schenckii*

Any reference lab result determined as critical or an alert value. Critical results are defined by the reference laboratory performing the test, and are called to Children's Minnesota Laboratory. Critical result notices from a reference lab become a Children's critical result.

**Result
Reporting**

1. Microbiologists initiate the notification of the patient's licensed caregiver (physician, house staff or nurse) as soon as possible upon detection of a **critical** or Alert Value result.
2. Documentation of notification of all **critical** and alert value results will be completed in Sunquest. Documentation will include: gram stain or test results, "Called to:" comment, name and role of the recipient of the critical information, and date and time of notification.
3. Enter the code **CAL**, located on key C, [*Called to and read back by*] followed by free text [*name of person (include first initial of last name), credentials, and date/time*] on an Observation line in the *Culture Tab*
4. Call results to the ordering provider or inpatient caregiver. Document date, time, and name and role of the "called to" in Sunquest MRE *Culture Entry* tab in Observations by using customized keyboards or by entering a code and free text in the result box.

3+ BACILLUS ANTHRACIS

**Called to and read back by: Nancy S. (RN) 06/15/09 @ 0900

6. Document failure to notify a caregiver by completing a Safety Learning Report (SLR).

**Previously
Reported as
Critical (PRAC)**

1. Comment code **PRAC** (previously reported as critical) can be used on repeat occurrences of the same critical or alert value organism or result.
 - PRAC may be used if the MDRO is listed on the banner bar in Cerner or the last occurrence has been within the last year.
 - Can be used for following MDRO's: MRSA, VRE, ESBL and CPO
 - Ensure it is the same organism for ESBL and CPO's.
2. If the MDRO is not listed on the banner bar in Cerner and/or it has been > 1 year since the last occurrence, results need to be called and PRAC cannot be used.

References

1. Critical Results or Critical Test Notification document. [Lab GEN Manual GL 3.1](#)

**Training Plan/
Competency
Assessment**

Training Plan	Initial Competency Assessment
1. Employee must read the procedure.	1. Review of called results by Technical Specialist or designee.

**Historical
Record**

Version	Written/Revised by:	Effective Date:	Summary of Revisions
1.0	Becky Carlson	6/2/2009	Initial Version
1.1	Becky Carlson	9/14/2010	Added CSF TAT and failure to notify instructions.
1.2	Lyndsey Smith	12/13/2011	Updated into online format.
1.3	Becky Carlson	5/18/2012	Added Alert Value nomenclature
2	Becky Carlson	4/4/2015	Re-numbered from MC 301
3	Susan DeMeyere	9/20/2017	Removed Direct access testing. Update logo.
4	Susan DeMeyere	12/1/2017	Added instructions for calling with changes in reported susceptibility results.
5	Julie Laramie	9/13/2018	Added B. pertussis and CT/NG to critical call list.
6	Susan DeMeyere	4/24/2019	Added BioFire BCID results and HSV
7	Julie Laramie	6/5/2019	Added HSV on positive Eye cultures
8	Susan DeMeyere	8/20/2019	Added GI panel, conjunctiva for CT/NG, reference lab
9	Susan DeMeyere	4/15/2020	Added SARS-CoV2
10	Susan DeMeyere	11/18/2021	Changed calling positive SARS-CoV2 to peri-op and CVOR only
11	Susan DeMeyere	9/15/2023	Removed calling negative CSF Gram stains.
12	Susan DeMeyere	10/8/2025	Added PRAC section