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| 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**.**

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| 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 *Mycobacterium* spp. |
| GC/GENC | *Neisseria gonorrhoeae*, *Listeria* species, *Salmonella* species, and/or *Shigella* species isolated. |
| TC/SPUC | CF Sputum or CF Throat culture: *Streptococcus pyogenes* (Group A strep) or *Burkholderia* species |
| TISC | *Streptococcus pyogenes* (Group A strep), *Francisella, Bacillus anthracis, Yersinia pestis, Brucella* species isolated.  |
| STLC | Stool culture positive for: * *Salmonella*
* *Shigella*
* *E. coli O157*
* *Campylobacter* spp.
* *Vibrio*
* Shiga Toxin positive GN broth.
* **Exception**: ED patients do not need to be called.
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| CGPCR | Positive *Chlamydia trachomatis* (CT) and/or *N. gonorrhoeae* (NG) results for patients <=12 y/o, any source.Positive *Chlamydia trachomatis* (CT) and/or *N. gonorrhoeae* (NG) results on conjunctiva sources. |
| COVCFLRVD | Positive and Presumptive Positive SARS-CoV2 for perioperative and CVOR patients only.  |
| RESP2 | Positive for *B. pertussis* Positive SARS-CoV2 for perioperative and CVOR patients only. |
| GI | BioFire GI panel positive for: * *Salmonella*
* *Shigella/Enteroinvasive E. coli (EIEC)*
* *E. coli O157*
* Shiga-like toxin producing *E. coli* (STEC) *stx1/stx2*
* *Campylobacter*
* *Vibrio* and *Vibrio cholerae*
* **Exception**: ED patients do not need to be called.
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| MEPNL | Any positive result |
| BORDP | Positive for *B. pertussis* |
| HSVPP/HSVPB | *HSV-1* and/or *HSV-2* positive on Blood, CSF, or Eye samples.*HSV-1* and/or *HSV-2* positive on NICU patients. |
| CCMVU | Any positive result |

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| 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
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| 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
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| *VRE Vancomycin Resistant Enterococci* isolates*Corynebacterium diphtheriae* isolatesChanges 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.
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| 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 schenkii*
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| 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. |

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| **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 @ 09006. 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.
1. 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.
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| **References** | 1. Critical Results or Critical Test Notification document. [Lab GEN Manual GL 3.1](https://starnet.childrenshc.org/References/labsop/gen/testres/gl-3.1-critical-results-or-critical-test-notification.pdf)
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| **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.
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| **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 |