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|  Microbiology Critical and Alert Value Result Notification |
| **Purpose** | This procedure provides instruction 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 | **ALL** CSF gram stains (positive or negative) and Positive CSF cultures |
| BC | Blood culture gram stains, excluding those with pending BioFire FilmArray BCID results. BioFire FilmArray BCID results within 30 minutes to physician and pharmacy. |
| BCF | Fungal blood culture gram stains |
| BMC | Bone Marrow gram stain and or culture |
| BF | Body Fluid (sterile) gram stain and or culture |
| FUNG | Fungal culture (systemic infection) |
| AFBB | All positive AFB smears and All cultures positive for *Mycobacterium* spp. |
| STLC | Stool culture: *Salmonella, Shigella, E. coli O157, Campylobacter* spp., *Vibrio* and Shiga Toxin positive GN broth. |
| GI | BioFire FilmArray GI panel: *Salmonella, Shigella/Enteroinvasive E. coli (EIEC), E. coli O157,* Shiga-like toxin producing *E. coli* (STEC) *stx1/stx2,**Campylobacter*, *Vibrio* and *Vibrio cholerae.* |
| GC/GENC | *Neisseria gonorrhoeae*, *Listeria*, *Salmonella*, *Shigella* |
| BORDP | *B. pertussis*.  |
| TC/SPUC | CF Sputum or CF Throat culture: Group A strep or *Burkholderia* |
| TISC | Group A strep, *Francisella, Bacillus anthracis, Yersinia pestis* |
| TRXN | Transfusion Reaction gram stains and/or cultures |
| 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. |
| HSVPP/HSVPB | *HSV-1* and/or *HSV-2* positive on Blood, CSF, or Eye and NICU patients. |
| COVC | Positive and Presumptive Positive SARS-CoV2.  |

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| Additional situations requiring a “Called to and read back by:” comment are the following POSITIVE laboratory results: |
| MRSA | MRSA isolation **EXCEPT:**  E.D. patients **repeat** isolates (or PCR positive) in the same admission,  **repeat** isolates from Cystic Fibrosis Clinic |
| ESBL or CRE | Gram negative rods identified as ESBL or Carbapenemase producers. (Note: When alerting the caregiver with a KPC positive result, tell them that consultation with an Infectious Disease physician is necessary.) |
| Any culture type | Any culture positive for potential agents of Bioterrorism--*Bacillus anthracis, Brucella, Burkholderia mallei/pseudomallei, Francisella tularensis, or Yersinia pestis (*Note: Notification of Infectious Disease physician is also necessary. Use AMION application to get the on-call doctor). |
| Any culture type | Isolation of: Zygomycetes-(*Mucor,* *Rhizopus)*, *Cryptococcus neoformans, Coccidioides immitis, Histoplasma capsulatum, Blastomyces dermitidis, and Sporothrix schenkii* in any culture. |
| Any culture type | *VRE Vancomycin Resistant Enterococci*  isolates |
| Any culture type | *Corynebacterium diptheriae*  |
| Reference lab  | 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. |
| Change in reported susceptibility results: | 1. Call/page attending physician or team.
2. If return call is not received in 15 minutes, call again.
3. If return call is not received in another 15 minutes, call and give results to RN.
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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 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: KRISTIN S. (RN) 06/15/09 @ 09005. If unable to contact ordering provider or caregiver within 20 minutes, or in case of refusal to accept results, contact the on-call pathologist for instruction.6. Document failure to notify a caregiver by completing a Safety Learning Report (SLR). |
| **References** | 1. Critical Results or Critical Test Notification document. [Lab GEN Manual GL 3.1](http://khan.childrensmn.org/Manuals/Lab/SOP/Gen/TestRes/203317.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 Microbiology Supervisor of 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 |