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| Microbiology Critical and Significant Result Notification |
| **Policy Statements** | Critical and significant Alert Values encompass the detection of clinically important microorganisms and viruses that require notification and immediate action by the physician.  |
| **Purpose** | This policy documents and provides instructions for MICROBIOLOGY/VIROLOGY CRITICAL AND SIGNIFICANT RESULT NOTIFICATION. Results of critical tests as well as culture reports of Alert Value significant organisms need to be called as soon as the results are available. |
| **Responsibility** | Microbiologists who read and report culture results. |
| **Procedure** | **Critical and significant 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:* 1. **ALL** CSF gram stains (positive or negative)
	2. Positive CSF cultures
	3. Blood culture gram stains, excluding those with pending BioFire FilmArray BCID results.
	4. BioFire FilmArray BCID results within 30 minutes to physician and pharmacy.
	5. Fungal blood culture gram stains
	6. Bone Marrow gram stain and or culture
	7. Body Fluid (sterile) gram stain and or culture
	8. Fungal culture (systemic infection), **and:** Isolation of: Zygomycetes-(*Mucor,* *Rhizopus)*, *Cryptococcus neoformans, Coccidioides immitis, Histoplasma capsulatum, Blastomyces dermitidis, and Sporothrix schenkii* in any culture.
	9. All positive AFB smears.
	10. All cultures positive for *Mycobacterium* spp.
	11. 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).
	12. Stool culture: *Salmonella, Shigella, E. coli O157, Campylobacter* spp., *Vibrio* and ShigaToxin positive GN broth
	13. 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.*
	14. GC or Genital culture: *Neisseria gonorrhoeae*, *Listeria*, *Salmonella*, *Shigella*
	15. *B. pertussis* isolated in culture.
	16. CF Sputum or CF Throat culture: Group A strep or *Burkholderia*
	17. Tissue culture: Group A strep, *Francisella, Bacillus anthracis, Yersinia pestis*
	18. Transfusion Reaction gram stains and/or cultures
	19. MRSA isolation **EXCEPT:**

 E.D. patients **repeat** isolates (or PCR positive) in the same admission,  **repeat** isolates from Cystic Fibrosis Clinic* 1. Gram neg 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.)
	2. VRE isolates
	3. *Corynebacterium diptheriae* cultures
	4. Positive *Chlamydia trachomatis* (CT) and/or *N. gonorrhoeae* (NG) results for patients <=12 y/o, any source.
	5. Positive *Chlamydia trachomatis* (CT) and/or *N. gonorrhoeae* (NG) results on conjunctiva sources.
	6. *HSV-1* and/or *HSV-2* positive on Blood, CSF, or Eye culture
	7. 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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| **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 significant Alert Value result.
2. Documentation of notification of all critical and significant alert value results will be completed in the laboratory Information System. Documentation will include: gram stain or culture 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** |

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| **Training Plan** |  **Competency Assessment** |
| 1. Employee must read the policy. | 1. Review of called results by Microbiology Supervisor or designee. |

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| **Historical Record** |

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| **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1.0 | Becky Carlson | 06/02/2009 | Initial Version |
| 1.1 | Becky Carlson | 09/14/2010 | Added CSF TAT and failure to notify instructions. |
| 1.2 | Lyndsey Smith | 12/13/2011 | Updated into online format. |
| 1.3 | Becky Carlson | 05/18/2012 | 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 | J. Laramie | 09/13/2018 | 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  |

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