

Case Finding Algorithm Disease Classification Updates

Reportable medical events form the cornerstone of public health surveillance practice. In the DON, 66 medical events are required to be reported per BUMED instruction 6220.12B. These represent events of public health importance that may be prevented through specific control measures. However, lack of case reporting has been well documented in both the military and civilian sectors.

Laboratory testing criteria for case confirmation are typically included in clinical practice guidelines for the identification of many reportable medical events. Therefore, the EpiData Center (EDC) Department of the Navy and Marine Corps Public Health Center developed case finding methods for reportable medical events that categorize laboratory results indicative of particular diseases based on criteria in the Armed Forces Health Surveillance Center's Reportable Events Guidelines. These case finding efforts generate a subset of results from potential cases that call for subsequent follow-up and response at the local public health level. Cases for each disease were classified depending on the likelihood of a resulting medical event report (MER). A positive classification indicates a test would result in a MER, and a suspect classification indicates that additional information is needed to determine if a MER is expected.

This document describes the current case classification scheme and logic based on Armed Forces Reportable Event Guidelines and discussions between the EDC and preventive medicine subject matter experts. A disease profile is available for each disease that includes more details about laboratory case identification methods.

Classification Logic Code Definitions

Positive

- 1 – A positive laboratory test meets the reportable case criteria.
- 2 – Clinical compatibility can be assumed based on the test type or results. This means that the test ordered is specific to a disease or group of diseases, and would not be ordered without symptoms present.

Suspect

- 3 – The majority of DOD laboratories cannot perform confirmatory tests on site. The DOD does have reference laboratories capable of performing the majority of confirmatory tests, but previous analysis indicates that the final results are not routinely available in Health Level 7 (HL7) data.
- 4 – Laboratory testing methods or data interpretation are complicated.



5- Clinical compatibility cannot be assumed based on the test type or results, and therefore laboratory data are not sufficient for case confirmation.

Disease Specific Classification Information

Disease	Databases	Classification Scheme	Classification Logic
Amebiasis	Microbiology/Chemistry	Suspect	4
Anthrax	Microbiology	Suspect	3
Botulism	Microbiology/Chemistry	Positive	2
Brucellosis	Microbiology/Chemistry	Positive, Suspect	2, 5*
Campylobacter	Microbiology/Chemistry	Positive	1
Chlamydia	Microbiology/Chemistry	Positive	1
Cholera	Microbiology	Suspect	3
Coccidioidomycosis	Microbiology/Chemistry	Suspect	2
Cryptosporidiosis	Microbiology/Chemistry	Positive	2
Cyclosporiasis	Microbiology/Chemistry	Positive	2
Dengue	Chemistry	Suspect	4
Diphtheria	Microbiology	Positive	2
E. coli	Microbiology/Chemistry	Suspect	3
Ehrlichiosis	Microbiology/Chemistry	Suspect	4
Encephalitis	Microbiology/Chemistry	Positive, Suspect	1*
Filariasis	Microbiology/Chemistry	Positive	2
Giardia	Microbiology/Chemistry	Positive	2
Gonorrhea	Microbiology/Chemistry	Positive	1
Haemophilus Influenzae	Microbiology/Chemistry	Positive	2
Hantavirus	Chemistry	Suspect	3
Hemorrhagic Fever	Microbiology	Suspect	4
Hepatitis A	Chemistry	Suspect	5
Hepatitis B	Chemistry	Suspect	4
Influenza	Microbiology/Chemistry	Positive	1
Legionellosis	Microbiology/Chemistry	Suspect	4
Leishmaniasis	Microbiology/Chemistry	Positive	2
Leptospirosis	Microbiology/Chemistry	Positive, Suspect	2, 5*
Lyme Disease	Chemistry	Suspect	5
Malaria	Microbiology/Chemistry	Positive	1
Measles	Chemistry	Positive	1
Meningococcal Meningitis	Microbiology/Chemistry	Positive	1
Mumps	Microbiology/Chemistry	Positive	1
Norovirus	Microbiology/Chemistry	Positive, Suspect	1*
Pertussis	Microbiology/Chemistry	Positive	1
Plague	Microbiology	Suspect	3
Q Fever	Chemistry	Suspect	4
Relapsing Fever	Microbiology	Positive	2



Disease	Databases	Classification Scheme	Classification Logic
Rift Valley Fever	Chemistry	Positive	2
Rocky Mountain Spotted Fever	Chemistry	Positive, Suspect	2, 5*
Rubella	Chemistry	Positive	1
Salmonella	Microbiology	Positive	1
Schistosomiasis	Microbiology/Chemistry	Positive	2
Shigella	Microbiology	Positive	1
Streptococcus	Microbiology	Positive	2
Syphilis	Chemistry	Suspect	4
Trichinosis	Chemistry/Anatomic Pathology	Positive	2
Trypanosomiasis	Chemistry	Positive	1
Tularemia	Microbiology/Chemistry	Positive	2
Typhoid Fever	Microbiology	Suspect	4
Typhus Fever	Chemistry	Positive, Suspect	2, 5*
Varicella	Microbiology/Chemistry	Suspect	4
Yellow Fever	Chemistry	Suspect	4

*Case classification criteria are dependent on test type or specimen source.

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