Announcements

• All participants must register for the Monthly Disease Surveillance Trainings in order for us to provide CMEs:
  1. Log-on or Request log-on ID/password: https://tiny.army.mil/r/zB8A/CME
  2. Register for FY17 Epi-Tech Surveillance Training: https://tiny.army.mil/r/4TgNE/EpiTechFY17

• Confirm attendance for today’s training:
  – Enter your full name/email address in the chat box; enter each individual’s information if attending with a group
  – You will receive a confirmation email within 48 hours
  – Contact your Service Hub if you do not receive this email

• Please put your phones on mute when not speaking. Press *6 to mute/unmute your phone.
Learning Objectives

At the end of the presentation, the learner will be able to:

- **Describe** medical events that have been removed from the reportable events list
- **Identify** medical events that have been added to the reportable events list
- **Understand** other edits that have been made to the case definitions of existing DoD reportable medical events (RMEs)
Reportable Medical Events may represent an inherent, significant threat to public health and military operations. These events have the potential to affect large numbers of people, to be widely transmitted within a population, to have severe/life threatening clinical manifestations, and to disrupt military training and deployment.
Importance of Reporting

Timely, accurate reporting of probable, suspected, or confirmed cases ensures proper identification, treatment, control, and follow-up of cases.
The reporting of important preventable medical events has long been a cornerstone of public health surveillance rooted in international and national regulations to prevent the introduction, transmission, and spread of communicable diseases.
Requirement to Report

• It is required to report medical events within the DoD as defined in Armed Forces Guide. Reference documents include:
  
  − DoD:
    • DODD 6490.02E “Comprehensive Health Surveillance”
    • DODI 6490.03 “Deployment Health”
    • Joint Publication 4-02 “Doctrine for Health Service Support for Joint Operations”
    • CJCS Memorandum MCM 0025-07 “Procedures for Deployment Health Surveillance”
  
  − Army:
    • Army Regulations 40-5 “Medical Services Preventive Medicine”
    • Department of the Army Pamphlet 10-11 “Medical Services Preventative Medicine”
  
  − Navy:
    • Navy Manual of the Medical Department p-117 articles and 2 and 19
    • BUMED INST 6220.12 series “Medical Surveillance and Medical Event Reporting”
  
  − Coast Guard:
    • Coast Guard Medical Manual COMDTINST M6000.1F “Chapter 7, Preventive Medicine”
Armed Forces Reportable Medical Events Guidelines & Case Definitions

SUMMARY OF PROPOSED CHANGES
What’s different?

- Focus on the local reporter as the primary user
- New introductory pages that provide more context for local reporting
- Case definitions in a new format designed to be more reader friendly
  - Combined laboratory criteria with case classification section
- Standardized language to be more congruent with wording found in AHLTA and CHCS
- Laboratory and clinical criteria for all diseases align with Nationally Notifiable Disease Surveillance System*
The following diseases have been newly added to this guide:

- Chikungunya Virus Disease
- Novel and Variant Influenza
- Post-Exposure Prophylaxis (PEP) against Rabies*
- Zika Virus
**CONFIRMED**
A case that meets the clinical description with **ANY** of the following:

- CHIK identified by culture
- CHIK (+) antigen
- CHIK RNA detected by PCR
- At least a 4-fold increase of antibody titer between acute and convalescent sera
- CHIK (+) IgM antibodies from serum followed by confirmatory virus-specific antibodies (ex: PRNT) in the same or later specimen

**PROBABLE**
A case that meets the clinical description with **ALL** of the following:

- CHIK positive IgM antibody from CSF or serum **AND**
- No other laboratory data
CONFIRMED

A case that meets the clinical description with ANY of the following:

- Novel or variant Influenza A (NoVIA) identified in culture or
- NoVIA nucleic acid (RNA) detected by PCR or gene sequencing or
- At least a four-fold increase of NoVIA antibody titer between acute and convalescent sera or
- NoVIA virus identified by another testing method as determined by DoD

PROBABLE

A case that meets the clinical description with no or inconclusive laboratory testing for novel or variant influenza A virus and that meets ANY of the following:

- Contact with a confirmed case of novel or variant influenza OR
- Travel to an area with known cases of novel or variant influenza and
- Exposure to animals known to transmit novel or variant influenza (e.g. birds or pigs)
CONFIRMED

A case that meets the exposure criteria in which rabies PEP is initiated and a full rabies exposure* risk assessment is completed

*Exposure defined as one or more of the following:
- Any bite, scratch, or other situation in which saliva or CNS tissue of a rabid or potentially rabid animal
- Inadvertent bat contact
- Recipient of organ donation from suspected or known human case of rabies

PROBABLE

No probable case definition
**CONFIRMED**

**ANY** of the following:

- ZV identified by culture* or
- ZV (+) antigen* or
- ZV nucleic acid (RNA) detected* (ex. PCR, sequencing, NAAT) or
- ZV (+) IgM antibody from serum or CSF with a (+) PRNT titer against Zika **AND** a (-) PRNT titer against Dengue* (or other flaviviruses endemic to the region where exposure occurred)

*from any acceptable clinical specimen

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**PROBABLE**

A case with **ALL** of the following:

- Meets the exposure criteria **AND**
- ZV (+) IgM antibody from serum or CSF **with any** of the following:
  - Dengue virus (-) IgM antibody and NO ZV PRNT test performed or
  - (+) PRNT titer against Zika and Dengue (or other flavivirus endemic to the region where exposure occurred)
Zika – congenital

**CONFIRMED**

**ANY** of the following:

- ZV identified by culture*
- ZV (+) antigen*
- ZV nucleic acid (RNA) detected (ex: PCR, sequencing, NAAT)*
- ZV (+) IgM antibody from umbilical cord blood, neonatal serum, or neonatal CSF* with a (+) PRNT titer against ZV and a (-) PRNT titer against Dengue (or other flaviviruses endemic to exposure region)

*from any acceptable neonatal clinical specimen within 2 days of birth

**PROBABLE**

A case with **ALL** of the following:

- Mother meets the exposure criteria or the laboratory criteria for ZV, non-congenital AND
- Zika virus (+) IgM antibody from neonatal serum or neonatal CSF collected within 2 days of birth with any of the following:
  - Dengue virus (-) IgM antibody and no Zika virus PRNT test performed or
  - (+) PRNT titer against Zika and Dengue (or other flaviviruses endemic to the exposure region)
Removed Diseases

The following diseases have been removed from this guide and are no longer reportable:

- Rheumatic Fever

- Invasive Group A Streptococcus
Updated Diseases

- **Amebiasis**
  - Probable case definition added

- **Arboviral Diseases**
  - Non-neuroinvasive arboviral disease added
  - Name changed to Arboviral diseases

- **Cold Weather Injuries**
  - Probable case classification added

- **Cryptosporidiosis**
  - Clinical symptoms are no longer required for reporting

- **Dengue Virus Infection**
  - Suspect case classification removed

- **Filarial Infections**
  - Probable case classification added

- **Hantavirus Disease**
  - Non-pulmonary disease added

- **Heat Illness**
  - Heat injury category removed
  - Probable case classification added for heat stroke

- **Measles**
  - Suspect case classification removed
Updated Diseases

• **Pertussis**
  - Probable case classification for infants added

• **Rocky Mountain Spotted Fever**
  - Reporting of other rickettsiosis species added
  - Name changed to Spotted Fever Rickettsiosis

• **Salmonellosis**
  - Suspect case classification added

• **Shigellosis**
  - Suspect case classification added

• **Syphilis**
  - Entire disease updated including laboratory criteria

• **Trichinosis**
  - Suspect and probable case classifications added

• **Tuberculosis**
  - Suspect case classification added

• **Typhus Fever**
  - Removed Rickettsia species which are now included in Spotted Fever Rickettsiosis

• **Varicella**
  - Reporting of all beneficiaries added
Arboviral Diseases

Arboviral diseases, neuroinvasive and non-neuroinvasive
(see page 14)

**INCLUDES**
- West Nile fever
- West Nile encephalitis
- Japanese encephalitis
- Western Equine encephalitis
- Eastern Equine encephalitis
- St. Louis encephalitis
- California virus encephalitis
- Powassan virus
- Tick-borne encephalitis

**EXCLUDES**
- Rift Valley Fever
- Dengue Virus Infections
- Zika Virus
- Chikungunya Virus Disease

(see respective case definitions)
**Medical Event**

**Diagnosis:** Arboviral Diseases, Neuroinvasive and Non-neuroinvasive

**Reporting Unit:** 00168 - WALTER REED NATL MIL MED CNTR

**Method of Confirmation**

<table>
<thead>
<tr>
<th>Case Classification Status</th>
<th>MER Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Case Classification Status should be classified as suspect, probable or confirmed according to the current Armed Forces Reportable Medical Events Guidelines. Armed Forces Reportable Medical Events Guidelines.

**Laboratory Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Positive</th>
<th>Pending</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus-specific IgM antibody</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virus identified by culture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virus-specific antigen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virus-specific nucleic acid (RNA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least a four-fold change of virus-specific antibody titters between acute and convalescent sera</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virus-specific neutralizing antibody</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other labs not listed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Event Related Questions**

1. Please specify whether the illness is neuroinvasive or non-neuroinvasive.
2. Please specify the etiologic/causative agent.

<table>
<thead>
<tr>
<th>Other countries (please specify in comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa - XA</td>
</tr>
<tr>
<td>Albania - AL</td>
</tr>
<tr>
<td>Algeria - AG</td>
</tr>
</tbody>
</table>

**Deployment related**

<table>
<thead>
<tr>
<th>Deployment related</th>
<th>No</th>
</tr>
</thead>
</table>

**Was this exposure duty related?**

**Pertinent travel?**

If there was pertinent travel, please select the countries of travel, (use ctrl-key to click all that apply)

**Vaccine History:** Has the case been vaccinated against the disease?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Please document exposure history (e.g., occupational exposures).**

**Comments**

Comments (2,000 characters maximum)
Arboviral Disease: non-neuroinvasive

INCLUDES: West Nile fever, West Nile encephalitis, Japanese encephalitis, Western Equine encephalitis, Eastern equine Encephalitis, St. Louis encephalitis, California virus encephalitis, Powassan virus, tick-borne encephalitis

EXCLUDES: Rift Valley fever, dengue virus, Zika virus, and Chikungunya virus. See respective case definition

Clinically compatible?
(i.e. meets the clinical presentation of a non-neuroinvasive disease?)

No

NOT A CASE

Clinically Compatible: Non-neuroinvasive
- Fever (chills) as reported by the patient or a health-care provider AND
- Absence of neuroinvasive disease AND
- Absence of a more likely clinical explanation
- Other clinically compatible symptoms of arbovirus disease include:
  - Headache
  - Myalgia
  - Rash
  - Arthralgia
  - Paresis
  - Nuchal rigidity
  - Vertigo
  - Vomiting

(+/-) semiology

*From any clinical specimen except CSF fluid

OR (+) antigen OR (+) RNA OR 4-fold change antibody titers between acute & convalescent sera OR (+) IgM from serum by PRNT?

No

Not a case

2-tier IgM (+)?

No

Not a case

Yes

CONFIRMED

Any other laboratory test performed?

No

PROBABLE

Determine classification on results of other test

Yes

NOT A CASE
Arboviral Disease: Neuroinvasive

**INCLUDES:** West Nile fever, West Nile encephalitis, Japanese encephalitis, Western Equine encephalitis, Eastern equine Encephalitis, St. Louis encephalitis, California virus encephalitis, Powassan virus, tick-borne encephalitis

**EXCLUDES:** Rift Valley fever, dengue virus, Zika virus, and Chikungunya virus. See respective case definition

---

**Clinically compatible?**
(i.e. meets the clinical presentation of a neuroinvasive disease?)

**No**

**NOT A CASE**

---

**Clinically Compatible: Neuroinvasive**
- Meningitis, encephalitis, acute flaccid paralysis, or other acute signs of central or peripheral neurologic dysfunction, as documented by a physician **AND**
- Absence of a more likely clinical explanation
- Other clinically compatible symptoms of arbovirus disease include:
  - Headache
  - Myalgia
  - Rash
  - Arthralgia
  - Vertigo
  - Vomiting
  - Paresis
  - Nuchal rigidity

---

**Yes**

(+/-) culture
OR (+) antigen
OR (+) nucleic acid
OR 4-fold change antibody titers between acute & convalescent sera
OR (+) IgM from serum by PRNT
OR (+) IgM from CSF AND (-) IgM in CSF for other endemic arboviruses to exposure region?

**No**

**NOT A CASE**

---

**Yes**

2-tier IgM (+)?

**No**

**NOT A CASE**

---

**Yes**

Any other laboratory test performed?

**No**

**PROBABLE**

---

**Yes**

Determine classification on results of other test

---

*If patient does not have any neuroinvasive symptoms, see the non-neuroinvasive case definition flowchart*
Arboviral Diseases

Japanese Encephalitis

La Crosse Encephalitis

St. Louis Encephalitis

West Nile Virus

Source: CDC
Heat Exhaustion

CONFIRMED

Includes **ALL** of the following:

- Core body temperature > 100.5°F or 38°C and <104°F or 40°C (or evidence of elevated core body temperature if cooling was initiated in the field) **and**
- Short-term physical collapse or debilitation occurring during or shortly after physical exertion that rapidly resolves with minimal cooling intervention **and**
- No evidence of CNS dysfunction or only minor CNS symptoms (e.g. headache, dizziness, that rapidly resolves with minimal cooling intervention)

PROBABLE

No probable case definition for heat exhaustion
CONFIRMED

A case that meets the clinical description as described above occurring during/immediately after exertion or heat exposure with **ALL** of the following:

- Core body temperature ≥104°F or 40°C **and**
- CNS dysfunction (change in mental status, delirium, stupor, loss of consciousness, or coma)

PROBABLE

A case that meets the clinical description of heat stroke as described above occurring during/immediately after exertion or heat exposure with **ALL** of the following:

- Evidence of elevated core body temperature (even if cooling was initiated in the field) **and**
- CNS dysfunction (change in mental status, delirium, stupor, loss of consciousness, or coma)
Medical Event

**Diagnosis**
- Heat Illness

**Reporting Unit**
- 00188 - WALTER REED NATL MIL MED CNTR

**Method of Confirmation**

<table>
<thead>
<tr>
<th>Case Classification Status</th>
<th>MER Status</th>
<th>Date of Report</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6/6/2017</td>
</tr>
</tbody>
</table>

Case Classification Status should be classified as suspect, probable or confirmed according to the current Armed Forces Reportable Medical Events Guidelines. [Armed Forces Reportable Medical Events Guidelines](#).

**Event Related Questions**

- **Was the patient hospitalized?**
  - Yes [ ]
  - No [ ]

- **Date of hospital admission**

- **Place of hospital admission**

- **Indicate all clinical features present**
  - Organ Damage
  - Hypo/hyperkalemia
  - Elevated AST or ALT
  - Elevated CK

- **Please indicate the worst observed mental status of the case**

- **Core Body temperature (maximum measured core temperature prior to cooling, in degrees F)**

- **Specify the type of Heat illness**
  - Heat Exhaustion
  - Heat Stroke

- **Activity at time of illness**

- **Specify wet bulb globe temperature (WBGT, in degrees F)**

- **Is the case symptomatic per the Armed Forces Reportable Medical Events Guidelines?**
  - Yes [ ]
  - No [ ]

**Comments**

**Comments** *(2,000 characters maximum)*
How To Decide What is Reportable or Not?

1. Is there a clear case definition?
2. Are there control and/or prevention measures that can be put into place or need to be tracked within the DoD?
3. Is reporting of the event the only sufficient, timely source of the necessary information?
4. Does it represent an inherent, significant threat to military public health?
5. Does it represent a significant military operational threat?
6. Does it have the potential to inform military program guidance or policy?
7. Is the tactical burden of reporting worth the time and effort?
8. Is the event commonly reportable by state or federal laws, regulations, or guidelines?
Case Definition:

Represents the specific clinical, laboratory, and other criteria that must be met for a disease or condition to be reportable.

Reportable Medical Event (RME):

A medical event or condition mandatory for reporting.
Medical Event Reporting (MER):

The actual report containing information from the RME that is physically entered into the Disease Reporting System internet (DRSi)

Background:

This section of the case definition provides descriptive information about the RME. The background includes information about the causative agent, travel risks, and clinical description.
Clinical Description:
A brief description of clinical signs and symptoms. Unless the clinical description is explicitly referenced in the case classification section of the case definition, it is included only as background information.

Clinical Reporting Elements:
Additional information is sometimes required for specific MERs. Ensure the information listed in the Required Comments section of the case definition is recorded in the MER. If the information is unavailable, indicate so.
Epidemiologically Linked (Epi-Link):
A case in which the patient:

a) Had **contact** with a confirmed or probable case, as defined by the case definition, or

b) Was **exposed** to the same source of infection as a probable or confirmed case, or

c) Is a member of a **risk group** as defined by Public Health during an outbreak
Incident Cases:

Only incident cases are reportable. Incident cases are **newly diagnosed cases** in a person, regardless of how long the person has been sick.

Example:

A patient with chronic Hepatitis B that is being seen for follow-up and has already been reported through DRSi *does not* need to be reported, regardless of new laboratory results.
Case Classification:

A case classification specifies what is needed to meet the case definition of a reportable event. A case definition can be grouped into three classification categories:

- Suspected
- Probable
- Confirmed

Each case classification has its own specific set of clinical and/or laboratory criteria.

Not all RMEs have all three case classifications.
Suspect

- Early identification of the disease is critical for disease control
- Case definition usually limited to clinical symptoms without lab results

**NOTE**: Some RMEs do not have a suspect case classification.

**Example:**

A patient with no symptomatic information available, but has a positive culture and/or positive IgG or IgM antibody for *Anaplasmosis phagocytophilum* and no other laboratory evidence of any other pathogen
Probable

- Case definition is usually more detailed than suspected classification

- Does not have all the required elements for confirmed case

Example:

A patient with a fever >101F and headache and a positive IgG or IgM (=1:64) antibody test for *Anaplasmosis phagocytophilum*
Confirmed

- Case definition is the most specific

- Usually requires laboratory support

Example:

A patient with a fever >101F and headache, AND an IgG antibody test with a fourfold increase (= 1:256+), or a +PCR, or +culture for Anaplasma phagocytophilum
What Not to Report

• **HIV** is not reportable through DRSi

• **Healthcare-associated infections.** Report healthcare associated infections to your Infection Control Practitioner (ICP)

• **Prevalent cases.** DRSi is a reporting tool for **incident** cases only
IDENTIFY AND CLASSIFY THE CASE!
A 23 year old patient is seen with complaints of a large round lesion. The patient mentions they were camping in Virginia last weekend and noticed several ticks on themselves. The provider diagnosed this as an erythema migrans, caused by Lyme disease, and no labs were ordered.

How should this be entered into DRSi?

(see page 52)
You receive a report of a positive PCR test for Salmonella from stool from a patient who reported having diarrhea and abdominal pain for several days. The provider diagnosed Salmonella and issued treatment. No other laboratory tests were ordered.

How should this be entered into DRSi?

(see page 72)
A male patient who recently returned from Puerto Rico has an acute onset of fever and conjunctivitis for “about a week”. They are tested for Zika, Chikungunya, and Dengue. The Zika RNA is positive, and the Dengue IgM is negative but the IgG is positive. The Chikungunya IgM is positive but IgG negative.

How should this be entered into DRSi?

(see page 20, 28, and 97)
A patient that has just been attacked by an angry dog and is seen in ER for treatment. The provider recommends post-exposure prophylaxis against rabies, but the patient refuses, assuming the dog was just having a bad day. The dog and its owners cannot be found to determine its vaccination history.

How should this be entered into DRSi?

(see page 65)
What if some information is pending?
Questions/Service POCs

- **Army:**  APHC – Disease Epidemiology Division
  Aberdeen Proving Ground, MD
  COMM: (410) 436-7605 DSN: 584-7605
  Email: usarmy.apg.medcom-aphc.mbx.disease-epidemiologyprogram13@mail.mil

- **Navy:** NMCPHCC Preventive Medicine Programs and Policy Support Department
  COMM: (757) 953-0700; DSN: (312) 377-0700
  Email: usn.hampton-roads.navmcpubhlnthcenpors.list.nmcphec-threatassess@mail.mil

  **Contact your cognizant NEPMU:**
  NEPMU2: COMM: (757) 950-6600; DSN: (312) 377-6600
  Email: usn.hampton-roads.navhospporsva.list.nepmu2norfolk-threatassess@mail.mil

  NEPMU5: COMM: (619) 556-7070; DSN (312) 526-7070
  Email: usn.san-diego.navenpvntmedufive.list.nepmu5-health-surveillance@mail.mil

  NEPMU6: COMM: (808) 471-0237; DSN: (315) 471-0237
  Email: usn.jbphh.navenpvntmedusixhi.list.nepmu6@mail.mil

  Email: NEPMU7@eu.navy.mil
QUESTIONS?