

ANNOUNCEMENT

- To Register for the Monthly Disease Surveillance Trainings:
 1. Contact your Service Surveillance HUB to receive monthly updates and reminders
 2. Log-on or Request log-on ID/password: <https://tiny.army.mil/r/zB8A/CME>
 3. Register at: <https://tiny.army.mil/r/4TgNE/EpiTechFY17>

- Confirm attendance:
 - Please enter your full name/email into the DCS chat box to the right or email your Service HUB
 - You will receive a confirmation email within 48 hours with your attendance record; if you do not receive this email, please contact your Service HUB





DRSi Disease Reporting Best Practices

Presented by: Asha Riegodedios, MSPH
Disease Surveillance Monthly Training
25 April 2017



NAVY AND MARINE CORPS PUBLIC HEALTH CENTER
PREVENTION AND PROTECTION START HERE

WWW.NMCPHC.MED.NAVY.MIL

Objectives

- What attributes make up a good medical event report (MER)?
- Why it is important to fill out a MER correctly?
- What are the consequences of filling out a MER incorrectly?



Why are medical event reports collected?

- Armed Forces Reportable Medical Events Guidelines and Case Definitions
- Navy:
 - BUMED INST 6220.12C “Medical Surveillance and Medical Event Reporting”
 - NMCPHC-TM-PM 6220.12 “Medical Surveillance and Reporting”
 - Available at: <http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/disease-surveillance/Pages/default.aspx>
- Air Force: AFI 48-105 “Surveillance, Prevention, and Control of Diseases and Conditions of Public Health or Military Significance”
- Army: AR 40-11 “Medical Services: Preventive Medicine”



Why are medical event reports collected?

- Medical Event Reporting
 - Rooted in international, national, and federal policy
 - Monitoring of select diseases
- Purpose
 - Ensure timely and adequate response
 - Early identification of emerging or re-emerging diseases and other threats
 - Estimation of: Distribution, Trends, Risks
 - Development and assessment of policy and resource allocation



Why are medical event reports collected?

- Today's climate: shift toward surveillance of bioterrorism and emerging disease threats
- Focus on
 - rapid response at the local level
 - ensuring senior level visibility: international implications
- Public health emergency events:
 - Reporting to international authorities **within 24 hours**
- Development of syndromic surveillance tools – ESSENCE
- Increased expectations at senior levels of the DOD



Why are medical event reports collected?

- Reporting the event is the only sufficient, timely source of the necessary information
- Control measures need to be put into place or tracked within the DoD
 - Or, effectiveness of control measures
- Case Investigation may require resources or expertise beyond which may be available locally
- Inherent, significant threat to military public health or mission readiness
- Reporting the event is necessary to inform military program guidance or policy in a timely manner
- The event is commonly reportable by US state or federal mandates



What happens to a report when you enter it into DRSi?

- Locally: Provides perspective
 - Review history of the patient
 - Identify outbreaks within your reporting unit
 - Analyze trends over time for situational awareness to your leaders
- Regionally:
 - In the Navy, NEPMUs are monitoring DRSi regularly
 - Identify outbreaks that involve more than one reporting unit
 - Review urgently reportable events to identify if assistance is needed
 - Find opportunities to mentor and coach
 - Analyzing trends over time to inform regional public health discussions



What happens to a report when you enter it into DRSi?

- Headquarters:
 - Conduct near real time analysis to assess risk
 - Combine with other data to conduct studies that inform service-wide policy and program discussions
 - Identify events for situational awareness of our leaders
 - Compile reports that
 - Describe the state of reporting
 - Help target improvements in reporting and surveillance activities



What makes a good report?

- Timeliness

- Report on time according to Service regulations
 - Navy: routine events (7 days); urgent events (24 hours)
 - Air Force: urgent events (24 hours)
 - Army: routine events (48 hours); urgent events (24 hours)
- Allows for timely action
- File a preliminary report for urgently reportable events and update it as more information is collected



What makes a good report?

- Accuracy
 - Report correctly according to Service regulations and the case definitions in the Armed Forces Guide
 - DRSi disease screens: each disease has different lab and event related questions
 - Ensure your answers to these are accurate; If you don't know the answer, then don't fill out that question
 - If you are unsure how to fill out the report with the information you have collected, then call your Service hub/NEPMU
 - Services monitor for accuracy for specific events



What makes a good report?

- Completeness

- Fill in all fields in the DRSi screen for that disease: lab results, event related questions
- Add useful information in the comments section of the DRSi disease screen; this depends on the disease
 - Exposure circumstances, case investigation details, preventive measures put into place



Chlamydia

- Person-to-person spread, common disease, self-limiting if treated
- Why report: Outbreak potential, Reportable in many US States
- What do we do with the information:
 - Burden of disease estimation, track whether local units are aware of their cases
 - Help ensure program implementation: contact investigation, prevention of spread of disease
 - Provides visibility of what you are reporting to civilian authorities



Chlamydia

- Good MER: fill out lab info, no comments needed
- Why Important: Shows you are aware of the case
- Poor reporting:
 - No contact investigation
 - What else are you not aware of?

Laboratory Tests

Culture Positive Pending Negative

Antigen/Nucleic Acid Positive Pending Negative

Comments

Comments *(2,000 characters maximum)*



Legionella

- No person-to-person spread, has serious consequences
- Why report: Outbreak potential, military public health threat
- What do we do with the information:
 - Provide support for a thorough investigation
 - If exposure source not found, people continue to get sick
 - Illness indicates breakdown in environmental controls/processes
 - Watch trends over time to track epi risk



Legionella

- Good MER:
 - Air Force: reportable within 24 hours
 - Fill out all laboratory and event related questions
 - Comments section: discuss investigation, note if others are sick, describe potential exposure routes, explain control measures
- Why Important: we need to assess whether you need assistance
- Poor Reporting:
 - No exposure investigation
 - Potential continued spread of disease



Legionella

Laboratory Tests

Detection by nucleic acid assay Positive Pending Negative

Culture Positive Pending Negative

L. pneumophila serogroup 1 antigen test in urine Positive Pending Negative

4-fold or greater rise in antibody titer Positive Pending Negative

Detection of antigen by DFA or IHC Positive Pending Negative

Other labs not listed

Event Related Questions

Was this exposure duty related? Yes, non-deployment related Yes, Deployment related No

Pertinent travel? Yes No

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

Afghanistan - AF
Africa - XA
Albania - AL
Algeria - AG

Please specify the clinical form of legionellosis.

Comments

Comments (2,000 characters maximum)

By history of the patient, he has had no recent travel and has been home on leave. House is new construction (two years old) with no recent problems with air conditioning. No hot tub but does have a salt water pool that by history is well maintain. Large pond near home, but patient does not visit the area. No illness in household. Patient did attend motorcycle safety course onboard Naval Station, Norfolk 8 July 13. Building where class was attended is zone air conditioning system fed by multiple



Legionella

Laboratory Tests

Serology/Immunology (please specify in the comments section below) Positive Pending Negative

Culture Positive Pending Negative

L. pneumophila serogroup 1 antigen test in urine Positive Pending Negative

Other labs not listed

Event Related Questions

Pertinent travel? Yes No

If there was pertinent travel, please list the countries of travel.

Please specify the clinical form of legionellosis.

Comments

Comments *(2,000 characters maximum)*



Malaria

- No person-to-person spread, geographic endemicity, has serious consequences
- Why report: Outbreak potential, military public health threat, operational threat
- What do we do with the information:
 - Provide support for investigation, collect specific data to conduct analysis
 - Illness could indicate potential breakdown in PPM: fix this then illnesses go away
 - Illness could indicate change in epi risk profile: may need change in policy/procedures before illnesses go away



Malaria

- Good MER
 - Air Force and Navy: reportable within 24 hours
 - Fill out all laboratory and event related questions
 - Comments section: case investigation, whether there are others who are sick, breakdown in PPM, and control measures
- Why Important:
 - Need good, accurate info to continually evaluate epi risk on a near-real time basis
- Poor Reporting:
 - Bad information on risk to our forces
 - Rapid increase in disease, severe illness



Malaria

Detection of Plasmodium by nucleic acid test

Positive Pending Negative

Blood Smear

Positive Pending Negative

Binax NOW Rapid Diagnostic Test

Positive Pending Negative

Other labs not listed

UA

Event Related Questions

Please specify type of Malaria

Falciparum

Was this exposure duty related?

Yes, non-deployment related Yes, Deployment related No

Pertinent travel?

Yes No

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

Afghanistan - AF
Africa - XA
Albania - AL
Algeria - AG

Did the patient take chemoprophylaxis?

Yes No

If the patient did take chemoprophylaxis, please identify the meds (choose as many as applicable by holding the CTRL-button while clicking with your mouse).

Chloroquine
Doxycycline
Mefloquine
Malarone

Comments

Comments (2,000 characters maximum)

Patient was on Malarone and indicated that doses had been missed a few times. Patient often wore clothing not treated with permethrin. Patient indicated DEET was used, but described a spray so I'm not sure it was used the issued DEET. Uniforms were treated with permethrin prior to



Tuberculosis

- Person-to-person spread, geographic endemicity, has serious consequences, uncommon
- Why report:
 - Outbreak potential over long period of time in crowded environments
 - Military public health threat and operational threat
 - Isolation/quarantine regs both mil and civ
- What do we do with the information
 - Provide support for a thorough case investigation
 - Collect specific data to inform TB Control Program discussions



Tuberculosis

- Good MER
 - All Services: reportable within 24 hours
 - Fill out all laboratory and event related questions
 - Comments section: case investigation (treatment, exposure period), whether a military unit is potentially exposed, exposure investigation, risk comm actions
- Why Important: we need to assess if you need assistance
- Poor Reporting:
 - Inadequate exposure investigation, increased public panic
 - Potential continued spread of disease
 - Inability to inform policy
 - Expect a phone call from your NEPMU



Tuberculosis

Laboratory Tests

Clear Section Responses

Sputum AFB Smear

Positive Pending Negative

Isolation/culture

Positive Pending Negative

Nucleic Acid amplification test

Positive Pending Negative

Other labs not listed

Event Related Questions

Is this case a contact of a known/suspected active TB patient?

Yes No

Is there evidence of multi-drug resistance (resistance to 3 or more drugs)?

Yes No

Was this exposure duty related?

Yes, non-deployment related Yes, Deployment related No

Pertinent travel?

Yes No

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

Sao Tome And Principe - TP
Saudi Arabia - SA
Senegal - SG
Serbia - SR

Comments

Comments *(2,000 characters maximum)*

PT is foreign military from Senegal. History of travel to Canaries Island, Guadalupe, and Ivory Coast. Asymptomatic. 3 Sputum Smears done in San Antonio came back negative. Bronhial wash Culture came back positive. Identification confirmed by DNA Gen-Probe as MYCOBACTERIUM TUBERCULOSIS.



Tuberculosis

Laboratory Tests

Sputum AFB Smear Positive Pending Negative

Culture Positive Pending Negative

Nucleic Acid amplification test Positive Pending Negative

Other labs not listed

Event Related Questions

Is this case a contact of a known/suspect active TB patient? Yes No

Is there evidence of multi-drug resistance (resistance to 3 or more drugs)? Yes No

Was this exposure duty related? Yes, non-deployment related Yes, Deployment related No

Pertinent travel? Yes No

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

- Other Caribbean - XB
- Other Europe - XE
- Other Pacific - XI
- Pakistan - PK

Comments

Comments *(2,000 characters maximum)*

12/9/15: AHLTA- 1. Tuberculosis of lung: Prior history of INH-resistant pulmonary tuberculosis, now s/p 6 months of DOT with RPE. No signs of toxicity or side effects. The patient is fit for full duty, and world-wide deployable. No future PPD tests. 21 y/o female, active duty USMC, presenting from Camp Pendleton with roughly 20 days of non-productive cough. A chest X-ray and CT scan were performed that both supported the diagnosis of pulmonary tuberculosis. Multiple sputum cultures were



Outbreak

- May be Person-to-person spread or not, potentially serious consequences, may be self-limited or may not end without intervention
- Why report: military public health threat, operational threat
- What do we do with the information:
 - Provide support for investigation: lab, risk comm, epi, environmental
 - Analyze outbreak burden and collate lessons learned
 - Gather information on uncommon outbreaks



Outbreak

- Good MER
 - All Services: reportable within 24 hours
 - Fill out all questions as much as possible, focus on the question
 - File a preliminary report EARLY and update that report regularly
- Why a good MER is important: we need to assess if you need assistance
- Poor Reporting:
 - Inadequate exposure investigation, increased public/leader panic
 - Potential continued spread of disease
 - Inability to inform future outbreaks
 - You can expect a call from your NEPMU



Outbreak

Case Narrative

1. Case Definition with specific symptoms/signs; (i.e. fever greater than 100.0 F, laboratory confirmed, vomiting, etc.):

Patients are presenting with acute onset of nausea, vomiting, and diarrhea along with body aches and chills. Very few had temperatures above 100.0. The vast majority have recovered after one day of SIQ. The vast majority feel better and return to work after 24 hours.

2. Laboratory test description (indicate specimen tested and whether patient, food or water):

Five NOROVIRUS samples were sent to NEPMU2 in Norfolk on 19 JUN 15 for confirmation. Awaiting status of lab results.

3. Investigation description (include specific questions asked/surveys/travel history, diet, animals, insects, berthing, work pace, water sources, food preparation areas, waste disposal, social contacts, deployments, shore activities/sexual contacts, exposure to local populations):

Our investigation shows that affected patients come from a cross-section of almost all departments. No specific work center, berthing, or galley appears to be a focus of infection.

4. Preventive measures taken: (list specific options: galleys closed, immunization or medications given, handwashing implemented, berthing spaces cleaned, DEET or permethrin applied, extermination of pests, isolation of cases, etc.)

We are treating only with antiemetics if needed. We are taking additional steps in enforcing handwashing and paying extra attention to wiping down contact surfaces in all heads and on ladders and hatches. Self-service in the crew galleys will be terminated on the 17th starting at midnight and has continued. We will ensure sanitation measures are reinforced in all messes. Hand sanitizer has been placed in all common areas on board and re-supply



Other Attributes of a Good Local Medical Event Reporting program

- SOPs/instruction
- Use of CHCS spool reports
- Use of DRSi Case Finding Module
- Engage your leaders
- Build a relationship with local civilian public health
- Know the baseline burden of disease in your population
- Use of DRSi STD Risk module



Contact Information

- **Army: USAPHC – Disease Epidemiology Division**
Aberdeen Proving Ground – MD
Comm: (410) 436-7605 DSN: 584-7605
usarmy.apg.medcom-aphc.mbx.disease-epidemiologyprogram13@mail.mil
- **Air Force: Contact your MAJCOM PH or USAFSAM/PHR**
USAFSAM / PHR / Epidemiology Consult Service
Wright-Patterson AFB, Ohio
Comm: (937) 938-3207 DSN: 798-3207
usafsam.phrepiservic@us.af.mil



Contact Information

- **Navy: NMCPHC Preventive Medicine Programs and Policy Support Department**
 - COMM: (757) 953-0700; DSN: (312) 377-0700
 - Email: usn.hampton-roads.navmcpublthcenpors.list.nmcphc-threatassess@mail.mil
- **Navy Environmental and Preventive Medicine Units (NEPMU)**
 - NEPMU2
 - COMM: (757) 953-6600; 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
 - NEPMU7
 - COMM (international): 011-34-956-82-2230 (local: 727-2230); DSN: 94-314-727-2230
 - Email: NEPMU7@eu.navy.mil



Questions?

