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/7laAB/EpiTechFY16

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
Mycoplasma Pneumonia Outbreak at Keesler AFB, MS

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937-938-3200 (DSN: 798-3200)
Learning Objectives

- Describe key events in this outbreak
- Understand military intervention with prophylaxis and how it decreased the spread of disease
- Identify strengths and weaknesses of this outbreak investigation
Field Epidemiology Support team was notified of an outbreak at Keesler AFB, Mississippi on 31 August 2015.

Symptoms that were presented were:
- Chills
- Cough
- Fever
- Headache
- Sore Throat
- Fatigue
- Muscle Aches

The population affected: students from the 336th squadron
- Pointed to classrooms where trainees were in close, frequent contact
- Students complained of dry cough

Approximately 14 cases
Base Response

- Developed questionnaire for cases
- Airmen briefing on personal hygiene
- Closed off public areas (i.e., breakroom)
- Hand sanitizer in all rooms
- Masks available
- Stay home if sick
- Isolate sick individuals from roommate and classmates
Mycoplasma Pneumonia

- Also known as Walking Pneumonia

- A bacterium that causes illness by damaging the lining of the respiratory system (throat, lungs, windpipe).

- Droplet transmission

- Outbreaks occur mostly in crowded settings like schools, college dormitories, military barracks, nursing homes, and hospitals.
Field Epidemiology Support Team

Team Composition:
- Public Health Officer (O4) – Maj Danny Dacey
- Preventive Medicine Physician (O3) – Capt (Dr.) Jameson Voss
- Field Epidemiologist – Mrs. Stefani Ruiz
- ORISE Fellow – Ms. Lisa Shoubaki

USAFSAM/PHR Reach back Capability

Capabilities:
- Investigative Support
- Data Analysis - Outbreak Epidemiology
- Disease Surveillance
- Chemoprophylaxis/Treatment Recommendation
- Disease Transmission Mitigation Strategies
- Risk Communication
Field Epidemiology Support team arrived 2 September 2015

In-brief with:
- 81st AMDS/CC (out of town)
- PHO (just arrived and was still receiving HHG)
- PH NCOIC (new to the job)
- ID Physician
- 2 amazing A1Cs

Tour of Dolan Hall and Thompson Hall (classrooms) where transmission was suspected
- Trainee commander stated that illness was impacting training due to a large number of instructor absenteeism – Mission was impacted!

Transmission outside of 336th squadron occurs
- Four cases in ER and surgery

Trainee Health Physicians (newly arrived on base)
- Medical Readiness
- PHEO (lead); but he was PCS’ing the next day
- ER Nurse Case Manager
Trainees resistant to quarters due to fear of being held back
  - Quarters for just 2 days = washback

Airmen briefing
  - Peer to peer is very effective communication strategy

Risk communication
  - Explaining the outbreak
  - Education on transmission
  - How to protect themselves and others
  - Impacting the mission if individual comes in sick to class
Onset dates are from 11 August to 3 September 2015

24 cases have been identified
15 cases are from 336th squadron
4 instructors are on quarters
4 cases are ER and surgery
1 Dependent

Working Case Definition

Probable:
An illness with onset after 11 August 15, characterized by a cough, and subjective fever in persons assigned to or exposed to the Keesler AFB trainee population.

Confirmed:
A probable case with positive chest x-ray and/or positive lab (PCR) in persons assigned to or exposed to the Keesler AFB trainee population.
-or-
Other symptoms of pneumonia (e.g., fatigue, shortness of breath, night sweats, myalgia, headache, etc.) with a positive chest x-ray and/or positive lab (PCR) in persons assigned to or exposed to the Keesler AFB trainee population.
- Coordinate with laboratory personnel for ordering and submitting
- Coordinate with internal/external partners
- Plan for trainee population
  - Active case finding – screening for symptoms at Thompson Hall
  - Prophylaxis distribution after screening
  - Identify contacts
  - Treat probable or confirmed cases
- Trainees started to PCS
  - Fear of new outbreak on a different base
- Keesler also contacted departing base (from basic training) to find out if they had mycoplasma
- Actions needed within Public Health Office
  - Modification of line listing
  - Develop Epi curve
  - Develop extended questionnaire (to capture controls)

Demographic Information:
- Name (Last, M.I., First):
- Current age (in whole numbers): ______ years
- Gender: Male □ Female □
- Cell phone number: ____________________

If we have follow up questions about your survey, we will contact you.

Rank: (please check)
- Enlisted
  - Amn Basic □
  - Amn □
  - A1C □
  - SrA □
  - SSgt □
  - TSgt □
  - MSgt □
  - SMSgt+ □
- Officer
  - 2nd LT □
  - 1st LT □
  - Capt □
  - Maj □
  - LtCol □
  - Col+ □
- Other:
  - Civilian □
  - Contractor □

Are you currently stationed at Keesler? Yes □ No □

While at Keesler, were/are you a member of the 336th squadron? Yes □ No □

While at Keesler, were/are you:
- Instructor □ or Student □
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*Integrity – Service – Excellence*
Case Definition by Squadron

Keesler AFB, Aug-Sep 2015

As of: 4 Sep 2015 @1700hrs
Date of Illness Onset
Keesler AFB Aug-Sep 2015

Number of Cases

Date of Onset

As of: 4 Sep 2015 @1700hrs
Day 2

Integrity – Service – Excellence
Transmission becoming more evident to be connected to classrooms
- Majority are students and staff with classes in Thompson Hall
- Refined line listing with all cases
- Discussed trainee screening and prophylaxis plan
- Support for instructor prophylaxis line
- Treatment and prophylaxis
Leaders from Keesler met to create a prophylaxis plan – on a Saturday of a 3 Day Holiday weekend!

Ideas were tracked through a group brainstorm.
Plan of action

- Holiday weekend interfered with instructor prophylaxis
  - All instructors were recalled (on a Sat of a 3 day weekend!)
  - All instructors were required to be at briefing
  - Couldn’t make prophylaxis a requirement (but most wanted it)
- PH practiced the prophy line before it was implemented
- Students had already been released for the 3 day weekend
NEED QUESTIONNAIRE
- Name/# id/mt
- Student formation

Pt self-identify
- sick + hx
- cough + night fever

GPs

Non-Vol
- Temp?
- Quotamark

MD/IDMT eval

Sick like PNA
- Fever
- CXR
- 72 Pack
- Mask
- No quarantine

CXR + Avelon
- 2 Pack
- CXR + No mask
Strengths & Limitations

The major strengths identified as a result of the outbreak response activities were:

- Early coordination with internal partners, particularly the trainee squadron
- Early identification of case patients
- Execution of mass-prophylaxis plan
- Communication with internal/external partners
- Risk communication to the trainee population
- Coordination with USAFSAM/local partners for surveillance data

The limitations we encountered:

- Full integration of multiple group organizations into the investigative processes
- Identification of cases among population-at-risk for fear of being held back
- Holiday weekend
- PCS of multiple key players during outbreak
Continued Support

- Continued investigation of base-to-base transmission
- Relay laboratory results (a lot of samples tested at USAFSAM)
- PHR Continued Public Health support
  - Line listing for additional cases
  - Initiated a case control investigation
  - Developed an additional survey once we were back to interview cases AND controls to test hypothesis of classroom transmission
    - No classroom roster available
    - Students unable to recall classrooms during early weeks of training
Contact Information

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

- **Navy:** 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

- **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