Identify, Isolate, Inform: An Illustrative Case

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Project ECHO

Please note, while some aspects of this presentation may be similar to actual events, the order of events themselves may differ depending on location and resources. This presentation is intended to highlight specific points of concern and actionable foci for biopreparedness; the specific details within are adapted from a case that occurred in 2014 in Europe and published in the Am J of Trop Med 2016

Case Presentation

CC: fever, malaise, headaches x 4 days

Brief HPI: 21F w/ no pmhx, no allergies, no medications presenting to the ED for above complaints.

Of note, she is a nursing student returning from a medical mission to Uganda 9 days prior.

Thoughts? Questions?

Case Presentation

- Returned from the trip feeling well but tired
  - Had attended class for several days but then had been staying home
  - Febrile to 38.8°C on two separate days
    - Worsening body aches, decreased appetite
    - No vomiting/diarrhea/abdominal pain
    - No rashes

Case Presentation

- Five days after arrival back in US she notified her trip organizers of her condition
  - Advised to remain home and continue to monitor temperature
    - Advised to begin taking his ciprofloxacin ppx if she developed abdominal symptoms
    - Advised to hold off on presenting to clinic/ED

Case Presentation

- Fevers persisted for another 2 days
  - On day number 9 of return to the US, the patient decided to present to the ED

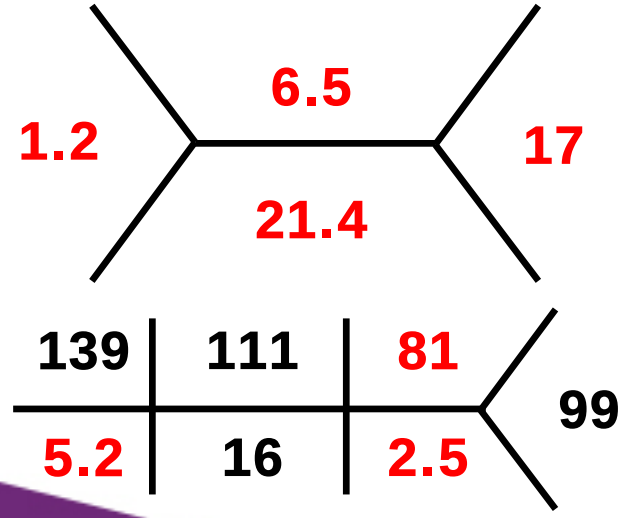
Hospital Course

- On arrival, temp 37.1C, vital signs normal, physical examination unremarkable
  - All laboratory tests performed were within normal parameters
  - Aerobic and anaerobic blood cultures negative at 24hrs
  - Empirically treated for helminths with ivermectin+ albendazole
  - Rapid diagnostic tests sent for malaria, RVP

On day #10 (HD#2) blood sent to CDC to perform EBOV real-time RT-PCR + HD notified

Hospital Course

- Rapid diagnostic test **positive** for *P. falciparum*
  - Started on atovaquone-proguanil (Malarone)
  - Continued to eat, drink, remained afebrile, normal vital signs on HD#3
    - HD#4 febrile to 38.8C, noted onset of diarrhea



INR 2.5
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Hospital Course

- HD#5-received notification that **EBOV RT-PCR positive for Ebola Virus Disease (EVD) type Zaire**
  - Facility biocontainment unit activated
  - Hypotension rapidly developed the same day, CVC placed, VascCath placed for CRRT
  - Patient received 4U FFPs and 1U cryoprecipitate
  - Given IV VitK prophylactically
  - Started on pip/tazo and given IVF, Ringer's Lactate
  - HD#6-developed profuse watery diarrhea with melena, gingival hemorrhage
  - CK rose above limit of detection (>5,000 U/L), CRP increased
  - HD#7-patient began to have severe vomiting, became febrile to 40.1C, CVC was removed and re-inserted at different site
  - Patient developed severe delirium, hypokalemia
  - Ebola-specific therapeutics were initiated, patient slowly began to improve and was discharged on HD#19

Highlights

- **Identify**
- **Isolate**
- **Inform**