Public Health - Electronic Health Records (EHR) Vendors Collaboration Initiative
Special Session #1

Zika Virus Disease Update for Health Information Technology Developers

*February 01, 2016*
Zika Virus Disease Update for Health Information Technology Developers

Agenda

• Introduction
• Zika Virus Disease and Pregnancy Guidance-CDC Zika Response Team
• Tool & Artifacts for EHR Vendors & Health IT Developers- ONC Team
• Q & A
Zika Virus

Providing Clinical Decision Support Elements for EHR Implementation
Zika Virus

COORDINATING PREVENTION AND CARE WITH THE EHR
Proposed Recommendations for EHR Use

• Clear definition of population(s) at risk and actions to be taken
  – Example (to be confirmed by CDC experts)
    • All persons – mosquito exposure prevention
    • All pregnant women – mosquito exposure prevention, travel advisory, advice if known symptoms occur
    • All pregnant women returning from travel to affected areas – screening for symptoms, recommended evaluation procedures and public health consultation
    • All live births of women with known history of Zika virus infection
    • All live births with microcephaly
    • Etc.
Proposed Recommendations for EHR Use

To assist EHR processing: Value sets (with link to regularly updated content)

1) Specific to Zika virus disease
2) Related to Dengue, Chikungunya and Arboviral diseases
3) Related to Pregnant Women
4) Related to Newborn/Infant
Proposed Recommendations for EHR Use

To assist EHR processing: Value sets (with link to regularly updated content) – Examples:

1) **Zika-affected areas**: This would allow EHR to show a smaller drop down list of countries and document the patient’s response about their travel to “Zika-affected areas” recently. This would also allow hospitals to set up an alert /decision support rules based upon this value set. This value set would be versioned and kept up to date with the information present on CDC Zika virus travel notice website.

2) **Transmission Mode (Zika)**: Based upon CDC Zika virus transmission website

3) **Signs Symptoms (Zika)**: Based upon the CDC Zika virus health care providers clinical info website

4) **Signs Symptoms (Arbovirus)**: Includes Dengue, Chikungunya, Zika and other Arboviral disease symptoms that currently exists in ArboNET and NMI Arboviral MMG v2.0.
Proposed Recommendations for EHR Use

To assist EHR processing: Value sets (with link to regularly updated content) – Examples:

5) **Lab Tests**: CDC lab test algorithm includes lab tests for Dengue, Chikungunya and Zika (website). These are existing VADS lab value sets that were developed together by CDC Arboviral program and ELR community that includes State, Local and Commercial Labs.
   a. **Dengue**: [Lab test](#) and [results](#) (includes Dengue Serotypes)
   b. **Chikungunya**: [Lab test](#) and [results](#)
   c. **Zika virus disease (work in progress)**: [Zika Virus PCR](#)

6) **Complications_Zika**
7) **Drug-Disease Interaction (Dengue)**
8) **Insect Repellant**
9) **Zika Virus Associated Vocabulary**

For support, e-mail CDC Vocabulary team at [PHINVS@CDC.GOV](mailto:PHINVS@CDC.GOV)
Proposed Recommendations for EHR Use

- VADS systems maintains the version history for all the value sets.
- **Subscribe to VADS using RSS Feeds.**
- PHIN VADS RSS features allow users to get an update for each of the value sets or all of the value sets associated with Zika virus.
Proposed Recommendations for EHR Use

• To assist EHR processing
  – Resources for:
    • Mosquito exposure prevention strategies
    • Testing recommendations
    • Fetal ultrasound recommendations
Proposed Formatting (Ebola Reference)

- **Gather symptom history and measure patient temperature (P1)**
  - **Fever ≥ 100.4°F or 38.0°C or Symptoms? (D1)**
    - No → **Report patient with high- or low-risk exposures to health department (P2)**
    - Yes → **Isolation protocol, notify Infection Control and Health Department (P3)**

- **High or Low-risk Exposure present? (D2)**
  - Low or No Risk → **Review with Health Department (P4)**
    - Yes → Outpatient Management Protocol (P9)
    - No → **Hospitalize? (D4)**
      - Yes → **In-hospital Management Protocol (P10)**
      - No → Testing is NOT indicated (P7)
  - High Risk → **Ebola Suspected? (D3)**
    - Yes → Testing is Indicated (P6)
    - No → Outpatient Management Protocol (P9)
Request for Feedback

• What additional resources would be helpful?

Examples:
  – Value sets
  – Standards-based formalisms
  – Feedback mechanisms
  – Frequency of updates
  – Others