ZIKA VIRUS UPDATE, EMS WORKER IMPLICATIONS

Specifically prepared for the U.S. Metropolitan EMS Medical Directors Annual Meeting
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As of February 1, 2017:

- 48 states and DC have reported travel-associated cases
- Florida and Texas now with confirmed local transmission
  - First case was confirmed on July 29th
- 5,001 Zika virus disease cases reported; of which 1,394 are pregnant
- Puerto Rico, US Virgin Islands, and American Samoa have an additional 36,498 locally acquired cases, 3,071 are pregnant
WHO IS AT RISK?

Everybody in the EMS community is at risk for contracting Zika virus, but the populations of most concern are:

- Individuals returning from regions with active local transmission of Zika virus
- Individuals who are family planning
- Pregnant women
  - 6% Microcephaly risk overall
  - \(\leq 13\%\) risk if infected in 1st trimester
- Individuals living in areas with plentiful mosquito breeding grounds
WHAT IS AT RISK?

- Pregnant women
  - 6% Microcephaly risk overall
  - ≤13% risk if infected in 1st trimester
- Guillan-Barre
  - 3-6,000 cases per year; 1-2 per 100,000
  - Zika: (56/5,582); 1,003 per 100,000*
    - 26 with “other” neurological complications
WHO IS AT RISK?

Photographs courtesy of: Anna Grove
PREVENTION

• No treatment exists for Zika virus disease
• A vaccine is months away
• Prevention includes:
  1. Protection while traveling to affected countries
  2. Reducing the risk of introducing the virus into a local mosquito population
  3. Subsequently preventing the spread to humans locally
Drain

- Empty items which hold may hold water
- Maintain yard
- Drain standing water or use ‘dunks’ when water cannot be drained

Dress

- Long pants and long sleeve shirts
- Window screens and doors in good repair
- Use air conditioning when possible

DEET

- Apply insect repellent with DEET
- Use mosquito net to protect infants
EMS Biomonitoring

Biosurveillance Value of Early/Pre-Hospital Data

- Social Media
- Poison Control
- ED
- EMS
- Hospital/Lab
- Open-source news/media

Event mitigation due to action facilitated by early warning
Naloxone Reversals