In the Time of Zika: A Personal Account

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Disclosure

Speaker for Sanofi

FROM ALD TO ZIKA: NEWBORN SCREENING AND SURVEILLANCE IN NJ APRIL 25, 2107

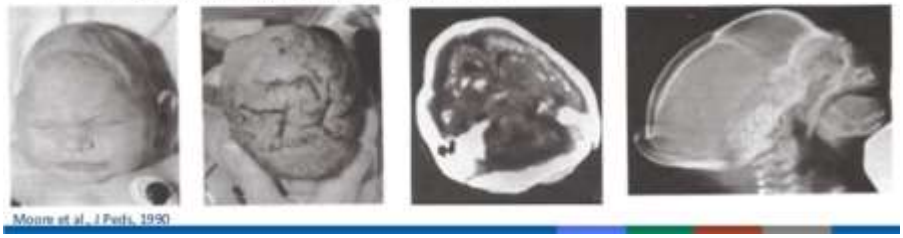
Distribution of cumulative confirmed cases of microcephaly, Brazil as of 5 Mar 2016
World Health Organization

Zika Virus: Global Spread
The Zika Virus, tradionally found in Africa and parts of South East Asia, is spreading. See when and where it was detected.
Countries virus is normally found
Countries virus has spread to
2016 Texas
2015 Puerto Rico
2015 Mexico
2014 South America
2014 Easter Island
2007 Yap
2014 Polynesia
Polynesia, approx.
Source: Centers for Disease Control

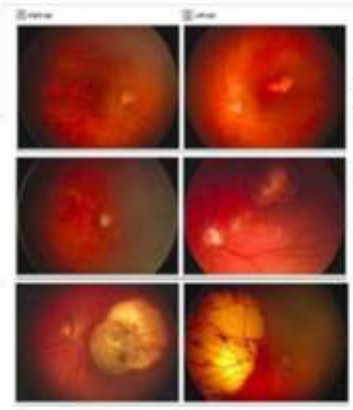
Range of Microcephaly Severity

Fetal Brain Disruption Sequence

- First described in 1984 but noted in earlier literature
- Brain destruction resulting in collapse of the fetal skull, microcephaly, scalp rugae and neurologic impairment
- Images below from 1990 series; phenotype appears to be present in some affected babies in Brazil (2015—present)



Moore et al., J Peds, 1990



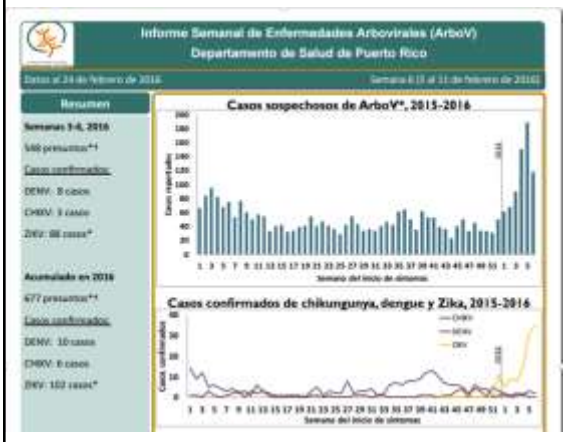
Retinal findings:

R: Pigmentary mottling in the macula
L: Chorioretinal lobulated atrophic lesion

R: Pigmentary mottling in the macula; enlarged cup: disk ratio
L: Macular chorioretinal atrophic lesion with a hyperpigmented halo

R: Optic disc hypoplasia, excavated nasal round lesion with hyperpigmented halo and colobomatous-like aspect
L: similar findings

UCSF



Confirmed cases	117
Hospitalized	5
Pregnant Women	5
Guillan Barré	1

Febbuary 11 2016

CDC

World Map of Areas with Risk for ZIKA

International areas

Zika Travel Recommendation: Low elevation High elevation

No Known Zika

Puerto Rico's Efforts To Stop Zika Are Hampered By Mistrust

August 10, 2016
Heard on Morning Edition

Zika Cases Reported in the United States

Laboratory-confirmed Zika virus disease cases reported to ArboNET by state or territory (as of April 12, 2017)

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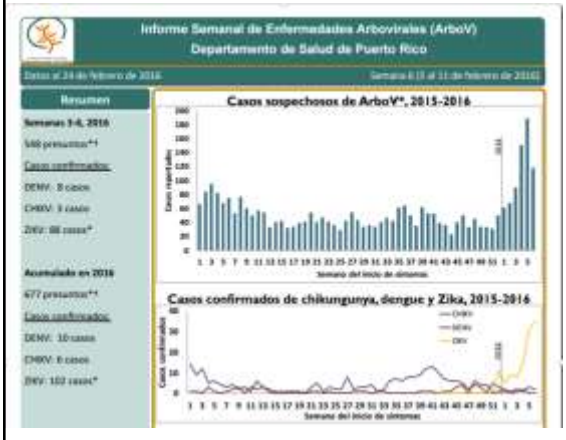

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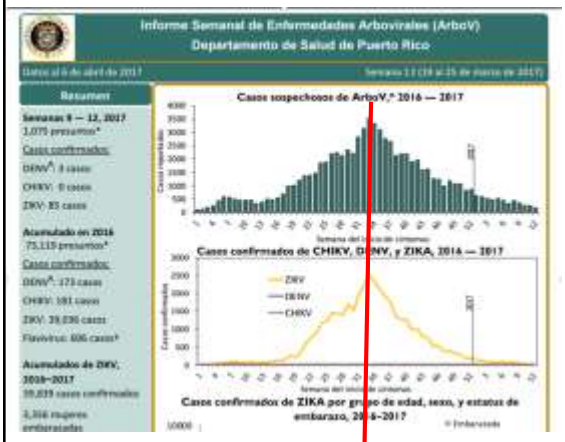


March 25 2016

Confirmed cases	39,839
Hospitalized	413
Pregnant Women	3,356
Guillan Barré	70

Deaths ZIKA	5
Deaths GB	2
CZS	12

March 25 2016

Prevention

Diagnosis

Management

Prevention

- Vector Control

Prevention

- Repelents
- Education to the Population
- Prophylactics

Diagnostics

Clínical

- Rash
- Fever
- Headaches
- Conjunctivitis
- Myalgia
- Arthralgia

Laboratories

< 2 weeks

- rRT-PCR
  - Real-Time ReverseTranscription-Polymerase Reaction
- Trioplex
  - Authorized by the FDA under the Emergency Use Authorization (EUA)
  - Distinguishes between ZIKA, Dengue & Chikungunya

> 2 weeks IgM

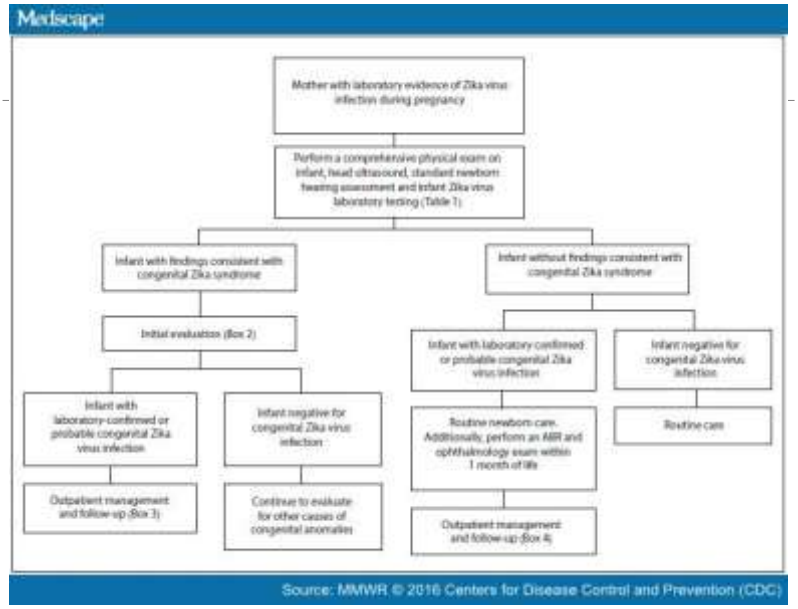
- No IgG tests available
- Rapid office test under evaluation

Management

Pre Natal Exposure

ZIKA

CDC Interim Response Plan



Managment

Post Natal Exposure

Support Management

- Antipyretics
- Analgesics
- Antipruritic

Avoid spreading the virus
Family Orientation
Evaluation according to Bright Futures
Registry for ZIKA + children

Grief Cycle - Elizabeth Kubler Ross

Denial
Anger
Bargain
Depression
Aceptance