

# ABSTRACT SUBMISSION FORM – RESEARCH DAY 2007

Deadline: March 19, 2007 at 5:00 PM

## Identifying Information:

Name of primary author	Rituparna Das
Abstract type	<input type="checkbox"/> Scientific abstract <input checked="" type="checkbox"/> Clinical vignette
Title of abstract	WEST NILE VIRUS DISEASE IN CONNECTICUT, 2006 - A REVIEW OF NEW HAVEN CASES
Institution	Yale Medicine-Pediatrics Residency, Yale-New Haven and St. Mary's Hospitals
Program	<input type="checkbox"/> Medicine <input type="checkbox"/> Surgery <input checked="" type="checkbox"/> Medicine/pediatrics <input type="checkbox"/> Dentistry <input type="checkbox"/> Nursing <input type="checkbox"/> Other -- please specify:
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## Abstract:

WEST NILE VIRUS DISEASE IN CONNECTICUT IN 2006 - A REVIEW OF THE NEW HAVEN CASES

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**Learning Objectives:** To recognize West Nile virus as an increasingly prevalent cause of meningoencephalitis in the Western Hemisphere. To appreciate the broad clinical spectrum of neuroinvasive West Nile virus disease, ranging from benign aseptic meningitis to rapidly progressing fatal encephalitis. Finally, to identify that increasingly diverse neurological manifestations of West Nile virus disease and the high prevalence of virus positivity among mosquito pools in the Connecticut area make West Nile virus disease an important diagnostic consideration for patients presenting with a variety of symptoms in the late summer months.

**Cases/Discussion:** Yale New Haven Hospital has seen four of the eight confirmed West Nile virus diagnoses in Connecticut to date. The purpose of this study was to review the cases at Yale in order to gain an understanding of the clinical spectrum of West Nile virus disease and the neurological outcomes. The case patients were all immunocompetent adults, ranging in age from forty-one to eighty-one years. Three of the four patients presented with symptoms of fever, headache, malaise, nausea and vomiting of three to seven days duration. The fourth case patient, the only fatality, presented additionally with disorientation and severe myalgias. Two patients had outdoor exposures related to gardening, an additional patient was homeless, and the other lived in a rented apartment without proper window screens. Cerebrospinal fluid studies on the patients showed white cell counts ranging from 41-412 cells/uL, all with neutrophilic predominance. Higher CSF WBC counts did not correlate with more severe disease. Three patients also had elevated CSF protein levels, whereas the protein level was normal in the fourth. Two of the four patients additionally had liver function test abnormalities, and the patient with myalgias had serum creatine kinase values up to 3800 U/L. All patients had positive West Nile virus IgM titer in their CSF, with all other bacterial and viral studies negative. One patient also had positive West Nile virus IgG concurrently. Three of the four patients had severe headache which improved through the course of their hospitalization, but no other neurological abnormalities. Two also had significant back pain that was present at the time of discharge. The patient who died progressed rapidly to respiratory failure and subsequently developed flaccid paralysis with loss of brainstem reflexes, and the decision was made to withdraw support.

**Conclusions:** Increased awareness of the clinical presentations of West Nile virus disease and increased availability of virologic testing are important to realizing the scope of the disease in Connecticut and implementing the appropriate control and prevention measures.

## Within the box:

**TITLE:** ALL CAPITAL LETTERS  
**Author list:** First one or two initials, last name, primary institution, city, and state. Place presenting author first.

## Include the following:

### Scientific abstract:

Background  
Methods  
Results  
Conclusion

### Clinical vignette:

Learning objectives (1-3)  
Case  
Discussion

## Abstract box size:

5" wide by 6.5" high (as shown)

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