

Heartland Virus in Tennessee – Mary-Margaret Fill

- a) History
 - 1) First identified in 2009
 - 2) 7 cases in Missouri, 1 in TN
 - 3) All men ≥ 50 yo
 - 4) 75% required hospitalization
- b) Novel Phlebovirus
 - 1) Most closely related to SFTS
 - 2) Bunyaviridae
- c) Heartland virus in TN
 - 1) Cases
 - (i) Case #1
 - (a) 80 yo male
 - (b) Hospitalized in 2013
 - (c) Complaint
 - (i) Fever
 - (ii) Weakness
 - (iii) Confusion
 - (iv) Recurrent falls
 - (v) Vesicular rash
 - (d) History of tick bites
 - (e) Many other medical issues
 - (f) Passed away 2 weeks after start of illness
 - (ii) Case #2
 - (a) 68 yo male
 - (b) Complaints
 - (i) Confusion
 - (ii) Falls
 - (iii) Vesicular rash
 - (c) History of multiple tick bites
 - (d) Very few other medical issues
 - (e) Lab findings had similarities and differences to earlier case
 - (f) Passed away
 - 2) Finding the cause
 - (i) Unexplained death evaluation – CDC
 - (ii) Virus found in a variety of sites
 - 3) Factors associated with mortality
 - (i) Age – older
 - (ii) Certain specific lab findings
 - (iii) HLH: Over-reactive immune system
- d) Vector
 - 1) Ticks collected via drag
 - 2) Tested at State Lab
 - 3) Lone star tick is implicated as vector

4) No reservoir species has been found