

## HOT TOPICS

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Periodically we will highlight various topics in this section that are of importance to clinical laboratorians throughout the state.

**Mumps Virus.** Testing of serum samples from individuals across Nebraska has shown that most Nebraskans have been successfully immunized. Many hospitals checked the immune status of their employees as recommended by the Nebraska Health and Human Services System (NHHSS). According to NHHSS, there were 361 acute cases of Mumps infection in Nebraska between February and July of this year. The question on everyone's mind was whether the outbreak resulted from a failure of the vaccine or the failure to vaccinate? In an effort to better document the level of immunity in young adults in Nebraska, Josh Rowland was asked by the CDC and NHHSS to assist them and Terry Krohn, Director of the Two Rivers Public Health Department in a study of students at the University of Nebraska at Kearney (UNK). Over a period of two days, over 500 blood specimens were collected from UNK students for the evaluation of antibodies to the mumps virus. The results of this study are slated to be published in an upcoming Morbidity and Mortality Weekly Report. The successful completion of the project in a very short time period was a strong demonstration of the importance of building working relationships for responding to public health events.

**West Nile Virus.** Although early data this summer indicated that very few cases were developing, the WNV has roared back to life in late August. In addition to testing for the virus in mosquitoes the NPHL began seeing a significant upsurge in requests for serological testing of CSF and serum from human patients exhibiting neurological symptoms consistent with viral infection. Going into publication, the number of cases of WNV infection is lower than that observed last year, with 131 human infections and one death. WNV has been confirmed in 34 out of Nebraska's 93 counties. Therefore, we expect the number of human cases to grow before our first frost. The state-wide WNV surveillance efforts this year are coordinated by Annette Bredthauer, DVM, the NHHSS Public Health Veterinarian. For more WNV information go to <http://www.hhs.state.ne.us/wnv/>.

**Special Pathogens.** The NPHL continues to receive isolates of *Francisella tularensis* from clinical laboratories around the state emphasizing the importance of being aware that some suspect organisms may require at a minimum the use of Biological Safety Level-2 (BSL-2) containment with the added protection of a biological safety cabinet with proper personal protective equipment to include masks, gowns, and gloves. Since special training is required to handle and screen for these special pathogens, the NPHL offers *Sentinel Laboratory* wet-workshop training. This training outlines procedures that can be used to "recognize, rule-out, or refer" these organisms. One highlight of this "hands-on" experience is that laboratorians have the opportunity to work with an attenuated strain of *Bacillus anthracis* to help them recognize the identifying characteristics. All laboratories that have not sent personnel to one of the NPHL's wet-workshops are strongly encouraged to call Josh Rowland at 402-559-6070 to set up a training opportunity.

**STATPack.** The **Secure Telecommunications Application Terminal Package** used for remote consultation was recently added to the hospital laboratories in Imperial and York and soon will be added to the hospital laboratory in O'Neill, bringing the total number of operating sites to 17. These efforts coincide with the recent deployment of STATPACK in Oklahoma and announcement by Kansas to install the system. Our next step is to begin offering microbiology "grand-rounds" educational material using the STATPACK with presentations prepared by Rhonda Noel and the NPHL staff. The start date of this activity is slated for this fall.

**Chemical Terrorism Preparedness Laboratory.** The Chemical Terrorism Preparedness Laboratory (CPTL) is currently performing validation for testing of clinical specimens for nerve and mustard agent metabolites. In preparation for this work and related activities NPHL scientists hosted a partnership meeting with the Civil Support Team and the FBI. See the included "Arsenic Testing at the Nebraska Public Health Laboratory" for more information about activities of the CTPL.