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Idaho Bureau of Laboratories Clinical Forum

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IDAHO DEPARTMENT OF
HEALTH & WELFARE

Electronic Laboratory Reporting from Idaho Hospitals to Idaho Public Health

The American Recovery and Reinvestment Act (ARRA) was signed on February 17, 2009, by President Barack Obama. Title XIII of ARRA, entitled “Health Information Technology for Economic and Clinical Health Act” (HITECH)¹ focuses on health system reform to improve patient outcomes and reduce costs. Specifically, HITECH includes provisions for the use of health information technology (HIT) to meet health reform goals. The goals of HITECH are to improve the quality, safety, and efficiency of the health system while reducing health disparities; engage patients and families; improve care coordination; ensure adequate privacy and security protections for personal health information; and improve population and public health.

Defining Meaningful Use

To help offset the financial burden the HITECH objectives might place on providers and facilities to implement technology necessary to meet health reform objectives, HITECH legislation includes provisions for a financial reward for adopting use of qualified, certified technology used in a meaningful way to achieve significant improvements in care. In order to ensure facilities are meeting the intent of **Meaningful Use** of information technology to meet health reform goals, specific objectives were developed along with standards for storing, sending, and disseminating health information. Hospitals that want to receive financial rewards for

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IBL Expansion Affords New Services

The Idaho Bureau of Laboratories (IBL) is pleased to announce that the expansion of our Library is complete. Public Health Emergency Response (PHER) funds have transformed IBL’s library into a new emergency operations center and training conference room with video conferencing capabilities.



Clinical Forum
Editorial Staff

Dr. Christopher Ball
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Wendy Loumeau
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Kari Getz

Electronic Laboratory Reporting to PH

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meeting Meaningful Use objectives must submit at least one of the following types of data to public health agencies using electronic messaging standards developed by the Office of the National Coordinator for Health Information Technology (ONC): immunization data, syndromic surveillance data, or reportable laboratory results. (For more information on Meaningful Use objectives and technology, see the ONC webpage at <http://healthit.hhs.gov>.)

Electronic Laboratory Reporting to Public Health

Compared to other states, Idaho's public health system has been on the leading edge in receipt of electronic laboratory reports (ELR) data from Idaho and national laboratories, but with the adoption of Meaningful Use, we expect

more facilities will approach us with plans to implement ELR from their hospital laboratories. We have capacity to receive ELR in a Health Level 7 (HL7) version 2.5.1 message format that meets Meaningful Use criteria and have staff available to answer questions about ELR data security, format, and content. If your hospital laboratory is considering implementing ELR for reportable diseases, please contact Kathy Turner at the Idaho Office of Epidemiology, Food Protection, and Immunization at 208-334-5939 or turnerk@dhw.idaho.gov for more information.

¹ HITECH Programs. Office of the National coordinator for Health Information Technology. <http://healthit.hhs.gov/>. Updated October 7, 2010.

Rabies and Testing in Idaho

The Idaho Bureau of Laboratories is the sole source for rabies testing in the state of Idaho. Although rabies in humans is very rare in the United States, one or more fatal cases do occur each year, most often because an individual is unaware of their exposure and does not seek medical assistance. Post-exposure prophylaxis is provided to an estimated 16,000 to 39,000 people each year.

Thanks to successful animal control and vaccination programs in domestic dogs and cats, most rabies cases in the U.S. occur in wild carnivores such as raccoons, skunks, coyotes, and foxes, and in bats. The only known natural reservoir for rabies in Idaho is bats. A few other animals have been documented as having rabies in the state: a skunk in 2004, bobcat in 2001, horse in 1999, cat in 1991 and 1992, and raccoon imported from Florida in 1968. In all cases the rabies virus was a bat strain. Terrestrial strains have been not been detected thus far.

Rabies virus is transmitted through saliva and brain/nervous system tissue. Only these specific bodily excretions and tissues transmit rabies virus. Exposure is defined as a bite or contamination of scratches, abrasions, open wounds, or mucous membranes with infectious saliva. Because a bite inflicted by the small teeth of a bat can be difficult to find, exposure to bats includes handling of bat where a bite cannot be

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Emergency Preparedness Word Find

answers on last page

L Q W N G B E Y C P R M U V I R C N S T E K O A L O K R P T
 C Q M J N U A Z J L N H G Y W U F Z J T A U R Z E K T E G D
 O L B M N S X Z D S Y K D V M N Y M E C U X P C D X Y N J E
 P J S M A O D U T E S L D V E U O B M P G R E H R S X I P X
 Q N U N N A B T D I K M N W S I H O D L N L D X M H Q A R W
 K Q Z N C X F T Q L V E E Z S D A U A V L O V Y P V X T A K
 G F P R A L S K W P C F M T K E C S A P K I R R S Q M N B N
 S U K T K X Q G U P D K T Z I T S M H B L L E I M H E O T P
 F Y C U A J S N D U D O O F T E P O O T N S N B F Y O C V Y
 I J I E Q S P I S S W R E A S X N N X B C F T O Y K I E V Y
 J S Z U F B A T T E R Y P O W E R E D R A D I O S I Y L S S
 R I A F D P M E L N Q E D X C K D E I N I J N A G N Z B G R
 F W Q W E A J E K I A Q P H L E C P T G S Q N O I E B A N H
 H W J R S O T H K N F O A P E V T F D J Y D J Y F H B T I J
 Q D S K P T R S I I K R Y I O I O S L P G H L F M E Y R D D
 L J X L E X A C C M G V E L O R T Q X A Y D L Y G R Q O D I
 T L C S Y C T I G E M B W N M Y D S M K K P D A C T M P E X
 P X J R G R L T R F L L M U G L H E S I U V B W N B I F B E
 E B O E X Y F S H S U E L Z E P S Q N I T R M C O O O O M Z
 C N B I A P V A B H D A Z D T L U E B I A G V A C T S O V J
 I U C L V L A L E I X C R L I B Q G J G C N L I T F T R U A
 U D M P T O D P C K A H K S L O B R I F L I Q E P C U P E H
 K L T R F S X A E N S R N G H J K O K I X H D D P H H R S P
 V L G O L B T R O R Z E H Q B W R K X W J T S E N U J E K E
 V U W H Y I M P O R T A N T F A M I L Y D O C U M E N T S H
 E P I C O R E R N U Q O W D I V R R C S R L F H C B P A R N
 C R Z N B N M X J G G U W H Q Q E V G L E C W J O S X W R R
 H T S E E R I V X A D A T E P J P G L S E Z E F D A K O X N
 W R H R G E L H Q H R Z Q E L L T L M N U X T F R M O K L K

BATTERY-POWERED RADIO
 BEDDING
 BLEACH
 BOOKS AND GAMES
 CAN OPENER
 CELL PHONE CHARGERS
 CLOTHING
 DIAPERS
 DUCT TAPE
 DUSTMASK
 FEMININE SUPPLIES

FOOD
 GARBAGE BAGS
 GLASSES
 IMPORTANT FAMILY
 DOCUMENTS
 INFANT FORMULA
 MAPS
 MATCHES
 MEDICINE DROPPER
 MESSKITS
 MOIST TOWELETES

PAPER TOWELS
 PERSONAL HYGIENE ITEMS
 PET FOOD
 PLASTIC SHEETING
 PRESCRIPTION MEDICATIONS
 STURDY SHOES
 UTENSILS
 WATER
 WATERPROOF PORTABLE
 CONTAINER
 WRENCH OR PLIERS

Rabies and Testing in Idaho

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ruled out, awakening to find a bat in the room, or finding a bat in room with a previously unattended child, mentally challenged person, or intoxicated individual.

Prompt wound care and the administration of rabies immune globulin and vaccine is highly effective in preventing rabies after a potential exposure. Post exposure vaccinations consists of a dose of human rabies immune globulin and four doses of rabies vaccine given on the day of the exposure, and then again on days 3, 7, and 14. The vaccine is typically given in the muscle of the upper arm.

Rapid and accurate laboratory diagnosis of rabies in animals is essential for timely administration of post exposure prophylaxis. IBL partners with the Idaho State Department of Agriculture, Animal Health Laboratory, who receives the animal head, then delivers the brain tissue to the Virology Lab for testing. Only the animal head can be submitted for testing unless the animal weighs less than 8 lbs. It is critical that animals be euthanized in a manner that does not destroy the brain tissue. Testing is only performed when an animal has potentially exposed a person, household pet, or livestock to rabies.

Rabies is diagnosed using the direct

fluorescent antibody (DFA) test, which looks for the presence of rabies virus antigens in brain tissue. Antigen is detectable at any stage of the disease during which transmission is possible.

A domestic animal or pet that bites a human, but is not exhibiting signs of rabies, can be impounded and observed for 10 days. If symptoms develop during the holding period, the animal must be euthanized immediately and sent to the laboratory for testing. If no symptoms develop during the holding period, one can be assured that the animal was not shedding virus at the time of the exposure. Wild animals on the other hand, are not held for observation, but must be euthanized immediately and the head submitted for rabies virus detection.

Humans can protect themselves from most potential exposures to rabies by not touching, handling or approaching wild animals, especially bats found lying on the ground or flying erratically during the day, or are dragged in by the cat. A very small percentage of bats actually carry rabies and they play a key role in the ecosystem by eating tons of insects and through seed dispersal and pollination.

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To protect yourself and your pets, the Idaho Department of Health and Welfare offers the following tips:

Sleeping little brown bat



- ◆ Do not touch a bat with your bare hands;
- ◆ If you have had an encounter with a bat, seek medical attention immediately;
- ◆ If you come in contact with a bat, save the bat in a container without touching it and contact your district health department to arrange testing for rabies. Whenever possible, the bat should be tested to rule out an exposure to rabies. This is a free service;
- ◆ Always vaccinate your pets, including horses. Pets may encounter bats outdoors or in the home; and
- ◆ Bat-proof your home or cabin by plugging all holes in the siding and maintaining tight-fitting screens on windows.

Rabies and Testing in Idaho

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Questions about submittal of animals for rabies testing can be answered by contacting any of the following:

Idaho Bureau of Laboratories at 334-2235

ISDA Animal Health laboratory at 332-8570

Idaho Office of Epidemiology, Food Protection, and Immunization at 334-5941

REFERENCES

CDC Rabies Home Page www.cdc.gov/rabies/

Division of Public Health, Office of Epidemiology, Food Protection and Immunization
<http://healthandwelfare.idaho.gov/Health/DiseasesConditions>

Idaho Rabies Protocol
<http://healthandwelfare.idaho.gov/Portals/o/Health/Disease/RabiesProtocol2007>

*To be added
or removed
from the
Clinical
Forum
email
list*

statelab@dhw.idaho.gov

Rabies: the lighter side...

Rabies has been known to mankind since ancient times and, although largely controlled in domestic animal populations, it persists in wild animals such as woodchucks and groundhogs, raccoons, skunks, bats, and foxes. Here we recount some remarkable stories from the Idaho Bureau of Laboratories (IBL) that illustrate improper handling and unwarranted testing for rabies.

In the first case, a bat was submitted for rabies testing from South Central Health District. The victim was bitten, but neither she nor her husband was able to catch it, and the woman was started on rabies post-exposure injections. A few days later, a contractor working on their house cornered and “caught” a bat in the attic, placed it into a Tupperware container, taped it very securely, and took it to a vet office where it was frozen to ensure it was dead. It was subsequently submitted to IBL. Had we known all the details, testing would have been discouraged for the reason that there was no way to know that this was the biting bat. As it turned out testing was not possible because, upon unpacking, we discovered that the bat was actually a bat-shaped piece of insulation!

In the “saga of the bat burger”, the rabies lab received a specimen for testing based on the story of a woman alleging exposure when she took a bite of a frozen bat while cleaning out her freezer. The “bat” had been frozen months prior when the woman’s cat left it dead on her porch. As the woman came across this unidentified meat, she took a bite in an attempt to identify her discovery. During preparation of the bat for testing, it was determined that the bat was not a bat at all, but a bird. The submission included a good sized bird foot, a beak, and part of the head with an eyeball still intact.

Our final account describes a local doctor with a cabin in the outskirts of Boise who had trouble with bats in and around the cabin for several seasons. One morning his wife awoke to find a bat on her arm and she gave her husband the ultimatum, “Do something about the bats, or the cabin must go!” He then purchased a battery-operated owl and mounted it on the roof of the cabin, hoping to discourage bats from roosting in the cabin rafters. Winter arrived with heavy snowfall and one day he noticed that his owl was gone. He searched high and low for the owl, to no avail. When the snow melted the following spring he discovered the owl on the ground with a bullet hole in its head!

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Solution to Word Find

(Over,Down,Direction)
BATTERY POWERED RADIO(6,11,E)
BEDDING(29,18,N)
BLEACH(12,17,S)
BOOKS AND GAMES(29,7,SW)
CAN OPENER(12,21,SW)
CELLPHONE CHARGERS(24,3,SW)
CLOTHING(22,27,N)
DIAPERS(9,9,SW)
DUCT TAPE(19,5,SW)
DUSTMASK(11,8,SW)
FEMININE SUPPLIES(10,18,N)
FOOD(14,9,W)
GARBAGE BAGS(20,21,NE)
GLASSES(21,4,SW)
IMPORTANT FAMILY DOCUMENTS(6,25,E)
INFANT FORMULA(24,8,SW)
MAPS(7,12,N)
MATCHES(23,19,SE)
MEDICINE DROPPER(25,25,NW)
MESS KITS(15,3,S)
MOIST TOWELETTE(18,3,SW)
PAPER TOWELS(6,20,SE)
PERSONAL HYGIENE ITEMS(30,23,NW)
PET FOOD(17,9,W)
PLASTIC SHEETING(8,22,N)
PRESCRIPTION MEDICATIONS(25,6,SW)
STURDY SHOES(19,1,SE)
UTENSILS(10,26,NE)
WATER(28,27,N)
WATERPROOF PORTABLE CONTAINER(28,27,N)
WRENCH OR PLIERS(4,30,N)

Upcoming Teleconference

Adventures in Antibiotic Susceptibility Testing

Presented by APHL

September 7th, 10:00 Mountain Time

IBL Welcomes New Education Specialist



IBL would like to introduce Wendy Loumeau as the new Health Education Specialist. Wendy received her Bachelor's degree in Health Education from Brigham Young University. She has a background in public education and is excited to make the switch to public health. Wendy has lived in Oregon, Utah, and Alabama previously but is happy to once again be able to call Idaho home. Wendy and her husband have one child, Amora, who is 2 years old. She enjoys cooking, reading, and spending time with her family.

Rabies: the lighter side...

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Observing a bat in the daytime is not unusual, unless it is on the ground convulsing or otherwise visibly ill. Bats will often "rest" during daylight hours, sticking to sides of buildings. They are simply taking a break and will fly off in the evening during their active time. Over the years, we've seen one or two on our building at IBL and have received reports of bats hanging on schools and other buildings.

Many a bat has had to be unnecessarily sacrificed because kids have touched it with bare hands or it is captured by someone, perceived as a threat. As long as it's not bothering anyone and is not in an area where someone will disturb it, it should be left alone. They are gentle little creatures that are very beneficial to our environment!