

2019 USPHS Symposium
Wednesday, May 8
Veterinary Category Agenda

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7:45 AM - Welcome and Veterinary CPO Update

8:00 AM ***CAPT John Gibbins; CDR SanYvette Williams***

8:00 AM - Partners in Crime and Beyond: Minnesota's Unexplained Death and Critical Illness Surveillance

8:30 AM ***CDR Stacy Holzbauer, DVM, MPH, DACVPM***

Background: Since 1995, the Minnesota Department of Health (MDH) has conducted surveillance for unexplained critical illnesses and deaths of possible infectious etiology (UNEX). Priority is given to cases <50 years with no significant underlying medical conditions; however, any unexplained death or illness with infectious hallmarks may be investigated.

Methods: Cases are reported to MDH primarily by medical examiners and infectious disease physicians. In addition, possible cases are identified by death certificate review. Further laboratory testing is conducted by MDH or CDC. Data for cases reported from 2012 - 2016 were analyzed and summarized by syndrome.

Results: 428 cases were identified (358 deaths, 70 critical illnesses). 249 (58%) were reported by medical examiners, 93 (22%) were reported by clinicians or clinical pathologists, 82 (19%) were found by death certificate review, and 4 (1%) were discovered by other methods. 194 (45%) cases had respiratory syndrome, 102 (24%) sudden unexpected death, 62 (15%) neurologic syndrome, 24 (5%) cardiac syndrome, 20 (5%) gastrointestinal syndrome, 19 (5%) shock/sepsis, 2 (<1%) genitourinary syndrome, and 8 (2%) with multiple systems involved. Median age was 25.5 years (range, newborn to 93 years). 391 (91%) cases had specimens tested, and 197 (50%) of these had pathogens identified. 32 (54%) of 59 UNEX deaths with opioid use had pneumonia. Conclusions: UNEX surveillance enables case-based investigation to establish potential etiologies for otherwise unexplained cases. Infectious disease cases of public health importance including emerging and novel diseases have been detected through this surveillance. Similar programs should be considered elsewhere as resources allow.

At the conclusion of this session participants will be able to:

1. Describe the clinical decision making needed to address challenging infectious disease cases in Minnesota
2. Discuss the public health implications of characterizing infectious disease deaths that occur outside healthcare systems
3. Identify some of the common fatal infections associated with persons with a history of alcohol, opioids, or illicit drug misuse

8:30 AM - One Health in Action! Building Multisectoral Partnerships Domestically and Globally!

9:00 AM ***CDR Julie Sinclair, MA, DVM, MPH, DACVPM***

The U.S. government defines One Health "as a collaborative, multisectoral, and trans-disciplinary approach - working at the local, regional, national, and global levels - with

the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment." This presentation will review the history and goals of One Health, how One Health builds global health security and provide examples of how the One Health approach is being implemented domestically and globally. The U.S. Centers for Disease Control and Prevention's (CDC) One Health Office works closely with other CDC offices, multiple U.S. agencies (e.g., U.S. Health and Human Services, U.S. Department of Agriculture, U.S. Department of Defense, U.S. Department of State, and U.S. Department of Interior) and state, local and tribal agencies in furthering the One Health approach both domestically and internationally. On a global level, the Tripartite - Food and Agriculture Organization of the United Nations (FAO), World Health Organization (WHO), and the World Organisation for Animal Health (OIE) - signed a Memorandum of Understanding in 2018 to expand their joint efforts to combat zoonotic diseases and other health threats (e.g., antimicrobial resistance and food safety). U.S. Government agencies (e.g., U.S. Health and Human Services, U.S. Department of Agriculture, U.S. Department of Defense, and U.S. Department of State) work closely with the Tripartite in building One Health partnerships. These domestic and international partnerships are critical in multisectoral, One Health communication, coordination, and collaboration efforts to fully utilize resources in addressing global health security demands.

At the conclusion of this session participants will be able to:

1. Outline how One Health has developed over the past two decades and what the goals of One Health are.
2. Explain why a One Health approach is needed to build global health security.
3. Recall examples of how the One Health approach is being implemented domestically and globally.

9:00 AM - 9:30 AM Outbreak of Campylobacteriosis Linked to Contaminated Water in a Small Rural Municipality-
Nebraska, February-March 2017

CAPT Bryan Buss, DVM MPH ACVPM

This presentation will cover findings of an investigation in Nebraska into a campylobacteriosis outbreak likely caused by exposure to untreated municipal water from wells contaminated by waste water run-off from an adjacent dairy farm. As a result of the epidemiologic and environmental investigations, city officials opted to remove the two wells from service thereby preventing further illnesses. These wells were ultimately decommissioned and replaced with a single deep higher capacity groundwater well.

At the conclusion of this session participants will be able to:

1. List signs and symptoms of campylobacteriosis and diagnostics tests to identify this condition.
2. Describe findings of an outbreak investigation in a small rural community in Nebraska that identified campylobacteriosis cases associated with a contaminated city water supply.
3. Identify the recommendations and mitigation steps that ensured safe water for city residents and prevented additional cases of illness.

9:30 AM - Leveraging Social Media to Address Behaviors That Contribute to Foodborne Illness: An
10:00 AM Example of Challenges in Public Health Policy and Public Health Messaging
CDR Catherine Rockwell, DVM, MPH, CPH, DACVPM

In recent years, foodborne illness outbreaks have been linked to the consumption of raw or undercooked meat and poultry products. The behavior of raw or undercooked meat and poultry consumption is often rooted in ethnic traditions, certain niche communities and/or consumer preferences, and may pose an increased risk of foodborne illness. Perceptions of risk, control and responsibility may lead consumers to underestimate the personal risk posed by these products. These perceptions may prevent these consumers from taking appropriate steps to reduce their exposure to, or mitigate the risk of, microbiological hazards attributed to certain raw or undercooked meat and poultry products. Social media platforms are powerful communication tools that can both promote and suppress positive food safety messaging. Food safety messaging that targets this consumption behavior should be developed for delivery through various social media platforms that employ active bidirectional communication. Further investigation of the variables that drive this behavior is needed to identify gaps in current food safety regulations and policies that fail to address this behavior. Understanding the factors that influence this behavior will allow the design of more effective risk mitigation strategies and food safety messaging.

This presentation will discuss the challenges faced in public health policy and food safety messaging due to recent culinary trends in the consumption of raw and undercooked meat and poultry. It also looks at the role of social media as a potential data source for foodborne illness surveillance and a powerful tool in food safety messaging.

At the conclusion of this session participants will be able to:

1. Explain how globalization, international travel and culinary trends have caused a shift in dietary preferences toward exotic cuisines, including raw meat and poultry consumption.
2. Describe how consumer behaviors and attitudes toward the health risks of raw meat and poultry consumption and perceptions of risk, control and responsibility places consumers at risk for serious foodborne illness.
3. Explain how social media creates challenges in food safety messaging and how social media platforms can be both powerful advocates and barriers to public health initiatives.

10:15 AM - Exhibit Theater: Thermo Fisher Scientific - Asthma Guidelines and How Systemic Inflammation
10:45 AM Can Impact their Differential

11:15 AM - Exhibit Theater: Arizonans Concerned About Smoking - Health Leadership Award Ceremony
11:45 AM

12:00 PM - Veterinary Luncheon
1:30 PM

12:15 PM - The Many Ways I've Been Injured Practicing Veterinary Medicine: Or, Why Occupational Safety
12:40 PM and Health Matters in Veterinary Practice
CDR Christa Hale, DVM, MPH, Dipl. ACVPM (Epi)

Most veterinary practices are a blend of healthcare facility and small retail business, with the added risk of being bit, scratched, kicked, or thrown by your patients. During this session, CDR Hale will present data from the Bureau of Labor Statistics (BLS) and the Occupational Safety and Health Administration (OSHA) to illustrate why occupational safety and health matters in veterinary practice in terms of keeping veterinary services workers safe. This session will include a discussion of available resources and types of partnerships that could help improve the safety, health, and well-being of the veterinary services community.

At the conclusion of this session participants will be able to:

1. Describe the burden of on-the-job injuries among veterinary services workers.
2. Describe resources for improving the safety, health, and well-being of veterinary services workers.
3. Describe potential partnerships for improving the safety, health, and well-being of veterinary services workers.

12:40 PM - National Veterinary Response Team Addressing the Nations Needs
1:00 PM ***CDR Wanda Wilson Egbe, DVM***

The National Veterinary Response Team (NVRT) is a component of the National Disaster Medical System (NDMS) under HHS/Assistant Secretary for Preparedness and Response (ASPR). The NVRT consists of skilled and equipped personnel capable of rapidly deploying to a site of a public health emergency or National Special Security Event (NSSE) to address veterinary and public health issues. Public health emergencies include, but are not limited to, natural and man-made disasters, acts of terrorism, pandemics and foreign animal disease outbreaks. During a response to a catastrophic event, it is likely that there will be a sustained need for preventative, primary, and/or acute medical care of ill or injured animals. This presentation will describe the National Disaster Medical System (NDMS) National Veterinary Response Team and government efforts to better integrate response resources across ESF #8.

At the conclusion of this session participants will be able to:

1. Describe the Purpose and Scope of the NVRT
2. Explain the process for activation and deployment of the NVRT
3. Describe partnerships formed between NVRT and other federal veterinary response teams

1:00 PM - Animal Drugs to Animal Passengers: How AVMA One Health Efforts on Opioids, Cannabis and
1:30 PM Assistance Animals Support Practitioners, Patients and Clients

Dr. John de Jong, DVM

Animal Drugs to Animal Passengers: How AVMA One Health Efforts on Opioids, Cannabis and Assistance Animals Support Practitioners, Patients and Clients

At the conclusion of this session participants will be able to:

1. Describe interconnections between veterinary and human health regarding access to opioids, their use and possible alternatives, and efforts to control diversion.
2. Explain the basic legal framework around the use of cannabis-derived products in veterinary practice, and how this differs from the legal framework surrounding their use in human medicine.
3. Describe how the AVMA,Ãs collaborative work with airlines and human mental health care providers may facilitate a better environment for human and animal airline passengers.

Veterinary

2:00 PM - Wet Lab: Highly Pathogenic Avian Influenza: A Dissection of a HPAI H5N2 Response

5:00 PM

Dr. Shauna Voss, DVM, MPH, DACVPM

Veterinary Category - Wet Lab

At the conclusion of this session participants will be able to:

1. Describe the governmental agencies and external partners involved and their roles in a large scale animal emergency
2. Identify successes and challenges in responding to the 2015 HPAI outbreak nationally and in Minnesota
3. Describe the industry and response changes implemented following the 2015 HPAI outbreak

Veterinary

5:00 PM - Veterinary Closing Remarks

5:15 PM