AVIAN INFLUENZA

Agent Information: The “avian influenza virus” refers to influenza A viruses found chiefly in birds, but infections with certain strains can occur in humans. Many different subtypes of type A influenza viruses exist. These subtypes are identified by specific proteins on the surface of the influenza A virus (hemagglutinin [HA] and neuraminidase [NA] proteins). There are 16 known HA subtypes and nine known NA subtypes of influenza A viruses, with many different combinations of HA and NA proteins. Each combination represents a different subtype of the virus. Human illness is documented from types H5, H7, and H9. The most recent outbreak documented in humans was caused by influenza A H7N9 virus in 2017.

Transmission: Direct contact with infected poultry or contaminated surfaces. Avian strains which infect humans may acquire the ability to be spread from person to person. Non-sustained, person-to-person transmission of H7N9 in Asia has been reported. Person-to-person transmission occurs through droplets, aerosols, and fomites.

Signs and Symptoms: Reported symptoms for avian influenza in humans range from typical influenza-like symptoms (fever, cough, sore throat, and muscle aches) to eye infections (conjunctivitis), pneumonia, acute respiratory distress, viral pneumonia, and other severe life-threatening complications. Asian lineage H7N9 and H5N1 have been responsible for the majority of cases in humans as well as highest morbidity and mortality.

Protective Measures: Follow appropriate Body Substance Isolation (BSI) precautions, with use of Personal Protective Equipment (PPE).

Standard Precautions: Hand washing before and after all patient contacts and contact with patient care equipment.

Contact Precautions: Use of gloves, gown, and eye protection.

Airborne Precautions: Initiate droplet precautions for persons with flu-like illness or confirmed H5 infection, including wearing masks (fit tested NIOSH approved N-95 respirator) when in contact with patient.

Decontamination for PPE and equipment: Thoroughly clean all patient care equipment and contaminated surfaces of ambulance with hospital-approved disinfectant. Linen management is the same as with other patients. Frequently disinfect EMS radio, pens, etc.

Prophylaxis: There is no vaccine currently available. The Centers for Disease Control and Prevention (CDC) recommend that oral oseltamivir or inhaled zanamivir chemoprophylaxis be provided to close contacts of a confirmed or probable case according to risk of exposure, which is based on clinical judgement.

Treatment: Most Influenza A (H7N9) and A (H5N1) viruses are susceptible to neuraminidase inhibitors oseltamivir, peramivir, and zanamivir, and resistant to adamantanes. Therefore, amantadine and rimantidine are not recommended for treatment of novel influenza A virus infections.

Reporting: Report any suspect cases immediately to the Division of Public Health, Epidemiology Branch: 1-888-295-5156 (24/7 coverage).

For general information, visit the CDC website: www.cdc.gov/flu/avianflu/.