Communicable Disease Case Reporting and Investigation Protocol
Influenza A, Novel Subtype

I. Identification and Definition of Cases

A. Clinical description

Novel influenza A virus infections include all human infections with influenza A viruses that are different from currently circulating human seasonal influenza H1 and H3 viruses. Novel subtypes include, but are not limited to, H2, H5, H7, and H9 subtypes. Influenza H1 and H3 subtypes originating from a non-human species or from genetic reassortment between animal and human viruses are also novel viruses. It is possible, though rare, for non-human influenza A viruses to change enough to begin infecting people more easily and then begin spreading person-to-person. Novel avian influenza A viruses have the potential to cause a pandemic if the virus were to change to become easily and sustainably spread from person-to-person. Rapid detection and reporting of human infections with novel influenza A viruses – viruses against which there is little to no pre-existing immunity – is important to facilitate prompt awareness and characterization of influenza A viruses with pandemic potential and accelerate the implementation of effective public health responses. The symptoms associated with a novel influenza A virus infection are similar to those associated with seasonal influenza A virus infections and illness can range from mild to severe.

B. Clinical criteria

In the absence of a more likely alternative diagnosis or cause, an acute illness characterized by either:

- One or more of the following: cough, sore throat, fever (measured or subjective), shortness of breath or difficulty breathing, conjunctivitis (red eye, discharge from eye), **or**
- Two or more of the following: headache, myalgia, arthralgia, fatigue, rhinorrhea or nasal congestion, diarrhea, vomiting.

C. Laboratory criteria

Confirmatory laboratory evidence:

- Category 1 (novel influenza virus detection)
  - Positive confirmatory molecular test result (for example, reverse transcriptase polymerase chain reaction [rTPCR]) for novel influenza A subtype, **or**
  - Genetic sequence indicative of novel influenza A virus.

- Category 2 (viable virus)
  - Isolation of a novel influenza virus from a clinical specimen.

- Category 3 (evidence of infection)
  - Significant IgG antibody rise to novel influenza A (for example, at least a four-fold rise in a quantitative titer or seroconversion) in paired acute and convalescent serum IgG in the absence of another explanation (such as vaccination).

Presumptive laboratory evidence:

- Category 1
  - Presumptive positive for novel influenza virus on tests specifically designed to detect novel influenza viruses, such as H5 or H7.

- Category 2
    - Virus testing results indicative of variant influenza virus, such as H1v or H3v, as determined in consultation with subject matter experts at the Centers for Disease Control and Prevention (CDC).

D. Epidemiologic linkage criteria:

- Close contact with a confirmed human case of novel influenza A virus infection, **or**
- Shared a common exposure (such as an agricultural fair or live animal market) with a confirmed novel influenza A case, **or**
- Direct or indirect contact (such as touching an animal, their environment, or their raw or unprocessed animal products) with animals with confirmed influenza A, **or**
- Inadequate use or breach of personnel protective equipment (PPE) and exposed to novel influenza A virus in a laboratory.

E. Wisconsin surveillance case definition

Confirmed

- Meets clinical description **and** confirmatory laboratory evidence category 1, **or**
- Meets confirmatory laboratory evidence category 2, **or**
- Meets confirmatory laboratory evidence category 3.

Probable

- Meets confirmatory laboratory evidence category 1, **or**
- Meets clinical criteria **and** presumptive laboratory evidence category 1, **or**
- Meets clinical criteria **and** epidemiologic linkage criteria **and** presumptive laboratory evidence category 2.

Suspect

- Meets clinical criteria **and** epidemiologic linkage criteria **and** laboratory testing results are positive for influenza A, but no laboratory evidence is available that would rule out novel influenza A.

II. Reporting

A. Wisconsin disease surveillance category II – methods for reporting

This disease shall be reported to the patient's local or Tribal health officer or to the local or Tribal health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § DHS 145.04 (3) (b). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report (F-44151) to the address on the form.

B. Responsibility for reporting

According to Wis. Admin. Code § DHS 145.04(1), persons licensed under Wis. Stat. ch. 441 or 448, laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in Appendix A.

C. Clinical criteria for reporting

Clinically compatible illness.

D. Laboratory criteria for reporting

Laboratory evidence of infection through testing by any of the confirmatory or presumptive laboratory evidence.

III. Case Investigation

A. Responsibility for case investigation

It is the responsibility of the local or Tribal health department to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

B. Required documentation

A. Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs.
B. Upon completion of investigation, set WEDSS disease incident process status to "Sent to State."

C. Additional investigation responsibilities

Determine whether the case is potentially outbreak-related and notify the Wisconsin Division of Public Health (DPH), Bureau of Communicable Diseases (BCD).

IV. Public Health Interventions and Prevention Measures

A. In accordance with Wis. Admin. Code § DHS 145.05, local public health agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics' *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
B. Consult with the BCD, Communicable Diseases Epidemiology Section (CDES) for use of antiviral medication for treatment or prophylaxis.
C. Consult with BCD, CDES for appropriate isolation of the patient.

V. Contacts For Consultation

A. Local health departments and Tribal health agencies: https://www.dhs.wisconsin.gov/lh-depts/index.htm
B. BCD, CDES: 608-267-9003
C. Wisconsin State Laboratory of Hygiene: 1-800-862-1013

VI. Related References

A. Heymann DL, ed. Novel influenza A infections. In: *Control of Communicable Diseases Manual*. 21st ed. Washington, DC: American Public Health Association, 2022: 324-335.
B. Pickering LK, ed. Influenza. In: *Red Book: 2021 Report of the Committee on Infectious Diseases*. 32nd ed. Elk Grove Village, IL: American Academy of Pediatrics, 2021: 7447-457.
C. CDC website: http://www.cdc.gov/flu.