I. IDENTIFICATION
   A. CLINICAL DESCRIPTION:
      • **Cutaneous Anthrax**: An acute illness, or post-mortem examination revealing a painless skin lesion developing over 2 to 6 days from a papular through a vesicular stage into a depressed black eschar with surrounding edema. Fever, malaise and lymphadenopathy may accompany the lesion.
      • **Inhalation Anthrax**: An acute illness, or post-mortem examination revealing a prodrome resembling a viral respiratory illness, followed by hypoxia, dyspnea or acute respiratory distress with resulting cyanosis and shock. Radiological evidence of mediastinal widening or pleural effusion is common.
      • **Gastrointestinal Anthrax**: An acute illness, or post-mortem examination revealing severe abdominal pain and tenderness, nausea, vomiting, hematemesis, bloody diarrhea, anorexia, fever, abdominal swelling and septicemia.
      • **Oropharyngeal Anthrax**: An acute illness, or post-mortem examination revealing a painless mucosal lesion in the oral cavity or oropharynx, with cervical adenopathy, edema, pharyngitis, fever, and possibly septicemia.
      • **Meningeal Anthrax**: An acute illness, or post-mortem examination revealing fever, convulsions, coma, or meningeal signs. Signs of another form will likely be evident as this syndrome is usually secondary to the above syndromes.
   
   B. REPORTING CRITERIA: Clinical diagnosis or clinical suspicion of anthrax
   
   C. LABORATORY CRITERIA FOR CONFIRMATION:
      1. **Confirmed**: A clinically compatible illness with one of the following:
         • Culture and identification of *B. anthracis* from clinical specimens by the Laboratory Response Network (LRN);
         • Demonstration of *B. anthracis* antigens in tissues by immunohistochemical staining using both *B. anthracis* cell wall and capsule monoclonal antibodies;
         • Evidence of a four-fold rise in antibodies to protective antigen between acute and convalescent sera or a fourfold change in antibodies to protective antigen in paired convalescent sera using Centers for Disease Control and Prevention (CDC) quantitative anti-PA IgG ELISA testing;
         • Documented anthrax environmental exposure AND evidence of *B. anthracis* DNA (for example, by LRN-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or CSF) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal).
      2. **Probable**: A clinically compatible illness that does not meet the confirmed case definition, but with one of the following:
         • Epidemiological link to a documented anthrax environmental exposure;
Wisconsin Division of Public Health Communicable Disease Surveillance Guideline

- Evidence of *B. anthracis* DNA (for example, by LRN-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or CSF) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal);
- Positive result on testing of clinical serum specimens using the Quick ELISA Anthrax-PA kit;
- Detection of Lethal Factor (LF) in clinical serum specimens by LF mass spectrometry
- Positive result on testing of culture from clinical specimens with the RedLine Alert test.

D. WISCONSIN CASE DEFINITION:
A clinically compatible illness that is laboratory confirmed with one of the following:

- Culture and identification of *B. anthracis* from clinical specimens by the Laboratory Response Network (LRN);
- Demonstration of *B. anthracis* antigens in tissues by immunohistochemical staining using both *B. anthracis* cell wall and capsule monoclonal antibodies;
- Evidence of a four-fold rise in antibodies to protective antigen between acute and convalescent sera or a fourfold change in antibodies to protective antigen in paired convalescent sera using Centers for Disease Control and Prevention (CDC) quantitative anti-PA IgG ELISA testing;
- Documented anthrax environmental exposure AND evidence of *B. anthracis* DNA (for example, by LRN-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or CSF) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal).

II. ACTIONS REQUIRED / PREVENTION MEASURES
A. WISCONSIN DISEASE SURVEILLANCE CATEGORY I:
Report IMMEDIATELY BY TELEPHONE to the patient's local health department upon identification of a confirmed or suspected case. The local health department shall then notify the state epidemiologist immediately of any confirmed or suspected cases. Within 24 hours submit a case report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), by mail or fax using an Acute and Communicable Disease Case Report (F-44151), or by other means.

B. EPIDEMIOLOGY REPORTS REQUIRED:
Electronically Report through WEDSS, including appropriate disease specific tabs or

Paper Copy - Acute and Communicable Diseases Case Report (F-44151)

C. PUBLIC HEALTH INTERVENTIONS:
In accordance with Wisconsin Administrative rule DHS 145.05, local public health should follow the methods of control recommended in the current edition of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association.

D. PREVENTION MEASURES:
Educate employees handling potentially contaminated articles about modes of transmission, care of abrasions, controlling dust, and ventilating hazardous industries, especially those that handle raw animal products.
E. PUBLIC HEALTH INTERVENTIONS:  
Source investigation by LHD and BCDER/CDES for direct involvement. Search for history of exposure to infected animals or animal products and trace to place of origin.

III. CONTACTS FOR CONSULTATION

A. LOCAL HEALTH DEPARTMENTS – REGIONAL OFFICES – TRIBAL AGENCIES:  

B. BCDER / COMMUNICABLE DISEASE EPIDEMIOLOGY SECTION: (608) 267-9003

C. WISCONSIN STATE LABORATORY OF HYGIENE / Bacteriology: (608) 263-3421

IV. RELATED REFERENCES

