ERYSIPELAS (Erysipelothrix rhusiopathiae)

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Fact Sheet compiled by: Cora Singleton
Fact Sheet Reviewed by: Pat Morris; Alex Ramirez

Susceptible animal groups: Swine, sheep, turkeys, multiple other vertebrate species

Causative organism: Erysipelothrix rhusiopathiae, a facultative anaerobic, weak gram-positive bacillus.

Zoonotic potential: E. rhusiopathiae causes local skin lesions (erysipeloid) in humans as an occupational disease of people who handle and process meat, veterinarians, game handlers, leather workers, and laboratory workers.

Distribution: Worldwide

Incubation period: Bacteremia usually develops within 24 hours of exposure. Bacteria may persist in joints and lymphoid tissue for months.

Clinical signs: Acute disease – Pyrexia, anorexia, depression, stilted gait, raised rhomboid light pink to purple skin lesions (“diamond-skin” lesions), abortion, and sudden death.

Chronic disease – Animals that survive acute disease may show exercise intolerance and cyanosis (valvular endocarditis), swollen joints and lameness (arthritis).

Post mortem, gross, or histologic findings:
Acute disease – Widespread congestion, petechial and ecchymotic hemorrhages, microthrombi and focal necrosis, mononuclear inflammation.

Chronic disease – Proliferative nonsuppurative arthritis, vegetative endocarditis.

Diagnosis: Clinical signs and necropsy lesions (especially “diamond-skin” lesions), bacterial culture, and serology. A variety of serologic tests are available, which are more valuable for detection of chronic infection on a herd basis than for detection of acute disease in individual animals.

Material required for laboratory analysis: Swab or tissue sample (blood, organs, joints) for culture.

Relevant diagnostic laboratories: Multiple laboratories available.

Treatment: Penicillin is the antibiotic of choice for acute disease but macrolides, streptogramins (eg., quinupristin/dalfopristin, pristinamycin, virginiamycin), tetracyclines, lincomycin and tylosin may also be
effective. Hyperimmune serum may be useful early in the course of disease. No practical treatment for chronic erysipelas is available.

**Prevention and control:** Vaccinate herd, practice good sanitation, avoid overcrowding, quarantine new animals, and eliminate chronic carriers.

**Suggested disinfectant for housing facilities:** Phenolic, alkali, hypochlorite, or quaternary ammonium disinfectants are effective.

**Notification:** Erysipelas is not reportable to USDA/APHIS or OIE but may be reportable to local or state agencies.

**Measures required under the Animal Disease Surveillance Plan:** None

**Measures required for introducing animals to infected animal:** Not recommended.

**Conditions for restoring disease-free status after an outbreak:** Eliminate chronic carrier animals.

**Experts who may be consulted:**
Veterinary Diagnostic and Production Animal Medicine Department
Iowa State University College of Veterinary Medicine
Phone: 515-294-1950
Fax: 515-295-3564
http://vetmed.iastate.edu/vdpam/

**References**