Brucellosis

Definition:
Brucellosis is a disease caused by Brucella bacteria. Because Brucella can be airborne and weaponized, it is considered a bioterrorism agent. Brucella can infect humans and several types of animals.

Signs and symptoms:
Initial symptoms of brucellosis may include fever, sweats, malaise, anorexia, headache, myalgias, arthralgias, and fatigue. Additional long-term or chronic symptoms can include recurrent fevers, arthritis, orchitis, endocarditis, swelling of liver or spleen, chronic fatigue, depression, and neurologic symptoms. Symptoms usually appear 1-2 months after exposure, but may appear between 5 days and several months after exposure.

Transmission:
Humans are generally infected in one of three ways: 1) eating undercooked/raw meats or consuming unpasteurized/raw milk or other dairy products, 2) inhaling Brucella bacteria (especially in laboratories, meat packing plants, slaughterhouses, etc.), or 3) Brucella entering the body through mucous membranes or skin wounds (hunters, veterinarians, meat workers). Being around infected birthing animals and products of birth (placentas, etc.) can also pose a risk of infection. Person-to-person transmission is rare, but nursing mothers can transmit Brucella to their infants through breast milk. Pregnant women may be at higher risk of infection and complications. Brucella is found worldwide.

Diagnosis:
Brucellosis is diagnosed by clinical symptoms and laboratory tests.

Role of the School Nurse:
Prevention
- Education about risks associated with consuming raw/undercooked meats and raw or unpasteurized milk, cheese, or other dairy products
- Encourage frequent hand washing, especially after contact with animals or livestock
- Encourage appropriate use of protective equipment (i.e. rubber gloves) when hunting or otherwise exposed to animal blood or secretions

Treatment Recommendations
- If symptoms are noted, the child should see a provider for testing and treatment.
- Antibiotic treatment is available.

Exclusions
- Children who are sick should remain at home and see a provider if the disease is suspected.

Reporting Requirements
- Brucellosis is reportable immediately by phone upon recognition or strong suspicion of illness.

Resources:
- Federal CDC Brucellosis website: http://www.cdc.gov/brucellosis/index.html