MATERIAL SAFETY DATA SHEET - INFECTIOUS SUBSTANCES

SECTION I - INFECTIOUS AGENT

NAME: Pasteurella spp.

SYNONYM OR CROSS REFERENCE: Shipping fever, Pasteurella haemolytica, P. pneumotropica, P. aerogenes, P. salinavum, P. multocida, Pasteurellosis

CHARACTERISTICS: Non-spore forming, nonmotile, bipolar, gram negative coccobacilli; tendency towards pleomorphism, aerobic; 1.4 μm by 0.4 μm in size

SECTION II - HEALTH HAZARD

PATHOGENICITY: Localized infection such as cellulitis and abscess; onset less than 24 hours after animal bite or scratch; progress to osteomyelitis and arthritis in some individuals; less common forms chronic pulmonary infections, bacteremia, meningitis and septicemia; otitis media, hepatic cirrhosis and peritonitis are unusual manifestations

EPIDEMIOLOGY: Worldwide; normal flora in many domestic animals (especially cats and dogs); rate of colonization of animals is higher during the cold seasons

HOST RANGE: Domestic and wild animals; humans are accidental hosts

INFECTIOUS DOSE: Not known

MODE OF TRANSMISSION: Primarily by animal bite or scratch (especially from cats and dogs); inhalation of aerosols; wound contamination from infected tissues; mechanical transmission by fleas, flies and cockroaches

INCUBATION PERIOD: Symptoms less than 24 hours after an animal bite

COMMUNICABILITY: Communicable during period of active disease

SECTION III - DISSEMINATION

RESERVOIR: Cats, dogs; wild animals; birds (fowl)

ZOOONOSIS: Yes, by animal bite or scratch

VECTORS: Fleas, flies, cockroaches, mosquitoes

SECTION IV - VIABILITY

DRUG SUSCEPTIBILITY: Sensitive to penicillin G and its derivatives (ampicillin, carbencillin, piperacillin), tetracycline, cephalothin, chloramphenicol

DRUG RESISTANCE: First generation cephalosporins are ineffective

SUSCEPTIBILITY TO DISINFECTANTS: Susceptible to most disinfectants; 1% sodium hypochlorite, 2% glutaraldehyde, 70% ethanol

PHYSICAL INACTIVATION: Inactivated at 55°C for 15 minutes; unstable at low pH
SURVIVAL OUTSIDE HOST: Blood remains infectious for 10 days under ambient conditions; infectious tissues survive up to 3 days in sunshine; survives in water at room temperature up to 5 days

SECTION V - MEDICAL

SURVEILLANCE: Monitor for symptoms
FIRST AID/TREATMENT: Administer antibiotic therapy, surgery
IMMUNIZATION: None available
PROPHYLAXIS: None

SECTION VI - LABORATORY HAZARDS

LABORATORY-ACQUIRED INFECTIONS: Two case were reported associated with laboratory animals up to 1976

SOURCES/SPECIMENS: Lesion material (exudate and sputum); blood
PRIMARY HAZARDS: Accidental parental inoculation; exposure to infectious aerosols
SPECIAL HAZARDS: Naturally and experimentally infected animals pose a risk for laboratory and animal care personnel

SECTION VII - RECOMMENDED PRECAUTIONS

CONTAINMENT REQUIREMENTS: Biosafety level 2 practices, containment, equipment and facilities for activities involving clinical specimens and cultures of all species

PROTECTIVE CLOTHING: Laboratory coat; gloves and gown with ties in the back tight wrist when working with infectious materials

OTHER PRECAUTIONS: Heavy protective gloves and face shields to protect from infectious droplets or tissues fragments

SECTION VIII - HANDLING INFORMATION

SPILLS: Allow aerosols to settle; wearing protective clothing, gently cover spill with absorbent paper towel and apply 1% sodium hypochlorite starting at the perimeter and working towards centre; allow sufficient contact time (30 min) before clean up

DISPOSAL: Decontaminate all wastes before disposal; steam sterilization, chemical disinfection, incineration

STORAGE: In sealed containers that are appropriately labelled

SECTION IX - MISCELLANEOUS INFORMATION

Date prepared: March, 2001
Prepared by: Office of Laboratory Security, PHAC

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