

CHARACTERISTICS	
Synonym or Cross Reference	Cardiovirus, EMCV
Disease	Myocarditis and Encephalitis, but also neurological diseases, reproductive disorders and diabetes in many mammalian species.
Morphology	The encephalomyocarditis virus (EMCV) (aka is a small non-enveloped single-strand RNA virus in the family Picornaviridae.
Zoonosis	Yes, described as a zoonotic potential agent.

HEALTH HAZARDS	
Host Range	Voles, Squirrels, Elephants, Swine, Wild boar, Racoons, Antelope, Lions, Birds and several species of non-human primates. Human infection, while not common, has also been reported.
Incubation Period	Couple of days
Infectious Dose	Varies among different animals.
Modes of Transmission	Ingestion of EMCV-contaminated food, water and diseased carcasses. In laboratory settings, through the skin via puncture or absorption through scratches, cuts, etc., and direct contact with mucous membranes (eyes, nose and mouth).
Signs and Symptoms	Varies among animals labored respiration associated with acute heart failure (non human primates), Myocarditis (Pigs), Encephalitis (Rodents). Humans appear to be resistant to fatal infections with EMCV.

RISK GROUP & CONTAINMENT REQUIREMENTS	
ABSL-2	For all procedures utilizing infected animals.
BSL-2/BSL-2+	For all procedures involving suspected or known infectious specimen or cultures, work in a BSC unless otherwise approved and stated in lab-specific manual.
Risk Group 2	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available.

LABORATORY HAZARDS	
Primary Hazards	Through the skin via puncture or absorption through scratches, cuts, etc., and direct contact with mucous membranes (eyes, nose and mouth).
Sources	Samples described in IBC protocol.
Lab Acquired Infections (LAIs)	None reported

PERSONAL PROTECTIVE EQUIPMENT	
Additional Precautions	Additional PPE may be required depending on lab-specific SOPs and IBC Protocol.
Minimum PPE Requirements	Lab coat, disposable gloves, safety glasses, closed toed shoes, long pants.

SPILL PROCEDURES	
Large	Immediately notify all lab personnel and clear the area. Remove any contaminated PPE/clothing before exiting the lab. Lock all entry doors, post warning signage, and deny entry. Call DPS (213-740-4321) and ask to notify EH&S. Inform the PI and/or Lab Manager/Supervisor as soon as possible.
Small	Notify all lab personnel lab. Remove contaminated PPE and don new PPE. Cover spill area with absorbent material and add fresh 1:10 bleach:water. Allow 20 minutes (or as directed) contact time. After 20 minutes, clean up and dispose of materials.

VIABILITY	
Disinfection	Use 10 % dilution of household bleach (minimum 0.3% sodium hypochlorite) for 20 to 30 minutes, or an acceptable time approved by IBC and EH&S.
Survival Outside Host	Several days

EXPOSURE PROCEDURES	
Medical Follow-up	Visit USC’s designated healthcare provider. Bring a copy of this PSDS.
Mucous Membrane	Flush eyes for 5-10 minutes at eyewash station.
Other Exposures	Immediately wash affected area with soap and water for 15 minutes.
Reporting	Immediately report incident to supervisor, notify EH&S, and complete Manager’s Report.

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None
Surveillance	Monitor for symptoms of infection
Treatment	None
USC Requirements	Immediately report any exposures to Environmental Health & Safety.
Vaccines	There are several types of vaccines against EMCV are under development include inactivated EMCV vaccine, DNA vaccine and combination vaccine for animals.

REFERENCES	
BMBL http://tiny.cc/cdc-bmb1	CDC https://www.cdc.gov/
NIH Guidelines http://tiny.cc/nih-bio-secure	NIH Article http://tiny.cc/nih-emcv
Cold Spring Harbor Lab http://tiny.cc/emcv-vaccine	

