

CHARACTERISTICS

Synonym or Cross Reference	HEV, enterically transmitted or enteric non-A non-B hepatitis (ENANB), epidemic non-A non-B hepatitis, faecal-oral non-A non-B hepatitis, and A-like non-A non-B hepatitis.
Disease	Self-limiting with symptoms typical of acute viral hepatitis. Anicteric hepatitis and cholestasis are also observed in some cases. Mortality rate as high as 1%, up to 20% in pregnant women.
Morphology	Hepatitis E virus (HEV) is the only member of the genus Hepevirus in the family Hepeviridae. It is a non-enveloped, icosahedral shaped sphere approx. 27-34 nm in diameter, and consisting of a single-stranded, positive sense RNA molecule about 7.5 kilobases (kb) in length.
Zoonosis	Considered a zoonotic disease where domestic pigs and wild boars are the main reservoirs. Zoonotic transmission from deer has also been documented. Transmission may also occur from other animals, including chickens, cats, and rats.

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	Ingestion of feces or stool samples and other contaminated materials.
Sources	Samples described in IBC protocol.
Lab Acquired Infections (LAIs)	No cases of laboratory-acquired have been reported to date.

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.
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	Unknown. Considered relatively stable in acidic and mild alkaline conditions. Spreads mainly through fecal-oral route and stable under environmental conditions, possibly similar to HAV (i.e., in water and sewage for long periods).

HEALTH HAZARDS

Host Range	Humans and animals, including swine. Several animal species were experimentally infected with strains of HEV, including nonhuman primates (e.g., chimpanzees, rhesus monkeys, and tamarins), white mice, and Wistar rats.
Incubation Period	Incubation period for HEV infection in humans ranges from 15-60 days with a mean 40 days.
Infectious Dose	Unknown
Modes of Transmission	Fecal-oral, food-borne, blood-borne, and vertical transmission
Signs and Symptoms	Jaundice, malaise, anorexia, abdominal pain, nausea, fever, diarrhea, discoloured stool and/or urine, and hepatomegaly.

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	Rest. No specific treatment currently available.
USC Requirements	Immediately report any exposures to Environmental Health & Safety.
Vaccines	None available

REFERENCES

BMBL http://tiny.cc/cdc-bmb1	Canadian PSDS http://tiny.cc/canada-gov-psds
CDC https://www.cdc.gov/	NIH Guidelines http://tiny.cc/nih-bio-secure
Virginia Tech http://tiny.cc/vt-psds	

