Biological Agent Reference Sheet (BARS)

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### Infectious Dose

**Transmission Requirements**

- Potential sources include feces and sera from infected NHPs or humans.

- HEV causes acute sporadic and epidemic viral hepatitis. The ratio of symptomatic to asymptomatic Hepatitis E (HE) ranges from 1:2 to 1:13. When symptoms occur, they last 1-2 weeks and include jaundice, anorexia, enlarged tender liver, abdominal pain, nausea and vomiting, and fever. Pregnant women are at greater risk of obstetrical complications and death, with 10-30% mortality rate among pregnant women in the third trimester. Sporadically, HEV Genotype 3 mainly affect older men (>40 years) and immunocompromised individuals.

- **Infectious Dose**: Unknown

- **Incubation Period**: 15-60 day (average 40 day). HEV has been detected in stool from one week prior to symptom onset up to 30 days after onset of jaundice. Chronically infected persons (exclusively HEV Genotype 3 infections of immunocompromised) shed virus as long as infected.

### Laboratory Hazards

**Laboratory Acquired Infections**

- No cases of laboratory-acquired infections have been reported to date.

**Sources**

- Potential sources include feces and sera from infected NHPs or humans.

### Health Hazards

**Host Range**

- Genotypes 1 and 2: human; Genotypes 3 and 4: non-human primates, domestic and wild pigs, and other domestic animal species.

**Modes of Transmission**

- Fecal-oral (feces-contaminated drinking water); food-borne (consumption of uncooked/undercooked shellfish, pork or deer meat); blood-borne (blood transfusions); mother to baby immediately before and after birth; person-to-person (uncommon)

**Signs and Symptoms**

- **HEV** causes acute sporadic and epidemic viral hepatitis. Diagnosis of HEV infection is based on detection of IgM and IgG antibodies against the virus, or detection of HEV RNA in blood or stool.

**Infectiousness**

- HEV is self-limiting and usually resolves on its own without treatment. Typically advised to rest and get adequate nutrition and fluids. Hospitalization is sometimes required in severe cases and should be considered for pregnant women.

- Monitor for symptoms of disease.

- Report all incidents using PeopleSoft.

### Personal Protective Equipment (PPE)

**Minimum PPE Requirements**

- At minimum, personnel are required to don gloves, closed toed shoes, lab coat, and appropriate face and eye protection prior to working with HEV-infected samples. Additional PPE may be required depending on lab specific SOPs.

**Additional Precautions**

- All procedures that may produce aerosols, or involve high concentrations or large volumes should be done in a BSC.