

## Murine norovirus (MNV)

RNA virus, nonenveloped; Family: Caliciviridae.

### Prevalence

- Common

### Diagnosis

- Serology or PCR

### Disease

- No clinical signs are seen in immunocompetent mice and most immunodeficient mice. Mice deficient in STAT1 gene were the first description of the disease. Signs included wasting, diarrhoea and death with lesions of hepatitis, peritonitis, interstitial pneumonia

### Strains

- Certain immunodeficient strains e.g. STAT1 deficient mice and other interferon signalling pathways and/or interferon receptor deficits

### Screening

- Soiled bedding sentinels for at least 8 weeks for antibody titre to rise

### Transmission

- Faecal-oral transmission

### Duration

- Persistent infection

### Durability

- Difficult to eradicate from the environment, requires chemical decontamination with detergents and oxidising disinfectants

### Significance

- Immunological research may be affected because the virus persists in the macrophages. If the research involves certain immunodeficient lines, they may become ill and die with the infection

### Control

- Pathogen exclusion. Hysterectomy rederivation and embryo transfer

## Reading

- Infectious Diseases of Mice and Rats National Research Council 1991
- Pathology of Laboratory Rodents and Rabbits, 3rd Edn., Dean H Percy & Stephen W Barthold, 2007
- University of Missouri, Research Animal Diagnostic Laboratory website, <http://www.radil.missouri.edu>