**Biohazardous Agent Reference Document (BARD) and**

**Information for Healthcare Providers in the Event of an Exposure**

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| The BARD is an additional guidance tool. It is not a substitute for a risk assessment, biosafety training, lab-specific training, SOP as required by the IBC or a formal [IBC master protocol registration](https://www.uvm.edu/rpo/biosafety-oversight). This document must be readily available in the laboratory, and it is the responsibility of the Laboratory Supervisor or Principal Investigator to ensure that all personnel have read and understood the information. The BARD is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Please bring this IBC-approved BARD with you to the UVMMC Emergency Department if there has been an exposure and someone requires medical assistance.  INSTRUCTIONS for BARD Preparation   1. Complete the blue Information for Healthcare Providers section. 2. Review the standard information contained in the green section of this document. 3. Add/revise information that is specific to your work in the laboratory (such as strain-specific information). Please be sure that the track changes function is turned on to indicate any changes that you make. 4. Submit the BARD along with your IBC master protocol registration or amendment. 5. Once approved by the IBC, all personnel must review this BARD. The PI will attest during the submission of the registration or amendment to add new personnel that each lab member has read and understands the material. | |
| **Information for Healthcare Providers**  Dear Healthcare Provider,  This individual works in a UVM research laboratory and has been exposed to a pathogen or toxin. Information about the materials this person may have been exposed to is listed below. You may also find useful additional information in subsequent pages of this reference document. | |
| **Pathogen Name:** | Rotavirus |
| **Pathogen/Toxin Classification:** |  |
| **List All Strains Used in the Laboratory:** |  |
| **List Resistant Genes Known to be Encoded:** |  |
| **Modes of Transmission *(mucous membranes, needle stick, inhalation)*:** | Most commonly transmitted through the fecal-oral route. Ingestion, mucous membrane contact, inhalation of aerosols suspected but unconfirmed. |
| **Known Medical Precautions and Treatment** | |

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| **Prophylaxis** | None |
| **Vaccines** | Oral vaccine available |
| **Treatment and/or Post-exposure Intervention** | Supportive therapy, prevention of dehydration by replacement of fluid and electrolytes |
| **Surveillance** | Monitor for symptoms and test using ELISA or latex agglutination assay of stool sample, or electron microscopy |
| **Additional Medical Precautions (immunosuppression, pregnancy, allergies)** | Immunocompromised individuals are susceptible to developing more severe disease manifestations |

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| **Health Hazards** | |
| **Host Range** | Humans and experimentally infected animals |
| **Signs and Symptoms** | Symptoms similar to those caused by other gastrointestinal agents, such as: fever, vomiting, and non-bloody diarrhea, leading to mild to severe dehydration and/or electrolyte imbalance. Infections are usually self-limiting and last for about 4 – 7 days. |
| **Infectious Dose** | Unknown |
| **Incubation Period** | 1 – 3 days |
| **Exposure Procedures** | |
| **Mucous membranes** | Flush eyes, mouth or nose for 15 minutes at eyewash station. |
| **Other exposures** | Wash area with soap and water for 15 minutes |
| **Medical Follow-Up** | Contact UVMMC Infectious Disease Dept. directly at **(802) 847-2700** for immediate assistance. Bring this document with you if seeking medical care. |
| **Reporting** | Report all exposures or near misses to:   1. Your immediate Supervisor 2. SOS at 802-656-2560 and ask to have the EH&S team paged 3. Risk Management: <https://www.uvm.edu/riskmanagement/incident-claim-reporting-procedures> |
| **Laboratory Hazards** | |
| **Laboratory Acquired Infections** | None reported to date |
| **Sources** | Intestinal mucosa and stool of infected humans, infected laboratory cultures |
| **Characteristics** | |
| **Morphology** | Non-enveloped, double-stranded RNA virus, with a diameter of about 70 nm and wheel-like appearance. |
| **Strain Specific Characteristics** | Can be classified into seven major serotypes (A – G). Groups A – C infect both humans and animals, while groups D – G have only been found in animals. Group A is the most common rotavirus responsible for causing human illness. |
| **Containment Requirements** | |
| **BSL - 2** | Manipulation of known or potentially infected clinical samples and cultures of laboratory adapted strains (RG2) |
| **BSL - 3** |  |
| **ABSL - 2** | Work with animals infected with risk group 2 strains |
| **ABSL - 3** |  |
| **Aerosol generating activities** | Centrifugation, homogenizing, vortexing or stirring, changing of animal cages, animal surgeries, cell sorting, pipetting, pouring liquids, sonicating, loading syringes |
| **Primary containment device (BSC)** | Use for aerosol generating activities, large volumes, animal manipulations, or high concentrations |
| **Personal Protective Equipment (PPE)** | |
| ***Minimum PPE Requirements*** | Nitrile gloves, lab coat or gown, appropriate eye/face protection. Wash hands after removing gloves. |
| ***Additional Precautions***  ***(Risk assessment dependent)*** |  |
| **Viability** | |
| **Disinfection** | Susceptible to 2% sodium hypochlorite, combinations of quaternary ammonium compounds with alcohols > 40% (such as Lysol), 2% glutaraldehyde, 2% formalin, iodine; all with a contact time of 10 minutes. |
| **Inactivation** | Inactivated by heating above 50°C for 30 minutes, and by pH < 3.0 |
| **Survival Outside Host** | Capable of surviving at ambient temperatures and can remain infectious on inanimate objects for up to 60 days. Medium or low humidity may enhance stability. |
| **Spill Clean-Up Procedures** | |
| **Small Spill** | Notify others working in the lab. Allow aerosols to settle. Don appropriate PPE. Cover area of the spill with paper towels and apply approved disinfectant, working from the perimeter towards the center. Allow 30 minutes of contact time before clean up and disposal. Dispose in double biowaste bags and biobox. |
| **Large Spill** | **Inside of a lab:** Call UVM Service Operations at 656-2560 and ask to speak to a dispatcher. Ask them to page Risk Management and Safety.  **Outside of the lab:** Pull the nearest fire alarm and evacuate the building. Wait out front of the building for emergency responders to arrive. |
| **References** | |
| **Canadian PSDS** | <https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/human-rotavirus.html> |
| **BMBL** | <https://www.cdc.gov/biosafety/publications/bmbl5/> |
| **CDC Guidelines** | <https://www.cdc.gov/rotavirus/index.html> |