

Nonhuman Primate and Other Research Animal Bite, Scratch, Splash, and Exposure (BSSE) Guidelines (10/27/2022)

Purpose: These nonhuman primate (NHP) BSSE guidelines describe the programmatic requirements specific to ICs working with all NHPs and are intended to promote the safe use of NHPs in research. Certain Old World NHPs and their tissue, blood and body fluids may be infected with B virus (*Macacine alphaherpesvirus 1*), which can be fatal in humans. These guidelines contain BSSE incident response measures and follow up risk assessments required for all research animal bites, scratches, splashes, or other exposure incidents, but primarily address NHP BSSE incidents with a focus on decreasing B virus infections. These guidelines are also meant to supplement NIH Manual Chapter 3044-2: [Protection of NIH Personnel Who Work with Nonhuman Primates](#) and DDIR/IO Policy Memo [Updates to the Nonhuman Primate Users Safety Program](#).

Responsibility: All investigators or persons involved with the care and use of research animals must be enrolled in an animal exposure program (AEP) and follow these procedures as written. All National Institutes of Health (NIH) personnel (including but not limited to federal employees, contractors, trainees, Public Health Service and visiting scientists) must report any work-related injuries or exposures to their supervisors and to Occupational Medical Service (OMS).

Acronyms:

- ACUC Animal Care and Use Committee
- AEP Animal Exposure Program
- APD Animal Program Director
- ARAC Animal Research Advisory Committee
- B Virus *Macacine alphaherpesvirus 1*, *Cercopithecine herpesvirus 1* (CHV-1), Herpes B Virus, *Macacine herpesvirus 1*
- BSSE Bite, scratch, splash or other exposure
- DOHS Division of Occupational Health and Safety
- IBC Institutional Biosafety Committee
- IC Institute/Center
- IRF Intramural Research Facility
- NHP Nonhuman primate
- NIH National Institutes of Health
- OACU Office of Animal Care and Use
- OMS Occupational Medical Service
- PEP Post-exposure prophylaxis
- PI Principal Investigator
- SOP Standard Operating Procedure

Research Animal Categories:

- Small Animals: fish, amphibians, rodents
- Large Animals: rabbits, cats, dogs, sheep, pigs
- NHPs (examples):
 - New World: marmosets, tamarins, squirrel monkeys, owl monkeys
 - Old World: rhesus, cynomolgus and pigtail/pig-tailed macaques, baboons, African Green monkeys

First Aid Procedures following a Research Animal Exposure:

A. First aid after BSSE to any Old World NHP:

- 1.) Initiate immediate first aid (within the first 5 minutes of exposure):
 - a. Contaminated skin and wounds should be washed thoroughly for 15 minutes with clean running water or normal saline solution, a sponge, and a cleansing agent such as povidone-iodine or chlorhexidine, provided on-site in the NHP bite/scratch (BSSE) kit.
 - b. Contaminated eyes and mucous membranes should be irrigated at an eyewash station for 15 minutes using normal saline solution or clean running water.
- 2.) After administration of first aid, immediately report the incident to the Main Campus OMS, or have someone report on your behalf while administering first aid, if possible. Ask to speak with the OMS provider-on-duty, and state: "I have had a nonhuman primate-related injury or incident." Notify Main Campus regardless of geographic location.
 - a. OMS will assess the injury or exposure by phone and provide further guidance.
 - b. IF indicated, OMS will direct you to initiate immediate B virus post-exposure prophylaxis (PEP), found within the BSSE kit.

→ Call 301-496-4411 (Main Campus Clinic), 7:30 am – 5:00 pm ET, Monday – Friday

→ After-hours, or if there is no answer at the OMS clinic during business hours, call 301-496-1211 (NIH Operator), 5:00 pm – 7:30 am ET, Monday – Friday, and on weekends & holidays

If the local OMS clinic is called, they will contact the Main Campus Clinic for approval of post-exposure prophylaxis administration.

B. First aid after BSSE to other research animals including New World NHPs, rodents, fish, etc.:

- 1.) Initiate immediate first aid (within the first 5 minutes of exposure):
 - a. Contaminated skin and wounds should be washed thoroughly for 15 minutes with clean running water or normal saline, a sponge, and a cleansing agent such as povidone-iodine or chlorhexidine.
 - b. Contaminated eyes and mucous membranes should be irrigated at an eyewash station for 15 minutes using normal saline or water.
- 2.) After administration of first aid, report incident to OMS.

C. Emergency response for extensive or profusely bleeding injuries, immediately call 911 for assistance (see table, Attachment 3, Example SOP, Section B.1.) in addition to notifying the on-duty OMS provider.

Personnel Training Requirements for all Research Animal Work:

Personnel who handle animals must be trained to help prevent bites, scratches, splashes, and exposures (BSSE). The training requirements include but are not limited to completion of the "Using Animals in Intramural Research: Guidelines for Principal Investigators" or "Using Animals in Intramural Research: Guidelines for Animal Users" and triennial completion of the refresher course: (<https://oacutrainig.od.nih.gov/nih.aspx>).

In addition, animal users should complete the optional OACU trainings for mouse hands-on animal techniques and/or rat hands-on animal techniques (<https://oacutrainig.od.nih.gov/nih.aspx>).

IC Program requirements to work with live NHPs or unfixed NHP tissue, blood, and body fluids:

- 1.) Institute a safety training program for personnel working with live NHPs:
 - a. Each IC or animal facility must administer the two-part “Working Safety with Nonhuman Primates” safety awareness training course. Personnel who work with live NHPs must complete the training course annually.
 - b. The ACUC will coordinate training with the appropriate facility trainer(s).
 - c. Trainers who provide the “Working Safely with Nonhuman Primates” safety awareness training at the IC must complete the “Nonhuman Primate Bite, Scratch, Splash Exposure (BSSE) Program, Train the Trainer Course” training course annually through OACU.

- 2.) Establish a B virus Prophylaxis Program:
 - a. Each Institute/Center (IC) Animal Program Director (APD) must ensure a B virus prophylaxis program is in place for each animal facility or animal program area (e.g., housing, surgery, pathology, necropsy, imaging area, transportation, etc.) using Old World NHPs, Old World NHP body fluids, equipment potentially contaminated with B virus, or Old World NHP unfixed tissue, blood, or body fluids.
 - b. Each IC Safety Committee must review and approve NHP tissue inactivation protocols, including fixation protocols. Guidance on inactivation and verification methods are found in Appendix K of [Biosafety in Microbiological and Biomedical Laboratories](#).
 - c. The laboratory chief must ensure laboratories manipulating or storing unfixed NHP samples are registered with the NIH Institutional Biosafety Committee (NIH IBC) using [PI-DASHBOARD](#). Each laboratory chief must ensure a B virus prophylaxis program is in place for each laboratory that uses unfixed Old World NHP tissue, blood, body fluids or samples. After the NIH IBC approves the registration and assigns the biosafety level, the laboratory prophylaxis program becomes active.
 - d. Ensure BSSE kits are stocked and in place. Procure valacyclovir from OMS and dispense at the direction of an OMS physician. Replacement due to expiration or use will be coordinated with the OMS Valtrex manager.
 - e. See sections below for minimum requirements on Incident Response: First Aid, Treatment and Reporting Requirements and Medical Care, Post-Exposure Prophylaxis, and OMS Notification.

- 3.) Create NHP BSSE SOPs:
 - a. All animal programs and laboratories utilizing NHPs or their unfixed tissue, blood, or body fluids at the NIH must develop a written SOP on the handling of NHPs and/or unfixed tissue, blood, or body fluid related exposures at all government owned or leased facilities. Additionally, clear and concise SOPs for handling Old World NHP bites, scratches, splashes of body fluids, or other exposures from equipment potentially contaminated with B virus (e.g., needles, scalpels, caging, etc.) are critical for the protection of investigative and facility personnel.
 - b. The SOP must delineate:
 - i. The individuals responsible for maintaining the requirements of the SOP
 - ii. The individual(s) responsible for training personnel and maintaining training records.
 - iii. The **minimum** requirements for SOPs designed to prevent or treat NHP-related exposures including B virus exposures.

1. For animal programs maintaining or using live NHPs, the SOP(s) must be reviewed and approved by the IC Animal Care and Use Committee initially and triennially thereafter, in collaboration with DOHS.
 2. For labs or individuals using only unfixed tissue, blood, or body fluids (i.e., no live animals) the SOP(s) must be reviewed and approved initially and triennially thereafter by the IC safety committee and DOHS.
 3. Facilities housing NHPs posing additional human risk factors (e.g., experimentally exposed to infectious agents, etc.) should develop separate SOPs to address those circumstances.
- c. See attachments for minimum requirements for each SOP, an example of an approved SOP, and other related documents. The attached SOP template contains all required elements in a BSSE SOP.
- 4.) Require Animal Exposure Program enrollment:
All personnel working with live NHPs; fixed or unfixed NHP tissue, blood, body fluids or samples are required to make an appointment with the [Occupational Medical Service \(OMS\)](#) for a medical evaluation and enroll in the [Animal Exposure Program](#).
- 5) Require hazard communication training through participation of all laboratory personnel in these Division of Occupational Health and Safety (DOHS) [safety and health training](#) classes:
- a. [Working Safely with HIV and Other Bloodborne Pathogens for Non-Hospital Personnel \(online\)](#)
 - b. [Laboratory Safety Refresher Course \(online\)](#)
 - c. Laboratory-specific training provided by the PI:
 - i. [NIH Chemical Hygiene Plan](#)
 - ii. [NIH Exposure Control Program for Non-Hospital Personnel](#)

Approved by Animal Program Directors: 11/07/2022

Attachments:

1. NHP BSSE Incident Response: First Aid, Treatment, and Reporting Program Requirements
2. NHP Bite, Scratch, Splash, and other Exposure Training Requirements
3. Example IC Standard Operating Procedure
4. Example First Response Sheet
5. Example Emergency Room Directions and Additional Instructions
6. Example "Attention Emergency Room Physicians and Staff" Instruction Sheet
7. Link to *Recommendations for Prevention of and Therapy for Exposure to B Virus*
8. Old World NHP Bite, Scratch & Splash Injury: Information Request Form
9. Valacyclovir Drug Information Sheet
10. Bite, Scratch, Splash Exposure Response Flowchart

References:

1. NIH Manual Chapter 3044-2: [Protection of NIH Personnel Who Work with Nonhuman Primates](#)
2. NIH Manual Chapter 3040-2: [Animal Care and Use in The Intramural Program](#)
3. Centers for Disease Control and Prevention. Fatal *Cercopithecine herpesvirus 1* (B virus) infection following a mucocutaneous exposure and interim recommendations for worker protection. MMWR Morb Mortal Wkly Rep 1998;47:1073–6,1083.

4. Cohen JI, Davenport DS, Stewart JA, Deitchman S, Hilliard JK, Chapman LE, et al. Recommendations for prevention of and therapy for exposure to B virus (*Cercopithecine herpesvirus 1*). Clin Infect Dis 2002;35:1191–203. Huff JL, Barry PA. B-Virus (*Cercopithecine herpesvirus 1*) infection in humans and macaques: potential for zoonotic disease. Emerg Infect Dis 2003; 9:246-50.
5. Adams MJ, Lefkowitz EJ, King AMQ, Harrach B, Harrison RL, Knowles NJ, et al. Ratification vote on taxonomic proposals to the International Committee on Taxonomy of Viruses (2016). Arch Virol 2016;161:2921-49.

Attachment 1. NHP BSSE Incident Response: First Aid, Treatment, and Reporting Program Requirements

First Aid (Wound Decontamination):

Require that a fifteen (15) minute scrub while flushing of the exposed area be started **immediately (no later than five minutes after exposure)**. Assistance may be required to scrub while flushing wounds or flush eyes or mucous membranes.

- Bite, scratch, puncture, or laceration: scrub continuously for 15 minutes while flushing with clean running water or normal saline solution, using a sponge and a cleansing agent such as povidone-iodine or chlorhexidine (found in the BSSE kit).
 - Follow plans established by the IC ahead of time in consideration of cultural/gender/privacy concerns such that no matter which body area is involved in the possible exposure, the affected body part will be flushed and scrubbed for 15 minutes, no later than five minutes after the incident occurs.
- Splash of potentially contaminated fluid to eyes, mouth, or nose: flush affected mucous membranes continuously for 15 minutes with clean water or normal saline solution.

Medical Care, Post-Exposure Prophylaxis, and OMS Notification:

Reporting the injury should not be done at the expense of initiating wound cleaning.

Require any injured/exposed individuals immediately notify the Bethesda Main Campus OMS and ask to speak with the OMS provider-on-duty, and state: "I have had an NHP-related injury or incident."

- Notify Main Campus OMS for all NHP injuries regardless of geographic location.
 - Call 301-496-4411 (Main Campus Clinic), 7:30 am – 5:00 pm ET, Monday – Friday
 - After-hours call 301-496-1211 (NIH Operator), 5:00 pm – 7:30 am ET, Monday – Friday, and on weekends & holidays.
- When possible, a co-worker should make the call to OMS while first aid is performed. Individuals unable to call OMS before completing scrubbing/flushing must call from their worksite immediately after scrubbing/flushing.
- If instructed by the OMS provider, take the prescribed dose of valacyclovir orally, which is located in a sealed bag within the BSSE Kit or other pre-determined, easily accessible location.
- After completing first aid and calling OMS (numbers above, including after hours), immediately proceed to the closest OMS clinic for further evaluation, unless instructed otherwise by the OMS provider.
- OMS Clinic locations:
 - **Bethesda, MD (Main Campus)**
Building 10, Room 6C306
7:30 am – 5:00 pm ET M – F
301-496-4411
 - **Frederick, MD**
IRF Fort Detrick, Room 1B116
8:00 am – 4:30 pm ET, M – F
301-631-7233
 - **Baltimore, MD**
Bayview Research Center, Room 01B210
8:00 am – 4:30 pm ET, M – F
443-740-2309
 - **Research Triangle Park, NC**

National Institute of Environmental Health Sciences, Room B111

8:00 am – 4:30 pm ET, M – F

984-287-4177

○ **Hamilton, MT**

Rocky Mountain Laboratories, Room 5202

7:30 am – 5:00 pm MT, M – F

406-375-9755

Severe Medical Emergencies:

Require that for extensive or profusely bleeding injuries, individuals immediately call 911 for assistance (see table, Attachment 3, Example SOP, Section B.1.) in addition to notifying the on-duty OMS provider.

- The BSSE kit must accompany the injured individual to the emergency room, including the valacyclovir if it is in another pre-determined location.
- For a BSSE involving Old World NHP or unfixed Old World NHP tissue, blood, body fluids, or samples advise all emergency personnel that this is a potential B virus injury and universal precautions should be used. (e.g., “I have been bitten/scratched by an NHP that may be infected with B virus/monkey B virus. This is a potentially life-threatening infection. I require immediate treatment. Universal precautions should be used.”)
- Provide emergency room personnel the package “Critical Information to Be Provided to Emergency Room Staff” located in the BSSE kit.
- For all bite, scratch, splash and exposures from a NHP co-worker should make a follow-up call to the OMS on call physician via the NIH page operator (301-496-1211) and ask to speak with an OMS provider on duty. Once notified where treatment will be sought (ER, clinic, etc.), the OMS provider will communicate with the attending physician to relay information regarding the exposure.

Require that all injuries be promptly reported to the injured individual’s supervisor, the IC veterinarian, and/or facility manager. In the case of contract employees, the injury must also be reported to the Project Supervisor.

Old World NHP Post Exposure Follow up – Facility:

Require that the “Old World NHP Bite, Scratch, Splash Exposure: Information Request Form” (**Attachment 8**) be completed for all Old World NHP BSSEs within 24 hours of the BSSE and submitted to OMS by Fax (301-402-0673) or encrypted email to OMS@mail.nih.gov and hard copy during normal business hours (see above) on the day of sampling or the next business day following completion of the requirements below:

- Review the NHP’s medical record. Note the date(s) and results of the animal’s previous B virus serology results. Report experimental inoculations (e.g., SIV, HIV, hepatitis, malaria, dengue, etc.), clinical signs or suspected infections. In addition, report the name and contact information for the animal’s principal investigator, as well as the name, phone number, building, and room number of the facility veterinarian.
- If available, this information should be conveyed verbally to the on-call OMS physician when exposure occur after-hours.
- Only if a culture and/or physical exam is requested by OMS, for the culture collect one (1) viral culture from the NHP’s mouth within twenty-four hours of exposure. For the physical exam, sedate the NHP and note the presence or absence of ocular conjunctivitis, oral/genital vesicles, ulcerations, or crusts. Record the physical exam findings on the Old World NHP Bite, Scratch, Splash, Exposure Information Request Form and return to OMS.

- Note: If directed by OMS to obtain culture swabs of the animal's conjunctival, genital and oral mucus membranes, a separate sterile culture swab should be used for the mouth, eyes and genital cultures. When pooling cultures, the swabs can be placed into the same vial of culture media. Care should be taken to ensure that swabs remain submerged at all times in the viral media. Cultures should be immediately refrigerated (2-4°C) and transported to OMS on ice unless otherwise directed by OMS.
- Virus cultures should be identified with:
 - Animal's number or other identifying information
 - Date specimen was taken
 - Site swabbed (e.g., mouth, eyes, genitalia)
 - Date injury occurred

Old World NHP Post Exposure Follow-up – Individual:

All individuals who have reported to an emergency care facility must also report to OMS with any cultures (if applicable, and as described above) immediately upon returning to work. Cultures should be immediately refrigerated (2-4°C), and then transported to OMS on ice unless otherwise directed by OMS. Always transport viral cultures on ice and ensure that the swabs remain submerged in the culture media at all times. Transport the culture in a secondary watertight container (e.g., a resealable plastic bag) to prevent spillage. When samples cannot be delivered within 72 hours of collection, call the on-call OMS Physician for further instructions, (301) 496-1211. Cultures of NHPs post exposure are not routinely required.

Old World NHP Post Exposure Follow up – OMS:

ONLY IF VIRAL CULTURE IS REQUESTED BY OMS: When an individual who reported to an emergency care facility cannot deliver cultures to OMS within 72 hours of the BSSE, OMS will provide further instruction. Viral cultures will be shipped by an OMS authorized shipper for testing to:

National B Virus Resource Lab/Viral Immunology Center
 Georgia State University
 161 Jesse Hill, Jr. Drive
 Atlanta, GA 30303

Cultures must be shipped as Biological Substance, Category B (UN 3373) using appropriate packaging, following the procedures described in OMS Laboratory Procedures, Section B-virus/NHP BF Exposure.

BSSE Kits – Locations, Contents, Instructions & Maintenance:

Require that a minimum of two (2) Bite, Scratch, Splash, Exposure (BSSE) Kits for human care be accessible to all personnel working in all areas where NHPs are housed or manipulated, and that staff are aware of their location.

Require that a minimum of one (1) Bite, Scratch, Splash, Exposure (BSSE) Kit for human care be accessible to all personnel working in all areas where only unfixed NHP tissue blood, or body fluids are manipulated, and that staff are aware of their location. If an incident occurs, all NHP tissue, blood, and body fluid work must be discontinued until the kit is replenished.

Identify the location(s) and minimum number of kits to be maintained in each facility or program area. Locations will be established by facility staff with consultation from DOHS. Valacyclovir within the kits must be kept at 55°-77°F at all times—DO NOT REFRIGERATE. Signage should be present in the room indicating the presence of the kit. Care should be taken to ensure that an injured individual has

unencumbered access to the location where the kit is stored. A program or schedule for checking and replenishing the kits must be established and must indicate the individuals responsible for ensuring the presence and adequacy of the kits.

- A list of the location of each kit will be provided to the Animal Program Director and/or the IC safety committee annually for their review and approval. Lists should be provided by the Animal Program where live NHP use occurs or by the Laboratory where only NHP tissue, blood, and body fluid work occurs. An updated list for each facility will be sent annually to the ACUC of the lead IC, OACU, and the Animal Program Safety Manager (DOHS), for their information.

Require Bite, Scratch, Splash, Exposure (BSSE) Kit be a portable, self-contained unit containing the following items:

- One (1) Chlorhexidine surgical scrub brush.
- One (1) “First Response Guidance for Potential Exposure to B Virus” poster (**example in Attachment 4**).
- One (1) “Emergency Room Directions and Additional Instructions” sheet with the emergency room phone number and a map to the hospital emergency room recommended by the NIH DOHS for your program or facility (**Attachment 5**).
- An envelope/plastic bag labeled “Critical Information to Be Provided to Emergency Room Staff”, containing:
 - One (1) “Attention: Emergency Room Physicians and Staff” instruction sheet (**example in Attachment 6**).
 - One (1) copy of Cohen, J.I., et al. “Recommendations for Prevention of and Therapy for Exposure to B Virus (Cercopithecine Herpesvirus 1)”, CID, 2002; 35:1191-203 (Link is within **Attachment 7**).
 - One (1) copy of your ACUC approved Bite, Scratch, Splash, Exposure SOP (example shown in **Attachment 3**).
- An envelope/plastic bag, labeled as follows: “Valacyclovir: To Be Taken Orally **Only** as Directed by an NIH Occupational Medical Service Physician”, containing:
 - One (1) copy of “Valacyclovir Drug Information Sheet” (**Attachment 9**).
 - Valacyclovir
 - Dose is 1000 mg (either two 500-mg tablets or one 1000 mg tablet) every eight hours (1000 mg TID).
 - Each kit contains a minimum of ten doses = 20 x 500-mg tablets or equivalent (for initial dose plus 3 days).
 - Require each Bite, Scratch, Splash, Exposure (BSSE) Kit be dated with the expiration date of the earliest dated product in the kit.
 - Note: Valacyclovir may be located in another pre-determined, easily accessible location, should facility with biosafety considerations require that.
 - Valacyclovir within the kits must be kept at 55°-77°F at all times—DO NOT REFRIGERATE.

Attachment 2. NHP Bite, Scratch, Splash, and Other Exposure Training Requirements

Required Training:

Require that all personnel working with or having access to live NHPs receive training on their IC's Bite Scratch, Splash, Exposure (BSSE) Standard Operating Procedure (SOP), as well as the required "Working Safely with Nonhuman Primates" course annually. The SOP should delineate the individual(s) responsible for training and maintaining training records.

In accordance with NIH Policy Manual 3044-2: "Working Safely with Nonhuman Primates" in-person training is conducted in two components, a general IC program session and a facility specific component. Annual refresher training is required for anyone using live NHPs. This refresher training will cover all the components in "General Didactic Training Component" and "Specific Facility Training Component" outlined below. Contact your ACUC coordinator or your IC's NHP User Safety Trainer to register for this training.

Individuals using only unfixed tissue, blood, and body fluids (i.e., no live animals) are required to complete the "Working Safely with Nonhuman Primates" course once and complete the "Working Safely with HIV and Other Bloodborne Pathogens for Non-Hospital Personnel" online course annually. The "Working Safely with Nonhuman Primates" course will be administered by the IC trainer.

Trainers administering the "Working Safely with Nonhuman Primates" course must first complete the in-person "Nonhuman Primate Train-the-Trainer" course (<https://oacutrainig.od.nih.gov/>) provided by OACU and must annually retake this course. OACU will maintain the list of qualified trainers. This course is intended for individuals actively providing "Working Safely with Nonhuman Primate" training at the IC level. NHP users must take their IC specific course annually.

It is at the discretion of each facility's lead IC Animal Program Director whether to accept training performed at another IC as part of entry requirements for a facility.

General Didactic Training Component:

- Provide a short background/summary of the B virus and its relevancy to humans.
- Review pertinent NIH Policy Manual requirements.
- Provide a concise description of the first aid to be administered at the worksite in response to a bite, scratch, splash, or injury from equipment contaminated with Old World NHP body fluids.
- Place emphasis on the importance of initiating flushing while scrubbing for 15 minutes within five (5) minutes of injury or exposure.
- Non-mucosal Membrane Exposure: Require for sites of exposure other than the eyes, mouth, nose or other non-mucosal surface, that the wound be scrubbed continuously for 15 minutes while flushing with clean running water or normal saline solution, using a sponge and a cleansing agent (e.g., chlorhexidine or povidone-iodine found in the BSSE kit). After scrubbing, the wound should be thoroughly rinsed with water or normal saline solution.
- Mucosal Membrane Exposure: Require for exposures to the eyes, mouth, nose, or other mucosal surfaces that the site be flushed continuously for 15 minutes with rapidly flowing water or normal saline solution.
- View "Working Safely with Nonhuman Primates" video (<https://olaw.nih.gov/education/training-videos.htm>).

- Emphasize that direct hand to mouth feeding of Old World NHPs is prohibited. The presentation of food, fluids, or research test agents to the mouths of Old World NHPs may only be conducted indirectly, e.g., using tongs, utensils, or research apparatuses.
- Additional information on training requirements and resources can be found at: <https://oacu.oir.nih.gov/training-resources>

Specific Facility Training Component (in-person training is encouraged):

- A template for this training will be provided by OACU (available as the Training Package List within the [NHP Training Resources](#)). ICs may modify the training as necessary for their facility.
- Review the facility personal protective equipment requirements, the location(s) of the Bite, Scratch, Splash, Exposure (BSSE) kit and review the location(s) and operation of eyewash stations.
- Review procedures for how to repel an escaped animal and where necessary equipment is kept.
- Review, discuss and establish plans ahead of time for cultural/gender/privacy concerns as appropriate and remind trainee that no matter where on the body the injury occurs, the exposure site must still be flushed and scrubbed for 15 minutes no later than five minutes after the exposure occurs.
- Review the locations of hoses, showers, or other mechanisms to allow wounds to be flushed on body areas that do not easily fit into a scrub sink. Install hoses and/or equipment in facilities where necessary to ensure no delay in flushing.
- Review the requirement that injured/exposed individuals immediately notify the Bethesda Main Campus OMS and ask to speak with the OMS provider-on-duty, and state: “I have had a NHP-related injury or incident.” Notify Main Campus OMS for all NHP injuries regardless of geographic location.
 - Call 301-496-4411 (Main Campus Clinic), 7:30 am – 5:00 pm ET, Monday – Friday
 - After-hours call 301-496-1211 (NIH Operator), 5:00 pm – 7:30 am ET, Monday – Friday, and on weekends & holidays.

If the local OMS clinic is called, the local OMS clinic will contact the Main Campus Clinic for approval of post-exposure prophylaxis administration

- Additional resources for facility training components are available at: <https://oacu.oir.nih.gov/training-resources>
- Facilities housing NHPs are further required to:
 - Ensure comprehensive personnel wound flushing equipment, and NHP BSSE response instruction charts and kit(s) are located near or in NHP housing and laboratory areas.
 - Ensure ancillary safety items are placed in Old World NHP housing areas; and personnel working in these areas are briefed on their location, purpose, and proper use. Ensure all NHP husbandry personnel understand the facility’s NHP cage-to-cage transfer procedures and use two-person teams when moving unanesthetized Old World NHPs between cages.
 - Ensure all NHP users utilize two-person teams when moving unanesthetized Old World NHPs between cages and restraint devices outside routine facility working hours. The second team member (observer) may observe the procedure from a window looking into the movement area.
 - Provide required annual refresher training covering all of the components outlined in “IC Training Component” and “Facility Training Component” by anyone using live NHPs.
 - Emphasize that direct hand to mouth feeding of Old World primates is prohibited. The presentation of food, fluids, or research test agents to the mouths of Old World NHPs may only be conducted indirectly using tongs, utensils, or research apparatuses.

- Brief all personnel using pole and collar devices to move Old World NHPs on the appropriate technique annually.
- Ensure the personal protective equipment (PPE) required for working with NHPs in husbandry or research areas is based on the results of a job hazard analysis as described in ARAC PPE Guidelines.

Attachment 3. Example IC Standard Operating Procedure

SOP Number:

Date Issued:

Date Revised:

TITLE: Old World NHP Bite, Scratch, Splash Exposure Program

PURPOSE: To establish safe guidelines for exposures to a) oral, genital or ocular secretions, body fluids/excretions, blood or unfixed tissue from Old World NHPs; or b) injuries from equipment potentially contaminated with B virus.

The adequacy and timeliness of wound decontamination and initiation of appropriate postexposure prophylaxis (PEP) are the most important factors determining the risk of infection after exposure to B virus (*Macacine alphaherpesvirus 1*). Thorough flushing while cleaning within five minutes of injury or exposure is the only means of preventing B virus contamination from progressing to actual infection. B virus may enter host cells within five (5) minutes.

All personnel working with or having access to Old World NHPs, their unfixed tissue, blood, body fluids, or equipment potentially contaminated with B virus, must annually review this SOP, as well as have completed both components of the NIH *Working Safely with Nonhuman Primates course*. For individuals using only unfixed tissue, blood, or body fluids (i.e., no live animals) both courses are required initially, but for subsequent years the DOHS Bloodborne Pathogens course is the only annual training requirement.

Documentation of training must be maintained by the respective contract or government (facility, IC) group conducting the training. In addition, "First Response" signs shall be posted in all housing, procedure or laboratory areas where any NHPs including old world primates or their unfixed tissue, blood, or body fluids are located to indicate the location of Bite, Scratch, Splash Exposure (BSSE) kits.

Personnel must be familiar with the location of the Bite, Scratch Splash Exposure (BSSE) Kit in their area, the location of the nearest eyewash stations, as well as the technique for collection of viral cultures from a wound or potential exposure site. Eyewash stations are located in the following areas: **XXXXXX**. Bite, Scratch, Splash, Exposure (BSSE) Kits are found in the following locations: **XXXXXX**.

Background:

B virus (*Macacine alphaherpesvirus 1*, formerly known as *Macacine herpesvirus 1* or *Cercopithecine herpesvirus 1*, CHV-1) is enzootic among old world monkeys of the genus *Macaca* and causes minimal morbidity in these monkeys. In contrast, human infections with B virus may present with rapidly ascending encephalomyelitis and have a fatality rate of at least 70% if untreated. This infection remains an uncommon result of Old World NHP injuries, typically macaque-related injuries, although the increase in the use of macaques for research on Simian Immunodeficiency Virus (SIV) and other research foci has expanded the number of opportunities for human exposure. It is important to remember that B-virus infection can also occur subsequent to exposure to Old World NHP products (unfixed tissue, cell cultures, body fluids, blood, etc.).

Reference:

Cohen JI, Davenport DS, Stewart JA, Deitchman S, Hilliard JK, Chapman LE, et al. Recommendations for prevention of and therapy for exposure to B virus (*Cercopithecine herpesvirus 1*). Clin Infect Dis 2002;35:1191–203.

Procedures

- A. **First aid at the worksite** for Old World NHP bites, scratches, splashes, exposures to unfixed tissue, blood, body fluids, and injuries from needle sticks or other equipment potentially contaminated with B virus:
 1. **Cleansing must begin immediately (no later than five minutes after exposure).**
 2. Review, discuss and establish plans ahead of time for cultural/gender/privacy concerns as appropriate and remind individual that no matter where on the body the exposure occurs, the exposure site must still be flushed while scrubbing for 15 minutes no later than five minutes after initial exposure.
 3. Non-mucosal Membrane Exposure: Require for sites of exposure other than the eyes, mouth, nose or other non-mucosal surface, that the wound be scrubbed continuously for 15 minutes while flushing with clean running water or normal saline solution, using a sponge and a cleansing agent (e.g., chlorhexidine or povidone-iodine). After scrubbing, the wound should be thoroughly rinsed with water or normal saline solution.
 4. Mucosal Membrane Exposure: Require for exposures to the eyes, mouth, nose or other mucosal surfaces that the site be flushed continuously for 15 minutes with rapidly flowing water or normal saline solution.
 5. Anyone assisting another person with scrubbing while flushing of a wound should be wearing fresh, clean gloves, and exercising universal precautions to prevent exposing themselves.

- B. **OMS Reporting Requirements and Follow-up Care:**
 1. **In acute situations where the injury is extensive and/or profusely bleeding, the injured person or someone nearby should immediately call 911 for assistance (off-campus call 9-911).** The emergency responders should be advised that the individual has been potentially exposed to B virus and that universal precautions must be used. One of the Bite, Scratch, Splash Exposure (BSSE) Kits located in rooms XXXXXX should accompany the injured person to the Emergency Department.

Location	Number from NIH Phone (VoIP)	Number from NIH Phone (Switch ISDN or Analog)	Number from Cell Phone
Bethesda, MD (Main Campus)	911	911	301-596-9911 or 911*
Rockville, MD	911	9-911	911
Frederick, MD	→	911**	911
Poolesville, MD***	→	9-911	911
Baltimore, MD	911	911**	911
RTP, NC	911	911**	911
Hamilton, MT	→	911**	911
* Dialing 301-496-9911 from a cell phone on campus is not required. 911 calls will go to the county and they will gather information and transfer the call to the NIH Police.			
** There is no NIH Campus Switch ISDN service in these locations. Service is local.			
*** Poolesville ISDN lines can dial either, 911 calls to NIH police will be transferred to the county.			

2. Promptly report all cases of Old World NHP bites, scratches, splashes, needle sticks, or other exposures to your supervisor, the Facility Veterinarian and/or Facility Manager, and in the case of contract employees, also your project supervisor. **THIS SHOULD NOT BE DONE AT THE EXPENSE OF INITIATING WOUND CLEANSING OR SEEKING MEDICAL CARE.** It is advisable to ask someone nearby to assist with notifications while the injured person begins cleansing the affected body parts. The incident should subsequently be recorded in the facility injury log.
3. **Contact OMS immediately for evaluation and treatment beyond first aid:**
 - a. Cleansing while flushing must begin immediately (no later than five minutes after exposure).
 - b. The injured/exposed person must promptly notify OMS and ask to speak with the OMS provider-on-duty. State: "I have had an NHP-related injury or incident" either while performing first aid or immediately thereafter.
 - c. **During clinic hours, call 301-496-4411** (Main Campus Clinic), 7:30 am – 5:00 pm ET, Monday – Friday.
 - d. **After hours, call 301-496-1211** (NIH Operator), 5:00 pm – 7:30 am, Monday – Friday, and weekends & holidays, and ask for the OMS provider on call.
 - e. When possible, a co-worker should call OMS via the NIH page operator 301-496-1211 while the injured/exposed person is performing first aid. Individuals unable to call before scrubbing/flushing must call the OMS immediately after scrubbing while flushing.
 - f. If instructed by the OMS Physician, take the prescribed dose of valacyclovir orally. Valacyclovir is located in a sealed bag within the "Bite, Scratch, Splash Exposure Kit".
 - g. After appropriate decontamination and initial notifications, the injured/exposed person should immediately proceed to the on-site OMS clinic for indicated testing, treatment and counseling.
 - h. OMS clinic locations and hours:
 - **Bethesda, MD (Main Campus)**
Building 10, Room 6C306
7:30 am – 5:00 pm ET, M – F
301-496-4411
 - **Frederick, MD**
IRF Fort Detrick, Room 1B116
8:00 am – 4:30 pm ET, M – F
301-631-7233
 - **Baltimore, MD**
Bayview Research Center, Room 01B210
8:00 am – 4:30 pm ET, M – F
443-740-2309
 - **Research Triangle Park (RTP), NC**
National Institute of Environmental Health Sciences, Room B111
8:00 am – 4:30 pm ET, M – F
984-287-4177
 - **Hamilton, MT**
Rocky Mountain Laboratories, Room 5202
7:30 am – 5:00 pm MT, M – F
406-375-9755

- i. If instructed by the OMS provider to proceed to the **XXXXXX** hospital emergency room, take a Bite, Scratch, Splash Exposure Kit (located in both the treatment room and lobby on each floor housing Old World NHPs) along with you to the hospital. Directions to **XXXXXX** hospital emergency room are located in the Kit. Immediately upon arrival at the emergency room, tell them you are from NIH, and provide them with the envelope/plastic bag labeled "Critical Information to be Provided to Emergency Room Staff" located in your Kit.
- j. Provide the emergency department physician with the contact information for the OMS provider on duty to facilitate risk assessment and coordination of medical care.
- k. Convey to emergency paramedics and **XXXXXX** hospital emergency room staff that the affected body area(s) should be considered contaminated with B virus, and that anyone examining or cleansing the affected areas must use universal precautions. Describe the first aid performed and medications already taken.
- l. If wound cultures are taken by ER staff, they should be immediately refrigerated (2-4°C) and transported to OMS on ice. It is important that the swabs remain submerged in the viral medium during transport and storage. It is mandatory that you report with the culture(s) and any additional samples taken at the emergency facility to OMS without delay on the next business day. Always keep the cultures on ice during transport and ensure that the swabs remain in the culture media. On long weekends or holidays etc., when samples cannot be delivered within 72 hours of collection, call the on-call OMS physician for further instructions, (301) 496-1211.

C. **Information from the NHP:**

As soon as possible, complete and send by secure email or fax Section A of the Old World NHP *Bite, Scratch & Splash Injury: Information Request Form* to the **NIH Occupational Medical Service at (301) 402-0673**. Include the name of the injured individual and the exposure details. Examine the monkey's medical record. Note the date(s) and results of the animal's previous B virus serology. In addition, report experimental inoculations, clinical signs, or suspected infections. Report the name and contact information for the animal's principal investigator, as well as the name, phone number, building, and room number of the facility veterinarian.

NOTE: A VIRAL CULTURE AND PHYSICAL EXAM ARE NOT ROUTINELY REQUIRED FOR BITE, SPLASH, SCRATCH, EXPOSURES. The OMS provider will provide instructions for the following:

1. ONLY IF REQUESTED BY the OMS provider on call, anesthetize the monkey per the veterinarian's instructions and verify the following: species, tattoo number and/or microchip implant identification number. Perform a physical examination of the animal, noting any signs of disease. It is extremely important to note and report the presence or absence of mucosal ulcerations, vesicles, or crusts in either the oral or genital regions. In addition, the presence or absence of conjunctivitis should be noted and reported. Record findings on the "Old World NHP Bite, Scratch & Splash Injury: Information Request Form" and in the animal's permanent medical record. A physical examination of the NHP is not routinely required for exposures.
2. ONLY IF REQUESTED BY the OMS provider on call, obtain a buccal (oral) viral culture from the macaque's mouth, using care to swab any lesions which may be present. To obtain the culture, grasp the stick portion of the sterile cotton-tipped swab, using care not to contaminate the cotton swab end of the stick. The swab is then passed through a full 360 degrees of the mouth using care to only touch the oral mucosa of the animal. The swab should also be passed over any oral ulcers that might be present in the mouth or at the mucocutaneous junction. The

cotton tip of the applicator should be inserted into the viral culture transport vial. Holding the vial and swab at arm's length, bend the swab toward you until it snaps leaving the cotton-tipped portion of the applicator remaining in the vial submerged in the culture media. Immediately place the viral cultures on ice, taking care to ensure that the swabs are submerged in the culture media. A viral culture of the NHP is not routinely required for an exposure.

- a. Seal the vial, label it with the following information and immediately place it on ice:
 1. Date
 2. NHP's identifying information
 3. Sample Location(s) = Mucosal Swabs (buccal)
 4. Injury Date (The date that the Bite, Scratch or Splash Occurred)

- b. Submit the culture to OMS along with the name, phone number, building, and room number of the facility veterinarian. It is important that the swabs remain submerged in the viral medium during storage and/or transport. Samples should be kept on ice or refrigerated at all times, even during transport. A cup containing wet ice at the bottom is normally sufficient. Specimens transported to OMS should be taken directly to the triage nurse. The individual transporting the specimens must sign on the triage sheet and indicate to the triage nurse/administrator the purpose of their visit. To the best of your ability, answer any questions that the receiving OMS staff may have about the specimens. If you are unsure of any answer, contact the facility veterinarian or facility manager for assistance. The OMS staff will connect the individual transporting the specimens with the appropriate clinician who will take custody of the specimens. Transport viral cultures on ice, taking care to ensure that the swabs remain submerged in the culture media.

D. **Bite, Scratch, Splash, Exposure Kit Contents:**

Each BSSE kit shall be maintained between 55°-77° F (NOT REFRIGERATED) and contain the following:

The following supplies are to be placed in a sealed plastic bag/sleeve and labeled with the title "Bite, Scratch, Splash Exposure (BSSE) Kit" and the earliest expiration date found inside the kit:

1. One (1) Chlorhexidine surgical scrub brush
2. One (1) "First Response Guidance for Potential Exposure to B Virus" poster (example in Attachment 4).
3. One (1) "Emergency Room Directions and Additional Instructions" sheet with the emergency room phone number and a map to the hospital emergency room approved by the NIH DOHS for your program or facility (Attachment 5).
4. An envelope/plastic bag labeled "Critical Information to Be Provided to Emergency Room Staff", containing:
 - a. One (1) "Attention: Emergency Room Physicians and Staff" instruction sheet (example in Attachment 6).
 - b. One (1) copy of Cohen, J.I., et al. *Recommendations for Prevention of and Therapy for Exposure to B Virus (Cercopithecine Herpesvirus 1)*, CID, 2002; 35:1191-203 (Attachment 7).
 - c. One (1) copy of the IC ACUC approved Bite, Scratch & Splash Care SOP (Attachment 3).
5. An envelope/plastic bag, labeled as follows: "Valacyclovir: To Be Taken Orally **Only** as Directed by an NIH Occupational Medical Service Physician". Contact OMS before taking:

- a. During Clinic Hours (7:30 AM – 5:00 PM ET, Monday-Friday): Call OMS at (301)496-4411 for further care instructions.
- b. After-hours, Weekends, & Holidays: Call the NIH Page Operator at (301) 496-1211 and ask to be immediately connected with the On-Call OMS Physician.
- c. This envelope/plastic bag shall contain:
- d. One (1) copy of “Valacyclovir Drug Information Sheet” (Attachment 9).
- e. Valacyclovir
 - i. Dose is 1000 mg (either two 500-mg tablets or one 1000 mg tablet) every eight hours.
 - ii. Each kit contains a minimum of ten doses = 20 x 500mg tablets or equivalent (for initial dose plus 3 days). Require each Bite, Scratch, Splash Exposure (BSSE) Kit “B virus Exposure Prophylaxis Kit” be dated with the expiration date of the earliest dated product in the kit.
 - iii. Note: Valacyclovir may be located in another pre-determined, easily accessible location, should facility biosafety considerations require that.
 - iv. Valacyclovir must be stored between 55°-77° F

Care should be taken to ensure that all kits are easily opened under emergency situations.

XXX [number of] BSSE Kits shall be maintained by the **XXX** located in the following locations **XXXX**. The location of the kits must be clearly visible when entering the unit.

Each room where the BSSE kit is located must be clearly identified with a sign indicating the location of the kits. The signs shall read, “Bite, Scratch, Splash Exposure (BSSE) Kits Located XXX or “Bite, Scratch, Splash Exposure (BSSE) Kits Can Be Found XXX in This Room”. In addition, the signs must also clearly indicate the location of the nearest sink and eyewash station. All identified sinks and eyewash stations should have unobstructed access without the need to use cardkeys or access codes.

If there are any questions pertaining to the integrity of the Bite, Scratch, & Splash Kit they should be immediately replaced with new kits.

If justified and approved by the facility management, additional locations will be identified and maintained by the **XXXX**.

A log shall be maintained with the location and expiration dates of all facility BSSE kits. Expired kits shall be replaced a minimum of seven days prior to their expiration date.

E. Procurement of Valacyclovir:

Valacyclovir is dispensed by and at the direction of OMS. Replacement due to expiration or use will be coordinated by the Occupational Medical Service.

F. Schedule for Checking and Replenishing Kits:

Describe the program or schedule for checking and replenishing the kits and indicate the individuals responsible for ensuring the presence and adequacy of the kits. A list of the location of each kit will be provided to the Animal Program Director and/or the IC safety committee annually for their review and approval and annually to the ACUC of the lead IC for each facility for their information.

G. **Emergency Contacts:**

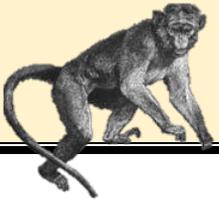
Facility Veterinarian/Facility Manager:	(XXX) XXX-XXXX
NIH Occupational Medical Service:	(301) 496-4411
NIH Operator (OMS After-hours Pager Service):	(301) 496-1211
NIH Occupational Medical Service FAX:	(301) 402-0673
XXXXXX Hospital Emergency Room:	(XXX) XXX-XXXX
On-campus Critical Medical Situations:	
• On-campus Ambulance:	911
• Off-campus Ambulance:	9-911

Attachment 4. Example First Response Sheet

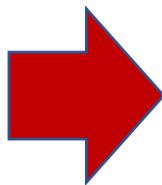
<p>For any <u>BITE, SCRATCH, PUNCTURE, or LACERATION</u> from any potentially contaminated sharp or equipment:</p> <ul style="list-style-type: none"> • Wound cleansing must <u>begin</u> in less than 5 minutes • Flush continuously for 15 minutes with water or saline, while scrubbing using a sponge and a cleansing agent such as povidone-iodine or chlorhexidine • Follow the reporting instructions outlined below <hr/> <p>Location of Nearest BSSE Kit:</p>	<p>For any <u>SPLASH</u> of potentially contaminated fluid into eyes, nose, or mouth:</p> <ul style="list-style-type: none"> • Exposure flushing must begin in less than 5 minutes • Flush site with water or saline for 15 minutes • Follow the reporting instructions outlined below <hr/> <p>Location of Nearest Eyewash Station:</p>
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Reporting Instructions (Monday – Friday, 7:30AM – 5:00PM):

- Call NIH Occupational Medical Services (OMS) at 301-496-4411 for additional wound care and antiviral administration instructions
- Report to NIH OMS in Building 10, Room 6C306, as soon as possible
- Call 911 for transportation, if needed (Off campus: 9-911)
- Notify supervisor of the injury or exposure



When an exposure occurs outside normal OMS working hours, i.e., 5:00PM to 7:30AM Monday – Friday, Weekends & Holidays



- **Flush while cleaning** exposure area as outlined above.
- Call the NIH Page Operator 301-496-1211.
- Give your name, location, and phone number.
- Ask to be immediately contacted by the On-call OMS Physician. If no response within 15 minutes, page again.
- If instructed by the Physician, take the antiviral medication orally.
- If instructed by the Physician, report to the XXXXX Hospital Emergency Room (301-XXX-XXXX).
- Hospital directions and further instructions are located in the B-Virus Exposure Prophylaxis Kit; **take the kit with you to the emergency room.**
- Call 911 for transportation, if needed. (Off-campus: 9-911)
- Notify supervisor, Facility Veterinarian and Manager of the injury.

Attachment 5. Example Emergency Room Directions and Additional Instructions

Emergency Room Directions and Additional Instructions

- Directions and a map to the **XXXXX** Hospital Emergency Room (**XXX-XXX-XXXX**) are located on the back of this sheet.
- **Take this kit with you to the emergency room (ER)**
- **Upon arrival, inform the emergency room personnel that you are from NIH and provide them with the *Attention Emergency Room Physicians and Staff* instruction sheet included in this kit.**
- Refrigerate any cultures provided to you by emergency room personnel in your work area. Care should be taken to ensure that at all times swabs remain submerged in the viral medium. Cultures should be immediately refrigerated (2-4°C) and transported to OMS on ice unless otherwise directed.
- If you have not already done so, report your injury to your supervisor, the facility veterinarian, and facility manager.
- Report, with any cultures provided by emergency room personnel, to the NIH Occupational Medical Service (Building 10, Room 6C306) without delay on the next business day following the injury/exposure.

[PRINT DIRECTIONS AND MAP ON BACK OF EMERGENCY ROOM DIRECTIONS AND ADDITIONAL INSTRUCTIONS FLYER]

ATTENTION EMERGENCY ROOM PHYSICIANS AND STAFF

This individual has been potentially exposed to B virus (*Macacine alphaherpesvirus 1*, *Cercopithecine herpesvirus 1*, CHV-1). B virus may enter host cells within 5 minutes of exposure and cause a potentially life-threatening infection. Immediate treatment is required!

Page the NIH Occupational Medical Service On-Call Physician at
301-496-1211 for further information and instructions.

• USE UNIVERSAL PRECAUTIONS •

Injuries Occurring on the Mucosal Surface of the Eye, Mouth and/or Nose:

- Flush or irrigate the area for at least 15 minutes with rapidly flowing water or sterile saline solution (0.9% NaCl).

All Other Injuries:

- Clean the wound under running water with a cleansing agent such as chlorhexidine or povidone-iodine using the sponge side of a surgical scrub brush for at least 15 minutes.
- Irrigate the lesion with sterile saline to remove any detergent remaining from the treatment.
- Administer other medical treatment or aid as required.

[See the literature enclosed in the NIH BSSE kit for further information]

Attachment 7. Link to Recommendations for Prevention of and Therapy for Exposure to B Virus

When finalizing the BSSE kit, insert the following article as Attachment 7:

[Recommendations for Prevention of and Therapy for Exposure to B Virus \(*Cercopithecine Herpesvirus 1*\)](#)

Jeffrey I. Cohen,¹ David S. Davenport,² John A. Stewart,³ Scott Deitchman,³ Julia K. Hilliard,⁴ Louisa E. Chapman,³ and the B Virus Working Group^a

¹Medical Virology Section, Laboratory of Clinical Investigation, National Institutes of Health, Bethesda, Maryland; ²Division of Infectious Diseases, Michigan State University Kalamazoo Center for Medical Studies, Kalamazoo; and ³Centers for Disease Control and Prevention and ⁴Viral Immunology Center, Georgia State University, Atlanta

Attachment 8. Old World NHP Bite, Scratch, and Splash Injury: Information Request Form

Old World NHP Bite, Scratch, Splash, Exposure: Information Request Form

Complete and send by secure email or FAX Section A to the NIH Occupational Medical Service (OMS) at (301) 402-0673 **as soon as possible** following a human injury involving a macaque or their body fluids, or as directed by OMS. **Section B is only required if directed by OMS.**

Section A:

Name of Injured Employee:		Date of Injury:	
Type of Injury:		Reported to: OMS <input type="checkbox"/> ER <input type="checkbox"/> Supervisor <input type="checkbox"/> Facility <input type="checkbox"/>	
Antiviral Administration: YES <input type="checkbox"/> NO <input type="checkbox"/>		Prescribing Physician:	
Macaque Signalment: Permanent Identification Number: _____ Species (e.g., rhesus, cynomologus, etc.): _____			
Medical Records Review: B virus serology/PCR – Date(s): _____ Results: _____ Testing Facility: _____ Experimental Inoculations: _____ Known Illness(es): _____ Known Signs of Disease: _____			

Section B (submit to OMS with samples, if applicable):

Samples Submitted ONLY IF REQUESTED: Serum <input type="checkbox"/> Cultures: Buccal <input type="checkbox"/> Pooled ocular/genital <input type="checkbox"/> Pooled buccal/ocular/genital <input type="checkbox"/>	
Physical Examination—ONLY IF REQUESTED (note presence or absence of conjunctivitis, oral, or genital mucosal ulcerations, vesicles, or crusts, etc.): No lesions present <input type="checkbox"/> Lesions observed <input type="checkbox"/> Please specify: _____	
Veterinarian Name:	Phone Number:
IC:	Work Address:
Investigator Name:	Phone Number:
IC:	Work Address:
Name of Veterinarian/Technician Conducting Examination:	
Date/Time:	Phone Number:

Attachment 9. Valacyclovir Drug Information Sheet

VALACYCLOVIR (500mg tablet or 1000mg scored tablet)

***To Be Administered Orally Only Under the Direction Of the
NIH On-Call Occupational Medical Service (OMS) Physician***

Valacyclovir is used for:

Valacyclovir is a medication used to treat infections caused by certain viruses. It works by stopping the virus from reproducing. You are provided with this medication because you may have been exposed to Herpes B virus from an Old World NHP.

Before using valacyclovir:

Tell the OMS Physician if you have any medical conditions, especially if any of the following apply to you:

- if you have had a bone marrow or kidney transplant
- if you take medication for HIV or AIDS
- if you have kidney disease

How to use valacyclovir and side effects:

This package contains 3 days of doses to last until you are further evaluated in the closest NIH OMS clinic. Upon instruction by the OMS on-call physician, take 1000mg by mouth 3 times daily (1000mg every 8 hours). Depending on the kit, one dose is either one 1000mg tablet or two 500mg tablets.

- You may take valacyclovir by mouth with or without food. If stomach upset occurs, take with food to reduce stomach irritation. It may cause headaches or dizziness. This effect may be worse if you take it with alcohol or certain medicines. These symptoms are mild and infrequent and should not cause you to stop the medication.
- If you miss a dose of valacyclovir, take it as soon as possible. If it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule. Do not take 2 doses at once.
- A very serious allergic reaction to the drug is rare. However, get immediate medical attention if you develop a rash, itching/swelling (especially of the face/tongue/throat), severe dizziness, or trouble breathing.

CONTACT US:

**Occupational Medical Service (301) 496-4411 (Monday through Friday; 7:30am – 5:00pm ET)
After Hours – Page On-Call OMS Physician (301) 496-1211 through the NIH Operator**

Attachment 10. Bite, Scratch, Splash Exposure Response Flowchart

1. Exposure Occurs: Body fluid or fresh tissue exposure;
Bite scratch, splash, or other injury

2. Administer First Aid: Begin flushing while scrubbing within 5 minutes of exposure. Continue for 15 minutes.

3. Contact OMS:

Work Hours (M-F, 7:30AM-5PM)

Contact OMS Physician:

301-496-4411

Call 911 for transport, if needed

3. Contact OMS:

After Hours, Weekends and Holidays

Contact OMS On-Call Physician:

301-496-1211

Call 911 for transport, if needed

4. Follow OMS Physician Instructions:

If instructed, take valacyclovir immediately.

If instructed, proceed to OMS or designated medical facility. If after hours, weekend, or holiday, take packet in BSSE kit containing instructions.

Note: *ALWAYS* begin flushing while scrubbing within five (5) minutes of injury or exposure. While exposure is being flushed/scrubbed, a supervisor or coworker can contact OMS for further instructions.