
1. PURPOSE

This Standard Operating Procedure (SOP) describes the proper procedures for dealing with injuries sustained in the handling of macaques, contaminated equipment, instruments, or biological samples.

Exposures include macaque bites, scratches, needlesticks, splashes or contact to mucous membranes with ocular, oral, or genital secretions, nervous system tissue, or material contaminated by macaques (e.g., cages or equipment).

2. RESPONSIBILITY

Principal investigator (PI), veterinarian, Veterinary Care staff, Animal Care staff and any personnel working with macaques, their biological material or equipment that may have come in contact with macaques.

3. MATERIALS

- 3.1. Macaque Exposure First Aid Kit containing chlorhexidine or iodine scrub brushes, gauze, bandages, sterile saline solution
- 3.2. Anesthetics

4. PROCEDURES FOR INJURED PERSON

- 4.1. Cease the handling of research animals, tissues, fluids or wastes and leave everything as is, but ensure that the animals and area are secure.
- 4.2. Locate the Macaque Exposure First Aid Kit in the animal room anteroom.
- 4.3. First aid should be administered **immediately** following exposure.
- 4.4. Bites, scratches, and lacerations:
 - 4.4.1. Wash skin thoroughly with a solution containing detergent soap (e.g., chlorhexidine or povidone-iodine) for at least 20 minutes.
 - 4.4.2. After, run water over the wound or area for 15 to 20 minutes more.
 - 4.4.3. Control bleeding by applying direct pressure with a sterile gauze or bandage.
 - 4.4.4. Cover wound with clean bandage (do not apply ointment or spray).
- 4.5. For injuries to the hands, inspect gloves for possible breaks or punctures after administering first aid. If gloves do not appear to have been broken or punctured, fill the glove with water to confirm that glove is intact.
- 4.6. For splashes with contaminated material to the eyes, mouth, nose, or mucous membrane:
 - 4.6.1. Flush eye or mucous membranes with water for 15 minutes.
 - 4.6.2. If reaching the nearest eye-washing station requires a delay of more than a few minutes, then saline irrigation (1 L) may be used initially, followed by 15-minute irrigation at an eyewash station.
- 4.7. Any potential exposure should be reported as soon as possible:
 - 4.7.1. Report the incident to your Supervisor or the PI. If you are unable to contact them, contact the CMARC Emergency Call Centre at 514-657-5312 so that the appropriate person on-call will be contacted.
 - 4.7.1. Fill out the Post-Exposure to NHP Risk Identification Matrix form ([Annex 1](#)).
 - 4.7.2. Within 24 hours, fill out the [Accident and Incident Report form](#).
 - 4.7.3. Report the injury to the veterinarian and the PI for the animal involved.
 - 4.7.4. During Working Hours (weekdays 9h00-17h00): the Post-Exposure to NHP Risk Identification Matrix form is sent to the Occupational Health Program Administrator (514-398-4766) who will determine the appropriate level of care and directives on how to proceed (see [Annex 2](#)).

- 4.7.5. Outside of Working Hours: the Supervisor or the PI sends the Post-Exposure to NHP Risk Identification Matrix form to the Occupational Health Physician who will determine the appropriate level of care and directives on how to proceed (see [Annex 2](#)).

5. VETERINARY CARE STAFF PROCEDURES

- 5.1. If the exposure can be associated to an individual animal, identify the macaque associated with the exposure and the species. Proceed with the following procedures:
- 5.1.1. Anesthetize animal as per NHP Anesthesia SOP.
 - 5.1.2. Examine the animal for oral or genital lesions (e.g. vesicles, ulcerations, etc.) and any clinical evidence of viral shedding. Report all findings to the veterinarian and the Occupational Health physician .
 - 5.1.3. Conduct Herpes B testing as per Macaque Herpes B Testing SOP.
 - 5.1.4. Collect a second sample 14 to 21 days after the incident.
- 5.2. Restock the NHP Exposure First Aid Kit.
- 5.3. Send results to the veterinarian and to the Occupational Health physician as soon as received or available.

6. REFERENCES

- 6.1. Centers for Disease Control (CDC) [B Virus \(herpes B, monkey B virus, herpesvirus simiae, and herpesvirus B\)](#), August 2023.
- 6.2. Health Canada, Pathogen Safety Data Sheets: Infectious Substances – [Cercopithecinae herpes virus 1 \(CHV-1\)](#), August 2023.

SOP REVISION HISTORY

DATE	NEW VERSION
2017.03.31	4.5. For injuries to the hands, inspect gloves for possible breaks or punctures after administering first aid. If gloves do not appear to have been broken or punctured, fill the glove with water to confirm that glove is intact.
2017.03.31	Updated all links to EHS Accident and Incident report form
2017.11.17	Principal investigator (PI), veterinary care staff, animal care staff and any personnel working with macaques, their biological material or equipment that may have come in contact with macaques. Diagnostic and Research Support Service (DRSS).
2017.11.17	3.1. Macaque Exposure First Aid Kit containing chlorhexidine or iodine scrub brushes, gauze, bandages, sterile saline solution 3.2. Chlorhexidine or iodine scrub brushes 3.3. Sterile saline solution 3.2. Bartels Viral Transport swabs 3.3. Syringes (3ml, 5ml) and needles 3.4. SST Vacutainer tubes (5ml) 3.5. Eppendorf tubes 3.6. 50ml conical tubes 3.7. Zip-top biohazard specimen bags 3.8. Macaque Injury Checklist 3.9. McGill University Accident, Incident & Occupational Disease Report form 3.8 Styrofoam shipping box and cardboard box 3.9. Bubble wrap 3.10. Ice or ice packs 3.11. Anesthetics
2017.11.17	4.7.1. and 4.8.2. Fill out the Post-Exposure to NHP Risk Identification Matrix form (Annex 1)
2017.11.17	5.1.6. Fill out the "primate sample information" section of the National B Virus Resource Centre form.
2017.11.17	6. DRSS SAMPLE SUBMISSION AND SHIPMENT *Section completely replaced with new procedures
2017.11.17	Addition of Annex 3: Declaration Letter
2018.01.11	3.1. Macaque Exposure First Aid Kit containing chlorhexidine or iodine scrub brushes, gauze, bandages, sterile saline solution 3.2. Dry swabs, cotton tip or synthetic tip 3.3. Syringes and needles 3.4. SST Vacutainer tubes (5ml) 3.5. Eppendorf tubes 3.6. 50ml conical tubes 3.7. Zip-top biohazard specimen bags 3.8. Styrofoam shipping box and cardboard box 3.9. Bubble wrap 3.10. Ice or ice packs 3.11. Anesthetics
2018.01.11	5.1.3 Conduct Herpes B testing as per Macaque Herpes B Testing SOP. * All sections containing procedures and annex related to sample collection for Herpes B testing can now be found in SOP 630 – Macaque Herpes B Testing.
2018.01.11	*Updated Occupational Health physician information and pharmacy location in "MEDICAL CARE AND FOLLOW-UP AFTER A MACAQUE EXPOSURE" document.
2018.03.21	Annex 2: Removed Occupational Health Physician's phone number.
2018.03.21	Annex 2: The Occupational Health Physician will contact the injured person directly to obtain the medical history.
2023.08.03	2. RESPONSIBILITY Principal investigator (PI), veterinarian , Veterinary Care staff, Animal Care staff and any personnel working with macaques, their biological material or equipment that may have come in contact with macaques.
2023.08.03	4.7.2. Within 24 hours, fill out the Accident and Incident Report form located online http://www.mcgill.ca/ehs/forms/forms/accident-and-incident-report. Send the Accident and Incident Report form (with both victim and supervisor sections completed) to the Environmental Health & Safety Office by email or by fax at 514-398-9047.
2023.08.03	4.8.1. Report the incident to your Supervisor or the PI. If you are unable to contact them, contact the CMARC Emergency Call Centre at 514-359-5654 514-657-5312 so that the appropriate person on-call will be contacted.
2023.08.03	4.8.2. Fill out the Post-Exposure to NHP Risk Identification Matrix form (Annex 1) http://www.mcgill.ca/ehs/files/ehs/nhp_exposure_form_1.pdf and give this to your Supervisor or to the PI who will then contact the Occupational Health Physician to determine the appropriate level of care and directives on how to proceed (see Annex 2).
2023.08.03	4.8.3. Within 24 hours, fill out the Accident and Incident Report form located online http://www.mcgill.ca/ehs/forms/forms/accident-and-incident-report. Send the Accident and Incident Report form (with both victim and supervisor sections completed) to the Environmental Health & Safety Office by email or by fax at 514-398-9047.
2023.08.30	4.4.1. Wash skin thoroughly with a solution containing detergent soap (e.g., chlorhexidine or povidone-iodine) for 15 at least 20 minutes.
2023.08.30	4.4.2. After, run water over the wound or area for 15 to 20 minutes more.
2023.08.30	6. REFERENCES 6.1. Centers for Disease Control (CDC) B Virus (herpes B, monkey B virus, herpesvirus simiae, and herpesvirus B), August 2023. 6.2. Health Canada, Pathogen Safety Data Sheets: Infectious Substances – Cercopithecinae herpes virus 1 (CHV-1), August 2023.

First aid should be administered immediately following exposure.

In order to determine necessary medical care, if exposure occurred Monday-Friday between 9:00-17:00, the exposed individual should complete this form before contacting the Occupational Health Program Administrator at 514-398-4766.

If exposure occurred outside of these hours, the exposed individual should complete this form and then give the information to their Supervisor or PI to contact the Occupational Health Physician. To reach the CMARC veterinarian on call outside of regular hours, contact the Call Centre at 514-657-5312.

NAME:	DATE:
MCGILL ID:	CLASSIFICATION: (PI, PDF, Grad., Tech, etc.)
SUPERVISOR/PI:	FORM FILLED OUT BY:
LOCATION WHERE INCIDENT OCCURRED:	
ANIMAL IDENTIFICATION:	

Type of Exposure

	YES	NO
1. Is the injury the result of an animal bite?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the injury the result of a cut or scratch from the animal?	<input type="checkbox"/>	<input type="checkbox"/>
· Superficial laceration	<input type="checkbox"/>	<input type="checkbox"/>
· Deep laceration (refer to the hospital)	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the injury the result of a cut or scratch from soiled equipment?	<input type="checkbox"/>	<input type="checkbox"/>
4. Area of the body where the injury occurred: _____		
5. Is the injury the result of a needle prick?	<input type="checkbox"/>	<input type="checkbox"/>
6. If the injury resulted from a needle prick, was the needle used for:		
· Blood	<input type="checkbox"/>	<input type="checkbox"/>
· Brain tissue	<input type="checkbox"/>	<input type="checkbox"/>
· Mucosal tissues (from the eye, nose or mouth)	<input type="checkbox"/>	<input type="checkbox"/>
· A lesion, growth or sore from the animal	<input type="checkbox"/>	<input type="checkbox"/>
7. Were any biological fluids from the animal splashed in the face (eyes, mouth, nose, mucous membranes)?	<input type="checkbox"/>	<input type="checkbox"/>

First Aid

1. Was there a delay between the exposure and the start of first aid treatment?	<input type="checkbox"/>	<input type="checkbox"/>
Delay (+/- 5 minutes.): _____		
2. If contact with eyes: were the eyes flushed with water for at least 15 minutes?	<input type="checkbox"/>	<input type="checkbox"/>
3. If there is a bite, scratch or laceration: was it thoroughly washed with a solution containing detergent soap (e.g., chlorhexidine or povidone-iodine) for 20 minutes?	<input type="checkbox"/>	<input type="checkbox"/>

Following a macaque exposure, it is imperative to apply first aid as soon as possible for at least 20 minutes.

For exposures that happen during regular hours (Monday-Friday, 9h00-17h00):

Promptly alert your Supervisor or PI who will contact the Occupational Health Program (OHP) Administrator at **514-398-4766** to assess the risk level of exposure and to prescribe appropriate medical care.

For exposures that happen outside of regular hours:

Report the incident to your Supervisor or the PI. If you are unable to contact them, contact the CMARC Emergency Call Centre at **514-657-5312** so that the appropriate person on-call will be contacted.

Your Supervisor or to the PI who will then contact the Occupational Health physician to determine the appropriate level of care and directives on how to proceed.

- Occupational Health Physician: Dr. Elizabeth Czyziw, eczyziw@gmail.com
- The Occupational Health Physician will contact the injured person directly to obtain the medical history.
- Occupational Health physician will authorize the veterinarian or a delegate to release a one-week prescription for Valtrex, a prophylactic antiviral medication to treat a possible exposure to the herpes B virus. You should obtain and start the prescription as soon as possible, however in an extenuating circumstance, you can wait between 24-48 hours before starting the treatment.
- Please mention **McGill Occupational Health Program** to obtain the prescription for Valtrex at no charge from the following pharmacy:

Pharmacie Jean Coutu

305 Sherbrooke St. West

514-285-2646

Open 9am to 9pm on weekday, 9am to 7pm on weekends

- Please forward a copy of the receipt to the OHP Administrator.
- If you choose to have the Valtrex prescription filled at another pharmacy, you may later submit the receipt to the OHP Administrator for reimbursement.
- The OHP Administrator will also arrange an appointment for you to be seen at the next available appointment at the Tropical Diseases Centre at the Montreal General Hospital for medical follow-up and testing.

In the event that you are unable to contact your Supervisor/PI/Occupational Health Physician/Occupational Health Program Administrator, go directly to the Emergency Department at the Montreal General Hospital and ask to be seen by the Infectious Diseases Consultant.

However, in all other cases, as long as first aid is applied within 5 minutes and Valtrex is taken within 24-48 hours, you should only go to the Emergency Department if you have a serious cut or laceration that requires stitches.