Last revised on July 27 2015

Memorandum

To: Nurses and Physicians, Region 18 (Eeyou Istchee)

From: Dr. Kianoush Dehghani, Public Health Department, CBHSSJB

Dr. Oliver Lasry, neurosurgery resident at McGill and ex-intern with the CBHSSJB (Public Health Department) (in consultation with Dr. Alain Aspirault and Dr. Hugo Plante, veterinarians, Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec - MAPAQ)

Update on the management of patients bitten by, and/or other significant exposure to, animals in Eeyou Istchee

STEPS TO FOLLOW:

- 1. Establish whether or not there has been a significant risky exposure to an animal:
 - → Only BATS and terrestrial MAMMALS (including dogs, cats, foxes, skunks, raccoons, etc.) can potentially transmit rabies to humans¹.

For more information on mammals with a potential risk of rabies transmission to humans in Québec, please refer to Quebec's intervention guide for the prevention of human rabies (2012) (Sections 5.1.3, 5.2, and 7.2.2.1) (See References).

- → A SIGNIFICANT EXPOSURE WITH RISK of rabies transmission from an affected animal to a human includes:
- A **bite** by an affected animal: a percutaneous animal bite is the most common mode of rabies transmission and is associated with > 99% of human rabies cases worldwide;
- A **scratch** by an affected animal;
- Contact of an affected animal's saliva or cerebrospinal fluid (CSF) with the human victim's mucous membrane or fresh wound (defined as a wound that has bled or oozed in the past 24 hours).

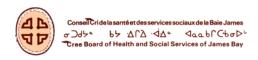
Note: In case of known exposure to bats, especially in individuals who are not fully verbal like infants, the clinician should rule out with certainty: a possible bite or scratch by a bat, or contact of bat saliva with the human victim's mucous membrane or fresh wound.

- 2. Immediately **CLEAN** the affected area thoroughly as this has been shown to be an effective intervention to **significantly reduce the risk of rabies transmission**:
 - → WASH the wound (or other exposure site) with SOAP & WATER for 10-15 minutes, even if the exposure occurred many hours before the patient's presentation. Then, apply a viricidal agent to the wound (or other exposure site), such as: 10% povidone-iodine, aqueous iodine or tincture of iodine, 70% alcohol or 2% chlorhexidine gluconate.
 - → Appropriate wound care can decrease the risk of rabies infection by about 90%.
 - → Do NOT close (e.g. with sutures) an animal bite wound²
- 3. Evaluate the need for **ANTI-TETANUS prophylaxis** in the affected patient. Please refer to the *Protocole d'immunisation du Québec (PIQ, 6th edition*: sections 10.1.1 & 2³) for specific recommendations on the administration of anti-tetanus prophylaxis.
- 4. Refer to the MSSS's newly developed **evidence-based online tool** that aims to help clinicians manage patients with risky exposures to animals:
 - → See: http://www.msss.gouv.qc.ca/aide-decision/etape.php?situation=Rage

¹ Terrestrial mammals include: 1) domestic mammals (e.g. dogs and cats), 2) wild mammals (e.g. foxes, coyotes, skunks), and 3) rodents (e.g. marmots, beavers, porcupines) and lagomorphs (e.g. hares). Certain mammals are more receptive to rabies infection (e.g. wild dogs and foxes), than others (e.g. rodents and lagomorphs). However, in high-risk regions (such as region 18), a bite from a large rodent or hare will need an investigation and the human victim should be considered for rabies PEP treatment. For questions about culprit animals, please contact technical officers and/or veterinarians at the MAPAQ.

² In exceptional situations where wound closure may be necessary, consult an ID specialist and/or a plastic surgeon at the McGill University Health Centre (specialist physicians on call at the McGill University Health Centre can be paged at: 514-934-1934 extension 52222

⁽specialist physicians on call at the McGill University Health Centre can be paged at: 514-934-1934 ex For the electronic version of the *PIQ*, please see:



5. When using this tool, it is **important** to take the following information into consideration:

- All nine (9) communities of Eeyou Istchee (region 18) are considered to be at **HIGH RISK** of rabies infection from wild animals⁴.
- Therefore, **ALL** patients with bites (or other significant risky exposures) to animals have to be **SIGNALLED** to the Public Health Department of Region 18.
- Enter information using the MSSS's on-line tool, and fill out the Public Health Department's signalling form
 in Appendix 1. Please fax the completed signalling form in Appendix 1 to the Public Health Department of
 the CBHSSJB.
- Please note that there are NO local public health veterinarians in our region. However, technical officers and veterinarians at MAPAQ can provide technical guidance regarding *culprit animals*⁵ to our local clinicians and public safety officers by phone.
- Please note the following useful contact information for technical guidance in the assessment and management of culprit animals and their human victims for rabies prevention:
 - Physician on call for the Public Health Department of the CBSSSJB: (514) 702-2940
 - Local public safety officers: see Appendix 2⁶
 - Technical officers and veterinarians at MAPAQ:
 - Telephone (hotline⁷): 1-844-ANIMAUX
 - Fax: (418) 380-2201
 - Coordinator of infectious diseases at the Public Health Department (CBSSSJB)⁸
 - Telephone: (514) 861-2352
 - Fax: (514) 861-5206
 - Email: kianoush.dehghani@mcgill.ca
- 6. In **making a clinical decision** on whether to offer post-exposure prophylaxis (**PEP**) to an individual who has recently had a risky exposure to a culprit animal, consider the following **criteria** regarding the **culprit animal**:
 - → Is the culprit animal available for assessment?
 - i. **NO**, the culprit animal is **NOT available** for assessment, then:
 - 1) Due to the high-risk profile of region 18 for animal rabies, follow the MSSS's recommendations by using the online tool to provide the human victim with **PEP** *immediately* (see Section 7 on PEP).
 - ii. YES, the culprit animal IS available for assessment, then:
 - → Is the culprit animal wild or domestic?
 - IIa. The culprit animal is **WILD** (including stray dogs) and available for assessment (either **dead** or **alive**), then:
 - 1) Due to the high-risk profile of region 18 for rabies among wild animals, follow the MSSS's recommendations by using the online tool to provide the human victim with **PEP** *immediately* (see Section 7 on PEP).
 - 2) Contact your community's **local public safety officer** (see **Appendix 2**) and inform him about the culprit wild animal. The wild animal carcass may have to be frozen in the community for later analysis for rabies, as per the directives of MAPAQ/MFFP technical officers.
 - NOTE: Call MAPAQ's hotline for any questions about the assessment of the culprit animal. MAPAQ's technical officers (in collaboration with the MFFP 9) support our local clinicians and public safety officers in the assessment (i.e. for potential signs and symptoms of rabies) and management of culprit wild animals. This management may include euthanasia, frozen storage of the carcass, and brain sample extraction and delivery for rabies lab analysis at the Canadian Food Inspection Agency (CFIA) in Ontario (i.e. to update the surveillance information on animal rabies in the region).
 - IIb. The culprit animal is **DOMESTIC** and available for assessment, then:

⁴ This is mainly according to the Institut nationale de santé publique du Québec's (INSPQ) on-going surveillance results of rabies among foxes in various jurisdictions in Québec.

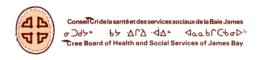
⁵ In this memo, the term "**culprit animal**" is used to refer to a terrestrial mammal at risk of rabies infection that has bitten or scratched (or had other significant risky exposure with) a human victim.

⁵ During non-working hours, please contact the local fire hall and ask for the public safety officer or the fire chief on-call for assistance.

⁷ The hotline is open for technical advice during office hours (8:30-16:30 on weekdays), and emergencies 24/7.

The coordinator of infectious diseases at the Public Health Department of the CBHSSJB is Dr. Kianoush Dehghani

Ministère des Forêts, de la Faune et des Parcs du Québec



→ If the domestic animal is ALIVE:

- You may decide to **observe** the **domestic** animal, in which case there is *no need* to offer the PEP to the affected human victim *immediately*. The duration of observation for low-risk domestic animals is ten (10) days. If during this 10-day period the animal develops signs and symptoms of rabies (including death), then PEP must be offered to the affected human victim immediately.
- 2) If you decide to observe a domestic animal, then the **local public safety officer** has to be **notified** immediately of the risky human exposure and the need for observation of the culprit domestic animal (see Appendix 2). The local public safety officer may observe the culprit animal himself, or delegate this task to another trusted community member, such as the animal's owner.
- 3) MAPAQ must be **notified** when a culprit animal is placed under local **observation**. *Please fax the* **completed MAPAQ notification form** in **Appendix 3** to their office for our region at **(418) 380-2201**. This MAPAQ notification form is also available at:
 - http://extranet.santemonteregie.qc.ca/userfiles/file/sante-publique/maladies-infectieuses/RA-Decl-Ter.pdf
 - a. Upon receiving your faxed notification form, MAPAQ's officers will contact (by phone) the designated local person in charge of observing the animal (e.g. the public safety officer), and will guide him/her during the 10-day observation period. MAPAQ will inform the Public Health Department, if an animal under observation becomes sick, dies, or is no longer available for observation, in which case the affected human victim must receive an immediate PEP (see Section 7 on PEP).
- 4) If you have any questions regarding the signs and symptoms of a culprit **domestic** animal **before** (or during) the **observation** period, please contact **MAPAQ's telephone hotline** for expert guidance.

→ If the domestic animal is DEAD:

- a. Due to the high-risk profile of our region for rabies infection, consider administering the PEP to the affected human victim as soon as possible.
 - You may also contact MAPAQ's hotline and discuss the case with the veterinarian on call, including peri-mortem characteristics of the culprit **domestic** animal. In certain cases, MAPAQ's veterinarian may recommend to not administer PEP to the affected human victim (e.g. when the peri-mortem circumstances do not indicate risk of rabies infection in the domestic animal). He/she may also decide to collaborate with the local public safety officer in preparing the culprit animal's head for delivery and rabies analysis at the CFIA. Pending the analysis results, the rabies PEP for the affected human victim should **NOT** be delayed for more than 48 hours.
- 7. Please note that rabies post-exposure prophylaxis for unvaccinated individuals consists of **rabies** immunoglobulin AND rabies vaccine¹⁰.
 - Please refer to the *PIQ* (6th edition: sections 10.7 and 11.3¹¹) for specific recommendations on the administration of rabies PEP to human victims who are either "unvaccinated" **or** previously "vaccinated" for rabies.
 - i. Complete the **rabies PEP form** in **Appendix 4** and fax it to the Public Health Department of the CBHSSJB. Keep the original copy in the patient's chart. The PEP form can also be obtained from the MSSS's website at: http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2011/11-277-01WF formulaire.pdf
 - ii. Rabies immunoglobulin is not available in the (3) three in-land communities of Mistissini, Waswanipi and Oujé-Bougoumou. If a patient in these communities has had a recent risky animal exposure, please write a brief letter to the treating emergency physician at the Chibougamau Hospital and ask him/her to provide the affected patient with the rabies immunoglobulin and the first dose of rabies vaccine as soon as possible. ¹² (subsequent doses of rabies vaccine should be provided at the local clinic).
 - iii. **Appendix 5** summarizes the recommended delay between a bite by an at-risk animal and treatment of the human victim with rabies PEP¹³. It is important to note that risky animal bites involving the victim's **head** or **neck** have a **shorter infection incubation period**; in these situations, PEP should be initiated **IMMEDIATELY**.

¹⁰ For optimal protection, rabies PEP should be initiated as soon as possible after a risky animal exposure. According to the PIQ, if rabies immunoglobulin is not given immediately after the risky animal exposure, it is then no longer indicated ≥ 8 days after the first dose of rabies vaccine.

¹¹ Also, see the PIQ's Chapter 6 for guidance on technical administration of the rabies immunoglobulin.

¹² Although such patients need to be seen at the ER as soon as possible after the risky exposure, unless there are other serious medical indications, ambulance transfer is not indicated.

¹³ This information can also be obtained directly from the MSSS's website at: http://extranet.santemonteregie.qc.ca/userfiles/file/sante-publique/maladies-infectieuses/RA-Tab-Delai.pdf



References:

- Guide d'intervention visant la prévention de la rage humaine. MSSS. Janvier 2012.

Website: http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2011/11-271-06W.pdf

- Protocole d'immunisation du Québec (2013). MSSS. 2013.

Website:

 $\frac{http://msssa4.msss.gouv.qc.ca/fr/document/publication.nsf/4b1768b3f849519c852568fd0061480d/6335dde402}{26af59852575cc0048804d?OpenDocument}$

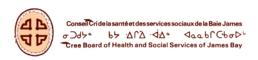
Date: __Y__/__M__/__D__



Signature of intervening health professional: ___

Appendix 1: Public Health Department form for reporting patients bitten by, and/or other exposure to, animals in Eeyou Istchee

FAX to confidential number at the F	Public Health Department – CBHSSJB: 514-861-5206
Information on the individual exposed: Name:	DOB:Y/M/D
	Telephone:
Is this patient immune-suppressed?	□No If "YES", please explain
Significant medical conditions:	
Description of incident:	
Date of incident:Y/_M/_D	Community where incident happened:
Type of culprit animal: □ Domestic □ Wild	
Did the exposure involve patient's head or neck?	
Type of patient's exposure with the animal's saliva o	
□ Exposure involving patient's mucous membrane(s)	
	and that has bled or oozed in the past 24 hours: Specify
□ Other: Explain	
Additional information regarding a WILD culpri	
	e question below)* □ Other: Specify
Is the wild culprit animal " dead "? □ Yes □ No	
	□ Yes □ No □ Not sure: Explain
	□ Yes □ No □ Not sure: Explain
BATS: *If the culprit animal was a bat, wa	
□ Yes □ No □ Not su	re: Explain
Additional information regarding a DOMESTIC	culprit animal:
What type of domestic animal? □ Dog □ Cat	□ Other: Specify
Is the domestic culprit animal dead ?	□ No □ Not sure: Explain
If the animal is dead , is it available for lab analysis?	□ Yes □ No □ Not sure: Explain
If the animal is alive , is it available for observation ?	□ Yes □ No □ Not sure: Explain
If the animal is available for observation, do you have	
$\ \square$ No $\ \square$ Yes: Please write down the name and the	telephone number of the animal owner:
 Have you contacted your local Public Safety Office (Note: For the list of contact information of all safe 	r regarding observation of this animal? □ Yes □ No ty officers see Appendix 2)
- If the animal is under observation , has the appropr	
	le/sante-publique/maladies-infectieuses/RA-Decl-Ter.pdf) to MAPAQ
(Fax: 418-380-2201)? □ Yes □ No	
fax it to the Public Health Department of Region 18	imal has an up-to-date immunization record for that animal, please (along with the completed version of this form).
Information on PRE-exposure prophylaxis of th	e human victim:
Has the human victim received a rabies vaccine befo	
If "YES", which anti-rabies vaccine?	How many doses?
Date of previous anti-rabies vaccine?Y/M/	D
Information on DECISION for POST-exposure pr	rophylaxis (PEP) of the human victim:
Is anti-rabies prophylaxis recommended for this patie	ent? □ Yes □ No
IMPORTANT : Please fill out the "Post-exposure anti-	
	documentation/2011/11-277-01WF_formulaire.pdf),
and fax it along with this form to the Public Health D	
Comments:	
Name of intervening health professional:	



Appendix 2: Coordinates of local public safety officers in Region 18

Name (public safety officer)	Community	Telephone		
Jules Quachegan	Chisasibi	819-855-2444 or 819-855-2878 ext:421		
		After hours (emergency): 819-855-2911		
Ivan Gilpin	Eastmain	819-977-3080 ext:222		
		After hours (emergency): 819-977-2911		
Ryan Gunner	Mistissini	418-923-3222		
		After hours: 418-923-3200		
Clarence Jason Jolly	Nemaska	819-673-2442 or 819-673-2443		
		After hours (emergency): 819-673-2222		
James Wapachee	Ouje-Bougoumou	418-745-2576 ext:223		
		After hours (emergency): 418-745-2575		
Roger Hester	Waskaganish	819-895-8720 or 819-895-8650 ext: 3285		
		After hours (emergency): 819-895-9000		
Bobby Blacksmith	Waswanipi	819-753-2587		
		After hours (emergency): 819-753-2411/2412		
Victor Blackned	Wemindji	819-978-3773 ext: 223		
		After hours (emergency): 819-978-3911		
Josie George	Whapmagoostui	819-929-3469		
		After hours (emergency): 819-929-9110		



Appendix 3: MAPAQ's notification form regarding culprit domestic animals under observation

Please fax the completed form to the designated MAPAQ's office at (418) 380-2201 as soon as possible.

Québec (3)	RÉGION ADMINISTRATIVE : TERRE CRIES BAIE JAMES					
MORSURE Formulaire de déclaration - Évaluation animale pour la rage						
ATENTION a) Remplir et télécopier le formul coordonnées de son propriétair être obtenues.	laire <u>UNIQUEMENT</u> si le chien, le chat ou le furet est disponible et que les re (ou d'une personne qui peut observer l'animal) sont connues ou peuvent					
b) Le déclarant <u>DOIT REMPLIR LES</u>	S SECTIONS 1 à 5 INCLUSIVEMENT (S.V.P. remplir en lettres moulées).					
1. PROFESSIONNEL DE LA SANTÉ DÉCLARANT	Date :///					
Nom :						
Telephone :	Téléc. :					
2. REQUÊTE D'ÉVALUATION ANIMALE	TÉLÉCOPIER LE FORMULAIRE À L'INTENTION DE					
observation chien, chat et furet seulement	MAPAQ Téléc.: 418 380-2201 Tél.: 1 800 463-5023 (option 5)					
3. IDENTIFICATION DE LA PERSONNE EXPOSÉE						
Nom/prénom :	DDN: / / Sexe: M F					
Enfant < 14 ans / nom du parent ou tuteur légal :						
Adresse : Numéro Rue						
Tél. (résidence) :	Tél. (autre) :					
4. DESCRIPTION DE L'INCIDENT						
Date de l'incident : / _ /Ville	e où s'est produit l'incident :					
Espèce animale :	_					
Race : Couleur :	Signes distinctifs :					
	ible :					
Lieu, circonstances et commentaires :						
5. IDENTIFICATION DU PROPRIÉTAIRE DE L'ANIMA	, was to the					
Adresse :	Rue Ville Code postal					
Tél. (résidence) :	Tél. (autre) :					
6. Accusé de réception du MAPAQ						
Accusé de réception par :	Date: / /					
7. RÉSULTATS DE L'OBSERVATION						
20.0	Commentaires :					
☐ Négatif (l'animal ne pouvait pas transmettre la rag						
☐ Impossible de conclure (propriétaire/animal non r						
retour d'appel, observation incomplète, suspicion Dossier transmis à la DSP :	• ,					
Dossier transmis a la Dop :						



Appendix 4: Post-exposure prophylaxis form for rabies

Note: please fax a copy of the completed form to the Public Health Department of the CBHSSJB at (514) 861-5206, and keep a copy of the completed form in patient's chart.

DN/		1 4	Code postal
dresseNuméro Rue iéléphone résidence taisons motivant la recommandation loids objectivé /	Ville Téléphone autre		Code postal
Poids objective /	Téléphone autre		
Poids objectivé /	Téléphone autre		
Poids objectivé /			
·			
IMMUNOGLOBULINE	S ANTIRABIQUES (RIG)		
	luméros Établissement	Date A/M/J	Signature
UI Plaie			
soit:			
		- 1	
(≥ 3 ans) ou le vaste externe (< 3 ans). *** Des produits de deux lots différents ne peuvent être mélangés dans une	même seringue. VACCIN ANTIRABIQUE		
	Établissement	Date A/M/J	Signature
A/M/J l'injection de lot 0 1 ml I.M.		Date A/M/J	Signature
A/M/J l'injection de lot 1 ml l.M. G / D 3 1 ml l.M.			Signature
A/M/J l'injection de lot 1 ml l.M. G / D 3 1 ml l.M. G / D 7 1 ml l.M.			Signature
A/M/J l'injection de lot 1 ml l.M. G / D 1 ml l.M. G / D 7 1 ml l.M. G / D 1 ml l.M. G / D			Signature
A/M/J I'injection de lot			Signature



Appendix 5: Recommended maximal delay between a bite by a risky animal and treatment of the human victim by PEP (adopted from the website of the MSSS, last updated on May 7, 2013)

et Services sociaux

Québec

TEMPS D'ATTENTE DU RÉSULTAT DE L'ANALYSE DE LA CARCASSE AVANT DE DÉBUTER LA PROPHYLAXIE POSTEXPOSITION (PPE)

Animal impliqué	Site de la morsure	Comportement	Niveau de risque dans le secteur géographique*	Temps d'attente (à partir de la morsure)
Domestique			Élevé	Le plus court possible
		1	Modéré	
	Tête et cou		Faible	
		Normal	Élevé	48 h
			Modéré	4011
			Faible	Jusqu'au résultat**
	Autres sites		Élevé	
			Modéré	48 h
		GRAED	Faible	
		Normal	Élevé	48 h
			Modéré	72 h
			Faible	Jusqu'au résultat**
_		1	Élevé***	Le plus court possible
			Modéré	
A dillip	Total		Faible	possible
	Tête et cou	Normal	Élevé***	Le plus court
Sauvage			Modéré	possible
(incluant			Faible	48 h
chauve-souris)			Élevé***	48 h
***			Modéré	
\			Faible	
	Autres sites		Élevé***	48 h
		Normal	Modéré	
			Faible	
•		•	Élevé	Le plus court possible
A SA			Modéré	40 h
A Control of the Cont	Tête et cou		Faible	48 h
A CONTRACTOR OF THE CONTRACTOR			Élevé	48 h
		Normal	Modéré	Jusqu'au résultat**
Gros rongeur /			Faible	
lagomorphe		<u> </u>	Élevé	48 h
		1	Modéré	72 h
11	Autus sites		Faible	
400	Autres sites	Normal	Élevé	48 h
			Modéré	Jusqu'au résultat**
			Faible	



Compatible avec la rage : agressivité ou difficulté à marcher/voler ou paralysie ou démarche chancelante ou familiarité anormale avec l'humain (vérifier auprès du vétérinaire de l'ACIA de votre secteur – Fin de semaine et jours fériés, composer le 1 866 806-4115 pour joindre le vétérinaire de garde).

- Pour connaître le niveau de rage du secteur d'où provient l'animal, consultez les listes de municipalités dans les secteurs suivants : <u>Sud du Québec</u> - <u>Nord du Québec</u> - <u>à</u> <u>l'extérieur du Canada</u>
- ** Attendre le résultat de l'analyse de la carcasse de l'animal
- *** Le risque de rage chez la chauve-souris est élevé sur tout le territoire du Québec.