	Southern Philippines Medical Center **CLINICAL PRACTICE GUIDELINES** **Title: Guidelines for Patients with Animal Bite** **Document Number:SPMC-CPG-DFCM-06**	

OBJECTIVE: To provide efficient and cost-effective management choices for the family medicine resident or consultant dealing with patients diagnosed with animal bite.

SCOPE: This shall apply for the management of patients with a diagnosis of animal bite.

GUIDELINES:

History	Physical Examination	Diagnosis	Treatment
A. Feeding/touching an animal Licking of intact skin (with reliable history and thorough physical examination) Exposure to patient with signs and symptoms of rabies by sharing of eating or drinking utensils Casual contact (talking to, visiting and feeding suspected rabies cases) and routine delivery of health care to patient with signs and symptoms of rabies	No break in skin No spontaneous bleeding	**CATEGORY I**	1. Wash exposed skin immediately with soap and water. 2. No vaccine or RIG needed. *Pre-exposure prophylaxis may be considered for high risk persons.*
B. Nibbling of uncovered skin with or without bruising/hematoma Minor/superficial scratches or abrasions without bleeding, including those induced to bleed *All Category II exposures on the head and neck area are considered Category III and should be managed as such*	Minor / superficial scratches / abrasions / hematoma	**CATEGORY II**	1. Wash wound with soap and water. 2. Start vaccine immediately: 3. Complete vaccination regimen until Day 7 regardless of the status of the biting animal. 4. RIG is not indicated

C. Transdermal bites (puncture wounds, lacerations, avulsions) or scratches/ abrasions with spontaneous bleeding Licks on broken skin and mucous membrane Exposure to a rabies patient through bites, contamination of mucous membranes (eyes, oral/nasal mucosa, genital/anal mucous membrane) or open skin lesions with body fluids through spattering and mouth to mouth resuscitation. Unprotected handling of infected carcass Ingestion of raw infected meat Exposure to bats All Category II exposures on head and neck area.	Deep lacerations, avulsions, scratches with spontaneous bleeding	**CATEGORY III**	1. Wash wound with soap and water. 2. Start vaccine and RIG immediately: 3. Complete vaccination regimen until Day 7 regardless of the status of the biting animal.

List of CCEEV provided by the NRPCP to ABTC with corresponding preparation and dose:

Generic Name	Preparation	Dose
Purified Verocell Rabies Vaccine PVRV	0.5ml/vial	ID - 0.1mL IM - 0.5mL
Purified Chick Embryo Vaccine PCEC	1mL/vial	ID - 0.1mL IM - 1mL

List of Immunoglobulins provided by the NRPCP to ABTC:

Generic Name	Preparation	Dose
Human Rabies Immune Globulin HRIG	150IU/mL at 2mL/vial	20IU/kg
Equine Rabies Immune Globulin ERIG	200IU/mL at 5mL/vial	40IU/kg

Recommended PEP Regimens for ABTCs/ABCs:

A. <u>Intradermal Regimen</u>

Updated 2-site Intradermal Regimen

Day of Immunization	PVRV /PCECV	Site of Injection
Day 0	0.1 ml	Left and right deltoids or anterolateral thighs in infants
Day 3	0.1 ml	Left and right deltoids or anterolateral thighs in infants
Day 7	0.1 ml	Left and right deltoids or anterolateral thighs in infants
Day 28*	0.1 ml	Left and right deltoids or anterolateral thighs in infants

*For WHO pre-qualified vaccines, the 28 dose may be omitted following the IPC Institute Pasteur du Cambodge (IPC) Intradermal regimen (2-2-2-0-0)

a. The ID injection shall produce a minimum of 3mm wheal. In the event that a dose of vaccine is inadvertently given subcutaneously or IM, the dose shall be repeated
b. a 1 mL syringe with gauze 27 needle, preferably autodisposable syringe, shall be used for ID injection
c. should a vaccine dose be delayed for any reason, the PEP regimen should be continued

B. Intramuscular Regimens approved by WHO

Zagreb regimen schedule (2-0-1-0-1) IM schedule

Day of Immunization	PVRV / PCECV	Site of Injection
Day 0	0.5 ml / 1.0 ml	Left and right deltoids or anterolateral thigh in infants
Day 7	0.5 ml / 1.0 ml	One deltoid or anterolateral thigh in infants
Day 21	0.5 ml / 1.0 ml	One deltoid or anterolateral thigh in infants

Shortened IM schedule (CDC) (1-1-1-1-0)

Day of Immunization	PVRV / PCECV	Site of Injection
Day 0	0.5 ml / 1.0 ml	One deltoid or anterolateral thigh in infants
Day 3	0.5 ml / 1.0 ml	One deltoid or anterolateral thigh in infants
Day 7	0.5 ml / 1.0 ml	One deltoid or anterolateral thigh in infants
Day 14	0.5 ml / 1.0 ml	One deltoid or anterolateral thigh in infants

Passive Immunization

This is given to patients with Category III exposures.

However, immunocompromised individuals such those with HIV Infection, cancer/transplant patients, patients on immunosuppressive therapy should be given RIG for both CAT II and III exposures. HRIG has a half-life of approximately 21 days while ERIG is 14 days.

Table 8: List of Rabies Immunoglobulins

Generic Name	Preparation	Dose
Human Rabies Immunoglobulin (HRIG)	150 IU/ml, 2 ml/vial	20 IU /kg
Equine Rabies Immunoglobulins (ERIG)	200IU/ml, 5 ml/vial	40 IU/k
F(ab')2 products	200 IU/ml, 5ml/vial	40 IU /kg

PASSIVE VACCINE administration

i. The total computed dose should be infiltrated around and into the wound as much as anatomically feasible, even if the lesion has healed. In case some amount of the total computed dose of the RIG is left after all wounds have been infiltrated, the remaining volume of RIG that is not infiltrated into the wound does not need to be injected IM.

ii. A gauge 24 or 25 needle, 1 inch length should be used for infiltration. Multiple needle injections into the same wound should be avoided.

iii. ERIG are clinically equivalent to HRIG and are considered safe and efficacious life- and cost-saving biologics. Skin testing for ERIG is highly recommended.

iv. **If a finger or toe needs to be infiltrated, care must be taken not to impair blood circulation**. Injection of an excessive amount may lead to cyanosis, swelling and pain.

v. RIG **should not exceed the computed dose as it may reduce the efficacy of the vaccine.**

vi. v. If the computed dose is insufficient to infiltrate all bite wounds, it may be diluted with sterile saline 2 or 3 -fold for thorough infiltration.

vii. **RIG should always be given in combination with rabies vaccine.** RIG should be administered at the same time with the first dose of rabies vaccine (Day 0). In case RIG is unavailable on Day 0, it may still be given until 7 days after the first dose of the vaccine (Day 0). Beyond Day 7, regardless of whether day 3 and day 7 doses were received, RIG is not indicated because an active antibody response to the rabies CCV/EEV/TCV has already started and interference between active and passive immunization may occur.

viii. In the event that RIG and vaccine cannot be given on the same day, **the vaccine should be given before RIG because the latter inhibits production of neutralizing antibodies induced by immunization.**

ix. RIG is given only once during the same course of PEP.

2.3. Management of Previously Immunized Animal Bite Cases

PrEP/PEP History (Regardless of type of TCV and route of administration in previous PrEP/PEP)	**Give RIG**	**MANAGEMENT**
Patient received complete PrEP day 0,7, OR Patient received at least Days 0, 3, PEP of ID/IM	NO	Determine if high or low risk bite
Patient received complete PrEP day 0,7, OR Patient received at least Days 0, 3, PEP of ID/IM and Patient is immunocompromised or bitten by a bat	Yes, if indicated	Give Full Course of PEP
Patient did not complete PrEP OR Patient received only 1 dose of the PEP	Give if indicated	Give Full Course of PEP

Criteria for high risk and low risk exposures

Risk of exposure	Criteria	Recommendation
High risk	ANY OF THE FOLLOWING: 1 .biting animal cannot be observed, dies or is sick 2. site of bite is in highly innervated parts of the body – neck, head, genital area, hands and toes 3. multiple deep bites 4. patient is coming from GIDA areas, i.e. infrequent transportation to and from the ABTC/ABC 5. GIDA – geographically isolated and disadvantaged areas	Immediately provide the booster injections to the patient Booster Doses: 0.1 mL ID at 4 sites on day 0 or 0.1 mL ID/IM at 1 site on days 0 AND 3
Low risk	Last dose of vaccine was within the previous 3 months and biting animal is healthy , owned, kept on a leash or can be confined and is available for observation And any of the following: 1.biting animal is the same animal that bit the patient previously or 2. biting animal is previously immunized or	Observe biting animal for 14 days If animal remains healthy, withhold the booster dose

	3. bite is on the extremities/trunk	

REFERENCES

National Rabies Prevention and Control Program
Manual of Operations 2012
AO 2018-0013 Revised Guidelines on the Management of Rabies Exposures

Prepared by:	Reviewed by:	Approved by:
CESCILLE ABIGAIL G. DURA, MD **ALIZA NIZAR J. PADATE, MD** **KIMBERLY CLAIRE R. PARAGELE, MD** **Residents**	**MARY JANE D. AYCO, MD** **Training Officer**	**MICHELLE V. HARUN-MARTINEZ, MD** **Chairperson**