

DEPARTMENT OF THE ARMY
US ARMY MEDICAL DEPARTMENT ACTIVITY
Fort Huachuca, Arizona 85613-7079

MEDDAC MEMORANDUM
No. 40-161

15 August 2006

Medical Services
RABIES PREVENTION AND CONTROL PROGRAM

	PARA	PAGE
HISTORY-----	1	1
PURPOSE-----	2	1
SCOPE-----	3	1
REFERENCES-----	4	2
KEY POINTS-----	5	2
DEFINITIONS/EXPLANATIONS-----	6	2
RESPONSIBILITIES-----	7	5
PROCEDURES - POST-EXPOSURE-----	8	9
PROCEDURES - TREATMENT - POST-EXPOSURE-----	9	11
PROCEDURES - PRE-EXPOSURE-----	10	12
RESOURCES-----	11	13
APPENDIX A - RABIES EXPOSURE ALOGRITHM-----		A-1
APPENDIX B - RABIES ADVISORY BOARD MEMBERS-----		B-1
APPENDIX C - DD FORM 2341, ANIMAL BITE/EXPOSURE REPORTING-----		C-1
APPENDIX D - RABIES TRACKING PROCESS ALGORITHM----		D-1
APPENDIX E - ANIMAL BITE LOG-----		E-1
APPENDIX F - RABIES POST-EXPOSURE PROPHYLAXIS SCHEDULE AND MANAGEMENT OF BITE WOUND-----		F-1
APPENDIX G - EXAMPLE LETTER OF INSTRUCTION TO PATIENT-----		G-1
APPENDIX H - RWBAHC OP 259, RABIES INFO & VACCINE SCHEDULE-----		H-1
APPENDIX I - RWBAHC DIAGNOSIS CODES FOR BITE EXPOSURE-----		I-1
APPENDIX J - RWBAHC PRE-EXPOSURE PROPHYLAXIS GUIDE		J-1
APPENDIX K - RABIES PRE-EXPOSURE PROPHYLAXIS SCHEDULE-----		K-1
APPENDIX L - HELPFUL RESOURCES-----		L-1

1. HISTORY: This issue publishes a revision of this publication.
2. PURPOSE: Establish responsibilities and procedures for the reporting and management of animal bite/scratch incidents or potential rabies exposures within the Ft. Huachuca catchment area.
3. SCOPE: All personnel assigned or attached to Ft. Huachuca medical and veterinary facilities involved with animal bite and

*This memorandum supersedes MEDDAC Memo 40-161, 23 July 2003

non-bite exposure case management and administration of pre and post-exposure prophylaxis.

4. REFERENCES:

4.1 AR 40-5, Preventive Medicine.

4.2 AR 40-905, Veterinary Health Services.

4.3 FH REG 40-116, Control and Care of Pets, Horses, and Transient Animals.

4.4 Human Rabies Prevention-United States, 1999; Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR; www.cdc.gov/epo/mmwr/preview/mmwrhtml/00056176.htm.

4.5 Arizona Department of Health Services, 2003; Manual for Rabies Control and Bite Management; www.azdhs.gov/phs/oids/vector/rabies/pdf/manual03.pdf.

5. KEY POINTS:

5.1 Rabies is an illness that affects the central nervous system and is caused by a virus. It is transmitted to people from infected mammals. The virus enters the central nervous system of the victim, causing an encephalomyelitis that is almost always fatal. Rabies is transmitted most often through animal bites, although other contact with the saliva or brain tissue of an infected animal can cause the disease. Evidence suggests that rabies can also be spread by a seemingly insignificant bite from a bat with rabies, even without an obvious wound.

5.2 Administration of rabies post-exposure prophylaxis (PEP) is a medical urgency, not a medical emergency; however, decisions must not be delayed.

6. DEFINITIONS/EXPLANATIONS:

6.1 Rabies Advisory Board Committee (RAB): An established Ft. Huachuca committee that reviews policies and procedures for the reporting, evaluation and medical management of cases involving potential exposure to rabies. This committee meets on a quarterly basis or more frequently as needs dictate.

6.2 Determining Exposure:

6.2.1 Bite exposure: wound from a tooth that penetrates the skin.

6.2.2 Non-bite exposure: exposure of saliva, cerebral spinal fluid or brain tissue from a potentially rabid animal into an open wound or in the eyes, nose, or mouth.

6.2.3 Bats: Bats are increasingly implicated as significant reservoirs for variants of rabies transmitted to humans in the U.S. Seemingly insignificant physical contact with bats may result in viral transmission, even without a clear history of animal bite. In all instances of bat-human contact where rabies transmission is under consideration, the bat in question should be collected if possible, and tested for rabies. Rabies PEP is recommended for all individuals with bite, scratch, or mucous membrane exposure to a bat, unless the bat tests negative for rabies. PEP might be appropriate even if a bite, scratch, or mucous membrane exposure is not apparent when there is reasonable probability that such exposure might have occurred.

6.2.4 Domestic pets: Dogs, cats and ferrets are occasionally infected with rabies in Arizona. It is important to collect information about the animal(e.g. stray vs. owned), and the circumstances of the exposure (provoked vs. unprovoked) to assess the risk of rabies and the potential for PEP. If the dog/cat/ferret is available, it should be quarantined. If the animal is available for quarantine, rabies PEP is not warranted unless the animal becomes ill or dies and tests positive for rabies during the quarantine period.

6.2.5 Raccoon, skunk, fox, coyote and other wild terrestrial carnivores(including hybrids): All bites by such wildlife must be considered possible exposures to rabies. PEP should be initiated as soon as possible after exposure unless the animal has already been tested and shown not to be rabid. If PEP has been initiated and subsequent testing of the animal is negative to rabies, PEP can be discontinued.

6.2.6 Small rodents and lagomorphs (hamsters, rats, mice, rabbits, gerbils, guinea pigs): These are almost never found to be infected with rabies and have not been known to transmit rabies to humans.

6.3 Not an Exposure:

6.3.1 Rabies is not transmitted by contact with blood, urine, or feces.

6.3.2 Petting or touching the body/fur of a potentially rabid animal (as long as contact with the head is ruled out).

6.3.3 Touching an inanimate object that has had contact with a rabid animal does not constitute an exposure unless saliva or CNS tissue entered a fresh, open wound or contacted a mucous membrane.

6.3.4 Being sprayed by a skunk.

6.3.5 Simply being in the vicinity of a rabid animal.

6.4 Unprovoked Attack: An animal approaches and bites without provocation. Considerations for mating season, taking food from the animal or chronic animal abuse must be assessed.

6.5 Provoked Attack: The animal was approached or confronted by the individual, including attempts to feed or pet the animal.

6.6 Rabies Risk Evaluation: Risk of exposure to rabies is determined on a case-by-case basis, preferably while the victim is initially being treated (Appendix A). Risk categories are divided into minimal, moderate and high.

6.6.1 Minimal - Cases involving a healthy, vaccinated dog or cat whose owner is identified or the animal is confined to a known location and available for ten-day observation.

6.6.2 Moderate - The animal is a dog or cat (escaped or stray) whose owner or rabies status is not known, especially if attack is unprovoked.

6.6.3 High - Cases involving wild animals with exception of rodents and lagomorphs.

6.7 Rabies Virus "Shedding Period" (infectious stage): The rabies viral shedding period is the time that an animal excretes rabies virus in its saliva. During this period, an animal can transmit rabies. Viral shedding tends to occur only during the late stage of the disease, after rabies has affected the brain (just before death).

6.8 Shedding Time and Quarantine: The maximum infectious stage of rabies in dogs and cats in the United States is 10 days. If a dog or cat remain healthy for 10 days after exposing a person, it is safe to assume that rabies was not transmitted. This quarantine/observation period is extended to 14 days for ferrets and livestock. The quarantine period should start on the day of the bite or non-bite exposure. Rabies shedding periods in wild animals are not known, and they should be tested for rabies rather than quarantined if an exposure occurred.

6.8.1 At the discretion of the veterinarian, home quarantine may be permitted if the dog, cat or ferret is currently vaccinated against rabies.

6.8.2 If symptoms of rabies develop or the animal dies during the quarantine period, the animal should be tested for rabies.

6.9 Quarantine: Confinement of an animal to a limited, enclosed area in order to restrict exposure of that animal to other animals and to humans, and to facilitate observation of the animal for signs of rabies.

6.10 Rabies Advisor: A member of the Rabies Advisory Board (RAB) who can be consulted whenever the attending health care provider is uncertain of a rabies risk or contemplates initiation of rabies post exposure prophylaxis (Appendix B).

6.11 Report of Animal Bite: DD Form 2341, Potential Rabies Exposure (Appendix C) is to be initiated whenever a patient is seen for an animal bite, or non-bite exposure. Procedures are outlined in paragraph 8 of this memorandum.

7. RESPONSIBILITIES:

7.1 The MEDDAC Commander will:

7.1.1 Ensure a Rabies Prevention and Control Program is implemented and in compliance with AR 40-5 and AR 40-905 for the entire Ft. Huachuca community.

7.2 Chief, Preventive Medicine Wellness and Readiness Service (PMWARS) will:

7.2.1 Serve as Chairperson for the RAB. Be responsible for monitoring and providing technical guidance and overall coordination of the Rabies Prevention Program.

7.2.2 With the assistance of the designated consulting physician, will review all animal bite and non-bite exposure cases to evaluate appropriateness and conformity of treatment and proper follow-up procedures in accordance with this document and report findings to the RAB at quarterly meetings.

7.2.3 Convene meeting of the RAB on a quarterly basis or as needed to determine the need for post-exposure prophylaxis.

7.2.4 Initiate any changes in rabies PEP that may be indicated.

7.2.5 Ensure that the status of patients prescribed rabies PEP is monitored and verify that the vaccine series has been completed.

7.3 Chief, Environmental Health will:

7.3.1 Manage the Rabies Prevention Program and ensure accountability and completeness of DD Form 2341.

7.3.2 Maintain the animal bite data base.

7.3.3 Assist Chief, PMWARS in ensuring that the status of patients prescribed rabies PEP is monitored.

7.3.4 Confirm with the Veterinarian Clinic the location and status of the animal within 48 hours after the exposure and again after quarantine period has ended.

7.3.5 Prepare quarterly reports of animal exposure incidents for the RAB and serve as a member of the Rabies Advisory Board.

7.3.6 Maintain, for a period of not less than 2 calendar years, files of the completed DD Form 2341 and other supporting documentation for each exposure incident.

7.3.7 Prepare a Memorandum For Record and follow up on exposure cases seen at Sierra Vista Regional Health Center Emergency Department. RWBAHC case managers will report these cases to PMWARS.

7.4 Non-Commissioned Officer In Charge, PMWARS will: Assist Chief, Environmental Health to ensure that all cases of animal bites which occur on post are recorded, assigned tracking number, and reported after final disposition.

7.5 Chief, Community Health Nursing will: Report patients who have had post-exposure prophylaxis initiated to the Arizona Department of Health Services and enter into any other required reporting systems.

7.6 Chief, Veterinary Services will:

7.6.1 Ensure appropriate management and quarantine of animals involved in exposure incidents.

7.6.2 Serve on Rabies Advisory Board Committee.

7.6.3 Coordinate with the Chief, PMWARS and Occupational Health Clinic concerning pre-exposure rabies prophylaxis for individuals at high risk for occupational exposure.

7.6.4 Establish liaison with military and civilian health authorities, animal control and police agencies in order to effectively provide veterinary support to the rabies control program.

7.6.5 Coordinate animal specimens requiring laboratory examination for rabies and notify Chief, PMWARS of the laboratory results.

7.6.6 If an animal is not located or quarantined within 24 hours of the exposure, notify the Chief, PMWARS. In addition, notify Chief PMWARS if animal develops any signs of rabies.

7.6.7 Complete section III of the original DD Form 2341. The report will be retained by the Veterinarian Clinic until completion of animal quarantine or laboratory examination. The original DD Form 2341 will be forwarded to PMWARS for review.

7.7 Chief, of each Department of Primary Care will:

7.7.1 Ensure compliance with required reporting procedures and the appropriate rabies risk assessment of bite victims.

7.7.2 Will ensure that their clinic maintains an Animal Bite Treatment Log for tracking purposes.

7.8 Healthcare Providers will:

7.8.1 Assess and treat exposure victims as recommended in the Human Rabies Prevention by the Advisory Committee on Immunization Practices (ACIP).

7.8.2 Provide initial rabies PEP when indicated, list the due dates for each immunization in the series on the patient's medical record, provide patient education, and a copy of future vaccination dates with written follow-up instructions.

7.8.3 Report all bite incidents utilizing DD FORM 2341, personally completing part II and ensuring that the original is sent to PMWARS by close of business that same day. NOTE: if the incident took place more than 48 hours prior to the health care consultation, a phone call to PMWARS and the veterinarians should be made immediately, so that prompt action can be taken in determining the animal's location and disposition.

7.8.4 Ensure the correct ICD9 and E codes are entered into AHLTA to assist in reporting and surveillance.

7.8.5 Consult with members of the RAB if questions or uncertainty arise when contemplating administration of PEP. Consultation provides assistance in making treatment decisions, yet the attending physician retains full responsibility for the collection of relevant information, decisions about PEP, and initiation of appropriate treatment.

7.9 RAB members will:

7.9.1 Develop, review, approve and ensure implementation of policies and procedures relating to prevention and treatment of rabies.

7.9.2 Provide overall direction and guidance for the medical, veterinary and administrative aspects of the Rabies Prevention Program.

7.9.3 Provide review and recommendations on the use of rabies PEP in individual cases.

7.9.4 Maintain current knowledge on practice guidelines for the treatment, management and prevention of rabies.

7.9.5 Meet quarterly, or as needed.

7.10 Chief, Occupational Health will:

7.10.1 Conduct rabies pre-exposure prophylaxis program for all personnel who have a potential for occupational exposure to rabies.

7.10.2 Maintain a database of all high-risk personnel working with animals on Ft. Huachuca. This database will identify individual's vaccination and titer status.

7.10.3 Serve as a member on the RAB.

7.10.4 Evaluate all active duty and federal civilian employees who sustain work related animal exposure incidents following initial physician care.

7.11 The designated consulting physician will:

7.11.1 Serve as a member on the RAB.

7.11.2 Assist Chief, PMWARS on reviewing all animal bite and non-bite exposure cases to evaluate appropriateness and conformity of treatment and proper follow-up procedures.

8. PROCEDURES - POST-EXPOSURE: (Appendix D)

8.1 DD FORM 2341 - Report of Animal Bite, will be initiated on all animal bite and non-bite exposure incidents. All blocks in Part I and II will be filled in as completely as possible by the clinic providing patient evaluation and treatment. If needed, "NA" or "unknown" will be entered. Particular attention should be given to the circumstances of the exposure to determine if the attack was unprovoked or provoked, and the identification of the animal and owner. The Ft. Huachuca Veterinarian should make the final determination of provoked or unprovoked attack in all animal exposure cases.

8.2 The attending physician will complete and sign Part II of DD Form 2341. Annotate in Part IV- Rabies Advisory Board Action when the case was discussed with a member(s) of the RAB.

8.3 To report an exposure, clinic personnel will immediately telephone PMWARS during duty hours at 533-3536 or 533-3959. PMWARS will assign a sequence number which is placed in the upper right hand corner of the DD Form 2341. In addition to telephonic notification, the original DD Form 2341 will be

forwarded to PMWARS at the time of treatment. The DD Form 2341 can be initially faxed (533-0886) but the original must be sent no later than the next duty day.

8.4 Clinic personnel will also notify the Military Police at 520-533-2181 (if the incident occurred on post) or the Sierra Vista Animal Control Officer at 520-458-4151 (if off post). It is imperative that this is done immediately since disposition of the animal is critical in assisting with the determination of appropriate treatment and follow-up care.

8.5 If a situation arises after hours, most likely the exposure victim will seek care at Sierra Vista Emergency Department. Raymond W. Bliss Case Managers will forward emergency room (ER) bite cases to PMWARS upon their daily ER report review. PMWARS will follow up with those cases to ensure procedures have been followed.

8.6 PMWARS will enter DD FORM 2341 information into the rabies tracking system and immediately contact Ft. Huachuca Veterinarian for animal management. If the animal cannot be found, PMWARS will help coordinate between the Veterinarian Clinic and the Military Police to ensure that either the animal is found and quarantined, or the victim is treated accordingly. The Military Police take custody of the animal and deliver it to the Veterinarian Clinic for quarantine. PMWARS will make two copies of the original DD Form 2341; copy 1 to generating clinic; copy 2 PMWARS retains. Vet Service will pick up the original DD FORM 2341 from PMWARS for documentation of Part III-Management of Biting Animal.

8.7 Following completion of all veterinary actions (quarantine, laboratory diagnosis, and/or treatment), the Veterinarian will enter final recommendations and disposition of the involved animal in Part III of the original DD FORM 2341. The signed original will be forwarded to PMWARS.

8.8 Chief, PMWARS will review all animal bite cases as outlined in 7.2.2 and complete part IV of DD Form 2341.

8.9 The designated RAB physician will sign block # 37 of DD FORM 2341 for case closure. The signed original DD 2341 will be forwarded to the patient's outpatient record for scanning and inclusion into the AHLTA electronic medical record.

9. PROCEDURES - POST-EXPOSURE TREATMENT:

9.1 Initial wound care and management of an animal bite/exposure should be done IAW clinic guidelines and ACIP recommendations (Appendix E). A letter of instruction and education should be given to the patient (Appendix F).

9.2 Rabies risk must be estimated for each animal bite incident to determine need for Post-exposure prophylaxis as outlined in Appendix A.

9.3 Any patient started on post-exposure prophylaxis will be given a RWBAHC OP 259, Rabies Information and Vaccine Schedule (Appendix G).

9.4 The original RWBAHC OP 259 will be hand carried by the patient or parent/guardian to their assigned clinic on the dates scheduled for vaccine completion. A copy of RWBAHC OP 259 upon initiation of prophylaxis will be sent to PMWARS along with the DD FORM 2341. A second duplicate of the RWBAHC OP 259 will be sent to PMWARS once treatment is completed for verification and case closure. The original will be placed in the patient's medical record by the generating clinic.

9.5 If post-exposure prophylaxis is indicated, and the exposed patient was previously immunized with an older vaccine (e.g. Duck Embryo, Suckling Mouse Brain, and Inactivated Nerve Tissue) that was not produced on cell culture, then administer post-exposure prophylaxis treatment according to the guidelines for those not previously vaccinated.

9.6 Any time there is suspect of a human rabies case, it must be reported to Arizona Department of Health Services. Providers will notify PMWARS so that reporting procedures can be accomplished.

9.7 Incubation periods of greater than 1 year have been reported in humans. When a documented or likely exposure has occurred, PEP is indicated regardless of the length of the delay, provided the clinical signs of rabies are not present.

9.8 Animal bite/exposures will be entered into AHLTA using diagnostic codes listed in Appendix H.

9.9 Adverse reactions associated with PEP Immunizations:

9.10 Rabies Immuno Globulin (RIG): Local pain and low-grade fever.

9.11 Rabies cell culture vaccine: mild transient, local reactions (erythema, pain, itching, and swelling) have been reported. Occasional systemic reactions include headache, nausea, abdominal pain, muscle aches, and dizziness.

9.12 PEP should not be discontinued due to reactions without considering the patient's risk of acquiring rabies. Such reactions can usually be successfully managed with anti-inflammatory and antipyretic agents. When a person with a history of serious hypersensitivity to rabies vaccine must be revaccinated, antihistamines can be administered. Epinephrine should be readily available to counteract anaphylactic reactions, and the person should be observed carefully immediately after vaccination for at least 30 minutes. Further advice and assistance on the management of serious adverse reactions may be sought from the Cochise County Health Department (520-803-3900) or Center for Disease Control Immunization Hotline 1-800-232-2522.

9.13 Any unusual or severe adverse reactions attributed to vaccines or RIG should be reported to the Arizona Department of Health Services (602-364-4562 and to the vaccine manufacturer and Vaccine Reportable Event System (VAERS) via 24 hour toll free number 800-822-7967).

9.14 Pregnancy: There is no indication that fetal abnormalities have been associated with rabies vaccination, pregnancy is not considered a contraindication to post-exposure prophylaxis. If the risk of exposure to rabies is substantial, pre-exposure prophylaxis might also be indicated during pregnancy.

10. PROCEDURES - PRE-EXPOSURE PROPHYLAXIS:

10.1 All newly assigned high-risk personnel (MPs, designated DIS personnel, veterinary staff, Buffalo Coral staff, etc) will in-process through Occupational Health to ensure appropriate pre-exposure vaccination and database entry (Appendix I). Appendix J outlines the pre-exposure immunization schedule. Pest control contractors will be offered pre-exposure vaccination by civilian providers.

10.3 If exposed to rabies, previously vaccinated persons should receive two IM doses of vaccine, one immediately and one 3 days later as outlined in Appendix E. Rabies Immuno Globulin (RIG) is unnecessary and should not be administered per ACIP recommendations.

11. Resources:

11.1 Human Rabies Prevention, Recommendations of the Advisory Committee on Immunization Practices:

www.cdc.gov/epo/mmwr/preview/mmwrhtml/00056176.htm

11.2 Arizona Department of Health Services; Manual for Rabies Control and Bite Management::

www.azdhs.gov/phs/oids/vector/rabies/pdf/manual03.pdf

11.3 Additional resources:

11.3.1 Rabies information from the Center for Disease Control:

<http://www.cdc.gov/ncidod/dvrd/rabies/> or rabies@cdc.gov.

11.3.2 Contact phone numbers of local agencies and resource websites are listed in Appendix K.

The proponent of this memorandum is the Preventive Medicine Wellness and Readiness Service. Users are invited to send comments and suggested improvements on DA Form 2028 directly to PMWARS, RWBAHC, ATTN: MCXJ-PMWARS, Ft. Huachuca, AZ 85613-7079

FOR THE COMMANDER:

OFFICIAL:

GREGORY A. SWANSON

LTC, MS

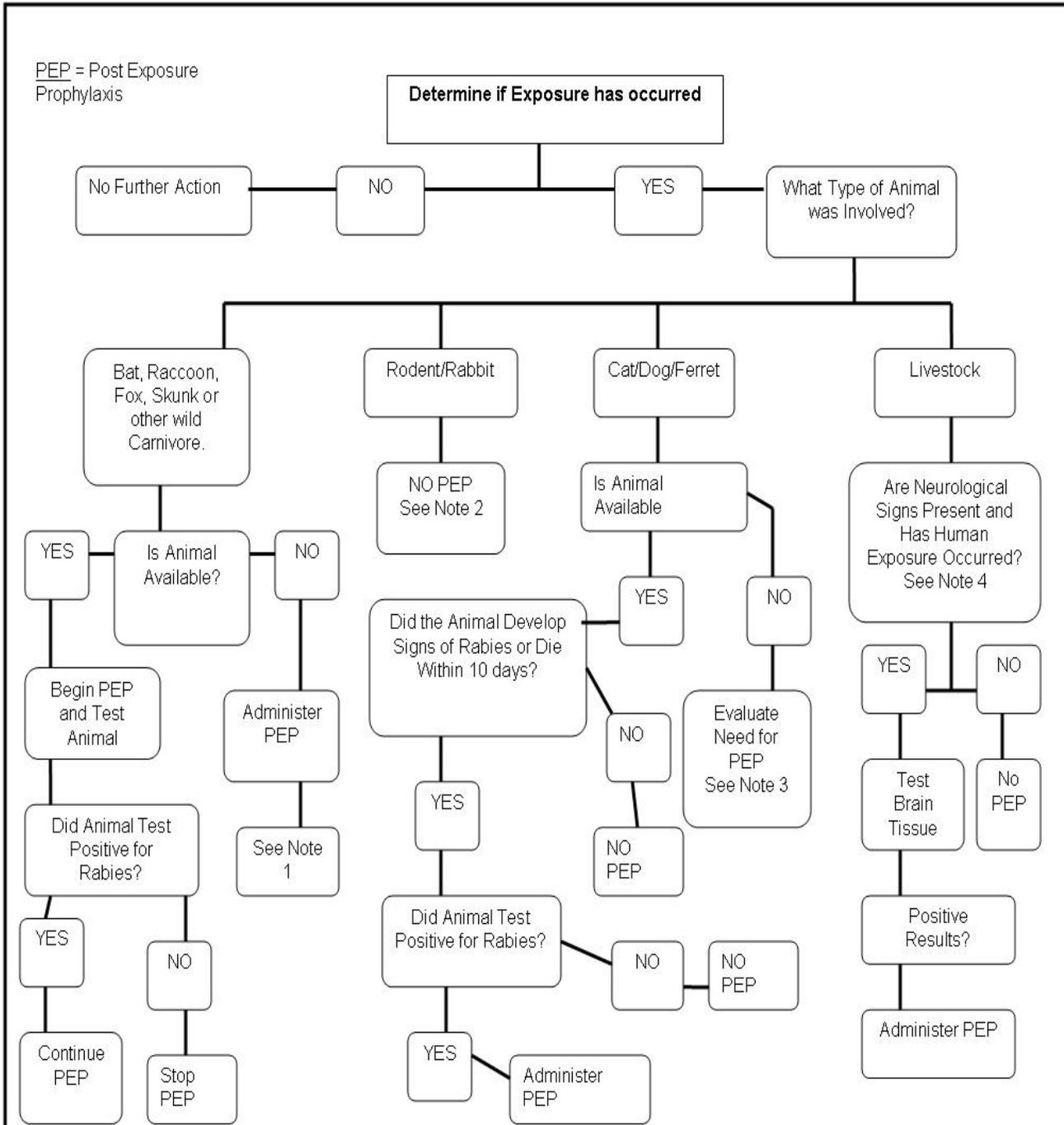
Deputy Commander for Administration

Robert D. Lake
Information Management Officer

DISTRIBUTION: C

APPENDIX A

Rabies Protocol for Human Exposure to Animals



Note 1: Contact MP's @ 533-2181. Also contact Wildlife Section, DIS @ 533-7083.
 Note 2: Except for unusual circumstances rodents/rabbits are not considered likely to transmit rabies and do not need testing. Call Ft Huachuca Veterinarian Services @ 533-2767; VET Technician @ 234-8462 or 533-3500 ext 366.
 Note 3: Attempt to locate. Assess circumstances (Provoked, unprovoked, known animal or stray, ect.)
 Note 4: A 14 day observation period is required when livestock bite or expose a person. If clinical signs develop or animal dies, the animal should be submitted for rabies testing.
 *Providers can call any RAB member for recommendations (See Appendix B) or AZ Dept of Health after hours at (480) 303-1191.

APPENDIX B

Note: Member's that are in bold print should be the first to call if consultation is needed.

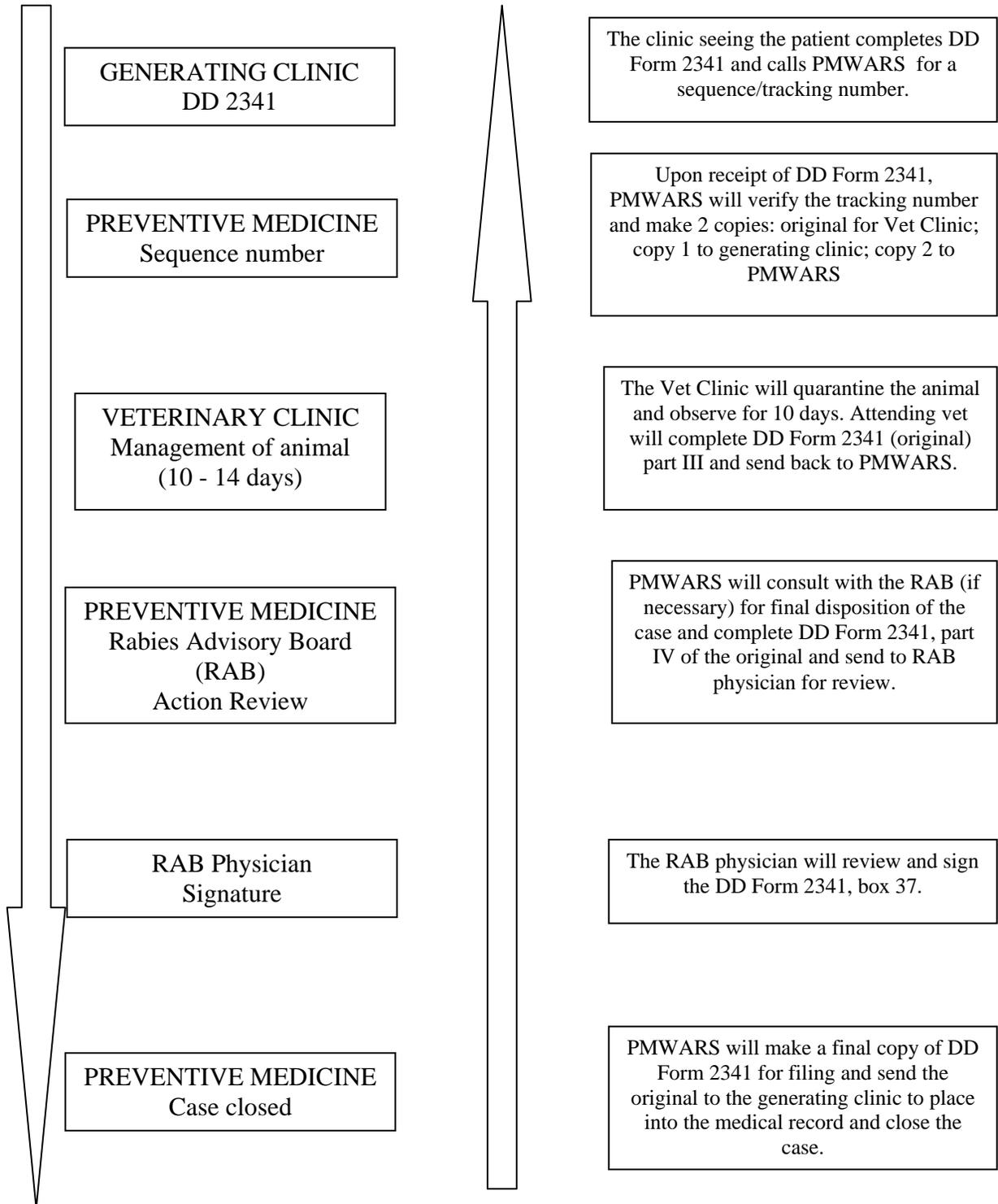
RABIES ADVISORY BOARD MEMBERS	
DEPT/SECTION	TEL. NUMBER
C, PMWARS, Fort Huachuca	(520) 533-5912
C, PMWARS-EH, Fort Huachuca	(520) 533-3959
C, PMWARS-OH, Fort Huachuca	(520) 533-9145
NCOIC, PMWARS, Fort Huachuca	(520) 533-9013
VET CL, Fort Huachuca	(520) 533-3204
VET CL, Fort Huachuca	(520) 533-0481
VET CL, Fort Huachuca	(520) 533-0472
AFCC, Fort Huachuca	(520) 533-5070
AFCC, Fort Huachuca	(520) 533-2419
Senior Medical Officer of RAB	(520) 533-8724
Pharmacy, Fort Huachuca	(520) 533-9025
Pharmacy, Fort Huachuca	(520) 533-3553
MP DET., Fort Huachuca	(520) 533-3434
MP DET., Fort Huachuca	(520) 533-5342
Pest Mngmnt DIS, Fort Huachuca	(520) 533-1443
ALL STAR, INC, Fort Huachuca	(520) 533-5906
DIS Wildlife Section	(520) 533-7083
Cochise County Public Health	(520) 432-9464
Cochise Co Bio-Terrorism Dept	(520) 803-3930
Sierra Vista Public Health	(520) 803-3916
Sierra Vista Animal Control	(520) 458-4151
AZ Public Health (Veterinary)	(602) 364-4562

APPENDIX C
DD FORM 2341 Animal Bite/Exposure Reporting

REPORT OF ANIMAL BITE - POTENTIAL RABIES EXPOSURE <i>(Please read Privacy Act Statement on back before completing this form.)</i>						SEQUENCE NUMBER			
1. FROM (Medical Treatment Facility)		2. THRU (Deputy Commander for Veterinary Services)		3. TO (Chief, Preventive Medicine)					
PART I - ANIMAL BITE HISTORY <i>(To be completed by Emergency Room Interviewer)</i>									
4. DESCRIPTION OF ANIMAL						5. TIME OF ATTACK			
a. TYPE (Dog, cat, etc.)	b. BREED	c. SIZE	d. COLOR	e. SEX	a. DATE	b. HOUR			
6. PRESENT LOCATION OF ANIMAL OR GEOGRAPHIC ADDRESS WHERE ATTACKED						<input type="checkbox"/>	ON POST	<input type="checkbox"/>	OFF POST
7. CIRCUMSTANCES LEADING TO BITE/SCRATCH INCIDENT									
8. APPARENT HEALTH OF ANIMAL (Unusual Behavior)									
9. OWNER									
a. NAME (Last, First, Middle Initial)		b. STATUS (X one)	c. PHONE NUMBER (Include Area Code)		d. ADDRESS (Street, City, State, Zip Code)				
		MILITARY							
		CIVILIAN							
10. RABIES VACCINATION									
a. VACCINATION STATUS OF ANIMAL		b. YEAR ANIMAL VACCINATED	c. TYPE VACCINE (If known)						
11. PREPARED BY									
a. NAME (Last, First, Middle Initial)				b. TITLE					
c. SIGNATURE				d. DEPARTMENT/SERVICE/CLINIC		e. DATE PREPARED			
PART II - MANAGEMENT OF ANIMAL BITE CASE <i>(To be completed by Medical Officer (Information from SF 600))</i>									
12. DESCRIPTION OF INJURY AND LOCATION ON THE BODY									
13. DIAGNOSIS (Injury) (X, as applicable)				14. RABIES RISK ESTIMATE (X one)					
ANIMAL BITE	CLAW WOUND	OTHER	MINIMAL	MODERATE	HIGH RISK				
15. INITIAL TREATMENT GIVEN		a. TIME	b. DATE						
c. DEEP FLUSHING AND CLEANSING WITH SOAP AND WATER		16. RECOMMENDED FURTHER PROPHYLACTIC TREATMENT							
d. TETANUS TOXOID (List dose given)		a. NONE							
e. OTHER (Specify)		b. *HUMAN RABIES IMMUNE GLOBULIN							
		c. HUMAN DIPLOID CELL RABIES VACCINE							
		d. COUNSELED ON DF2 HAZARD							
		e. OTHER (Specify)							
		*Need to consult Rabies Board prior to treatment							
17. PATIENT'S IDENTIFICATION (ID impression, if available.) <i>(For typed or written entries give name (Last, First, Middle Initial); pay grade; SSN; unit; phone; date; hospital or medical facility.)</i>				18. PHYSICIAN					
				a. NAME (Last, First, Middle Initial)					
				b. SIGNATURE					
				19. a. DISCUSSED WITH AREA VETERINARIAN (X one)		YES	NO		
				b. NAME OF VETERINARIAN (Last, First, Middle Initial)					
20. VERBAL REPORT TO		(1) NAME		(2) PHONE NO.					
a. VETERINARIAN									
b. POLICE									
c. OTHER									

PRIVACY ACT STATEMENT					
AUTHORITY: Title 10, United States Code, Sections 3013, 5013, and 8013. PRINCIPAL PURPOSE(S): Used by medical authorities to record the history, examination, and treatment of a person who has possibly been exposed to rabies; and to record the follow-up medical care provided to the individual who was either bitten or scratched. Used by veterinarians to locate the animal, record examination, observations, and disposition results, and possible laboratory findings for the animal. ROUTINE USE(S): Information will be used as a basis for documenting the proper treatment and care of individuals who have potentially been exposed to rabies. The information will be used to locate the animal, and record the vaccination and physical status of the involved animal. The information may also be used to: aid in preventive health and communicable disease control programs; report medical conditions required by law to Federal, state and local agencies; compile statistical data; conduct research; teach; assist in law enforcement, to include investigation and litigation; and to evaluate the care provided. DISCLOSURE: Voluntary; however, if the information is not provided, it will delay the compilation of the data required for record keeping purposes.					
PART III - MANAGEMENT OF BITING ANIMAL (To be completed by Veterinarian)					
21. AUTHORITIES NOTIFIED					
a. NAME (Last, First, Middle Initial)	b. DATE	c. TIME	d. INITIALS	e. FOLLOW-UP	
				(1) DATE	(2) TIME
22. INITIAL ACTION			23. EMERGENCY ROOM NOTIFIED		
			a. TIME	b. DATE	c. INITIALS
24. LOCATION OF ANIMAL DURING OBSERVATION PERIOD (On or off post, list point of contact if not veterinary activity)					
25. OBSERVED BY (Include name of military or civilian agency)					
26. DATES OBSERVED			27. DATE ANIMAL RELEASED		
a. FROM	b. TO				
28. CONDITION OF ANIMAL DURING AND AT THE END OF 10-DAY QUARANTINE					
29. OTHER DISPOSITION OF ANIMAL (Explain fully - died, escaped, not located, etc.)					
30. LABORATORY FINDINGS OF ANIMAL SUBMITTED FOR RABIES DIAGNOSIS					
a. TEST (X one)	b. DATE RECEIVED		c. RESULTS (X one)		
(1) FLUORESCENT ANTIBODY			NEGATIVE	POSITIVE	
(2) CELL CULTURE			NEGATIVE	POSITIVE	
31. INFORMATION REPORTED TO RABIES BOARD BY					
a. NAME (Last, First, Middle Initial)	b. SIGNATURE		c. DATE SIGNED		
32. VETERINARY OFFICER					
a. NAME (Last, First, Middle Initial)	b. SIGNATURE		c. DATE SIGNED		
PART IV - RABIES ADVISORY TEAM ACTION/BOARD REVIEW					
33. DISCUSSED BY (List names of members of team or board, or X box at right.)			<input type="checkbox"/> NOT REQUIRED TO MEET		
34. RECOMMENDATIONS					
a. HUMAN RABIES IMMUNE SERUM (X one)	LOCAL	SYSTEMIC	BOTH		
b. VACCINE					
c. OTHER					
35. CHIEF, PREVENTIVE MEDICINE					
a. NAME (Last, First, Middle Initial)	b. SIGNATURE		c. DATE SIGNED		
36. FINAL DISPOSITION OF CASE (Review by rabies board)					
37. PRESIDENT OR SENIOR MEDICAL OFFICER OF BOARD					
a. SIGNATURE				b. DATE SIGNED	

APPENDIX D
Rabies Tracking Process Algorithm



APPENDIX E - RABIES POST EXPOSURE PROPHYLAXIS SCHEDULE

The following guidelines are from the most current ACIP recommendations dated 1999 and from Arizona Department of Health Services. **Recommendations are for both bite and non-bite exposures.** Note: Administration of post-exposure prophylaxis MUST be reported to PMWARS.

RABIES POST-EXPOSURE PROPHYLAXIS SCHEDULE		
VACCINATION STATUS	TREATMENT	REGIMEN ¹
Not Previously Vaccinated	Wound cleansing	All post-exposure treatment should begin with immediate thorough cleansing of all wounds with soap and water for <u>10-15</u> minutes. If available, a virucidal agent such as a povidone-iodine solution should be used to irrigate the wounds.
	RIG ²	Administer 20 IU/kg body weight. If anatomically feasible, the full dose should be infiltrated around the wound(s) and any remaining volume should be administered IM at an anatomical site distant from vaccine administration. Also, RIG <u>should not be administered in the same syringe as vaccine.</u> Because RIG might partially suppress active production of antibody, no more than the recommended dose should be given.
	Vaccine	Five doses of cell culture rabies vaccine (HDCV, RVA, or PCEC) 1.0 ml, IM (deltoid areas) ³ , one each on days 0 ⁴ , 3, 7, 14, and 28 ⁵ .
Previously Vaccinated ⁶	Wound cleansing	All post-exposure treatment should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as a povidone-iodine solution should be used to irrigate the wounds.
	RIG	RIG <u>should not be administered.</u>
	Vaccine	HDCV, RVA, or PCEC 1.0 ml, IM (deltoid area) ³ , and one each on days 0 ⁴ and 3 ⁵ . Serologic testing for seroconversion after completion of treatment is not necessary.

1 -- These regimens are applicable for all age groups, including children.
 2 -- If RIG was not administered when vaccination was begun, it can be administered through the 7th day after the administration of the first dose of vaccine. Beyond the 7th day, RIG is not indicated since antibody response to cell culture vaccine is presumed to have occurred.
 3 -- The deltoid area is the only acceptable site of vaccination for adults and older children. For younger children, the outer aspects of the thigh may be used. Vaccine should never be administered in the gluteal area.
 4 -- Day 0 is the day the first dose of vaccine is administered.
 5 -- Incubation periods of greater than 1 year have been reported in humans thus, when a documented or likely exposure has occurred, post -exposure prophylaxis is indicated regardless of the length of the delay, provided the clinical signs of rabies are not present.
 ** Tetanus prophylaxis and measures to control bacterial infections also should be administered as indicated.
 *** Serologic testing for seroconversion after completion of treatment is not necessary unless immunosuppressed.
 6 -- Any person with a history of pre-exposure vaccination with HDCV, RVA, or PCEC; prior post exposure prophylaxis with HDCV, RVA, or PCEC; or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to other prior vaccination.

HDCV -- Human Diploid Cell Vaccine
 PCEC -- Purified Chick Embryo Cell Vaccine
 RIG -- Rabies Immune Globulin
 RVA -- Rabies Vaccine Adsorbed
 IM -- Intramuscular

CLINICAL PRACTICE GUIDELINES
Management of Animal Bite Wounds

HISTORY

Animal Bite: Ascertain the type of animal, whether the bite was provoked or unprovoked, and the situation/environment when the bite occurred. If the species can be infected, locate the animal for 10 days observation.

Patient: Obtain information on antimicrobial allergies, current medications, splenectomy, mastectomy, liver disease and immunosuppression.

PHYSICAL EXAMINATION

Record diagram of wound with location, type, depth of injury, range of motion, possibility of joint penetration, presence of edema or crush injury, nerve and tendon function, signs of infection, and odor of exudate.

CULTURES

Infected wounds should be cultured and a Gram stain performed. Anaerobic cultures should be obtained with abscesses, septic patients, serious cellulites, devitalized tissue, or if there is a foul odor to the exudate. Small tears and infected punctures should be cultured with a mini-tipped (nasopharyngeal) swab.

IRRIGATION

Copious amounts of normal saline should be used for irrigation. Puncture wounds should be irrigated with a "high-pressure jet," using a 29-cubic centimeters (cc) syringe and an 18-gauge needle or catheter tip.

DEBRIDEMENT

Devitalized or necrotic tissue should be cautiously debrided. Debris and foreign bodies should be removed.

RADIOGRAPHS

Radiographs should be obtained if fracture or bone penetration is possible. They may also serve as a baseline to judge future osteomyelitis.

WOUND CLOSURE

Wound closure may be necessary for selected, fresh uninfected wounds, especially facial, but primary wound closure

is usually not indicated. Wound edges should be approximated with adhesive strips in selected cases.

ANTIMICROBIAL THERAPY

CONSIDER PROPHYLAXIS*

- (1) For moderate to severe injury less than 8 hours old, especially if edema or crush injury is present
- (2) If there is possible bone or joint penetration
- (3) For hand wounds
- (4) For immunocompromised patients (including those with mastectomy, liver disease, or steroid therapy)
- (5) If wound is adjacent to a prosthetic joint
- (6) If wound is in the genital area

* Coverage should include *Pasteurella multocida*, *Staphylococcus aureus* and anaerobes (see treatment)

TREATMENT

- (1) Antibiotic therapy will be initiated at the discretion of the medical provider.
- (2) For bat, raccoon, or skunk bites consider Augmentin or Doxycycline.
- (3) For cat bites consider Augmentin, Cefuroxime or Doxycycline. Avoid Cephalixin.
- (4) For dog bites consider Augmentin or Clindamycin plus a flouoroquinolone in adults or Clindamycin plus TMP/SMX in children.

HOSPITALIZATION

Indications include fever, signs of sepsis, spread of cellulitis, significant cellulitis, significant edema or crush injury, loss of function, compromised host or patient non-compliance.

IMMUNIZATIONS

TETANUS

Give tetanus booster if original three-dose series has been given, but none in the past 5 years. Give a primary series and tetanus immunoglobulin if patient was never immunized.

RABIES

Rabies vaccine (day 0, 3, 7, 14, 28) with rabies immuno globulin (RIG, 20 IU/kg or 18 IU/lb) MAY BE required depending on the type of animal, ability to observe the animal, locality and circumstances of the bite.

ELEVATION

Elevation should be strongly advised if any edema is present. Lack of elevation is a common cause of therapeutic failure.

IMMOBILIZATION

Immobilize extremity, especially hands, with a splint.

FOLLOW-UP

Follow-up at 24 and 48 hours is very important for outpatients.

MOST COMMON REASONS FOR TREATMENT FAILURE

1. Failure to stress the importance of, or for the patient to ignore, ELEVATION of an edematous wound. If the wound is on the hands, then slings must be recommended because compliance is unlikely unless passively accomplished.

2. Selection of the INCORRECT ANTIBIOTIC. Most fastidious animal pathogens are susceptible to penicillin/ amoxicillin. Because of resistance of certain bacteria, including *P. multocida*, first-generation cephalosporins, dicloxacillin, and erythromycin should be avoided or used cautiously. Although *in vitro* data suggest that some fluoroquinolones (ciprofloxacin, ofloxacin, and sparfloxacin), trimethoprim-sulfamethoxazole, and second-generation oral cephalosporins (cefuroxime) are active against many bite isolates, proof of clinical efficacy is sparse.

3. Failure to recognize JOINT PENETRATION. Pain, diminished range of motion, local edema, and proximity to the joint of a puncture wound should alert one to the possibility of septic arthritis.

SELECTED REFERENCES:

Goldstein EJC. Bites. Principles and Practice of Infectious Diseases, 4th ed. (Mandell G, Bennet J, Dolin R, eds.) New York: Churchill Livingstone, 1995.

Douglas LG. Bite Wounds. Am Fam Phys. 1975 11:93-9.

Goldstein EJC, Ctiron DM, Finegold SM. Dog Bite Wounds and Infection: A Prospective Clinical Study. Ann Emerg Med. 1980; 9:508-12.

Brakenbury PH, Muwanga C. A Comparative Double Blind Study of Amoxycilllin/Clavulanate vs. Placebo in the Prevention of Infection after Animal Bites. Arch Emerg Med. 1989; 6:251-6.

Feder HM, Shanley JD, Barbera JA. Review of 59 Patients Hospitalized with Animal Bites. Pediatr Infect Dis J. 1987; 6:24-8.

Goldstein EJC. Bite Wounds and Infection. Clinical Infect Dis. 1992; 14:633-40.

Zook EG, Miller M, Van Beek AL, et al. Successful Treatment Protocol of Canine Fang Injuries. J. Trauma. 1980; 20:243-7.

Brook I. Microbiology of Human and Animal Bite Wounds in Children. Pediatr Infect Dis J. 1987; 6:29-32.

APPENDIX F
Example Letter of Instruction to Patient

DEPARTMENT OF THE ARMY
U. S. ARMY MEDICAL DEPARTMENT ACTIVITY
Fort Huachuca, Arizona 85613

John Doe (Victims Address)
12345 Any Street
Any City, USA 00000-0000

Dear Bite Victim,

An animal bite is not a matter to be taken lightly. There is a risk that you or your family member may have been exposed to the rabies virus, which can be transmitted through the saliva of an infected warm-blooded animal. Therefore, it is important that the offending animal be observed following the bite in order to determine if the animal is rabid. The quarantine period varies depending on the species involved (a pet, stray or wild animal) and its rabies vaccination history. Identifying and locating the animal is essential to optimal patient management; failure to locate the animal may make the series of anti-rabies injections necessary.

The treating physician will report all animal bites to the appropriate authorities. Since you are under care, it is essential that you provide the correct telephone numbers (home and work) for the sponsor and the bite victim. If possible, please provide detailed information about the animal, including the type of animal, the phone number and address of the owner, if known; where the incident occurred and what provoked the bite. If you cannot provide this information while at the clinic, please try to gather this information when you get home. You are the one person who can provide the information needed to locate and identify the biting animal.

All biting animals that are owned by personnel residing on a military installation must be brought in for an examination by a military veterinarian as soon as possible per AR 40-905. If you own the animal, do not vaccinate it or give it away. If the owner is known, inform him/her that the animal will need to be confined and examined. If a wild or domestic stray animal is involved, contact either the Military Police @ 533-2181 or the Fort Huachuca Wildlife Section @ 533-7083.

Off-post residents should also contact their local health department's Animal Control Service or a civilian veterinarian as soon as possible. Listed below are local health department animal control phone numbers.

<u>County</u>	<u>Phone Number</u>	<u>After Hours Emergency</u>
Cochise (Sierra Vista)	(520) 803-3900	
Arizona Dept of Health Services	(602) 364-4562	(480) 303-1191
Animal Control	(520) 458-4151	

Since the potential for rabies exposure is greater when bitten by a wild animal, the attending physician will consider the need to begin immediate rabies vaccination. The prevalence of rabies in wild animals also increases the likelihood of transmission to domestic animals.

In order to reduce your risk of contracting rabies, it is important to follow all medical advice and to make all follow-up appointments promptly. If you have any questions, please contact the physician providing your treatment or Preventive Medicine at 533-3536.

Sincerely,

Provider Signature Block

APPENDIX H

RWBAHC Diagnosis Codes for Bite/Exposure

959.9	Other and unspecified (animal bite)
E906.0	Dog Bite
E906.1	Rat Bite
E906.3	Bite of Other Animal Except Arthropod
E906.5	Bite by Unspecified Animal

APPENDIX I

RWBAHC Rabies Pre-exposure Prophylaxis Guide

RABIES PRE-EXPOSURE PROPHYLAXIS GUIDE			
<i>RISK CATEGORY</i>	<i>NATURE OF RISK</i>	<i>TYPICAL POPULATIONS</i>	<i>PREEXPOSURE RECOMMENDATIONS</i>
Continuous	Virus present continuously, often in high concentrations. Specific exposures likely to go unrecognized. Bite, non-bite, or aerosol exposure	Rabies research laboratory workers*; rabies biologics production workers	Primary course. Serological testing every 6 months; booster vaccination if antibody titer is below acceptable level±
Frequent	Exposure usually episodic, with source recognized, but exposure also might be unrecognized. Bite, non-bite, or aerosol exposure	Rabies diagnostic lab workers*; spelunkers, veterinarians and staff, and animal-control and wildlife workers in rabies-enzootic areas	Primary course. Serological testing every 2 years; booster vaccination if antibody titer is below acceptable level±
Infrequent (greater than the population at large)	Exposure nearly always episodic with source recognized. Bite or non-bite exposure	Veterinarians and animal-control and wildlife workers in areas with low rabies rates. Veterinary students. Travelers visiting areas where rabies is enzootic and immediate access to appropriate medical care including biologics is limited	Primary course. No serologic testing or booster vaccination
Rare (population at large)	Exposure always episodic with source recognized. Bite or non-bite exposure	U.S. population at large, including persons in rabies-epizootic areas	No vaccination necessary
<p>*Judgment of relative risk and extra monitoring of vaccination status of laboratory workers is the responsibility of the laboratory supervisor. (See U.S. Department of Health and Human Services' Biosafety in Microbiological and Biomedical Laboratories, 1988)</p> <p>± Minimum acceptable antibody level is complete virus neutralization at a 1:5 serum dilution by the rapid fluorescent focus inhibition test (RFFIT). A booster dose should be administered if the titer falls below this level.</p>			

APPENDIX J

RABIES PRE-EXPOSURE PROPHYLAXIS SCHEDULE		
<i>TYPE OF VACCINATION</i>	<i>ROUTE</i>	<i>REGIMEN</i>
Primary	Intramuscular	HDCV or PCEC; 1.0 mL (deltoid area), one each on days 0*, 7, and 21 or 28
	Intradermal	HDCV; 0.1 mL, one each on days 0*, 7, and 21 or 28
Booster	Intramuscular	HDCV or PCEC; 1.0 mL (deltoid area), day 0* only
	Intradermal	HDCV; 0.1 mL, day 0* only
<p>HDCV=human diploid cell vaccine; PCEC=purified chick embryo cell vaccine * Day 0 is the day the first dose of vaccine is administered. Pre-exposure immunization of immunosuppressed persons is not recommended. HDCV should not be administered intradermally to a person traveling to malaria-endemic countries while the person is receiving chloroquine or other antimalarials related to chloroquine.</p>		

APPENDIX K

HELPFUL RESOURCES

PHONE NUMBERS:

1. Sierra Vista Animal Control 520-458-4151
2. Cochise County Health Department 520-803-3900
3. Center for Disease Control Immunization Hotline 1-800-232-2522
4. Arizona Department of Health Services 602-364-4562
--After Hours 480-303 1191
5. Vaccine Reportable Event System (VAERS) 1-800-822-7967
24 Hour Number
6. Fort Huachuca Military Police 520-533-2181
7. Fort Huachuca DIS Wildlife Section 520-533-7083
8. Fort Huachuca Preventive Medicine 520-533-3536
9. Fort Huachuca Veterinarian Clinic 520-533-3204

WEBSITES:

1. Human Rabies Prevention; Recommendation of the Advisory Committee on Immunization Practices (ACIP):
www.cdc.gov/epo/mmwr/preview/mmwrhtml/00056176.htm
2. Arizona Department of Health Services; Manual for Rabies Control and Bite Management:
www.azdhs.gov/phs/oids/vector/rabies/pdf/manual03.pdf
3. Center for Disease Control:
<http://www.cdc.gov/ncidod/dvrd/rabies/>
or
rabies@cdc.gov