Rabies Post Exposure Prophylaxis: Wound Management Guidelines

Introduction

Rabies is a fatal, acute, progressive encephalomyelitis caused by neurotropic viruses belonging to the family Rhabdoviridae, genus Lyssavirus. Rabies is a viral zoonotic disease that affects the central nervous system and is almost always fatal once symptoms appear. Rabies is practically 100% fatal, yet practically 100% preventable provided timely and correct management of animal bite is done in the victim. Hence, to prevent the likelihood of an infection following a rabid animal bite, a three-pronged approach is advocated:

a) Management of animal bite wound(s),
b) Passive immunization with Rabies Immunoglobulin (RIG), and
c) Active immunization with Anti-Rabies Vaccines (RABIES VACCINE).

Wound management is an important component of post exposure prophylaxis (PEP), but often ignored by the bite victims. Hence, establishing a dedicated wound washing area in health facilities is essential to support these efforts. This document provides guidance on the importance of wound washing, the rationale behind it, and recommendations for establishing such facilities in healthcare settings.

Importance of wound washing for animal bite cases

Reducing the risk of rabies infection: Rabies is a deadly viral disease, transmitted through the saliva of infected animals, primarily following bites.

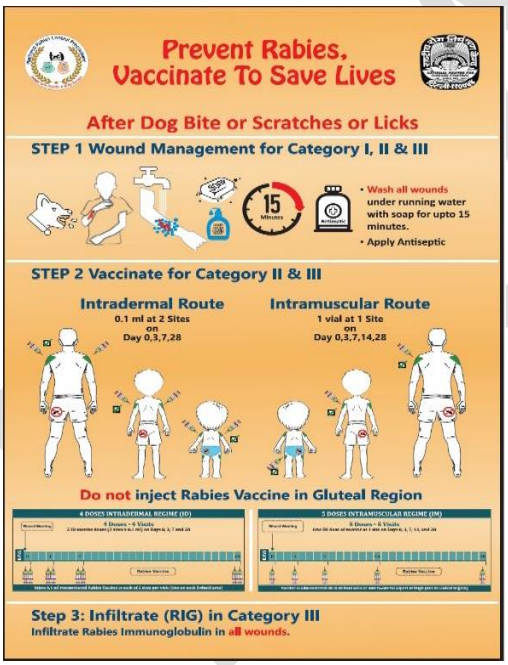
- Washing wounds with copious amounts of water is a vital step in the post-exposure prophylaxis for rabies. It helps in removing saliva containing the rabies virus from the wound site. The removal of the virus eliminates the risk of infection. .Also the use of soap by its lipolytic action inactivates the rabies virus.
- Wound washing also cleanses the dirt, reduces bacterial load and thus minimizing the chances of secondary infection.
- The National Rabies Control Programme (NRCP) recommends immediate wound washing with soap and water upto15 minutes and applying disinfectant to the wound/s to minimize the risk of rabies infection.

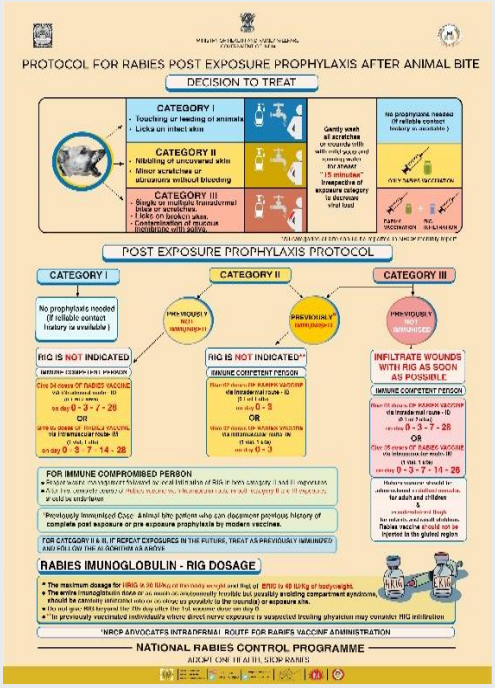
Guidance on establishing wound washing area

Requirements: To establish an effective wound washing area, the following aspects need to be considered:

1. **Location:** Identify an appropriate location within the healthcare facility, preferably near the emergency department, casualty, dressing room, or dedicated animal bite treatment area/ anti-rabies clinic (ARC). Avoid locating it adjacent to or in the toilets.
2. **Spacious room:** The area should have sufficient space (minimum 6X6 ft) to accommodate patients (often mother and child) and necessary fixtures, etc. It should be designed to promote infection control practices, including providing hand hygiene facilities and personal protective equipment (PPE).
3. **Water supply:** Continuous clean running tap water supply should be available for wound washing procedures. Adequate plumbing, drainage, and access to clean water are essential.
4. **Medical supplies:** Ensure there is a plinth or bench for proper wound management and attending medical procedures.
5. **Ventilation:** Ensure the area is well-ventilated (exhaust fan fitted), well lit, and easily accessible for patients and staff.
6. **Waste management:** Proper high rise drainage (no stagnation) of water, and biomedical waste management should be followed as per standard protocol /guidelines.

IEC Materials





Consumables and supplies:

	Hand washing sink with tap and wall fixed mirror; and a continuous supply of clean running tap water for washing wounds on head, neck, face and hands. A bottle of liquid soap shall be placed on the sink for use.
	A separate handheld spray with a pipe of 3-4 feet length shall be fixed on the wall and provided with soap (preferably liquid soap) for washing wounds on lower limb/s
	Antiseptic solutions for application after wound washing, such as povidone-iodine (preferable) or chlorhexidine should be provided.
	Disposable gloves, masks, gowns, and goggles or face shields for health care personnel.

Standard Operating Procedures (SOPs)

Step-by-step instructions for wound washing procedure:

1. Wash/flush all the wound/s immediately (or as soon as possible) under running water for up to 15 minutes.
2. Use soap to wash the wound/s.
3. After thorough washing and drying the wound with sterile gauze, apply a disinfectant such as povidone iodine or chlorhexidine.
4. Do not touch the wound with bare hands.
5. Wound washing procedure must be performed even if the patient reports late.
6. Application of irritants such as chili, soil, oils, turmeric, lime, salt, ash, plant juice, etc. by the patient is strictly prohibited
7. For further rabies prophylaxis like vaccine administration, rabies immunoglobulin infiltration, wound management, etc. refer to a medical officer/ nearest health facility.

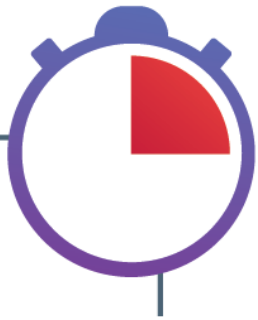
Important: Cauterization of the wound/s with acids/ alkalis /flame/heat/etc is strictly prohibited.

Establishing a dedicated wound washing area for animal bite management, particularly for post-exposure prophylaxis against rabies, though simple, still a life saving measure for preventing rabies in the bite victim. By following the guidelines provided in this document, healthcare facilities can ensure the provision of prompt and effective wound care, improving patient outcomes and good public health.

Process flow for wound management in case of dog/animal bite

Dog/animal bite victim should be directed towards hand wash area

Hand wash area should be equipped with wash basin, continuous supply of water, soap and handheld shower (3-4 feet)



Wash the wound under running water for at least 15 minutes

Avoid applying irritants such as chili, soil, oils, turmeric, lime, salt, plant juice etc.

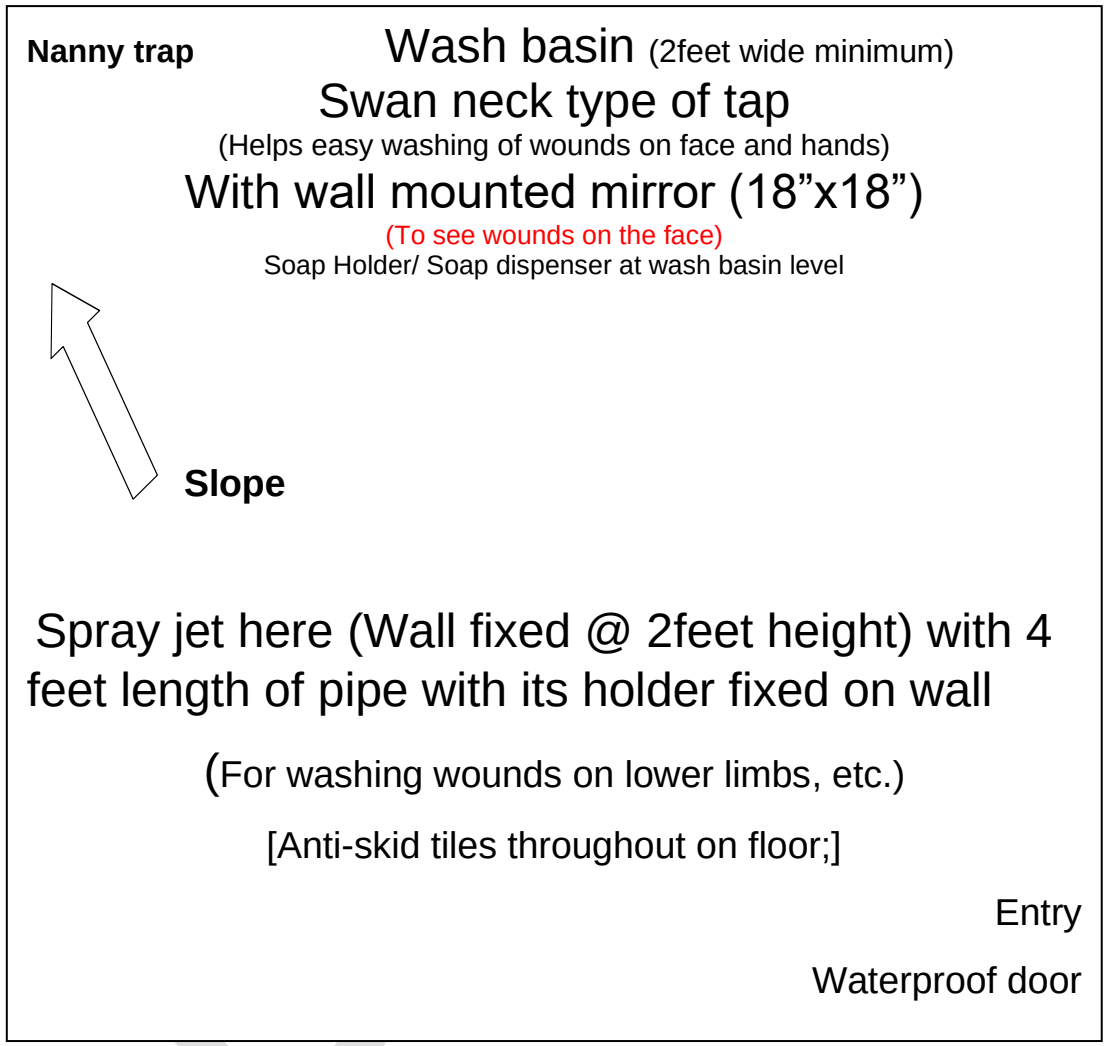
Use a soap to wash the wound

Apply disinfectant like povidone iodine on the wound

For further management refer to a medical officer

Prototype of proposed wound washing area

(May be improvised as per local needs)

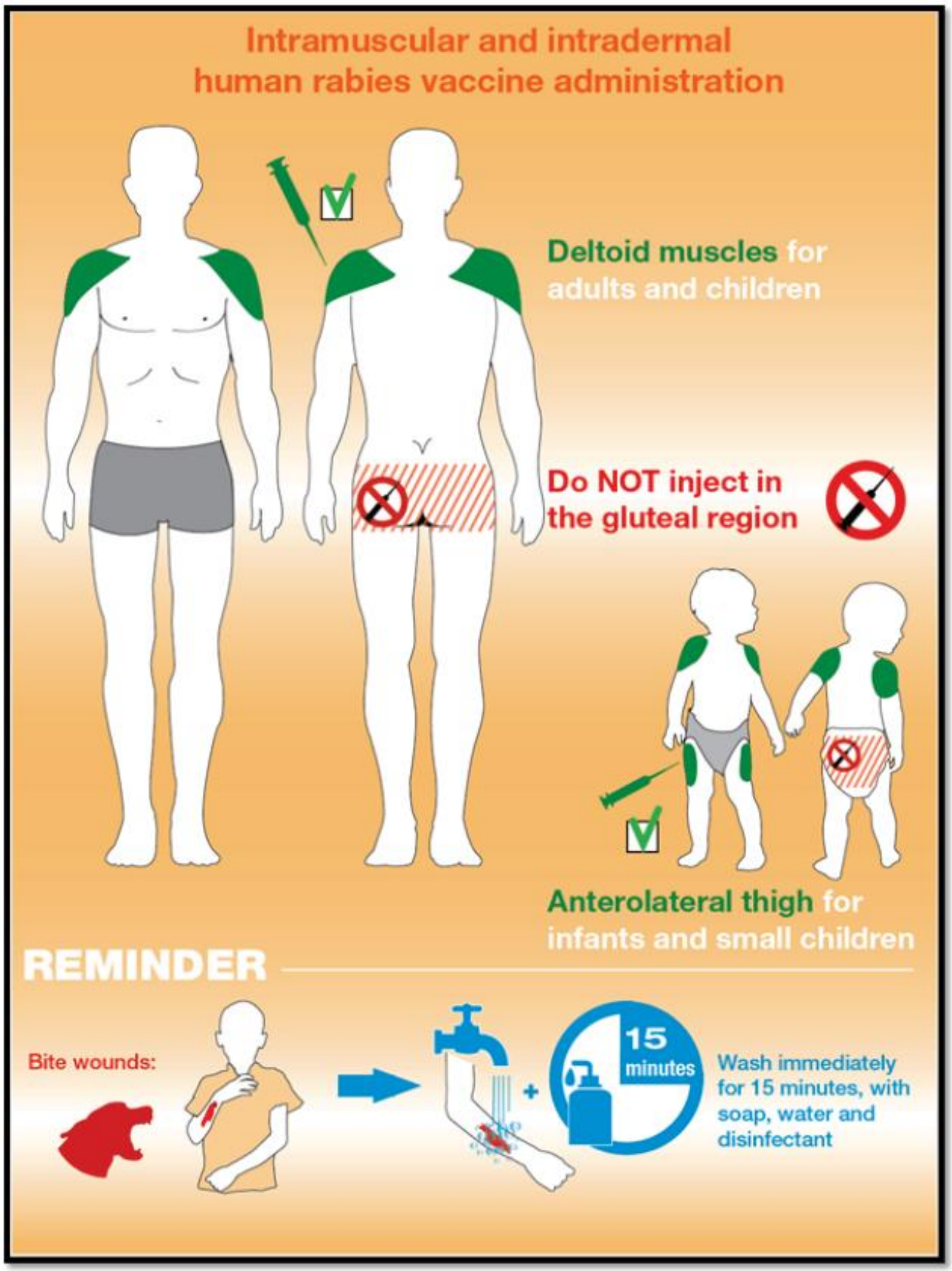


6 feet X 6 feet minimum

[Note – Many times two persons like mother and child will be inside]

Consult a civil engineer before finalization of the plan

Wound washing area in/near an anti-rabies clinic (ARC)


Intramuscular and intradermal
human rabies vaccine administration
Deltoid muscles for
adults and children
Do NOT inject in
the gluteal region
Anterolateral thigh for
infants and small children
REMINDER
Bite wounds:
15
minutes
Wash immediately
for 15 minutes, with
soap, water and
disinfectant