**Prevention of Rabies in Humans**

Rabies is 100% fatal but also 100% preventable with prompt and complete post-exposure prophylaxis (PEP). All animal bites, scratches and licks must be assessed for potential vaccine exposure.

### Exposure Risk Assessment

- All animal exposures must be assessed for potential rabies virus exposure and whether RIG is required.

  - The assessment is based on whether the animal is "tame" (domestic) or not (wild). Risk assessment includes a description of the animal and the type and severity of the bite.

### Notes

- There are no blood tests to confirm or exclude rabies virus transmission from animal to human. At the time of exposure decisions to provide PEP are based on risk assessment.

- If vaccination history of an animal is available, provide PEP. If vaccination history is not available, provide PEP.

- If deep skin wounds are present, it is appropriate to assess the size of the wound, whether the wound is punctured or penetrated, whether the wound is active, if active, whether the wound can be cleaned, and whether the wound is to be sutured.

- If the animal is a source of potential rabies virus exposure, give RIG and/or vaccine.

### Categories of Exposure

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Severe</td>
<td>Category 1 exposures are always of concern because they are likely to result in rabies virus transmission from animal to human.</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>Category 2 exposures are often considered serious due to the potential transmission of rabies virus.</td>
</tr>
<tr>
<td>3</td>
<td>Minor</td>
<td>Category 3 exposures are considered to be of limited concern and may be evaluated for removal of the risk of rabies virus transmission.</td>
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### Animal Species

- **Common domestic animals** for human rabies in SA:
  - Dogs
  - Cats
  - Rabbits
  - Guinea pigs
  - Mice
  - Hamsters

### Animal Health

- **Typical rabies symptoms include**:
  - Irregular behavior
  - Paralysis
  - Salivation
  - Hyperexcitability
  - Agitation
  - Aggression
  - Paralysis
  - Death

### Animal Behaviour

- **Unprovoked attack**:
  - The animal has bitten multiple people.
  - Nontypical behavior is unusually aggressive, wild, anxious or fearful.

### Geography

- **Factors to consider for risk assessment**:
  - Consider the occurrence of rabies and origin of the infected animal.

### Examples of Category 3 Exposure

- Wounds do not have to be large or deep to constitute a Category 3 exposure. Any wound that is deep, painful, or bloody should be considered Category 3 exposure.

### Wound Management and Administration Technique

- **Step 1**:
  - Clean the wound(s) with soap and water, then take care with good aseptic technique.
  - Apply wound decontamination if available.

- **Step 2**:
  - adminster the vaccine and RIG according to the PEP schedule.

- **Step 3**:
  - If the patient presents more than 10 days after exposure, and the animal is still alive and healthy, then this is not considered a Category 3 exposure.

### Other Considerations

- **Supply of RIG and Rabies Vaccine**:
  - Contact Health Services for vaccine supplies.
  - The Department of Health should be contacted if there are any difficulties in sourcing RIG.

- **Non-compliance**:
  - Inability to follow PEP protocol.
  - Ensures compliance with follow-up vaccines.

### Rabies Vaccination

- **Indication**:
  - Category 3 exposures (and category 2 exposure if immunization history is unreliable).

- **Dose**:
  - 1 dose for adults and children.
  - 2 doses for infants less than 1 year old.

- **Administration**:
  - Intramuscularly on days 0, 7, and 28.

### Rabies Immunoglobulin (RIG)

- **Indication**:
  - Category 3 exposures (and category 2 exposure if immunization history is unreliable).

- **Dose**:
  - 1 dose for adults and children.
  - 2 doses for infants less than 1 year old.

- **Administration**:
  - Intramuscularly on days 0, 3, and 7.

### Rabies in Humans

- **Examples**:
  - Rabies is 100% fatal but also 100% preventable with prompt and complete post-exposure prophylaxis (PEP). All animal bites, scratches and licks must be assessed for potential vaccine exposure.

### Preventive Measures

- **Immediate care**:
  - Clean the wound(s) with soap and water, then take care with good aseptic technique.
  - Apply wound decontamination if available.

- **Follow-up care**:
  - Ensure completion of follow-up vaccines.

- **Other measures**:
  - Avoid or delay suturing (where possible) and use of local anesthetic agents (may potentially spread the virus locally).

- **Contacts**:
  - The Department of Health should be contacted if there are any difficulties in sourcing RIG.

### Contact Information

- **NCD Hotline for Clinical Advice**:
  - 082 883 9920
  - [NCD Hotline for Clinical Advice](http://www.health.gov.za)