



Anti-Rabies vaccine

1) **What is Rabies?** Rabies is a viral infection caused by Rhabdovirus which affects nerves and brain tissue in humans. It is almost always fatal. Classic symptoms of Rabies may take 30-90 days to develop and include Hydrophobia (aversion to water), Aerophobia (aversion to draft of air), photophobia (aversion to light), psychiatric disturbances, depression, paralysis and death.

2) **Which animals can spread Rabies?** Animal bites are the most important cause of Rabies transmission. Dog and cats account for most of the cases. Other animals which can potentially transmit Rabies are cattle, sheep, donkey, camel, goat, monkey, bear, bat, etc.

3) **How to provide First-aid in case of animal bite?** All animal bites must be washed with soap and water for about 10-15 minutes. After washing, povidone iodine or surgical spirit must be applied on wounds. Rabies risk reduces by almost 50% by proper First Aid and cleaning of wound. After First-Aid, visit health facility for further treatment.

4) **What type of animal exposure requires treatment?**

Category I: Touching/Feeding the animal or licks on intact skin. Does not require treatment if there is no wound

Category II: Minor scratch without bleeding/Nibbling of intact skin. Local treatment of wound and Anti-Rabies vaccine

Category III: Lick on broken skin, Bites with bleeding, Licks over mucous membranes. Local treatment of wounds to be done. Anti-Rabies vaccine & Rabies Immunoglobulin (RIG)/Rabies Monoclonal Antibodies (RMAb)

5) **What is the schedule of Anti-Rabies Vaccine?** Rabies vaccine is to be given as 5 dose series on Day 0, 3, 7, 14, 28 of animal bite. Following the schedule without missing any doses is crucial in prevention of Rabies. It is safe for use in all age groups.

6) **What is Rabies Immunoglobulin(RIG)/Rabies Monoclonal Antibody(RMAb)?**

After giving Rabies vaccine, it takes the body around 7-14 days to produce sufficient levels of protective antibodies. During this period, when the body is unprotected, Rabies



immunoglobulin (RIG) or Rabies Monoclonal Antibodies (RMAb) play a crucial role by providing immune protection against Rabies.

- 7) **How are RIG/RMAb given?** RIG/RMAb are given by injection locally at the site of the wound. Dose of RIG/RMAb varies with weight of the child.

- 8) **What are the types of RIG?** RIG is of two types: Equine (derived from horse) and Human derived. Equine RIG requires prior skin sensitivity testing before giving dose so as to prevent allergic reaction. Human RIG does not require skin sensitivity testing as allergic reactions are rare. If child is allergic to Equine RIG, then Human RIG may be required.

- 9) **When should child receive RIG/RMAb?** In case of Category III bite, RIG/RMAb is to be administered only once, as soon as possible after animal bite and not beyond 7 days after first dose of vaccine. RIG/RMAb is to be given even for all category II wounds in immunocompromised children.

- 10) **If child has previously taken full course of Anti-Rabies vaccines, does he/she require to repeat entire course for subsequent bites?** In children with documented complete series of vaccination in past, only 2 doses of Anti-Rabies vaccine are to be given for subsequent exposure on Day 0 & 3 of animal bite. No need of RIG/RMAb in such cases. If repeat exposure bite occurs within 3 months of previous vaccination series, then only local wound care is required.

- 11) **Does child require any medicines other than Anti-rabies vaccine &/or RIG/RMAb?** Depending upon previous immunisation status, child may be offered Tetanus vaccination. In extensive wounds, antibiotic & anti-inflammatory medications may be required.

- 12) **What is "pre-exposure prophylaxis" in Rabies?**
In individuals who are at high risk of acquiring Rabies due to occupation or children in endemic countries like India, 3 doses of anti-Rabies vaccine – Day 0, 7, 21 or 28 are given which generate protective antibodies. Pre-exposure prophylaxis makes administration of RIG unnecessary after a bite. Also, these children require only 2 doses of vaccine (instead of 5) in case of a bite.