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Popular Article

## Rabies: The dreaded disease

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### *Abstract*

Over 150 countries and territories are afflicted by the vaccine-preventable viral virus known as rabies. Each year, it claims dozens of thousands of lives, mostly in Asia and Africa, with children under the age of fifteen accounting for forty percent of those deaths. As much as 99 percent of human cases of rabies are spread by dogs, making them the primary cause of rabies fatality. Rabies may be avoided by avoiding dog bites and vaccinating dogs. After getting into contact with an animal that may be rabid, humans should get post-exposure protection (PEP). This involves tending to any wounds right away and completely. Globally, the yearly expenditure of rabies is estimated to be \$8.6 billion. When a One Health strategy is adopted, numerous industries and local communities will undoubtedly participate in widespread canine vaccination campaigns and awareness-raising.

**Keywords:** Rabies, lyssavirus, zoonoses, dogs

### **Introduction**

Rabies is a vaccine preventable disorder that influences the mind and spinal cord with the aid of the time signs and symptoms seem, rabies is nearly absolutely long gone. In ninety-nine % of instances, the primary supply of transmission of human rabies is home dogs, but all domestic and wild animals are at threat of rabies. It can be transmitted to human beings and animals via saliva when bitten, scratched, or in direct contact with mucous membranes (such as the eyes, mouth, or open wound).

Children between the age of 5 and fourteen are usually the victims. One of the most illnesses that mainly influences inclined, impoverished, and already marginalized groups is rabies. Ppowerful rabies vaccines and immunoglobulins have been developed for humans, but those in want  
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of them regularly cannot without difficulty reap or acquire them. Looking after a rabies exposure may be extremely pricey for affected households, that have daily profits may be as low as US\$ 1-2 in step with character. The median fee of the ailment submit-exposure prophylaxis (PEP), together with journey expenses and misplaced income, is currently expected to be US\$ 108 (Yousaf *et al.*, 2012).

### **Review**

Each year, more than 29 million human beings internationally receive PEP. This is envisioned to save you masses of heaps of rabies deaths yearly. Globally, the monetary burden of dog-mediated rabies is estimated at US\$ eight-6 billion consistent with yearly budget, similarly to uncalculated psychological trauma for people and communities.

### **Prevention**

Rabies is a vaccine-preventable disorder. Vaccinating puppies is the most price-effective method for preventing rabies in human beings because it stops the transmission at its source. furthermore, canine vaccination reduces the need for PEP. Training on canine behaviour and chunk prevention for each children and adults is an important extension of rabies vaccination programmes and may lower the incidence of human rabies and the monetary burden of treating canine bites (WHO,2024).

### **Immunization of humans**

Very powerful vaccines are available to immunize human beings after an exposure (as PEP) or before an exposure to rabies. Pre-exposure prophylaxis (PrEP) is recommended for human beings in sure high-hazard occupations (which include laboratory workers managing stray rabies and rabies-related viruses) and those whose expert or private activities may result in direct touch with bats or other mammals that may be inflamed with rabies (together with animal ailment manage personnel and wildlife rangers). PrEP might be indicated also for out of doors visitors and people living in faraway, exceptionally rabies-endemic areas with limited entry to rabies labs.

### **Signs**

The incubation period for rabies is typically 2–three months however may range from 1 week to at least one year, depending on factors such as the vicinity of virus entry and the viral load. Initial signs of rabies consist of well-known symptoms like fever, pain and uncommon or unexplained tingling, pricking, or burning sensations on the wound site. Clinical rabies in human beings may be controlled however very rarely cured, and now not without intense neurological deficits (WHO, 2024).

**There are types of rabies:**

- Furious rabies outcomes in hyperactivity, excitable behaviour, hallucinations, loss of coordination, hydrophobia (fear of water) and aerophobia. Dying takes place after some days because of cardio-breathing arrest.
- Paralytic rabies muscular tissues gradually become paralyzed, starting from the wound site. A coma slowly develops and eventually loss of life takes place. The paralytic form of rabies is regularly misdiagnosed, contributing to the under reporting of the sickness.

**Diagnosis:**

It is not possible to identify rabies infection prior to the manifestation of clinical illness with the diagnostic tools available today. Medical diagnosis is difficult unless there are specific symptoms and signs of water phobia or aerophobia associated with rabies, or unless there is a reliable record of contact with a suspected or verified rabid animal. Several diagnostic techniques that detect whole infectious agents, viral antigens, and protein sequences in infected tissue (mind, skin, or saliva) can prove the presence of human rabies post mortem.

**Transmission**

Humans often become inflamed after being deeply chewed on or scratched by a rabies-infected animal—in 99% of instances, a dog. Additionally, transmission may happen if an irritated animal's saliva comes into contact with mucosa (such as the mouth or eyes) or open lesions on the skin.

Since canine-mediated transmission of the disease has mostly been stopped in Americas, hematophagous bats are currently the main source of human rabies mortality in this region. In Australia & western Europe, the danger of bat-mediated rabies is growing for the general people. Although it has been documented, contracting rabies via transplanting inflamed organs or by inhaling virus-containing aerosols is exceedingly rare. Although it has never been demonstrated, bites or saliva can potentially spread from person to person. The same holds true for the spread to humans by consumption of raw meat or animal milk.

**Cconclusion**

A virus that may infect both domestic and wild animals can cause rabies. While several nations are known for being high-risk zones, the majority of countries worldwide are classified as rabies-free zones. This suggests that by implementing preventive measures, rabies may be effectively driven out of places with a high risk. The development of modern pharmaceuticals has also made managing rabies possible. The main function in this respect might be played by public



awareness. To avoid certain types of viral diseases, only minor precautions and a change in lifestyle are required.

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