

## **Approach to Address Leptospirosis - Kerala Model**

### **What is the issue?**

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- Post 2018 Flood Kerala faced after effects like infectious diseases caused by animals.

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- Collective actions and prolonged efforts of the respective departments mitigated the after-effects of the events.

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### **What are the lethal zoonosis across the globe?**

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- The term “zoonosis”, means infectious diseases that can be naturally transmitted between animals and humans.

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- Anthrax, plague, leptospirosis, rabies and worm infestations are some of other zoonotic diseases that occur regularly in India.

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- The recent zoonosis which has affected the mankind globally includes diseases like nipah, ebola and zika.

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### **What are the cause and effect of Leptospirosis?**

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- Leptospirosis commonly known as rat fever or Andaman hemorrhagic fever, a bacterial infection caused by ‘spirochete’, is naturally carried by more than a dozen species of rodents, wildlife and domestic animals.

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- Dogs, cattle and rabbits also transmit the infection, Rodents have an enormous ability to excrete large number of leptospirae in the urine, which is

the main source of contamination incriminating human and animal leptospirosis.

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- Infection can also occur through aborted fetuses, afterbirth or uterine discharges of cattle or the semen of an infected bull.

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- Humans can become infected by all these animals, and especially if mucous membranes and/or skin is damaged, the bacteria get an opportunity to invade.

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- Clinically, patients may suffer from non-specific symptoms like fever, body ache, vomiting, redness of eyes, cough and chest pain.

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- There can be severe kidney and liver impairment in some cases. Leptospirosis during pregnancy has adverse outcomes especially in first trimester and near-term mothers.

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### **What are the detection and prevention methods of the diseases?**

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- On emergence of earliest signs, one should immediately report to the nearest health facility and get tested for the leptospirae infection by methods available depending on the stage of illness.

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- Once the diagnosis is established, immediate treatment should be started.

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- A medicine named Doxycycline 100 mg should be prescribed twice a day for seven days and ampicillin/amoxicillin should be prescribed to children and pregnant and lactating women for seven days.

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- Severely ill patients need an aggressive treatment format with parenteral therapy.

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- Hygienic practices including avoiding direct and indirect human contact with animal urine are recommended as preventive measures.

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- Doxycycline can also be given as a preventive drug in the dose of 200mg per week maximally for eight weeks, to those exposed and at great risk, especially in a flood situation.

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## **How Kerala Addressed Leptospirosis?**

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- After the catastrophic floods in Kerala in 2018, the State grappled with massive loss of life and property.  
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- Adding to its woes was the threat of infectious diseases like Leptospirosis claimed lives and affected many in Kerala post-floods, there have been 1,807 confirmed cases and 74 confirmed deaths.  
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- Kerala has been successful in tackling the menace of leptospirosis post floods when water receded.  
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- This is due to the timely leadership showcased by the Central and Kerala Governments that initiated immediate action.  
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- The State health authorities have provided appropriate health care to the affected, including setting up of medical camps, deployment of health personnel, provision of drug supplies and emergency healthcare services.  
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**Source: Business Line**

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