Principles of control of zoonoses

Dr. R. S. TAYDE
Asst. Professor
Dept of VPH & Epidemiology
Co.V.Sc. & A.H., Mhow

- Surveillance of zoonoses is of paramount importance to monitor the occurrence and distribution of specific infections. Therefore, an intensive, continuous and comprehensive surveillance system has to be planned in the country in order to face the challenge posed by zoonotic infections.

- Clinical curiosity and awareness, professional competence, epidemiology and laboratory training are the basic ingredients of a successful campaigning against the threat of zoonoses.

- Hazard management is widely seen as the best approach to the control of emerging pathogens and hence Good hygienic practices (GHPs) are important in planning for the control of zoonoses.

The control of zoonoses involves the following steps-

I) Detection of zoonotic disease:

- Detection of zoonotic disease through surveillance in human and animal populations, their vectors and the extent of infection and influencing environmental factors.
- This will enable to determine the endemic foci and plan the interventions needed to control.

II) Reservoir neutralization:

- Reservoir neutralization can be achieved by test and removal or elimination of reservoir/sick ones among animal population.
- In some cases mass therapy of animals will also have to be done. This, however is not practicable where the reservoirs are wild animals.

III) Elimination/control of vectors:

- This can be done by applying planned insecticide spray campaigns.

IV) Environmental manipulation:

- Environmental manipulation to control vectors, prevent migration of wild vertebrates and control of rodents.

V) Reducing contact potential:

- Reducing contact potential by isolation of sick animals, protection from vectors and biosecurity measures.

VI) Increasing host resistance:

- Increasing host resistance by immunization of animals and man. This, however, may not feasible for every zoonotic disease.

VII) Consumer protection:

- This step is of greater importance in food borne zoonotic diseases and is achieved by strict pre-harvest and post-harvest inspections e.g. meat inspection, adoption of modern methods of food preservation and pasteurization of milk.

- Hazard Analysis and Critical Control point (HACCP), ISO 9000 are the procedures that can help in controlling foodborne zoonotic diseases.

VIII) Health education:

- Health education of general public by public health workers, private practitioners, doctors and veterinarians and non-governmental organizations would also help in controlling zoonotic diseases particularly in rural areas.

Thank you