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Role of veterinarians in serving animals and humanity

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Veterinarians engaged in academics, universities, research organizations, army, wild life, state departments and administration play foremost crucial role in the diagnosis, prevention and control of various zoonotic infectious and non-infectious diseases of livestock, poultry, pets, wild birds and of public health concerns. Vets can help strengthening disease monitoring and surveillance, countering infectious diseases, following effective vaccines and vaccination strategies, and implementing the strategies for eradication of various animal diseases. Along with this their role is much crucial in managing and reducing the pandemic threats of bird flu, swine flu, SARS, Ebola, etc. and alleviating their negative impacts on the society and danger to mankind, and to alleviate economic losses to livestock and poultry industry. Vets play crucial role in educating the animal owners for avoiding injudicious use of antibiotics, emerging drug/antibiotic resistance, various residual toxicities accumulating in food chain for food safety concerns. Role of veterinarians becomes more important for disease prevention and control as proper maintenance of health of animals is the key to increase animal production and livelihood status of livestock producers, and facilitating safe food of animal origin for the growing global population. These have been instrumental in bringing white and blue revolutions boosting milk and fish production, respectively. Vets recommend adapting of good management practices, strict biosecurity measures, suitable prophylactics/vaccines, and appropriate control measures in animal herds/poultry flocks. They play crucial role in implementation of sound breeding programmes along with wide practical application of modern tools like artificial insemination, embryo transfer technique, animal cloning, transgenic and knockout animal production. The recent advances are also been made in developing genetic engineering, designer animal products, disease resistant breeds, effective diagnostics (molecular diagnostics – PCR, real time/multiplex PCR, biochips, nanodiagnostics, surveillance and networking programmes, geographical information system), novel vaccines (DNA, subunit, reverse genetics, vector based vaccines, adjuvants, TLR, gene-deleted vaccines), alternative/emerging therapies (phages, egg antibodies, cytokines, genes, stem cells, nanomedicines, herbal), which have altogether contributed immensely for safeguarding animal health by combating wide array of diseases. The developments in disease diagnostics, vaccines and therapeutic regimens require laboratory animal trials for their validation, so the sample collection, recording of parameters and ethical sacrifice of these animals warrant services of veterinarians. Veterinarians are also involved in a wide variety of socio-economic upliftment activities of the rural as well as urban civilization. The involvement of the veterinarians in the extension avenues; private as well as corporate sectors and industries, insurance companies; human resource development; animal disease diagnosis; surveillance and monitoring; prophylaxis and public health are proving their versatility. Nowadays production of designer milk, egg and meat and various value added products with less fat/cholesterol, and added nutritional benefits is also being taken care of by veterinarians. Issues like bioethics and industrial animal care and proper handling is also an important issue for veterinarians. As statutory bodies and various regulatory authorities vets have a check on export and import of animal products and biological, vaccines and medicines. There is urgent need to develop interdisciplinary collaborations, communications and networking for health care for human, animal and environment in the current era of one health one medicine and globalization.

Biography

P K Panwar has completed his MVSc at the age of 26 years from Indian Veterinary Research Institute, Izatnagar, India. He is currently working as Deputy Director in Animal Husbandry Department, Lucknow, Uttar Pradesh, India. He has published more than 20 papers in reputed journals and 5 book chapters. He has wide experience on biological products, progeny testing, and worked in many projects related to safeguarding livestock production, management, development, and animal health. Presently he is working in a World Bank Project. He has also represented State Veterinary Council and Veterinary Council of India. He is Member, Editorial board of Adv Anim Vet Sci Journal. He has conducted four Nationals Seminars as Organizing Secretary.

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