

Veterinarians are ideally qualified to select or control the reproduction of healthy animals for medical research, to insure their well being and humane treatment during the holding period prior to conducting experiments, and to provide proper post-experimental care.

As a result of the passage in 1966 of the Laboratory Animal Welfare Act—which specified “adequate veterinary care” in the facilities covered by the bill—new and heavy demands are being placed on veterinary medicine to fill positions for laboratory animal specialists.

6. ZONOOSES

Zoonoses are infectious diseases of animals which are transmissible to man. There are over 100 known diseases, according to the World Health Organization, which people can acquire from animals. In the field of zoonoses the veterinarian plays a key role on the epidemiologic team.

Rabies, associated with the bites of rabies infected animals, has been known and feared since antiquity. Veterinarians have played a major role in reducing the incidence of rabies in domestic animals, with corresponding reduction in human rabies. In fact, 1967 marks the first year in our history with no recorded deaths from rabies. However, an ominous development in recent years has been the increasing recognition of rabies in wild animals, notably in bats. More than 30,000 persons each year are bitten by suspected rabid animals and are required to take treatment. It will take a concerted effort to insure public protection against this new threat.

Horses and man fall common victims to viral sleeping sickness (encephalomyelitis). This mosquito-transmitted infection is carried by apparently healthy wild animals and birds, and therefore is difficult to eradicate. Man and horses acquire the disease as a result of being bitten by infected mosquitos, but do not spread the disease themselves. A veterinarian, Dr. Karl F. Meyer, of the University of California, was the first to recognize virus encephalitis in American horses (1930), and the first to warn of the danger of this disease to man. A veterinarian, Brigadier General Raymond A. Kelser, of the U.S. Army Veterinary Corps, was the first to show that encephalitis virus is transmitted by mosquito bites (1933).

Salmonellosis, influenza, infectious hepatitis, staphylococcal infections, and internal parasitisms caused by the tapeworms of cattle and swine, are some of the diseases also capable of being transmitted by or from animals to man.

Basic to the most effective progress toward suppressing the zoonoses are efforts such as those mounted in 1960 with the establishment of the Illinois Center for Zoonose Research, a component of the University's College of Veterinary Medicine. Unique is the multidisciplinary team approach of the Center toward ascertaining the factors that bear on emergency and recession of zoonotic diseases. The recognition that no one profession or scientific discipline, medical or other, has the total competence to solve complex problems of even a few zoonoses, a staff composed of veterinarians, physicians, anthropologists, ecologists, climatologists, demographers, microbiologists, zoologists and other scientists has initiated already fruitful and promising programs.

The World Health Organization's Advisory Committee has pointed out that one should not overlook the dynamic and changing pattern of microorganisms, heir adaptation to the new animal hosts, and their potential and actual transfer to human beings as pathogenic organisms. The Committee stated, “The emergence of new zoonoses or the uncovering of unsuspected human-animal relationships in communicable diseases are therefore to be expected.”

Recent emphasis has been placed on the transmission of disease from *man to animal*. In the past it was considered logical to assume that the animal could act as a reservoir of human disease. The reverse possibility, while equally logical, had only recently been given any serious thought.

Since it is now rare for man to acquire tuberculosis from cattle, regulatory officials are becoming more acutely aware of the problem of cattle contracting the disease from man. The problem is not only reported in the United States, but also in other countries, including the Netherlands, Great Britain and Israel.

7. THE FOREIGN DISEASE THREAT

The concept of “prevention” has enabled veterinarians to protect this country from the importation of diseases that could adversely affect our food supply, economy and health.