EDITORIAL

Animal Care and Iatrogenic Animal Disease

Lloyd C. Faulkner, Editorial Advisory Board

Iatrogenic diseases are caused by the healer, or are associated with therapy. Ivan Illich's *Medical Nemesis* illuminated this problem in humans. Although veterinary care is not the focus of concern, the animal health problems addressed in Ruth Harrison's *Animal Machines* are the result of animal care technologies.

Adverse drug reactions are a real but relatively small iatrogenic risk for animal patients. Inappropriate drugs, or improper mixtures or combinations of drugs are animal health hazards that are not adequately appreciated. Cosmetic surgery is more widely acknowledged as a cause of iatrogenic disease, particularly in pets and show animals.

Most care-associated animal diseases result from the inappropriate application of technology coupled with a contributory apathy or nescience toward the sensibilities of food animals. These afflictions became common as socioeconomic conditions placed demands on more efficient meat production.

Animal scientists and veterinarians have been content with intensive management systems that neglect animal sensibilities and may compromise public health. These production systems are commonly linked intimately with the use of drugs that compensate, at least partially, for the animal health damage that would otherwise result. Antibiotics in animal feed is a prime example of such a linkage and its resultant potential for compromising human health.

The concerns of animal husbandmen, veterinarians, and companion animal owners have been centered on human gain or benefit to the exclusion of alternative solutions which posit animal sensibilities, microbial resistance, and public health as coequal concerns. We have abandoned the arts of predecessors who were forced to use disease-preventing managerial skills because their drugs and devices were so limited. We have relinquished our roles as good shepherds to the wonders of chemotherapeutics, antibiotics, and bioengineering.

We have been freed of the constraints of technologies that limited animal care to health-promoting systems, and healing has enjoyed greater demand than prevention. Armed with new knowledge, new drugs, new devices and skills, veterinarians have come to be highly regarded as healers. We have attempted to make medicine compensate for poor livestock management and irresponsible pet husbandry. We have been able to perform medical and surgical wonders for 'owners' who refused the responsibilities of humane stewardship.

The technologies that lure us from the responsibilities of proper concern for animals can also erode our humanistic regard for the value of life itself. Drugs and devices properly developed with the aim of lessening pain and lending more dignity to death make it 'easier' to take life and to make death decisions. Many decisions to euthanize are made with animal welfare as the foremost concern. Yet, 'good death' drugs and devices often facilitate these decisions for the convenience of people, leaving the question of animal welfare aside.

The advent of the *International Journal for the Study of Animal Problems* is a healthy sign that there is a body of veterinarians, animal scientists, and others who care about animal sensibilities. As an educator, I am encouraged by the knowledge that veterinary students, animal science students, and other scholars are increasingly sensitive to the problems of animals. Veterinarians and animal

scientists, encouraged by a caring public, can develop technologies that accommodate animal sensibilities and also meet human needs.

The Importance of National and International Zoo Cooperation

Jeremy J.C. Mallinson, Editorial Advisory Board

The more one is aware of the problems facing the animal kingdom both in the wild and in captivity, the more one appreciates that the long-term future of captive populations relies heavily on national as well as international cooperation, the sorting out of responsibilities and the willingness of people who are specializing in the breeding of threatened and endangered species to 'farm' the stocks available in the best interest of the species concerned. However, it is recognized that these goals can only be achieved if zoo directors move toward adopting the policies carried out by good livestock farmers by pooling their animal resources, sharing their husbandry techniques and creating data banks that will help to guide and look after the long term.

The chief objective of the Jersey Wildlife Preservation Trust is to establish under controlled conditions self-sustaining breeding populations of rare and endangered species. During the comparatively short life of the Trust, it has become the custodian of one of the rarest zoological collections in the world.

The development of the conservation breeding programs can be summarized in three stages:

(A) The setting up of a breeding group of a species in the collection until it represents a self-sustaining population.

(B) The distribution of the progeny such that viable breeding populations can materialize elsewhere.

(C) Once a captive reservoir has been firmly established, returning surplus animals either to their native environment (if such a reintroduction is considered possible) or to another suitable habitat where the species can be studied, providing that such an introduction does not cause any imbalance in nature.

The animals in the Trust's collection represent a good cross section of endangered species. In some cases, these have been loaned to the Trust by various governments. For example, the pink pigeon, Rodrigues fruit bat and fody, the Round Island's Guenther's gecko, Telfair's skink and boa are all on loan from the Mauritius government; St. Lucia parrots from the St. Lucia government; and the pigmy hog from the government of Assam. In other cases, the Trust acts as an extension or as one of the extensions to other organizations' breeding programs, e.g., Hawaiian goose and white winged wood duck from the Wildfowl Trust, Edwards' pheasant from the World Pheasant Association, the Congo peacock from the Royal Antwerp Zoological Society, Sumatran orangutan from the Zoological Society of London and the golden lion tamarin from the National Zoological Park, Washington, D.C.

In the absence of further importations of rare animals from the wild, zoos will undoubtedly have to pool their animal resources, for with the majority of species, no one zoo or even small group of zoos can in the long run hope to guarantee the type of reservoir and viable gene pool that is necessary to repre-