**REVIEW ARTICLES**


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**Horse Racing and Drug Abuse**

The Humane Society of the United States (HSUS) and the American Horse Protection Association (AHPA) have drafted legislation to curb the abuse of drugs in horse racing. The bill, which will be introduced in the House by Representative Bruce Vento (D-Minn.) in early 1980, proposes the following:

1. Prohibition of all pre-race administration of medications capable of affecting a horse's performance at the time of the race;

2. Prohibition of numbing a animal's legs with ice, dry ice or any other chemical agent on the day of the race, and elimination of the practice of permanent numbing through surgical neurectomy;

3. Establishment of uniform pre-racing inspection and drug testing programs;

4. Strict enforcement of penalties for persons convicted of wrongfully drugging or numbing a racehorse.

Drug abuse in the horse racing industry is a complicated issue. States vary in their interpretations of the question of what legitimate use grades into manipulation for profit at the risk of both horse and jockey. For example, phenylbutazone ("bute"), a potent anti-inflammatory with significant beneficial properties, is routinely prescribed to reduce pain and restore some degree of function to arthritic or otherwise inflamed joints in horses. However, by relieving pain, phenylbutazone permits the racing of a horse on an injured limb, which not only prevents healing but also aggravates the condition. Deprived of the warning signal of pain, whether through medication or physical means, such as numbing, an unsood horse can race, do itself further injury, and in the most serious cases, break down on the track. According to a study by sportswriter Russ Harris, on-track breakdowns at Philadelphia's Keystone Racetrack increased 400% after the legalization of bute in Pennsylvania.

Other instances of drug abuse in horse racing involve the misapplication of a drug to mask disease or even confuse detection of illegal substances in the animal's system. Furosemide (Lasix) is a diuretic prescribed for the relief of hypertension in humans. Several states allow furosemide to be used for treatment of nosebleeds in racehorses, although the Food and Drug Administration (FDA) has never approved the drug for this purpose. HSUS field investigator Marc Paulhus explained that "nosebleed" is a misleading term for epistaxis (pulmonary hemorrhage) induced by the stress of racing. Dr. George Maylin, of the Cornell University School of Veterinary Medicine, stated that in clinical trials, some, but not all "bleeders" respond to furosemide therapy. However, the exact pharmacological mechanism by which furosemide alleviates bleeding is unknown. Furosemide also increases urinary output, thus giving rise to the argument that administration of the drug leads to dilution of other chemicals (such as narcotics).
which may have been in the horse’s bloodstream to the point where they are undetectable in postrace testing. The proposed legislation aims to prevent such abuse primarily through federally mandated minimum standards for testing the blood and urine for horses before they race. As it stands now, most states (excluding New York, which has pre-race testing) test only the first three horses to cross the finish line. Drafters of the bill believe that the federal government can alter this situation by developing better, more specific testing programs to remove illegal pharmaceuticals from the track and put tighter reins on the widespread abuse of legal substances, a considerable array of which are currently available to the horse racing industry.

[Ed. Note: On November 15, 1979, the Maryland Racing Commission imposed a ban on the use of horse anesthetic drugs, effective January 1, 1980. However, on December 19, it was announced that the ban would be postponed until March 15, 1980, and further that the use of xasix in confirmed bleeders would be allowed. Arkansas, New Jersey and New York regulations also prohibit pre-race medication, although New Jersey allows the use of Lasix for bleeders.]

UK Animal Experimentation

In 1876, the first legislative bill to regulate the use of animals in laboratory research was signed into law in Britain. Known as the Cruelty to Animals Act of 1876, a title which has continually disturbed researchers, it lays down conditions under which experiments causing pain to animals may be carried out. The Act specifies that no experiment on vertebrates be conducted only in registered facilities by persons holding an appropriate license from the Home Office. Licensed individuals may carry out experiments using anesthesia from which the animal must not be allowed to recover.

However, experiments requiring recovery of the animal can be conducted if the license holder obtains an appropriate certificate. Simple procedures, such as inoculations and blood sampling, do not need certification. When the Act passed, only a few hundred animals each year were used for experimental work in the UK, but the figure now exceeds five million per annum. (This does not include another estimated five million animals killed for their tissues or for sundry other purposes.) It has been frequently argued that the Act is no longer adequate in view of the dramatic increase in animal experimentation. J. Hampson, New Scientist 84:280, 1979). Protests by animal welfare organizations did lead to a Home Office departmental inquiry in the 1960’s under the chairmanship of Sir Sidney Littlewood. The Committee Report, published in 1965, put forward 83 recommendations for reform, some of which would have required new legislation. However, no action was taken on the recommendations resulting in a spate of private members’ bills during the 60’s and early 70’s.

None of the private members’ bills (a device in British Parliament by which a few individual members selected by lottery can introduce bills on subjects of personal concern) was successful, although one was introduced by Dr. Houghton in 1972 which, although defeated, allowed the Home Office to publish a report on the procedures and practices of the organizations involved. On the recommendations of the Littlewood Committee, satisfactory constraints on laboratory animal experimentation in the UK have been established.

One of the Littlewood Committee members, Ms. Joyce Butler, accepted the Report on the grounds that the following three questions lay outside the Committee’s terms of reference:

a) Who can say whether, if certain biological tests were forbidden, satisfactory chemical or other methods of testing would not be developed?

b) Who is responsible for establishing whether modern medical techniques, with their emphasis on immunology and chemotherapy, both of which are inseparable from animal experimentation, are steering medicine in the right direction?

c) Who is responsible for moral and ethical judgement in the uses for experimental purposes as such?

The Littlewood group recommended that these questions be examined by an Advisory Committee to be constituted as a standing body with power to act on its own initiative.

In the meantime, two opposing bills on laboratory animal use are before Parliament. The first bill has the backing of the Research Defence Society, and was introduced by their president, Lord Halsbury. (The Research Defence Society was founded to counteract perceived excesses in animal experimentation.) The second bill, introduced by Peter fry, was reportedly sponsored by the Royal Society for the Prevention of Cruelty to Animals. However, a letter to New Scientist (84: 719, 1979) from Professor Ryder, a Member of the RSPCA, denies sponsorship of the bill. Ryder argues that the Fry Bill is “not the animal welfare charter that it is being cracked up to be,” and states that it is therefore highly unlikely that the RSPCA Council “will be able to support a bill which in some respects promises to make the animals worse off than they are already.” Specifically, he claims that the bill fails to provide proper control over the infliction of pain, increased public accountability via a properly composed Advisory Committee, satisfactory constraints on researchers to use alternatives wherever possible, and restriction of live animal experimentation to worthwhile medical purposes. Ryder does, however, concede that the Fry Bill is preferable to the Halsbury Bill.

The Halsbury Laboratory Animal Protection Bill proposed a number of changes in the conduct of animal experiments. For example, the definition of the term ‘experiment’ will be broadened to cover all procedures in which animals are used. At present, ‘experiment’ does not include the production of antibiotics, hormones, sera or vaccines. In addition, the Bill sets out specific conditions for the establishment of an Advisory Committee, empowers the Home Office to regulate the breeding, procurement and husbandry of laboratory animals, and requires the Home Office to publish a Guide to Good Laboratory Practice.
The Fry Protection of Animals (Scientific Purposes) Bill in the House of Commons goes further than the Halsbury bill. The Fry bill insists that experiments be licensed only if they are "...for the advancement of biological sciences in a way which is calculated to lead to the saving or prolonging of life." This means that research proposals will have to be justified by reference to medical benefits, a situation which, in the euphemistic words of Cambridge physiologist Lord Adrian, "...will make speculative research very difficult" (New Scientist 84: 501, 1979).

The Halsbury bill has fallen under fire from both animal welfare groups and the scientific community. The scientists' complaints stem from the fact that the Research Defence Society rushed through the consultation process with representatives of the societies dicing, leaving many of them without sufficient time to canvass members for their reactions. One defender of animal experiments, Professor Sam Shuster, is particularly disturbed about some of the provisions of the Halsbury bill. He believes that it will furnish an ideal opportunity for those "small of mind" to operate the system, thus choking creativity. Many researchers also fear the possible invasion of privacy implicit in the proposal to have two sponsors for license applicants -- one to give a character reference and one to vouch for the procedures proposed.

Despite considerable opposition, the Halsbury and Fry bills have cleared two of the three hurdles in the respective Houses of Parliament. According to Member of Parliament Tam Dalyell, those MPs who intend to vote against the Fry bill may pause first to consider how much local animal welfare groups can stir up their constituencies. Thus, GECCAP continues to influence Parliamentary actions, even though the general election is long past and the Conser-...