

SECTION 3

**CURRENT ISSUES AND VIEWPOINTS IN
VETERINARY PHARMACOLOGY**

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Current Issues and Viewpoint in Veterinary Pharmacology: A Regulatory Perspective

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It is a great pleasure for me to be here and to have the opportunity to participate, as a regulatory veterinarian, in discussions of some of the issues and challenges that will shape veterinary pharmacology in the decade of the nineties and as we prepare for the 21st Century.

From the point of view of the Center for Veterinary Medicine (CVM), one of the primary factors driving issues and challenges for the nineties is that of consumer concerns, perceptions and expectations. The expectation of the consumer is that pharmaceutical products used in animals are safe both for animals and for man. The primary concern of the consumer in this regard is for drug residues in animal derived food, and not just "harmful residues", but any residues.

More and more those who are expressing the most concern about drug residues in animal-derived food cite FDA's extra-label use policy as a primary factor contributing to their concern. For example at the February 6, 1990 hearing before the Human Resources and Intergovernmental Relations Subcommittee, Mr. Weiss both opened and closed the hearing citing the extra-label use policy as an "illegal FDA policy" that may cause dangerous drug residues to occur in milk. Several witnesses at the hearing also cited, or in response to questions from Mr. Weiss, acknowledged problems with the Agency's extra-label policy. Michael Jacobson who represented the Center for Science in the Public Interest at the hearing stated that: "As long as the FDA tolerates extra-label uses and does not or cannot test for residues, drug manufacturers have no incentive to conduct the studies necessary to have their products approved for use in dairy cows. The extra-label use policy allows veterinarians to use drugs for unapproved uses, on the condition that those drugs do not contaminate the milk supply. But the FDA cannot enforce the extra-label use policy when it does not have adequate test methods."

Under these conditions the AVMA's

legislative initiative to provide a legal basis for the extra label use of animal drugs by veterinary practitioners will most certainly have an uphill battle. Not only that, FDA will be under increasing pressure to add more and more animal drugs to the list of those not subject to extra-label use under the extra-label use policy or perhaps even abolish the policy altogether. In the end, the key question is, does the extra-label use of animal drugs significantly increase the incidence of harmful residues. And even if the answer is no, what can we do to give the consumer greater confidence that it does not.

What can be done about the situation? I believe that the scientific tools and the quality control systems that we possess today, both in government and industry, and in animal agriculture are sufficient to provide excellent protection to both man and animals. However, I do not believe that we are doing all that we can do, particularly in the area of veterinary pharmacology generally and in veterinary clinical pharmacology specifically, to use the tools available to us to make the quality control systems as effective as they can be.

The most important component of an effective quality control system in this area is proper drug use which includes being sure that such use does not result in violative residues in food products derived from treated animals.

The best way to do this is to use only approved animal drugs and use them in strict accordance with their labeling paying particular attention to stated withdrawal times. Our clear preference at the FDA is that drugs only be used as labeled.

However on occasion, animal health and humane considerations dictate that the extra-label use of an animal drug is the only medically appropriate course of action. In such cases one must make every effort to exercise extreme caution in assuring that there is absolutely no possibility that illegal residues could result from such use. May I state

parenthetically that such a goal - no residues - is attainable. This means that the veterinarian responsible for the decision to use a drug in an extra-label manner must also be responsible for keeping adequate records of such use; for establishing appropriate control procedures to assure that neither the animal nor products from the animal will be marketed for a period of time adequate to assure that absolutely no unsafe residue remains, or alternatively and perhaps preferably, demonstrating by appropriate assay methodology that no unsafe residues remain; for adequate follow-up to assure that such procedures and instructions are carried-out; and finally for instituting appropriate follow-up action in cases where the designated control procedures were inadvertently or intentionally circumvented. In those cases where there is insufficient knowledge upon which to base a decision about the appropriate withdrawal time and there are no assay methods available to determine when no residues remain, the decision should always be to *not* use the drug in question. Failure of the veterinarian to follow all these steps is inexcusable.

Part of the problem with the foregoing is that although the principles I have outlined are included, at least in part, as criteria to be met under FDA's extra-label use compliance policy, there are no operational or behavioral guidelines that have been adopted or established by any professional body as principles to be followed within the profession. Further, for many of the drugs often used in an extra-label fashion, data on depletion kinetics are lacking and even where assay methods are available, they are not generally employed. And this brings me back to the question I asked earlier and to what I think is going to be a, if not the, primary challenge for veterinary pharmacology and particularly veterinary clinical pharmacology at least as it applies to food animals (including poultry and turkeys) during the 1990s.

The question was what can be done about the lack of confidence on the part of consumers that animal-derived food products are free from harmful drug residues. As I said, I think we have the scientific tools and the quality control systems necessary to provide excellent protection against unsafe residues, however, I do not think we are doing all that we can do to use the tools available to us to make the quality control systems as effective as they can be. Specifically, in this regard, I would like to see veterinary pharmacology and particularly the veterinary clinical pharmacology community take a

leadership role in two areas.

First in developing information on the depletion kinetics of those animal drugs which may have the potential of being used in an extra-label fashion, but for which appropriate information on which to base decisions about withdrawal times is lacking. We have a repository for such information in the Food Animal Residue Avoidance Data Bank, but too often, the information is simply not available.

Secondly, they (we) need to take a leadership role in developing information on the use of rapid screening tests and other on-the-farm or clinical-use tests for residue detection and in helping to set standards of performance of and advising on the labeling of such tests for use in the clinical setting. Particularly I believe there is a need to focus on the use of such tests as a follow-up to treatment of the animal in order to determine when the animal (or birds) can be marketed. That is, under conditions where the drug in question is known and one is simply determining when the elimination phase for the drug has reached a specified point as opposed to the use of such tests to screen for unknowns. This, of course, must also include research to generate information that will relate such findings in blood, serum, milk or urine (or other specimens from the live animal) to what is present in meat products or milk or eggs from the animal (or birds).

Such rapid screening tests offer a very powerful tool for use in quality control systems designed to ensure that harmful residues are not present in animal-derived food products. However, they have not, to date, lived up to their promise. This is largely due, I believe, to the fact that no one (individual or organization or body) has put forth or established accepted standards or principles of performance and use. In this regard we at the Center for Veterinary Medicine have asked the FDA Veterinary Medicine Advisory Committee (VMAC) to give us some guidance as to the role that CVM should play in overseeing, validating or otherwise guiding the establishment of performance standards, labeling requirements, etc. for such rapid screening tests marketed in interstate commerce. However, I believe the impact will be much greater if organized veterinary pharmacology adopts a leadership position in the area.

Of course there is another issue. No matter how safe a product may be, doubts creep in and the consumer becomes, indeed is often led by various special interests, into becoming concerned about safety. This often happens when the forum in which

the issue is addressed or presented does not allow for a sound informed look at the science which undergirds the position being questioned by the "doubter."

It is clear on the anabolic hormone issue in Europe that the science of the issue was never considered. Activities by some states today on bovine somatotropin (bST) makes it clear that the science is not being heard. The recent hysteria over alar in apples is another example of emotions and misinformation causing the average consumer to reach invalid conclusions. Special interests often misrepresent information in order to play on the fears of the consumer. This has been particularly evident in the case of bST where the deluge of misinformation about the safety of milk from cows treated with bST as well as adverse effects of bST in the cow have served as the only means by which

those opposed to bST for socio-economic reasons could generate public concern.

Of course we must be sensitive to consumer concerns, but it is also imperative that we do all that we can individually and corporately to be sure that the information that the public is acting upon is valid and hold to account those, particularly from the scientific community, who either intentionally or unintentionally would mislead the public. If we are unsuccessful in this, whether out of apathy or inability or because we are ineffective in communicating on the issues, then the expectations the consumer has for government regulators, for the animal drug industry, and particularly these days, for those they perceive as being primarily responsible for the proper and responsible use of drugs in livestock will be lost. That is a loss that none of us can afford.