

# Residue Avoidance in the Veal Industry

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This presentation might be more appropriately titled "Quality Assurance in the Veal Industry", as the real goal was very effectively presented by Dr. Glenn Hoffsis in the November, 1985 issue of the *Bovine Practitioner* when he stated "...I have faith in food animal practitioners and in livestock producers, that we all want to assure ourselves and the consumers of our country that our animal food is pure, safe, and free of drug residues."

With few exceptions, the fancy veal industry has a good track record regarding drug residues at slaughter. "Bob" veal, or veal from the baby calf, has had a less favorable record, and continues to be monitored for residues. Fancy veal has been fortunate in this regard, as the historical practice has been for the producers to receive much of their technical support and medical advice from feed company representatives, many of which had limited knowledge in this area.

The producers and feed companies should not bear the total responsibility for that development, as few veterinarians in the past have taken the time or interest to develop a working relationship with the veal producer. Veterinary involvement has increased recently, with the stimulus provided by the need for a veterinarian-client-patient relationship to legitimately utilize drugs in an extra label manner. I'm delighted that the AABP has seen fit to include this session in the program.

The right to use drugs in an extra label fashion, concurrent with a valid veterinarian-client-patient relationship, has given we veterinarians an awesome responsibility. We *must* not take that responsibility lightly. Each individual practitioner must establish his or her own guidelines to determine what circumstances necessitate the Extra Label Use (ELU) of drugs. Regardless of those circumstances, it is always imperative that accurate records be maintained, both on herd and individual medications.

I'm going to share with you my personal guidelines—these are *not* recommendations—for the ELU of drugs. We have, as a profession, an obligation to prevent and/or cure diseases and minimize suffering in our patients. If this can best be accomplished by ELU of medications, AND can be done without residues in the finished product, then in my opinion, ELU is justified.

**My personal criteria is to always use in veal calves those medications which are approved for use in cattle. F.D.A. has apparently given verbal approval to recognizing veal calves as bovine animals in this regard, with the exception of the continued prohibitions of the use of growth promotional implants in veal. Even then, the increased dosage of an approved drug, or the use for a condition other than specified, may result in that particular application of an approved substance actually being ELU. When the need to**

**use other than bovine approved products arise, my next preference is to recommend a product which has been approved for use in another food animal species. At least there have been some residue studies done on these products. Only as a last resort will I recommend products not approved for use in food animals.**

The ELU of veterinary antibacterials can best be justified by sensitivity tests demonstrating that the organism you are attempting to control is not sensitive to the approved antimicrobials, or the M.I.C. is higher than the approved dosage. This situation is very common in practice. Another procedure I use in a disease outbreak is to split the herd and try two, three, or even four different antibiotics on several different calves in a barn simultaneous to doing bacterial cultures and sensitivities. By keeping good records of individual calves clinical response, we can get a good indication within 24 hours as to which antibiotics are most effective. These clinical results usually correlate very well with sensitivity test results. I then use my professional judgment in applying these kind of results to similar situations with other animals in different herds.

The primary challenge of ELU is determining the withdrawal times necessary to avoid residue problems. The ability to use regular withdrawal times on bovine drugs is questionable, as most of those guidelines were established using adult, ruminating, healthy cattle. We are treating a neonatal, non-ruminating calf that is sick or recovering from illness. The decision to increase the dosage of an approved drug must always include a reminder to increase the withdrawal time.

The withdrawal times on non-approved products can best be estimated by utilizing the pharmacokinetic information available from (1) the scientific literature, (2) university pharmacologists, and (3) the manufacturer or distributor of the product in question. This information can be extrapolated to the bovine, and then should be padded with a significant fudge factor to insure that your recommended withdrawal time is adequate.

The use of pre-slaughter tests on live animals has helped confirm that antimicrobial residues are gone. The L.A.S.T. test, and the C.A.S.T. test, have been available for some time. A new immunoassay test which is purported to be more sensitive, and also more accurate, should eventually help identify other residues, as well as antibiotics. The distributor to the veterinary profession for this test, E-Z-Screen, is Veterinary Concepts from Spring Valley, Wisconsin.

**In summary, we must be constantly mindful of our obligation to the consumer, the producer, our profession, and ourselves to assure the quality of fancy veal in the marketplace.**

## Questions & Answers:

*Comment:* How do you collect urine samples?

*Answer:* I've heard of styrofoam, velcro, putting velcro on there and then you can attach a styrofoam cup on there, getting it first thing in the morning when the calves first get up. Diapers? I'm still looking for a better one.

*Comment:* Has Ralgro been approved?

*Answer:* No, not to my knowledge. I did not mean to imply that I was going to address that particular issue further. As far as I know it still has not been approved or cleared. In fact, I talked with the people at the exhibit booth up here and asked them if they had any more current information on it and they did not.

*Question:*

*Answer:* I can tell you why, or my understanding of why, Ralgro is eliminated is when the DES thing went through. What they were using as a screen test at the slaughter house was prostatic atrophy. And what they were finding was that calves that had been implanted showed the same change in the prostate gland as those cows which they found DES in. So then they had to go to a much more sophisticated, expensive test to determine if it was stilbestrol or Ralgro and so the way of eliminating that problem was no, we're not going to have any implants. We can continue to use this prostrate test for screening for stilbestrol in veal calves. But my suspicion would be that implant would cause similar changes in the prostate as Ralgro did.

*Question:* Does synovex C work? Does anybody know the government's position on it?

*Answer:* Just for the record since the consensus, and I think I've heard also, Ralgro is effective, Synovex C is effective. It is not approved. They were requested to approve it several years ago. I think that was the basis of what Dr. Gawthrop said because the company producing Ralgro did several tests. I've contacted them several times asking them when they were going to have it approved. They will never give you a letter saying it is approved. Now I know several years ago we did have testing in the Ohio area and they were checking for this residue. Whether they are still doing it or not I don't know. But my particular position as others is don't take a chance on it because it will hangup the whole group of cattle.

*Question:* How do you handle pseudomonas?

*Answer:* Here again prevention is the key factor and if the person has a persistent problem with pseudomonas because of the pond water source, install a chlorinator before this. The second thing for this, we check them with antibiotics, usually finding that gentamycin or gentamycin and streptomycin combination effective. It's about the only thing you can do with it. One other thing. Orally, when they have an intestinal infection, we give gentamycin orally with kaopectate which has been fairly effective. We had one severe outbreak where the raw water was piped into the water supply and he had about a 50 percent outbreak and we had to treat orally with gentamycin.