A recent slaughter survey analysis conducted at a major northeast slaughter plant provided evidence that a significant number of slaughter animals were contaminated with unacceptable levels of non-steroidal anti-inflammatory drugs.

Cull dairy cattle with suspect injection sites and other at risk post mortem conditions were screened for antimicrobial residue using the Fast Anti-microbial Screening Test (FAST) at slaughter. Three hundred of these at risk cattle were subsequently evaluated for the presence of non-steroidal anti-inflammatory drugs (NSAIDs). Fifty of these animals produced evidence of violative residues for NSAIDs including flunixin meglumine and phenylbutazone. Sixteen of the fifty animals were positive for phenylbutazone and 37 were positive for flunixin meglumine. Flunixin meglumine is approved for non-lactating cattle with a four day slaughter withholding label requirement. Phenylbutazone is approved for non-lactating cattle with a four day slaughter withholding label requirement. Phenylbutazone is not approved for food producing animals and can present some unique health issues to sensitive humans. All of the cattle found to be contaminated with phenylbutazone and other NSAIDs in excess of established tolerances will be condemned as an adulterated food product.

Flunixin meglumine is labeled for the control of endotoxic inflammation and pyrexia. It does produce transient improvement in the clinical appearance of ill cattle, which may create an incentive for its use in cull cattle destined for market.

Although flunixin meglumine is cleared rapidly in most cases, clinical illness can prolong the normal metabolism of any drug. Consequently, withholding times may have to be adjusted to reflect the physiological state of the animal. It is apparent, however, that a number of these animals presented at slaughter are treated shortly before they were offered for entry into the human food chain.

Phenylbutazone is not approved for food animals. Use of this drug in cattle is extralabel and subject to AMDUCA standards. A copy of the AMDUCA requirement published by the AVMA follows this discussion. Note: drugs that contribute to residues that present a risk to public health may not be used extralabel.

The veterinarian is responsible to ensure that any drug used in an extralabel manner does not introduce a violative residue into the human food
chain. The human side effects of phenylbutazone as reported in the literature make its use a questionable practice in food producing animals. Other, more suitable alternatives are available.

FDA and USDA Food Safety Inspection Service (FSIS) are very concerned with this issue. They are considering several measures to curb their presence. Inappropriate use of drugs generates regulatory pressure to further restrict the use of veterinary drugs. Please consider carefully the use of NSAIDS in animals that will shortly enter the human food chain and instruct your clients on their proper use and withholding times. It is easy to forget that cull cows are also human food.

**Update:** NSAID use in lactating dairy cattle was a major topic of discussion at the Food Safety Meeting sponsored by the FDA in Orlando, Fl., June 5-7, 2001. Additional surveys conducted by FSIS on cull dairy animals indicate that NSAID residues are a national problem and currently occur with unacceptable frequency.

As noted above, phenylbutazone is the drug of primary concern. Judging from comments made by several presenters, it is reasonable to assume this drug will one day follow Dipyrone on to the prohibited list. Flunixin will likely remain available for use in lactating cattle, if residue prevalence declines.

Because license was not sought for lactating animals, flunixin withdrawal times are based upon clinical experience in contrast to planned scientific experimentation. It appears – and this is strictly an impression – that two weeks is the minimal, prudent withdrawal period. Animals who have experienced severe systemic illness – coliform mastitis for example – may require additional time. To keep flunixin in our armamentarium, we all must make a concerted effort to see that it is used prudently and that withdrawal times are carefully observed.