

Flunixin Meglumine Usage in Cattle
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There are numerous pharmaceuticals licensed for use in cattle. Some products may have varying labeled routes of administration (ROA) as well as varying dosages while other products may not. We have numerous products licensed and labeled to treat conditions such as pneumonia or mastitis in cattle, while we are very limited with none currently labeled for relief or control of pain in cattle. Some products used in food animals may be used extralabel by producers when that usage is directed by their herd veterinarian. Other pharmaceuticals are not allowed to be used in an extralabel manner in food animals as directed by the FDA Center for Veterinary Medicine. Beef and dairy producers as well as their veterinarian need to be careful when administering products to their animals or making recommendations regarding the use of pharmaceuticals in food animals.

Flunixin meglumine (Flunixin) is labeled for use in cattle in both the generic and ethical lines. It is labeled for intravenous usage in beef and dairy animals, it is not labeled for usage in dry dairy cows or veal calves. In cattle, Flunixin is indicated for the control of pyrexia (fever) associated with bovine respiratory disease, endotoxemia and acute bovine mastitis, it is also indicated for the control of inflammation associated with endotoxemia. Flunixin does not carry a label indication for alleviation of pain in cattle; it does carry a labeled indication for pain control in horses.

In cattle the labeled dosage for Flunixin is 1 to 2 ml administered slowly intravenously either daily or every 12 hours with the total daily dosage not to exceed 1 mg per pound of body weight. The precautionary statements for cattle as per the label are the following: do not use in bulls intended for breeding, as reproductive effects of Flunixin in these classes of cattle have not been investigated. Non steroidal anti-inflammatory drugs (NSAIDs) are known to have potential effects on both parturition and the estrous cycle. There may be a delay in the onset of estrus if Flunixin is administered during the prostaglandin phase of the estrous cycle. The effects of Flunixin on imminent parturition have not been evaluated in a controlled study. NSAIDs are known to have the potential to delay parturition through a tocolytic effect. Do not exceed the recommended dose.

There are some concerns regarding the extralabel use of Flunixin which need to be understood. Flunixin was the second leading violative residue reported in 2007. According to the USDA Red Book which reports residues found in meat and milk products less than 1% of dairy cows had violative residues, with Flunixin being the second most common residue found in cull dairy cows. The most common was penicillin. Flunixin residues were found in 259 cows. With this information the FDA Center for Veterinary Medicine warned veterinarians to use Flunixin in the proper and labeled manner. The FDA-CVM states that using a different route of administration for convenience is not adequate reason for extralabel use, making most IM or SC use of Flunixin illegal. Flunixin must be give intravenously. Withdrawal times are established by a drug manufacturer using the labeled dose, route and frequency and duration. If any of these change the withdrawal time on the label may not be sufficient. If Flunixin is

administered according to label the preslaughter withdrawal time is 4 days and the milk withdrawal is 36 hours. Again, it is not labeled for use in dry dairy cows. The last issue with regards to Flunixin is when it is give intramuscularly or subcutaneously (off label ROA) serious tissue damage occurs. In addition to the damage to meat and the potential for residues, IM or SC use of Flunixin is potentially harmful to the animal.

U. S. Veterinarians and their clients are responsible for the safest and most wholesome food supply in the world. They take great pride in providing food consumers with the safest and most cost efficient food products of high quality.