

Carlson College of Veterinary Medicine
Lois Bates Acheson Large Animal Hospital

FIRST AID: NSAIDS RESPONSIBLE USE IN LARGE ANIMALS



Oregon State
University

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- Western trail and horsemanship
- Yosemite foothills, Ca
- Cal Poly, San Luis Obispo, Ca
- University of Glasgow, Scotland
- Dairy cow stress research
- Steinbeck Peninsula Equine, Ca
- OSU Large Animal Medicine Residency and Master's Program

Large Animal NSAID Use

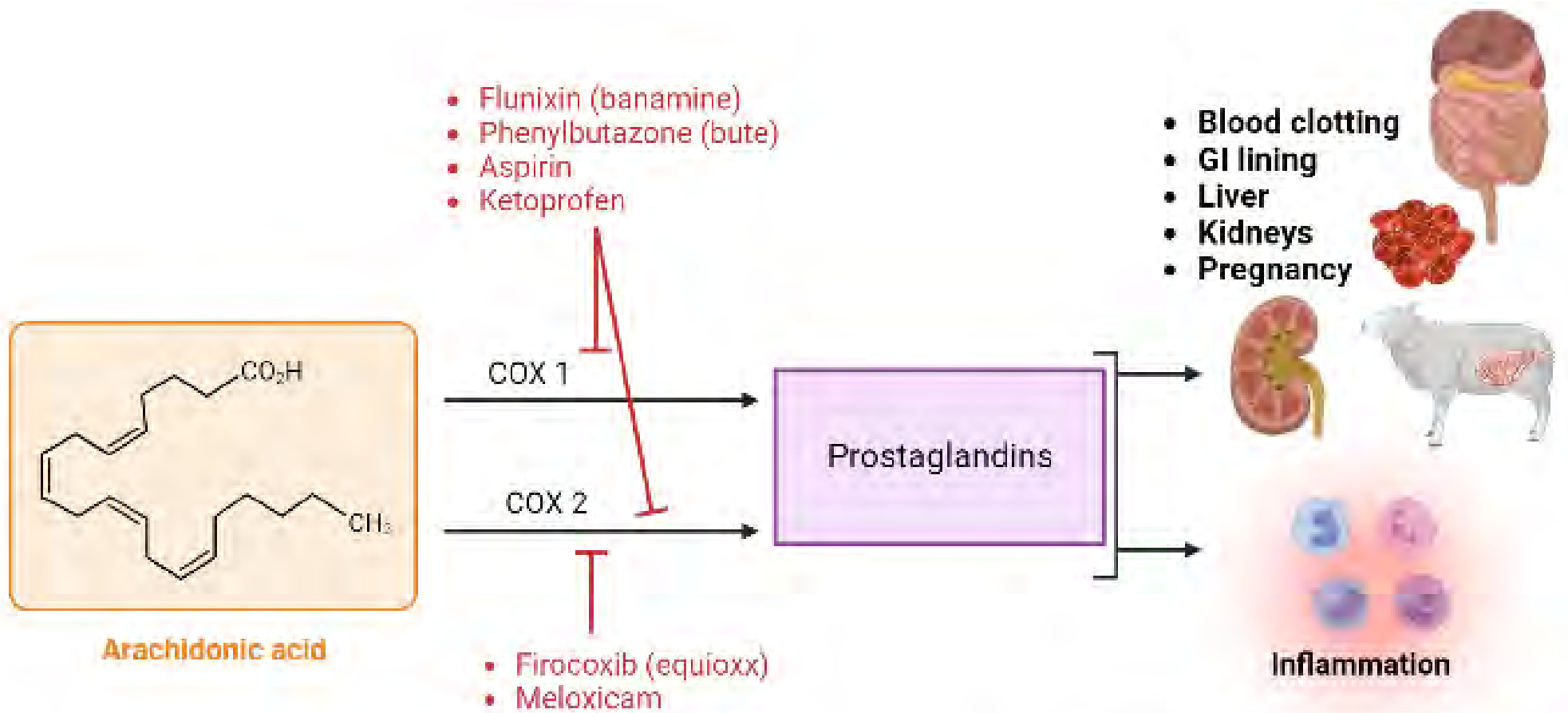
- What are NSAIDs?
- Risks and adverse effects
- Appropriate use in equids
- Appropriate use in ruminants
- Appropriate use in swine
- Key takeaways

Poll: How confident are you in selecting and giving NSAIDs?



- a. Very confident
- b. Somewhat confident
- c. Somewhat unsure
- d. Very unsure
- e. What's an NSAID?

Non-Steroidal Anti-Inflammatories



Major Effects

- Action in the central nervous system and peripheral tissues
- Reduces inflammation and stops pain signals = improved comfort
- Anti-endotoxic effects
- Narrow safety margin
- Many unsafe for neonates
- Route given is **IMPORTANT**



<https://www.horseandman.com/medical/clostridial-mycosis-never-give-a-banamine-shot-into-the-muscle/08/12/2013/>



<https://beva.onlinelibrary.wiley.com/doi/abs/10.1111/j.2042-3292.2002.tb00174.x>



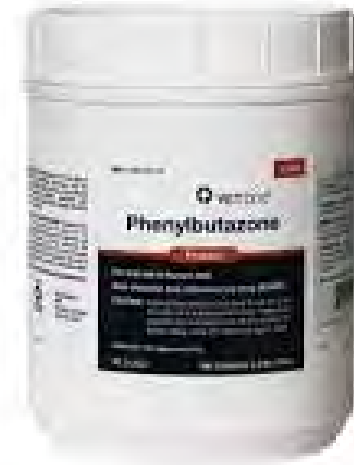
<https://open.lib.umn.edu/swinedisease/chapter/gastric-ulcers/>



<https://www.vettimes.co.uk/article/optimising-fluid-therapy-effectiveness-in-horses/>

Common Equine NSAIDs

- Flunixin: oral, IV
- Phenylbutazone: oral, IV
- Firocoxib: oral
- Diclofenac: topical



When/how to give NSAIDs

- Look out for adverse effects
- Be prepared to monitor
 - Water intake
 - Manure character
 - Colic signs / inappetence
- As directed by your vet
 - Appropriate dose
 - Directed frequency
 - Anticipated results



<https://www.tsln.com/news/veterinary-compounding/>

When to **steer clear** of NSAIDs

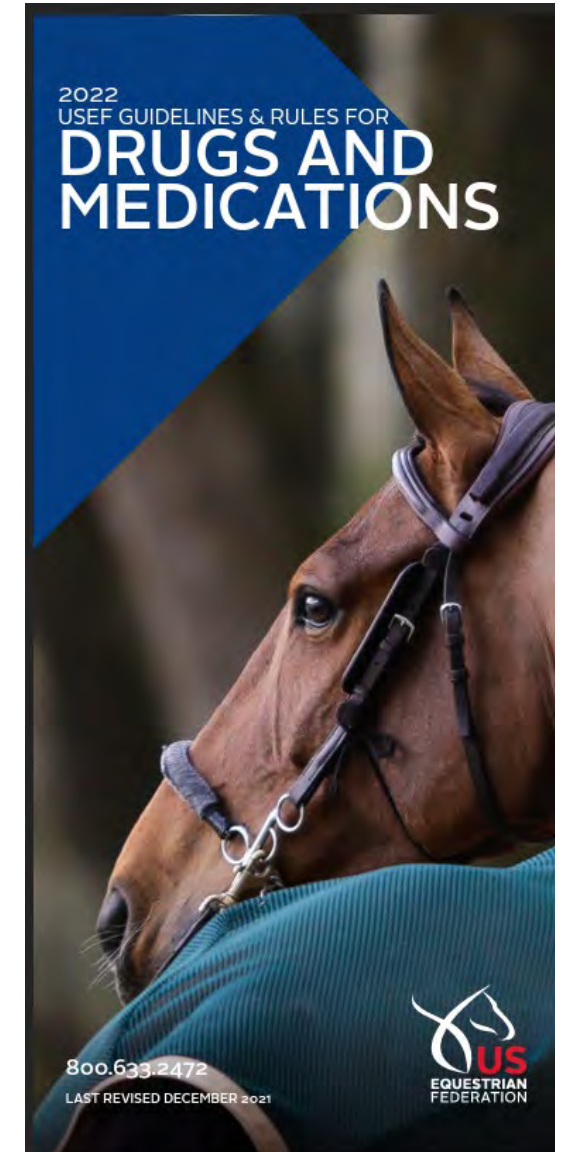
- Have not called your vet
- Bute: not for pregnant/lactating mares
- Doses too close together
- **Taking other NSAIDs**
- Dehydrated/not drinking
- Diarrhea
- Not eating
- Weak, signs of bleeding
- History of kidney disease



<https://www.horseandhound.co.uk/news/new-study-reduce-colic-risk-427376>

Performance Horses

- NSAID use regulated for competing animals
- Welfare is paramount
- United States Equestrian Federation
 - Number of NSAIDs using
 - When last given
 - Specific for each drug
- FEI, WPRA, NCHA



NSAIDs for Ruminants and Swine

- Swine:
 - Flunixin (Banamine-S): IV
- Ruminants:
 - Flunixin: IV, transdermal
 - Licensed vs off-label use
- **ALL PRODUCTION ANIMALS:**
 - Drug Withdrawal Times
 - Milk & muscle retain drugs
 - Legal requirement



<https://www.abga.org/the-boer-breed>



<https://www.ecofarmingdaily.com/raise-healthy-livestock/pigs/kunekune-pigs-perfect-for-small-farms/>

Production Animal Specifics



<https://www.wpr.org/how-we-produce-more-milk-fewer-cows>

Adverse effects:

- Injection site irritation
- Ruminants:
 - Abomasal ulcers (4th stomach compartment)
- Swine:
 - Especially prone to gastric ulcers

When not to give

- Not eating
- To breeding sows
- Suspected dehydration
- Caution with pregnant cows



<https://www.merck-animal-health-usa.com/species/cattle/products/banamine-transdermal>

Poll: How confident are you in selecting and giving NSAIDs?



- a. Very confident
- b. Somewhat confident
- c. Somewhat unsure
- d. Very unsure
- e. What's an NSAID?

Questions?



References

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