

SYNTHETIC REPRODUCTIVE HORMONES AND MILK SAFETY



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December is here and hopefully most herds have had their fall 9-way vaccinations. If it just seems difficult to find the time to get it done, let us know and we'll be glad to help get the herd vaccinated at your next herd check. Please inform Mindy so we can schedule the extra time needed to get that done for you.

I've had several conversations over the last couple months concerning the use of synthetic reproductive hormones in cattle and their safety to human pregnancy when consuming raw milk. This conversation really consists of two important issues; the safety of milk from cows treated with reproductive hormones and the safety (or risks) associated with drinking raw milk.

This month I will tackle the first issue of synthetic hormones in milk and next month I will finish with the second issue of the risks of drinking raw milk by pregnant women.

As you can see from the Veterinary Oath we are sworn to take, human health is a major part of what we are committed to protect and we take it very seriously:

The Veterinary Oath

Being admitted to the profession of veterinary medicine, I solemnly swear to use my scientific knowledge and skills for the benefit of society through the protection of animal health and welfare, the prevention and relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge.

I will practice my profession conscientiously, with dignity, and in keeping with the principles of veterinary medical ethics.

I accept as a lifelong obligation the continual improvement of my professional knowledge and competence.

I contacted Dr. Rob Lynch, DVM, a Senior Field Veterinarian with Pfizer Animal Health; the responses to my questions relating to Lutalyse use in cows and the safety of it in raw milk are included in the inset.

Hopefully his response helps to prove that there is no risk to human pregnancy by using the reproductive hormones we use in cows. **What is more concerning to me is the drinking of raw milk by pregnant women— THIS SHOULD NOT BE DONE!** The New York State Dept. of Health, the Center for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), United States Dept. of Agriculture (USDA), the American Academy of Pediatrics and many other medical, veterinary, and scientific organizations all strongly recommend that people (especially pregnant women, children and the elderly or immune-compromised people) **NOT CONSUME** any raw milk or raw milk products.

Coming next month, PART 2: THE DANGERS OF DRINKING RAW MILK

Have a Merry Christmas and a Happy and Healthy New Year!

Andrew J. Dunn, DVM
Eastview Veterinary Clinic

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Hi Andy,

Thanks for sharing your client's concern. As you probably know, the clearance rate of PGF2a is very rapid and essentially gone in fifteen minutes. Also, oral Prostaglandin F2a is ineffective at eliciting the effect your client is concerned with.

Here are a few more pieces of information to help you address your client's concern:

Probably the most compelling is what comes right from the Food and Drug Administration after reviewing all the submission requirements for the most recent new usage label addition: "The use of the CIDR and LUTALYSE in lactating dairy cows does not compromise human food safety; therefore, such use does not require a withdrawal period or milk discard time (i.e., zero withdrawal and zero milk discard time)."

It has to be safe at the individual cow level in order for it to pass the approval process. In other words, since the individual cow's milk is safe after treatment it wouldn't matter how many cows were treated (they would all be contributing milk that was safe for human consumption).

A couple other things to consider:

- Prostaglandin F2a is a very effective product in terminating unwanted pregnancies in heifers less than 90 days pregnant, it is critical to note this efficacy is not evident in humans. This is because the biological mechanism that maintains pregnancy in cattle is very different than that in humans.
- Studies conducted in the 1970s in which prostaglandin F2a, the compound, was successful in terminating a human pregnancy involved sequential intravenous, intra-amniotic, or intrauterine but extra-amniotic administration at milligram doses. These are not the routes of accidental exposure or routes easily used by non-medical personnel. Also, the compound is not particularly biologically active orally. High repeated oral doses in humans produced increased uterine activity, watery diarrhea, and vomiting but had no effect on blood pressure, heart rate, or abortion. In term woman given 10 mg orally every two hours induced labor and parturition but also induced diarrhea and vomiting.

I hope this helps, let me know if you would like I can assist you in addressing these clients' concerns.

—Rob