Electrochemotherapy is a new clinical therapeutic modality used in veterinary medicine for treating horses for skin tumors, including sarcoids, mast cell tumors, and carcinomas. This new treatment tool has been used in people for a wide variety of skin and subcutaneous tumors. We now have the ability to provide this treatment for horses at the University of Tennessee College of Veterinary Medicine.

With electrochemotherapy, a chemotherapeutic drug, such as cisplatin or bleomycin, is injected into the skin tumor, and electrical pulses are delivered, in microseconds, into the tumor. The electrical pulses cause the pores of the cancer cells to open, increasing the cells’ susceptibility to the drug. The electrical pulses cause a substantial increase, up to one hundred times, in the uptake of the cancer drug by the cancerous cells. The electrical pulses also cause the tumor’s blood vessels to seal the drug within the tumor, significantly increasing the therapeutic benefit of the drug.

Electrochemotherapy offers an effective alternative to current therapies. Electrochemotherapy is especially effective in resolving equine sarcoids, and its success has been shown to be much higher than that obtained with most other treatments such as surgical excision, cryosurgery, laser surgery, topical administration of antiviral drugs, immunomodulatory therapy, and topical or intra-lesional administration of a chemotherapeutic drug alone. In one study, 97.9% of horses with one or more sarcoids treated using electrochemotherapy continued to have resolution of the tumors 4 years after treatment.

Treatment is performed with the horse anesthetized using a short-acting injectable anesthetic agent. A typical electrochemotherapy session lasts about 20 minutes. For small tumors (i.e., those < 2 cm in diameter), electrochemotherapy is generally effective after only one or two treatments. Treatments are repeated at 2-week intervals. Tumors greater than 5 cm in diameter should be surgically debulked first, if possible, before electrochemotherapy treatment is administered. The most common adverse effect is slight swelling at the treatment site.

We are excited to offer this treatment for many types of skin cancer. Appointments for this new therapy may be made by calling the appointment desk at the Equine Hospital at 865-974-5701.
In December 2013 the Food and Drug Administration (FDA) proposed a three year plan (GFI-209) to phase out the use of “medically important” antimicrobials in food animals when used to enhance growth or improve feed efficiency. This ruling took effect January 1, 2017.

What Does This Mean for Producers?
FDA is taking action to promote the judicious use of medically important antimicrobial drugs in food animals. The goal of the strategy is:
• To phase out the use of medically important antibiotics in food animals for production purposes (e.g., to enhance growth or improve feed efficiency)
• Bring the therapeutic uses of such drugs (to treat, control, or prevent specific diseases) under the oversight of licensed veterinarians.

What Types of Drugs Will be Targeted?
This action focuses on feed additive antibiotics that are considered “medically important” human drugs such as:
• Penicillin, Tetracycline, Erythromycin, Cephalosporin, and Flerofenicol.
• These products are used with the intent of enhancing growth or improving feed efficiency.
• OTC medications that are used in feed or drinking water of food-producing animals.

How will producers be able to purchase feed additive antibiotics?
The producer will have to have a valid client patient relationship (VCPR) with a veterinarian. There are a few steps required to establish a VCPR. These are:
• The licensed veterinarian has assumed clinical responsibility for the animals and the owner of the animals has agreed to follow the veterinarian’s instructions.
• The veterinarian has sufficient direct knowledge of the animal’s condition and care and has examined the producer’s animals in the past 12 months, or annual visits to the premises where the animals are kept.
• The veterinarian is available for follow-up evaluation, or has arranged for emergency coverage in the event of adverse reactions or the failure of the treatment.
• A VCPR cannot be established nor maintained solely by telephone or other electronic means.

Veterinarians will still be able to prescribe feed grade antibiotics, ONLY if deemed necessary to treat, or control a current disease outbreak. After the prescribed time period has elapsed, the antibiotic will have to be removed from the feed. A VFD order will only last for 6 months, then a new VFD will have to be issued. Using a feed grade medication for any other purpose than is on the label is extra label use and is illegal, even for the veterinarian.

What about OTC Injectables?
As of right now OTC injectables will not be involved in this ruling, but they are next in line to become script items. FDA has announced that in January 2018 OTC injectables will be considered for becoming script items. However, an established time frame has not been confirmed as to when this will occur.

What Won’t Change?
Producers will still be able to obtain and use medications that are considered non - “medically important” feed grade products. These include:
• Ionomophores such as Rumensin, Bovatec, Bacintrac
• Coccidiosis medications. These medications are rarely used in human medicine, so their use will not be changed.

What will be the veterinarian’s responsibility?
• Licensed to practice in state
• VCPR
• Issue in compliance with conditions of the approved medication
• Includes all required information

Required Information
• Vet’s & Client’s names/address/telephone #
• Premises specified VFD animals are located. A separate VFD is required per physical location
• Date issued
• VFD expiration
• Name of VFD drug(s)
• Species & production class being fed VFD
• Approximate number of animals to be fed by expiration date
• Indication issued
• Drug level and duration of use
• Withdrawal time/special instructions/cautions
• Refills if permitted by drug approval
• The statement: “Use of feed containing this veterinary feed directive (VFD) drug in a manner other than as directed on the labeling (extra label use) is not permitted”
• An affirmation of intent for combination VFD drugs
• Veterinarian’s electronic or written signature

Optional Information
• Specific description of treated animals with pen location/number
• age/weight range of animals
• Information Vet deems appropriate to ID
• If Vet is OK with substitution for a generic, then do nothing
• If not – indicate that a substitution is not allowed

Cattle drugs previously requiring a VFD
• Tilmicosin
• Florfenicol

Cattle drugs which change from over-the-counter sales to use only by veterinary feed directive in 2017:
• Neomycin
• Tylosin
• Virginiamycin
• Chlortetracycline
• Oxytetracycline
• Tylosin
• Hygromycin B
• Lincomycin
• Penicillin
• Sulfadimethoxine
• Sulframethazine
• Sulfamerazine

LIST OF PRODUCTS
www.fda.gov/animalveterinary/safetyhealth/antimicrobialresistance/judicioususeofantimicrobials/ucm390429.htm

USEFUL VFD WEBSITES
www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/ucm071807.htm#listing
www.globalvetlink.com

Tech support: 515-817-5704

Information courtesy of UT Extension Veterinarian, Dr. Lew Strickland ag.tennessee.edu/AnimalScience/Pages/LewStrickland.aspx
FACULTY PROFILE

Meet Dr. Pierre-Yves Mulon, DVM, DACVS (Large Animal)

Born in Burgundy (France), Dr. Mulon obtained his Doctor of Veterinary Medicine Degree from the National Veterinary School of Alfort, near Paris (France). He competed an internship in farm animal Medicine and Surgery in the College of Veterinary Medicine at the University of Montréal (Canada) the following year and pursued a residency program in Large Animal Surgery at the same institution. Dr. Mulon, an internationally recognized expert in surgery of livestock, was a clinical instructor at the University of Montréal for 4 years, a clinical assistant professor at Texas A&M for 2 years and a private practitioner for 5 years before joining UTCVM as an Assistant Professor of Farm Animal Medicine and Surgery in 2016.

Why did you want to become a veterinarian?
I always loved to be around animals; my uncle and aunt's farm was my second home, and I wanted to do like them. I loved to process the herd and administer dewormers and vaccines, trimming the feet, being on lambing and kidding watch, and more simply to feed the herd with hay and concentrates. One day I was allowed to watch a caesarian section on a ewe; that was so impressive, I knew what I wanted to become. That perception was strengthened by shadowing a hometown mixed-practice veterinarian from the age of 13 until the day I earned my degree. I always felt I had been lucky to meet him and will stay forever extremely grateful to him; he really transmitted his passion for our profession to me.

What do you do at UTCVM?
As part of the Farm Animal Medicine and Surgery Service, I divide my time mostly within the farm animal hospital, classroom and hands-on teaching, and research. In clinics, there is no normal day as many of our patients arrive on short notice, and the variety of the cases is so broad that it would be impossible to even start thinking of being bored! I love the multi-species aspect of my job, as well as the diversity of cases that come through the door — from the premature, fragile cria, to the lame, more or less fractious bull. My area of interest is farm animal surgery, both soft tissue and orthopedics. I really enjoy being in the surgery suite, challenged by unusual cases requiring specific needs. I never found something professionally more rewarding than having the opportunity to demonstrate and explain the different pathologies to the students while resolving them with their help. I love when they have a chance to palpate, see, assess and treat a specific disease that they have heard about during lectures.

What do you enjoy about UTCVM?
I am lucky to work on a daily basis with extremely dynamic and collegial colleagues. This makes the day fly by. I also enjoy the diversity of the people from around the world working together for the benefit of our patients, adding ideas, strength and expertise to assure the best care possible. Having such extraordinary people close by allows a constant flow of innovative ideas.

What do you enjoy about teaching/working with students?
I like is their dynamism and their thirst to learn. They are our fuel, the reason to come here every morning. Every one of them is singular, and all bring to the classroom or to the clinical rotation their questions, their experiences. I particularly enjoy the moments when they can apply their classroom knowledge to real patients and that bright light appears in their eyes meaning they’ll remember it for the rest of their career. I like working with and for them and hold them in great esteem! I see them not only as veterinary students but as future colleagues who will embrace our profession.

What role do you play in RVDM practices?
I would love to help in any way I can. I have been lucky to have seen quite a few rare cases since I graduated and am thankful to the veterinarians who refer them. While distance may sometimes preclude the referral, I enjoy sharing opinions and expertise over the phone with those dedicated veterinarians.

What would you like referring veterinarians to know about you?
As an ACVS-LA board certified surgeon, I enjoy all the surgical conditions, from the simplest to the most complicated and unusual. In the vast field of Farm Animal Surgery, my main areas of interest are minimally invasive surgeries (laparoscopy, endoscopies of the teat for dairy cows) and all the orthopedic conditions including the always-challenging infectious diseases, and the foot-related diseases. Having been in private practice, I know what it is like to think about a particular case I have seen driving back to the clinic or to the next client; do not hesitate to contact us if you have a question, because we are here to help you the best we can.

Dr. Van Amstel’s Retirement

Please join us in wishing Dr. Sarel Van Amstel, a beloved clinician and professor, a happy retirement!

After 20 years of service at UTCVM and more than 40 years in the veterinary profession, Dr. Van Amstel retired in December 2016. His dedication to the students’ education and to the health and wellbeing of farm animals will be greatly missed.

FDA APPROVES NEW DRUG FOR RINGWORM IN CATS

The U.S. Food and Drug Administration has announced the approval of Itrafungol (itraconazole oral solution), a new animal drug for treating dermatophytosis caused by Microsporum canis in cats. Commonly called ringworm, dermatophytosis is a fungal infection of the skin. Itrafungol works by selectively binding to certain fungal proteins, causing irreversible structural degeneration of the fungi.

www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm528537.htm

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Need evidence that is not yet on the RCVS portal? Thinking of submitting to Veterinary Evidence? For these and other veterinary evidence information needs, please contact Ann Viera, veterinary librarian, annviera@utk.edu, 865-974-7338 or the veterinary librarian in your state or region.