



Specialty Medicine Compounding Pharmacy

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Competent Compounding

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BHRT vs. Conventional Therapy

Bio-identical Hormone Replacement Therapy (BHRT) is the supplementation of hormones that are biologically active and have the same chemical structure as hormones that are produced naturally by the human body. Bio-identical hormones that have been used for symptoms of menopause, perimenopause or postmenopause are testosterone, progesterone, and the estrogens: estriol, estradiol, and estrone. BHRT differs from conventional hormone replacement therapy (HRT) in that conventional hormone replacement uses animal or synthetic hormones whose chemical structure differs from natural hormones produced by the body.

Historically, conventional HRT has used conjugated estrogens from a horse and progestins which are analogues of progesterone. Premarin is administered orally and is comprised of the estrogens from a horse. While Premarin is an example of oral HRT, traditional HRT does not have to be given orally. HRT may be in the form of patches, tablets, creams, troches, IUDs, vaginal rings, gels or injection (which is rare). Oral HRT can be administered cyclically with estrogens taken daily and progesterone or progestins taken for about two weeks a month; this method is called sequentially-combined or cyclical HRT. Another method for administering oral HRT is when both types of hormones are taken daily; this is called continuous-combined HRT. Testosterone has also been used in the past to help with reduced sexual desire.

While BHRT and conventional HRT are similar in that they are both used to supplement the body's hormones for symptoms of menopause, perimenopause or postmenopause, they are very different (not just from a chemical structure standpoint). Since BHRT is made in a compounding pharmacy, it can be individualized and made specifically for your body. Conventional HRT is based on a "one size fits all" approach. Therefore, the use of hormones that are identical to the natural hormones produced by the body can be beneficial for some people. Please contact Kenny if you have any questions about BHRT.

Behavior Modification in Felines

Behavior problems in cats can cause frequent visits to the veterinarian's office. Urine spraying is a very common problem in cats. It usually begins to occur when the animal reaches sexual maturity at about six months of age. Males that have not been neutered are the most likely to display this behavior; however neutered males and females (regardless of whether or not they have been neutered) can also spray. While this behavior is considered to be normal, it can be problematic if it occurs indoors. The urine can damage carpet, furniture, walls, and other household items, and it can leave a horrible odor around the house. Neutering is considered a good preventative measure for urine spraying; however, if spraying becomes a problem, it can be managed with medication.

Amitriptyline can be used to treat behavioral problems in cats such as spraying, excessive grooming, self-mutilation, and anxiety. It can also be used to treat separation anxiety and self-mutilation in dogs. Amitriptyline is used in humans to treat depression and anxiety, and it works by increasing the concentration of chemicals (primarily serotonin, but also norepinephrine) in the brain. When administered to humans, amitriptyline is usually given orally. However, the benefit of compounding is that amitriptyline can be formulated for a cat as a PLO which is topical product that allows the drug to get into the bloodstream. Therefore, amitriptyline would be dispensed to the owner as a cream which would be applied to the inner ear of the cat that is exhibiting problematic behavior. It makes the task of giving medication to a cat much easier if you can rub a little cream on its ear rather than having to force a pill down the cat's throat.

Therefore, medication such as amitriptyline can be a very good option for a cat that is displaying behavioral problems. While outdoor spraying is natural for a cat, indoor spraying is unacceptable and can cause bad stains and cause your house to smell. Talk to your veterinarian if your cat has behavioral problems and you would like to do something about it.



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Advances in Pain Management

Pain can be extremely difficult to manage from a pharmacy standpoint. Oral therapy may be inadequate and have unwanted side effects. However, advances in drugs and drug delivery systems have led to advances in the world of pain management. Compounding medications gives patients many options when it comes to pain control. Physicians can work with the compounding pharmacy to individualize the medication to the specific patient. Combination products can be made in a dosage form that is preferred by the patient with the dose tailored to the patient. Therefore, a custom-made medication will allow for more effective pain control and can lead to a pain-free life.

The use of transdermal gels (PLO's) allows for topical administration of a medication with penetration into the tissue and bloodstream which allows the medication to get to the site of action. Therefore, non-steroidal anti-inflammatory drugs (NSAIDs) can be applied topically to the affected area instead of taken orally. This is beneficial in that it will avoid the majority of the gastrointestinal effects that are a disadvantage to the use of NSAIDs. Ketoprofen is a good example of an NSAID that is currently being compounded by the pharmacy. Muscle relaxants can be applied topically to avoid the sedative effects of the drugs. Nerve-related pain (like diabetic neuropathy) can be managed using a combination of drugs. For example, ketamine, which is not used orally for the treatment of nerve-related pain, works very well alone or in combination when administered topically. Thus, drugs that are not normally utilized for pain management can be used by a compounding pharmacy to make topical preparations for pain control.

Oral therapy may not be effective in treating all types of pain. However, compounding gives us more options when it comes to pain control. It is important to individualize the treatment and medication to the patient to achieve positive outcomes. The goal for every patient suffering from pain is for that patient to be pain-free. We will work with your physician to make that a possibility for you.

Questions about your compounded medications? Call Kenny at 248-446-2643.

Allopurinol Desensitization in Patients with Hypersensitivity Reactions to the Medication

Gout is a disease in which uric acid crystals are deposited in soft tissue, cartilage, and joints (like the elbows, wrists, toes) due to high concentrations of uric acid in the bloodstream. Allopurinol is a medication that can be used to treat gout by lowering uric acid levels. Allopurinol is very effective. It can be used to treat some of the more advanced forms of gout such as tophaceous gout in which hard nodules (called tophi) form in the joints and tissues. Side effects with allopurinol are uncommon; however, approximately 2% of patients who take allopurinol can experience a hypersensitivity reaction to the drug. This hypersensitivity reaction usually presents as an itchy, red rash over the body. However, this reaction can even be more severe and affect the kidneys or liver.

For people who experience a hypersensitivity reaction, they have two options: they can either stop taking the drug or they can undergo a desensitization process so that they will not have a reaction to the medication. For some people with advanced gout, stopping the medication is not an option since it is the most effective treatment for gout. Therefore, oral desensitization would be the best option.

Desensitization involves starting out with very low doses of allopurinol (50 micrograms) in a suspension and slowly increasing the dose every 3 days until a dose of 100 mg is achieved at the end of a 28 day period. The normal dose of allopurinol for mild to moderate gout is 200-300 mg per day; the normal dose for severe gout is 500-600 mg per day with a maximum of 800 mg per day. Oral desensitization has been found to be very effective; studies have demonstrated a 75% success rate.

Compounding pharmacies play a huge role in allopurinol desensitization by making the oral suspensions that are given to the patients. The suspension is dispensed to the patient and the amount of the liquid they take changes every 3 days. The patient takes the suspension for the first 24 days and then starts taking tablets and gradually increasing the dose. Therefore, allopurinol desensitization may be extremely beneficial for many people who experience hypersensitivity reactions to the drug. Compounding pharmacies like Specialty Medicine make allopurinol desensitization possible.