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Transdermal Gels and the Treatment of Pain

A universal complaint that troubles many patients is pain. Many different types of pain exist such as nociceptive, neuropathic, and somatic/psychological pain. Nociceptive pain is a response to inflammation or progressive injury and responds well to analgesic medication and non-pharmacologic strategies such as physical or occupational therapy. Neuropathic pain is a result of damage to the central or peripheral nervous system and has a poor response to analgesic medications and is usually treated with other types of medications. Somatic or psychological pain may be best described when a patient experiences non-specific feelings of distress.

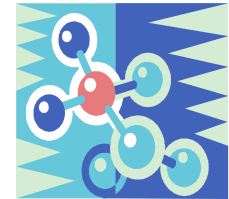
Conditions that may cause pain can include os-

teoarthritis, rheumatoid arthritis, osteoporosis, coronary artery disease, herpes, post stroke sensory damage, diabetes, or cancer. If a patient's pain is under treated, it can lead to depression, decreased socialization, disturbances in sleep, malnutrition, decreased independence and altered joint function, muscle strength, and posture. By not relieving a patient's symptom of pain, rehabilitation time, cost, and health care utilization increases dramatically. Pain management goals include alleviate the pain, minimize side effects, and maintain an appropriate level of function (IJPC March/April 2004).

Topically applied medications to treat pain are generally associated with a decrease in side effects when compared to taking pain

medications orally. Advantages to using topically applied medications include avoiding systemic toxicity and the fact that the drug is delivered where it is needed and in a high concentration. This high concentration at the site of pain acts as a depot delivery system where the tissue absorbs the medication and is released in a slow sustained manner resulting in a longer duration of action. Adverse effects associated with topically applied medications include a possible redness, burning or dryness (IJPC May/June 2002).

When a topical medication is used, the major absorption barrier to conquer is the skin. A vehicle known as Pluronic lecithin oraganogel (PLO gel) is very efficient in the fact that it dis-



rupts the lipid layers of the skin without harming or irritating the skin and allows the medication to enter the dermal-epidermal blood flow and enter systemic circulation. This PLO gel allows almost any medication to be absorbed and at lower doses than what would be needed if taking the medication orally (IJPC May/June 2003).

A major challenge in pain management is achieving pain relief yet avoiding the numerous side effects associated with taking oral medications. Transdermal delivery of medications is an option for any patient and should be considered. The best combination of pain relievers needs to be determined by the patient's doctor and pharmacist.

References: International Journal of Pharmaceutical Compounding (IJPC) May/June 2002 (189-192), May/June 2003 (180-183), March/April 2004 (101-105).

Specialty Medicine Compounding Pharmacy

The demands of modern compounding have lead to the creation of pharmacies devoted solely to this art. Specialty Medicine Compounding Pharmacy has been serving your community for over 6 years. Here we specialize in bio-identical

hormone replacement therapies and veterinary medicine, to name a few. We have all the facilities and equipment needed to make anything from topicals to capsules and sterile injectables. We do not accept insurance, but do provide claims

forms with prescriptions we fill. So, next time a patient wants a compounding you're unsure of - we'd be happy to serve them!

