



"Pain is one of the most common reasons people consult a physician, yet it frequently is inadequately treated, leading to enormous social cost in the form of lost productivity, needless suffering, and excessive healthcare expenditures."¹

Compounding combines an ageless art with the latest medical knowledge and state-of-the-art technology, enabling specially trained professionals to prepare customized dosage forms that are just what the doctor ordered.

The optimal dosage form depends upon the specific needs of each patient. Options include:

Transdermal and topical administration are increasingly popular methods of drug delivery. Creams and gels can be formulated to provide high local concentrations at the site of application (e.g., NSAIDs for joint pain, morphine mouthwash for radiation mucositis), for trigger point application (e.g., combinations of medications for neuropathic pain), or in a base that will allow systemic absorption. Transdermal medications utilize the skin or mucosa to facilitate absorption. Studies suggest that there are no great restrictions on the type of drug that can be incorporated into a properly compounded transdermal gel. Other transdermal dosage forms include buccal troches and sublingual preparations.

Oral dosage forms can also be customized to meet the specific needs of each patient. We can combine numerous compatible medications into a single dose for ease of administration or simplification of a confusing dosage schedule. We can compound medicated lollipops, freezer pops, "gummy bears", solutions and suspensions, flavored to suit the individual.

Rectal formulations include suppositories, solutions, gels, and enemas. "Rectal rockets" facilitate simultaneous internal and external application of medication for hemorrhoids and other problems.

Nasal preparations (spray, gel, drops, etc.) are increasingly used as a method of delivering many types of medication.

Bring us your medication problems!



"The pharmacy you can recommend to your friends."

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Working together with doctors and patients to solve medication therapy problems.



Pain Management

The Importance of Individualized Therapy



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Palliative Care

has been defined by the World Health Organization as: "the active total care of patients whose disease is not responsive to curative treatment." Control of pain, of other symptoms, and of psychological, social and spiritual problems is paramount. The goal of palliative care is the achievement of the best possible quality of life for patients and their families.

Palliative Care:

- ▶ Affirms life and regards dying as a normal process
- ▶ Neither hastens nor postpones death
- ▶ Provides relief from pain and other distressing symptoms

Pain Management

Effective pain management is best achieved by a team approach involving the patient, his/her family, and health care providers. As soon as pain begins, a patient should talk to a health care provider who is knowledgeable about pain management. Besides mitigating suffering, pain control is crucial because even when the underlying disease process is stable, uncontrolled pain prevents patients from working productively, enjoying recreation, or taking pleasure in their usual role in the family and society.

Treatment of chronic pain often involves the use of non-steroidal anti-inflammatory drugs (NSAIDs) and opioid analgesics. Optimal treatment for a particular form of pain may involve the use of medications that possess pain-relieving properties, including gabapentin, ketamine, and lidocaine. By combining various agents which utilize different mechanisms to alter the sensation of pain, physicians have found that smaller concentrations of each medication can be used. Adjuvant drugs — including antihistamines and corticosteroids — are valuable during all phases of pain management to enhance pain relief, treat concurrent symptoms, and counteract the side effects.

"Pain can be managed. Physicians must determine the severity and frequency of their patients' pain experience to prescribe the most appropriate and effective pain management regimen. Pain treatment needs to be individualized."¹

Our compounding specialists offer many unique options for pain management.

Symptom Control

Nausea & Vomiting

Persistent nausea can often be effectively controlled by using a combination of medications tailored to meet that individual's specific needs. Dosage forms include transdermal gels, suppositories, lollipops, and more. A variety of medications which target various pathways such as vagal nerve stimulation, the vomiting center, and the CTZ can be used. Researchers at Memorial Sloan-Kettering Cancer Center have studied the antiemetic activity and safety of the antiemetic regimen of metoclopramide, dexamethasone, and diphenhydramine in patients receiving standard outpatient chemotherapy programs. Vomiting was prevented in over 70% of patients.² Lorazepam, diphenhydramine, haloperidol, and metoclopramide (known in combination as "ABHR") have been prepared as a rectal suppository and in other transdermal dosage forms.

Dry Mouth & Stomatitis

Loss of saliva (xerostomia) is one of the most common complaints among patients who have received radiation therapy of the head and neck. Xerostomia contributes to radiation induced periodontal infection, dental caries, osteoradionecrosis, and poor digestion of carbohydrates.

There are many factors that can interfere with the ability to eat when a person is receiving chemotherapy. Malnutrition may result, yet it is often preventable. Our pharmacy can compound medicated dosage forms to help combat mouth tenderness and infections, which may enable patients to enjoy eating again.

Wound Care

Decubitus Ulcers

Phenytin has been used topically in the healing of pressure sores, venous stasis and diabetic ulcers, traumatic wounds, skin autograft donor sites, and burns.³ Ketoprofen may be used to control inflammation and pain, lidocaine provides topical anesthesia, and pentoxifylline may improve microcirculation. Misoprostol, a prostaglandin analog, is often included in wound care formulations to promote healing. Per a prescription order, various formulations can be compounded to contain a variety of active ingredients.

Odor Control

Odor from malignant cutaneous wounds, ulcerated tumors, some pressure ulcers, and fungating tumors can cause great distress and embarrassment for patients. Topical metronidazole is one medication that has been used to eliminate this odor, greatly improving the patient's quality of life. Exudate and associated cellulitis were also observed to decrease significantly with topical therapy.

Skin Irritation

Numerous topical preparations containing cholestyramine or scurfate have been applied for their protectant properties or for treatment of a variety of dermatologic and mucosal problems, including oral and esophageal ulcers, peristomal and perineal excoriation, decubitus ulcers, and radiation-induced rectal and vaginal ulcerations.

We invite you to contact our compounding pharmacist for more information or to discuss other "problem-solving" therapies.

References:

- 1 Kathleen Foley, M.D., professor and neurologist at Memorial Sloan-Kettering Cancer Center
- 2 Cancer 1995 Sep 1;76(5):774-8
- 3 Ann Pharmacother 2001 Jun;35(6):675-81

