As an internist, palliative medicine consultant, and fourth-generation pharmacist, I have treated severe chronic pain in over 250 patients since 2001. Based on my experiences, it is now apparent to me that any practitioner treating patients with chronic pain must appreciate why chronic pain is woefully undertreated by physicians in this country, and why chronic pain is more complex and much harder to treat than acute pain. I began my pain practice by treating patients in hospice; I then began treating patients who required palliative care but declined hospice, then patients with nonmalignant complex pain (failed back and neck operations; polyarthropathies; fibromyalgia; and neuropathies resulting from diabetes, shingles, regional complex pain syndromes, or trauma). The majority of these patients were treated in their homes or in an outpatient clinic. I believe that if physicians and pharmacists could experience—as unpleasant as the thought is—the depression, anxiety, frustration, and anger that patients experience from unresolved chronic pain and the resentment the patient feels when treated for what most physicians consider to be a symptom rather than a chronic disease, perhaps they could better understand the patients’ urgencies, needs, and resentment at being treated as second-class citizens. The barriers that have influenced many physicians and pharmacists to avoid prescribing or dispensing opioids in the treatment of pain are well known:

- Fear of addiction: This is exaggerated in patients who have never been substance abusers. The risk of addiction in this population is estimated to be approximately 1% to 3%. Most patients comply with their physician’s instructions. Those patients who are noncompliant are more prone to addiction. I tend to believe that my patients are compliant until it is obvious that they are no longer compliant.
- Scrutiny by state medical boards and by the U.S. Drug Enforcement Agency (DEA): In the past, state medical boards and the DEA had problems supporting the use of opioids. However, the Federation of State Medical Boards and the DEA now support the use of opioids for legitimate chronic pain as long as there is adequate documentation in the patient’s medical record.
- Supposed danger of using opioids in the dying to relieve pain and dyspnea: This danger is not supported by the current medical literature. The judicious use of opioids can provide compassionate pain relief and comfort for many patients without hastening death.

I am indebted to Dr. Daniel Brookoff for his article on chronic pain, which helped me appreciate the complexity of chronic pain resulting from activation of the N-methyl-D-aspartate (NMDA) receptor in the dorsal horn of the spinal cord. When glutamate released by persistent pain stimuli from an injury overwhelms the normal pain receptor in the spinal cord, the normally inactive NMDA “awakens” and causes a cascade of changes affecting the entire central nervous system. These changes include the following:

1. Windup, an increased intensity and volume of pain impulses to the brain
2. Activation of cytokines
3. Release of substance P
4. Bizarre spread of pain into areas of the body distant from the original injury

continued on next page
TREATMENT OF CHRONIC PAIN WITH METHADONE OR LEVORPHANOL

Methadone is at least as potent as morphine with no metabolites to cause toxic side effects, can be used in patients with renal or liver insufficiency, and is less constraining than conventional opioids. Tolerance is less likely to develop during long-term use, and there is no significant "rush" or craving effect as with conventional drugs. Disadvantages of prernisic hydroan are (1) the stigma of methadone being a potentially abused substance; (2) its long half-life; (3) the potential for oversedation; and (4) theoretical interactions with other drugs. Side effects can include drowsiness and nausea. If methadone is providing good pain relief, I prescribe methylphenidate or modafinil to counter sedation. There have been no serious adverse events due to methadone in my patients, excepting pneumonitis (in one instance) due to a caregiver error. I find less need for the antidepressants when prescribing methadone or levorphanol.

Of over 200 patients for whom I have prescribed methadone, half experienced pain relief superior to that afforded by any prior treatment with no (or minimal) side effects; one quarter experienced good relief, and one quarter experienced poor relief or side effects. For patients who have severe pain despite taking large amounts of conventional opioids, the key to converting to methadone is to use a ratio-table, expressed as morphine-equivalent doses. The larger the morphine dose, the less methadone is needed. When the dose of morphine in 24 hours is 90 mg, 8 mg of methadone is equal to 1 mg of morphine, a ratio of 4:1.

**TABLE 1. CONVERSION RATIO TABLE TO CONVERT MORPHINE:METHADONE.**

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Source: The University of Texas M. D. Anderson Cancer Center, Houston, Texas.

**REFERENCE**


Address correspondence to Jack P. McNulty, MD, FACP, Palliative Care Institute of Southeast Louisiana, 712 North Columbia Street, Covington, LA 70433. E-mail: jackmc62@thomedot.net

**ADDITIONAL READING**


This is a reprint of an article in the International Journal of Pharmaceutical Compounding 1996; 2: 159–160.

**PAIN: THE ONE THING WE CAN LIVE WITHOUT**

Almost everyone experiences pain sometime, yet no one experiences it in quite the same way. For this reason, managing pain can be especially challenging, as what works for one may not work or be convenient for all. Fortunately, doctors and compounding pharmacists can work together with patients to devise a convenient approach that can be adjusted to meet the changing needs of each patient. Compounding pharmacists can help solve some common problems with pain management by providing a changing array of dosage forms to fit the patient's changing needs and by providing a greater quantity of drug per dose.

Reasons to work with a compounding pharmacist might be:

- The medication you have been prescribing or would like to prescribe is no longer available.
- Your patient is having trouble taking their medication because the dosage form is not convenient (for example, trouble swallowing tablets).
- The patient feels pain before it is time for the next dose of medication.
- The patient is experiencing pain despite taking the largest dose of medication that you determined is safe.
- Your patient needs to take more than one medication and you would like to have them combined into one dose.
- Your patient is expected to go into or is already under the care of a hospice and needs alternative dosage forms.

Dosage forms available in alternative strengths could include:

- Capsules
- Chewable gels (lozenges)
- Syrups
- Enemas
- Eye ointments
- Inhalations
- Lollipops
- Oral liquids and rinses

Your compounding pharmacist would like to work with you and your patient to individualize the therapy for the best outcome.

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TREATMENT OF CHRONIC PAIN WITH METHADONE OR LEVORPHANOL

1-mg/mL oral solution, 40-mg dispersible

Methadone is and has been a pain drug since the

TREATING CHRONIC PAIN WITH

methadone or levorphanol is warranted.

hours when pain is controlled; and (4) reassess-

dose of a long-acting similar opioid every 12

ing pain relief every 1 to 2 days and titrating the

control pain by (1) selecting a short-acting opi-

After a thorough history and physical examina-

major conventional opioids morphine, oxy-

and the short- and long-acting forms of the

Chronic pain that requires treatment with opi-

for treatment usually have had inadequate

and fentanyl.

TREATING CHRONIC PAIN WITH

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Of over 200 patients for whom I have prescribed

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CONCLUSION

I hope that this anecdotal report of the value of methadone and levorphanol will stimulateandominated controlled trials to compare these

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Prescriptions

Levorphanol 6-mg/mL Oral Concentrate Dispense 0.2 mL 4 times 1 to 2 mg every 4 hours as needed for pain. Dispense with an appropriate measuring device.

Additional reading

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