

# Pearls Offered for End-of-Life Pain Treatment

BY ROBERT FINN  
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SAN FRANCISCO — Opioids are the mainstay of pain treatment at the end of life, but using them in this population presents some challenges, Janet L. Abrahm, M.D., said at the annual meeting of the American College of Physicians.

Dr. Abrahm, codirector of the pain and palliative care program at the Dana-Farber Cancer Institute, Boston, offered a series of pearls on the topic.

► Chronic pain doesn't look like acute pain. A person in chronic, severe pain may not have any objective, observable signs. You have to believe the patient, and be alert for behavioral signs. For example, people in pain often guard the painful part of their bodies. They don't eat, sleep, or interact normally.

► Don't forget nonpharmacologic therapies. Heat, cold, and massage can all be helpful. Cold seems to work especially well with neuropathic pain. Have a family member fill a foam cup with water, freeze it, and give the patient an ice massage. Heat works well if there's a muscle spasm. Positioning is also important. Help patients take their limbs off their pressure points. Acupuncture has been clearly shown to help with pain, and cognitive-behavioral therapy also is quite effective.

► Pharmacokinetic studies have shown that the peak methadone level will not occur for 3-4 days after initiation. The patient will complain of incomplete pain relief for the first few days, and the physician will be tempted to start the medication at too high a dose. But starting at 10 mg three times a day will result in the patient being very sleepy by day 3.

► "Don't do what I did and make somebody seize from Demerol," Dr. Abrahm said. "Demerol [meperidine] is a useless drug for chronic, severe pain." That's due

to its short half-life. A patient who uses it for a couple of days will start to show signs of opioid toxicity.

► Myoclonus is one of the early signs of opioid neurotoxicity. Patients may exhibit spontaneous jerking, or they may pull their hand away when touched. "At the end of life that's particularly poignant," Dr. Abrahm commented. "You might have a family member think that her mother was pulling her hand away, and that she had done something terrible [so] that her mother wouldn't even hold her hand." Assure the family member that it was just a reflex. Other early signs of opioid neurotoxicity are hypervigilance and hyperalgesia.

► If a patient experiences myoclonic jerks from opioid toxicity, it's useful to administer a liter or two of fluids to flush out some of the drug and its metabolites. Then switch the patient to an equal analgesic dose of a different opioid.

► Bad dreams also can signal opioid neurotoxicity. Make a practice of asking patients whether they're having nightmares or hallucinations; many will be reluctant to bring up this symptom on their own.

► Preventive laxatives are a must when you institute any opioid, even at the level of oxycodone. People in pain don't think about whether they've had a bowel movement. At the end of life, people can even become delirious because they're impacted. "I actually have recommended within the last 3 days of life an enema for someone who was impacted and delirious, and she quieted down and was much more comfortable after that," Dr. Abrahm said. "The nurses took back all the bad things they said about me."

Fiber-based laxatives don't work well in these patients because "fiber turns to cement in your gut when you're on opioids," she said. She prefers using senna; sometimes an osmotic agent will be required.

Polyethylene glycol is better than lactulose or sorbitol because it doesn't cause gas or bloating.

► For quick pain relief, transmucosal fentanyl can be as fast as intravenous administration. The patient puts this lollipop-like "Oralet" against the inside of his or her gums, where it's dissolved by saliva. It works within 5 or 10 minutes. Manufacturers are working on a more effervescent form of transmucosal fentanyl for patients with inadequate saliva. Patients should be cautioned not to swallow the Oralet because the liver would me-

tabolize most of the drug in that case. ► Fentanyl patches also function well, but they need a subcutaneous fat reservoir to work. Elderly patients are often malnourished, and in these patients the fentanyl will simply be absorbed into the bloodstream and quickly metabolized by the liver. That makes the fentanyl patch "a very expensive Band-Aid," in Dr. Abrahm's words.

Dr. Abrahm acknowledged serving as a consultant to or on the speakers' bureau of a number of pharmaceutical companies that market pain medications. ■

## Dosage Calculations and Conversions

Dr. Abrams offered these suggestions for dealing with dosages:

► In switching a patient from one opioid to another, rely on published equivalence charts but lower the calculated dose by one-third to be safe. Different opioids bind slightly differently to receptors, and incomplete cross-tolerance is common, she noted.

► The conversion from morphine to methadone depends on whether the patient is on a low dose or a high dose. At low doses of morphine—30 mg per day or so—4 mg of morphine is equivalent to 1 mg of methadone. But at over 1,000 mg of morphine per day, 20 mg of morphine is equivalent to 1 mg of methadone.

► When switching a patient from intravenous to oral Dilaudid (hydromorphone hydrochloride), increase the dose by a factor of five. This seems high, but the fact is that the liver metabolizes four-fifths of the oral Dilaudid on its first pass. "Anybody who has been getting 2 mg of intravenous Dilaudid and then gets 4 mg by mouth,

you have convinced him that only the shots work," Dr. Abrahm said.

► In converting a patient from oral to intravenous morphine—such as when the patient is coming into the hospital with nothing by mouth—don't forget to include rescue doses in the calculation. If the patient is taking 150 mg of sustained-release morphine every 12 hours, and his or her rescue oral opioid totals 150 mg/day, the total 24-hour morphine dose is 450 mg. That's equivalent to 150 mg IV or 6.25 mg/hr. "It doesn't hurt to put this [calculation] on the chart," she said, because 6.25 mg/hr seems like a lot to hospital staff.

If this isn't done, patients will normally be started at 1 mg/hr, and Dr. Abrahm said that she has experienced patients going into withdrawal before she could write the higher dose on the chart. The rescue dose should be 10% of the total daily dose every 4 hours. For this patient, that's 15 mg every 4 hours, or more commonly, 5-10 mg every 2 hours.

# Limit Triptans, Analgesics to Prevent Drug-Overuse Headache

BY DEBBIE LERMAN  
Contributing Writer

PHILADELPHIA — Analgesic and triptan use should be restricted to no more than 10-12 doses a month to prevent patients with episodic migraine or tension type headaches from developing a chronic condition, Volker Limmroth, M.D., Ph.D., reported at the annual meeting of the American Headache Society.

The prevalence of medication-overuse headache (MOH) is approximately 1% in the general global population, said Dr. Limmroth of the department of neurology at the University Hospital in Essen, Germany. He based his estimate on a wide range of epidemiologic studies from around the world.

Before 2003, when the International Classification of Headache Disorders was updated, the definition of MOH (formerly called drug-induced headache), did not cover all available agents, especially not modern antimigraine drugs such as triptans, Dr. Limmroth said.

Now, according to the International Classification of Headache Disorders, second edition, MOH is defined as a headache on 15 or more days a month, with drug intake of ergots, triptans, or opioids for 10 or more days per month for a minimum of 3 months, or with use of analgesics for 15 or more days per month for a minimum of 3 months. In addition, the chronic headache would disappear or revert to its previous pattern by 2 months after withdrawal.

Based on the new classification, the German Society for Neurology has already issued guidelines limiting the intake of triptans and analgesics to 10 doses per month, Dr. Limmroth said in an interview with this newspaper.

To treat MOH patients who are overusing triptans or analgesics, Dr. Limmroth

strongly recommended inpatient withdrawal. "It's important for doctors to realize that the length of time it takes for successful withdrawal is different, depending on the primary headache

[whether migraine or tension-type headache] and the medication used," Dr. Limmroth said. Following withdrawal therapy, patients go back to the number of episodic headaches they had before

medication overuse, he said.

Withdrawal symptoms vary according to the drug that has been overused. After withdrawal from triptans, withdrawal symptoms last about 4 days on average. With ergots, they can last up to 7 days. Withdrawal from analgesics can take longer, and even after 2 weeks, 70%-80% of headaches can persist, he said. It is very important to be aware of these variations

and to follow patients for a long enough time to ensure successful withdrawal.

"If withdrawal is done correctly, about 60% of the patients with chronic conditions get better and stay better for years," Dr. Limmroth said.

Nevertheless, relapse is a problem with medication overuse. Overall, including all types of headache medications (triptans, ergots, and analgesics), studies found that about 28% of patients went back to overuse 6 months after withdrawal; 35%, after 1 year; and 42%, after 4 years, Dr. Limmroth said. Relapse is more common with tension-type headaches than with migraines, he added.

"Doctors who treat patients with chronic migraine and MOH need to look very closely within the first year after withdrawal to see whether the frequency of headaches requires preventive treatment," he said. "Patients should be put on an individualized medication regimen, which they can comply with and tolerate, to prevent the headaches and also to prevent a relapse of overuse," he said. ■



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DR. LIMMROTH