

CLINICAL UPDATE

INTERPROFESSIONAL COLLABORATION: AMBULATORY CLINICAL PHARMACISTS IN PRIMARY CARE TO MANAGE OPIOID MEDICATIONS AND PAIN MANAGEMENT

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Ms. Morgan is a 56-year-old female with a past medical history of fibromyalgia and osteoarthritis. She has been on long-term opioid therapy for 3 years, after starting oxycodone following a total knee arthroplasty. An attempt to taper opioids was made approximately 1.5 years ago without success. At that time, Ms. Morgan reported struggling with withdrawal symptoms, reduced pain control, and physical and mental stress due to serving as the primary caregiver for her elderly father. Her chronic pain has been further complicated by additional pain from a torn rotator cuff injury 4 months ago. Three months ago, it was mutually agreed upon by Ms. Morgan and her primary care provider (PCP) that tapering opioid medications would be in her best interest. Both Ms. Morgan and her PCP are eager to accomplish this in a way that may maintain pain control, improve functionality, and prevent unwanted effects of opioid withdrawal.

It is estimated that approximately 3-4% of the adult population in the United States is on long-term opioid therapy.¹ Opioids are associated with a dose-dependent increased risk of serious harm, and their widespread use has been deemed a public health crisis.² In 2016, the Centers for Disease Control and Prevention (CDC) released guidelines addressing opioid use for chronic nonmalignant pain with the intention of assisting clinicians who are treating patients with chronic pain in the outpatient setting. In general, the guidelines stress the use of non-opioid therapies for management of chronic non-

malignant pain, and multimodal and multidisciplinary interventions are encouraged over single modalities.¹ Unfortunately, there is no single preferred combination of non-opioid medications, multidisciplinary interventions, or multimodal approaches to most effectively reduce pain and improve function. This can be frustrating for patients, and overwhelming for PCPs. The number of patients on long-term opioid therapy far exceeds the capacity of the nation's pain specialists, which leads to the majority of these patients receiving their pain management in the primary care setting.²

One area of concern for many PCPs, as detailed in the above case description, is how best to stop opioid pain medications when desired by patients or providers. Abrupt opioid discontinuation in a patient who has been on long-term opioid therapy can result in symptoms of opioid withdrawal, including anxiety, abdominal pain, vomiting, diarrhea, diaphoresis, tremor, and tachycardia.¹ Additionally, many patients may fear that their pain will increase during the opioid taper while others may behave aggressively towards providers or staff in an attempt to maintain their opioid-based pain regimen.^{4,5} PCPs are often faced with the challenge of transitioning patients on long-term opioid therapy to an alternative regimen with inadequate time, training, and evidence to support which methods are the safest and most effective.

At Penn Internal Medicine, PCPs are collaborating with clinical pharmacists to improve prescribing

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of opioid and adjuvant analgesic medications. Clinical pharmacists are trained as medication experts and are well prepared to assist in optimizing medication regimens for chronic pain management.^{2,3} In our practices, PCPs refer patients on chronic opioid therapy to the clinical pharmacist for assistance in tapering opioid medications. The clinical pharmacist is then able to schedule in-person and telephone follow-up to evaluate the patients' pain management regimen and make recommendations to ensure safe and effective medication utilization. During patient follow-up, clinical pharmacists assess analgesia, activities of daily living, adverse effects, and aberrant drug-related behaviors; recommend appropriate adjustments to prescribing, monitoring, and titrating opioid and non-opioid pain medications; and use motivational interviewing techniques to facilitate the tapering process.

Lessons Learned

In the care of patients like Ms. Morgan, multiple lessons have been learned through the collaboration between PCPs and clinical pharmacists at Penn Internal Medicine. First, the use of a team-based approach to chronic pain management increases the opportunity for face to face time between a provider and patient. This increased time helps a patient better understand the complexity of chronic pain, and the risks and benefits of opioid medications. Team members with experience in motivational interviewing have assisted with management of behavioral issues, such as patient resistance to discontinuing opioids, aberrant behaviors, and management of withdrawal symptoms. It is important that efforts and schedules are coordinated between team members to allow for efficiency in patient care and avoid duplication of efforts. Second, the presence of a

clinical pharmacist as a core element of the care team has been especially valuable given their training in the areas of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. Training in these areas has facilitated novel solutions to managing complex situations, including the timing and rate of opioid tapering, initiation of non-opioid pain medications, and management of withdrawal. Third, chronic pain is multidimensional and the approach to managing chronic pain, including tapering opioids, should be individualized and should take into account patient-specific and drug-specific factors.^{4,5} Be mindful that the rate, intensity, and duration of the taper may need to be adjusted according to a patient's response. The taper does not need to be reversed for a patient experiencing symptoms of withdrawal, but rather can be slowed or paused while continuing to monitor for resolution of symptoms. It is also important to remember that each opioid is available in a limited number of dosage formulations. Once the lowest dosage form of an opioid is reached, one may need to increase the taper rate or transition to an alternative opioid that allows for a more gradual dosage reduction. Lastly, there have been some patients who have required resources outside of the current interprofessional team in the primary care setting, such as physical therapy, psychotherapy, and/or surgical intervention. It is important that PCPs and team members are able to recognize their limitations and when referral to outside sources is warranted to optimize a patient's pain management.

Returning to Ms. Morgan: At the time of the initial consult, she was taking a total of 90 morphine milligram equivalents (MME)/day. Since then, she has had one office visit with her PCP and biweekly telephone calls with the clinical pharmacist. Together, the PCP and

clinical pharmacist effectively tapered Ms. Morgan's opioid therapy and she is no longer taking opioid medications at this time. A gradual taper of approximately 10% of the original dose every 1-2 weeks was used to minimize withdrawal symptoms. Motivational interviewing and non-opioid adjuvant pain medications were used, including acetaminophen, naproxen, gabapentin and duloxetine. Additionally, α 2-adrenergic agonists were trialed to provide symptomatic treatment of increased sympathomimetic activity during the tapering process. This pharmacologic class includes clonidine, guanfacine, lofexadine, and tizanidine, and their use has been well established in the treatment of withdrawal symptoms of opioid-use disorders.^{4,5} Our care model has allowed us to better elucidate which specialty services might best suit her needs, and she is now seeing an orthopedist and a physical therapist to assist with pain management. It is our hope that continued efforts toward multidisciplinary and multimodal models to address chronic nonmalignant pain will help Ms. Morgan and similar patients in the future.

Note: patient's name has been changed in the above article to protect patient confidentiality.

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