

Addressing the Societal Burden of Opioid Misuse: FOCUS ON A BALANCED APPROACH TO OLDER ADULTS WITH CHRONIC PAIN

[FACULTY]

Stephen Crystal, PhD

Associate Director for Health Services Research | Institute for Health, Health Care Policy and Aging Research | Board of Governors Professor, School of Social Work | Rutgers, The State University of New Jersey

Roger B. Fillingim, PhD

Distinguished Professor, College of Dentistry | Director, Pain Research and Intervention Center of Excellence | Clinical Translational Science Institute | University of Florida

Jeff Gudin, MD

Director, Pain Management and Palliative Care | Englewood Hospital and Medical Center, New Jersey | Clinical Instructor of Anesthesiology | Icahn School of Medicine at Mount Sinai

Michael Toscani, PharmD

Research Professor/ Fellowship Director | Rutgers Institute for Pharmaceutical Industry Fellowships | Ernest Mario School of Pharmacy | Rutgers, The State University of New Jersey

[LEARNING OBJECTIVES]

After reading this publication, participants will be able to:

- [] Explain the principles of balanced pain management, including various strategies and modalities that should be incorporated in an individualized treatment plan.
- [] Describe properties of abuse-deterrent formulations of opioids.
- [] Discuss programs and strategies that are designed to support patient and provider education about safe opioid use.
- [] Explain strategies that patients should use to properly store and dispose of opioids and other controlled substances.

Balanced Chronic Pain Management in Older Adults

According to the 2011 Institute of Medicine report, *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*, chronic pain affects approximately one third of adults in the United States.¹ Although a precise definition of chronic pain remains elusive, pain is generally considered chronic when it is unlikely to resolve or lasts longer than the expected healing time. Sometimes, pain is considered chronic if it persists for 3 months or more.² Chronic pain is common in older adults, who have a greater prevalence of degenerative, oncologic, and neuropathic pain conditions. It is estimated that the prevalence of pain complaints is twice as high in those older than 60 years of age compared with younger adults. Among individuals residing in long-term care facilities, the prevalence of pain has been estimated to range between 45% and 80%, and many of these individuals experience pain on a daily basis.³

Management of chronic pain is challenging and it is often suboptimally assessed and treated. Undertreatment of pain results in unnecessary suffering, decreased quality of life, increased utilization of health care resources, sleep impairment, psychosocial difficulties including anxiety and depression, and reduced patient satisfaction with the health care system.¹ A comprehensive approach to pain management should address the patient's underlying conditions, including psychological conditions such as depression and anxiety that can exacerbate the pain experience. Managing chronic pain in older adults presents additional challenges, including assessment difficulties due to communication barriers, comorbid medical conditions, increased sensitivity to medication side effects, mobility and safety issues, and the ongoing potential for medical, cognitive, and functional decline.³

A comprehensive and thorough evaluation is essential for appropriate pain management in all patients but is particularly crucial for older adults. To develop an effective care plan, the evaluation should include an assessment of the pain complaint, consideration of painful comorbidities as well as issues such as deconditioning, falls, polypharmacy, cognitive dysfunction, and malnutrition—all of which can be exacerbated by pain.³ Many organizations and

Developed by



Supported by



experts call for a balanced approach to managing pain.⁴⁻⁹ Balanced pain management has been defined as “a comprehensive approach to diagnosing, treating, and controlling pain. It uses a multi-pronged and individualized treatment plan to coordinate safe and effective options that can address the physical, emotional, social, and psychological aspects of pain.”⁴

Nonpharmacologic approaches to pain management in the elderly should be considered to address the functional and psychosocial issues associated with chronic pain. These approaches can include physical and occupational therapies, biofeedback, relaxation techniques, psychological support, cognitive-behavioral therapy, patient education, lifestyle changes, exercise, weight loss, assistive technology and adaptations, and footwear.^{3,10,11}

The use of analgesics in older adults can be appropriate, but must be used with caution. Acetaminophen is considered first-line therapy for mild-to-moderate pain. Additional options include nonsteroidal anti-inflammatory drugs (NSAIDs) as well as opioids for severe pain. Unfortunately, the safety of NSAIDs in older adults is an issue because of the gastrointestinal, renal, antiplatelet, and cardiovascular adverse events associated with these agents.⁹ Adjuvant analgesics, such as tricyclic antidepressants and anticonvulsants for neuropathic pain, may be appropriate for some older adults; however, potential adverse events must be carefully considered.⁷

Compared with NSAIDs, opioids may have advantages for older adults and may provide effective pain relief as part of a comprehensive pain management strategy for carefully selected and monitored individuals.⁷ Risks, including medication side effects as well as events such as falls and fractures, are increased in older adults using opioids because

of age-related changes in pharmacokinetics and pharmacodynamics as well as multiple other conditions that affect responses to medications.¹² Initial dosages should be low and should be titrated upward slowly.^{3,7} Opioid therapy must be individualized and patients must be carefully monitored for side effects, which should be anticipated and managed prophylactically when possible.⁷ For example, over-the-counter and prescription laxatives should be used to prevent and manage constipation.

Regardless of the treatment approaches that are implemented, the interventions must be provided within a framework of ongoing education and collaboration with the patient and his or her caregivers. Expectations for the potential risks and benefits of treatment should be clearly explored within a discussion of how to optimize patient function and quality of life.

The abuse potential of opioids and other controlled substances also must be considered when these medications are prescribed. Although the majority of patients who use opioids do so appropriately, the management of chronic pain is complicated by the reality that opioids may be misused, abused, and diverted, and may result in unwanted side effects, addiction, and overdose deaths. In 2009, there were nearly 425,000 emergency department visits involving nonmedical use of opioid analgesics.¹³ According to estimates from the Centers for Disease Control and Prevention, 16,651 deaths in 2010 involved an opioid medication.¹³ Notably, mortality risk with opioids is increased when benzodiazepines and other central nervous system depressants are administered concurrently, which is a common occurrence among older adults.¹⁴

Although elderly patients are more likely to experience undertreated pain, they have the lowest risk of any age

group for abusing opioids.^{1,15} A 2010 national survey conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) found that only 1.0% of individuals aged 65 years or older reported illicit drug use during the previous month, compared with 8.9% of the population 12 years of age and older.¹⁵ Despite this finding, it is important to note that abuse and addiction do occur in older adults. Furthermore, older adults may be a source of opioids for unauthorized users. For example, a survey of drug abusers, police officers, regulatory officials, prescription drug dealers, and pill brokers revealed that some elderly patients sell their controlled substances for economic reasons.¹⁶ Additionally, many individuals who misuse, abuse, or divert medications take them from friends or family members without permission. An unlocked medicine cabinet can be the source of diversion by these individuals or by others who have access, such as people who work in the older adult's home.

When considering opioids for chronic pain management, it is crucial to carefully select appropriate patients, assess their risk for opioid abuse, provide thorough patient education, and carefully monitor patient responses to therapy. Moreover, opioid therapy should be considered in the context of a multimodal approach to pain management, rather than as monotherapy. As part of the pain management plan, patients who use opioids must agree to safely use, store, and dispose of them. Instructions for safe use, storage, and disposal should be provided to all patients, especially those in environments that place them at increased risk. Special consideration should be given to those whose caregivers administer their opioids, for example palliative care patients or those with cognitive impairment. In these cases,

A THOROUGH AND RESPECTFUL APPROACH to chronic pain assessment and treatment for patients receiving opioids can reduce stigma, improve patient care, and contain overall risk.¹⁷

multiple household members and visitors may have access to a patient's controlled substances.

Strategies to Manage Risks for Misuse and Abuse of Opioids

It is impossible to determine which patients will develop problematic behaviors when using opioids. Therefore, a careful assessment of all patients should be conducted using a biopsychosocial model and applying careful and reasonably set limits as part of the clinician-patient agreement. Screening and risk assessment tools allow clinicians to triage chronic pain patients into categories according to risk. A thorough and respectful approach to chronic pain assessment and treatment for patients receiving opioids can reduce stigma, improve patient care, and contain overall risk.¹⁷ This approach should include informed consent from patients to help ensure that they are aware of the potential risks of opioid therapy as well as the expectations for their behavior. Informed consent for chronic opioid use is usually communicated with a written opioid treatment agreement.¹⁷ Other interventions may include specialized monitoring (e.g., prescription drug monitoring programs, random drug testing). Additional strategies that have gained momentum in recent years include the development of abuse-deterrent formulations (ADF) of opioids, increased education for health care providers, and education and efforts to support the safe storage and disposal of opioids (e.g., community take-back and disposal programs).

Abuse-Deterrent

Formulations of Opioids

ADF opioids are designed to reduce both the desirability and the risk of harm if they are misused, yet still be safe and effective when used appropriately for pain management.¹⁸ These products have been formulated to prevent various methods of abuse. For example, while some individuals swallow whole products, others crush the products to inject or inhale them. Crushing extended-release and long-acting (ER/LA) opioid products can result in rapid release of the entire dosage producing a more intense high, but also increasing the overdose risk, particularly in opioid-naïve persons. Improper use of any opioid can result in serious side effects, including overdose and death. This risk is magnified with ER/LA opioid analgesics because these products often contain much higher dosages than traditional formulations. Individuals also may abuse opioids along with other prescription products, alcohol, and/or illicit substances, which further increases risk for adverse events.¹⁸

In April 2015, the U.S. Food and Drug Administration (FDA) issued final guidance for ADF opioids that provides a general framework for the development of these products.¹⁹

Most of the currently available ADF opioids have been designed to make it difficult to crush or otherwise disable ER/LA formulations, however many immediate-release ADF products are also in development. Advantages and disadvantages of various formulations along with recommendations for selecting products based on individual patient factors are shown in Tables 1 and 2.^{18,19}

TABLE 1. CURRENT ABUSE-DETERRENT OPIOID FORMULATIONS: ADVANTAGES AND DISADVANTAGES

Abuse-Deterrent Formulation	Characteristics	Advantages	Disadvantages
Physical/chemical barriers	Physical barriers can prevent chewing, crushing, cutting, grating, or grinding of the dosage form. Chemical barriers (e.g., gelling agents) can resist extraction of the opioid using common solvents such as water, simulated biological media, alcohol, or other organic solvents. Physical and chemical barriers can limit drug release following mechanical manipulation or change the physical form of a drug, rendering it less amenable to abuse.	Prevents abusers from crushing or chewing their opioid to facilitate rapid release into the system. Prevents accidental crushing or chewing in compliant patients. Does not adversely affect compliant patients.	Does not deter abuse of intact tablets.
Aversive components	Substances can be added to the product to produce an unpleasant effect if the dosage form is manipulated or is used at a higher dosage than directed. For example, the formulation can include a substance irritating to the nasal mucosa if ground and snorted.	May prevent abuse by chewing or crushing opioids. May limit abuse of intact tablets because taking too much will amplify adverse events from aversive component (e.g., niacin).	Potential for adverse events in adherent patients who take the product as intended. Adverse events with intact tablets may prevent legitimate dose increases to address increasing pain or decreasing efficacy over time. Adverse events of niacin may not be sufficient to deter a motivated abuser.
Sequestered antagonist	An opioid antagonist can be added to interfere with, reduce, or defeat the euphoria associated with abuse. The antagonist can be sequestered and released only upon manipulation of the product. For example, a drug product can be formulated such that the substance that acts as an antagonist is not clinically active when the product is swallowed, but becomes active if the product is crushed and injected or snorted.	Prevents abuse by chewing or crushing opioids.	Does not deter abuse of intact tablets. Chewing or crushing the tablet may precipitate severe withdrawal symptoms.

Source: References 18 and 19.

TABLE 2. RECOMMENDATIONS FOR SELECTING AN ABUSE-DETERRENT OPIOID FORMULATION

Population	Recommendation
Patients at risk of abuse	Opioids that are crush-resistant or have a sequestered antagonist or aversive component may be prescribed.
Elderly patients	Prescribe crush-resistant opioids for older patients at risk of accidental chewing or misguided crushing (e.g., dissolving the opioid in juice or apple sauce) to facilitate swallowing. Avoid opioids with sequestered antagonists or aversive components in older patients because these may precipitate withdrawal symptoms or adverse events. It is better to prevent chewing or crushing of the opioid by an older patient than to deny analgesia or cause adverse events for a patient who inadvertently administers the product incorrectly.
Patients who may be targeted for theft	Prescribe any available abuse-deterrent opioid; this will protect the compliant patient and create a barrier to the abuser.

Source: Reference 18.

While ADF products can prevent some types of abuse and misuse, it is not possible to deter all forms of misuse and abuse. No technology developed to date is able to prevent individuals from misusing or abusing the products by oral overconsumption (e.g., swallowing a number of intact capsules or tablets). The introduction of ADF products resulted in an initial decrease in abuse. Some early data suggest that the decrease in the abuse of reformulated opioids appears to be due, at least in part, to migration to abuse of other non-ADF prescription opioids or illicit products, including heroin.^{20,21} Systematic research to evaluate the effectiveness of ADFs for reducing rates of opioid misuse and abuse is required to better understand the potential value of these therapies.

Educating Prescribers to Use Opioids Safely

Safe and responsible prescribing and dispensing of opioids are the cornerstones of safe opioid use for all patients. While some individuals obtain opioids for illicit use from friends and family members, many others obtain the opioids by duping health care providers. According to a 2013 SAMHSA survey, almost one quarter of illicit opioid users obtained

SAFE AND RESPONSIBLE prescribing and dispensing of opioids are the cornerstones of safe opioid use for all patients.

the medication from a prescriber.²² More than half of nonmedical users obtained the medication from a friend. More than four in five of these individuals indicated that their friend or relative received medication from a single prescriber.

Most states have implemented electronic prescription drug monitoring programs that allow prescribers and dispensing pharmacists to assess a patient's prescription history of controlled substances. This technology can assist health care providers with the identification of individuals who are "doctor shopping" (i.e., visiting multiple prescribers and pharmacists to obtain controlled substances). These programs are important tools for the identification of individuals who are purporting to be patients, but are not designed to support safe use of opioids by legitimate patients.

Since 2012, FDA has required a risk evaluation and mitigation strategy (REMS) for all ER/LA opioid medications. (A REMS is a risk management plan that goes beyond requirements

RECOMMENDED RESOURCES

Alliance for Patient Access

www.allianceforpatientaccess.org

Drug Enforcement Administration

Disposal Act: General Public

Fact Sheet

www.deadiversion.usdoj.gov/drug_disposal/index.html

Environmental Protection Agency

How to Dispose of

Medicines Properly

archive.epa.gov/region02/capp/web/pdf/ppcpflyer.pdf

Food and Drug Administration

Disposal of Unused Medicines:

What You Should Know

www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm

National Council on Patient Information and Education

www.talkaboutrx.org

in the drug prescribing information to manage serious risks associated with a drug.) The REMS focuses on prescriber education in an attempt to reduce inappropriate prescribing, while ensuring that patients with legitimate need for these medications continue to have access to them. Prescriber education includes information about the medication, patient assessment, initiating therapy, modifying dosing, discontinuing use of ER/LA opioid analgesics, ongoing monitoring, and appropriate patient education to support safe use.²³

The REMS for ER/LA opioids requires that these products be dispensed with a medication guide that provides patients and caregivers with information designed to support safe use, including details about contraindications and precautions, information about safe dosing and administration, potential side effects and their management, including when to contact a health care provider, and how to dispose of the product (Figure 1).²⁴ Key points in the medication guide include:

- Follow prescribing instructions carefully.
- Overdose can cause life-threatening breathing problems and death.
- Do not chew, crush, or break pain medications.
- Consult with prescriber before taking any other drugs or supplements while using this medication.
- Do not increase dose without consulting prescriber.
- Do not share medications; others could die from taking the medication.
- Know how you respond to the medication before driving or engaging in other behaviors that could increase risk of an accident.

Although a formal REMS is not yet required for immediate-release opioids, the patient education and counseling points are relevant for those products as well.

Educating Patients to Store Opioids Safely

All medications should be stored in a location where they cannot be accessed by children or pets. However, because many illicit opioid users obtain the products by taking them from friends and family members without permission, additional precautions are necessary to ensure that opioids are stored safely and securely. Unused medications left in medicine cabinets are a common source of misused, abused, and diverted opioids. This typically happens when patients use only a portion of the prescribed medication.

Even if there are no children in the home, opioids should not be stored in a location such as the medicine cabinet, kitchen counter, or other open space where they will be seen by visitors, including caregivers or home health aides. Older adults who have mild cognitive impairment but live independently should have a trusted friend or family member who can help support the use and safe storage of opioid medications. Recommendations for storing medications include:²⁵

- Store pain medication in a bottle that has a child-resistant lid.
- Keep all opioid medications in one location where a pet, child, teenager, or stranger would not easily see it or find it.
- Consider storing opioids in a safe or other locked container.
- Do not tell others that you are taking opioids—only share details about prescriptions with caregivers or others who need to know.
- If you have been prescribed a fentanyl skin patch:

FIGURE 1. ER/LA OPIOID MEDICATION GUIDE GENERAL CONTENT*

The ER/LA opioid is:

- A strong prescription pain medicine that contains an opioid (narcotic) that is used to treat moderate to severe around-the-clock pain, in people who are already regularly using opioid pain medicine.

Important information about the ER/LA opioid:

- Get emergency help right away if you take too much of the ER/LA opioid (overdose). The ER/LA opioid overdose can cause life threatening breathing problems that can lead to death.
- Never give anyone else your ER/LA opioid. They could die from taking it. Store the ER/LA opioid away from children and in a safe place to prevent stealing or abuse. Selling or giving away the ER/LA opioid is against the law.

Do not take the ER/LA opioid if you have:

- Severe asthma, trouble breathing, or other lung problems.
- A bowel blockage or have narrowing of the stomach or intestines.

Before taking the ER/LA opioid, tell your health care provider if you have a history of:

- Head injury, seizures.
- Liver, kidney, thyroid problems.
- Allergy to the ER/LA opioid.
- Problems urinating.
- Pancreas or gallbladder problems.
- Abuse of street or prescription drugs, alcohol addiction, or mental health problems.

Tell your health care provider if you are:

- Pregnant or planning to become pregnant. The ER/LA opioid may harm your unborn baby.
- Breastfeeding. The ER/LA opioid passes into breast milk and may harm your baby.
- Taking prescription or over-the-counter medicines, vitamins, or herbal supplements.

When taking the ER/LA opioid:

- Do not change your dose. Take the ER/LA opioid exactly as prescribed by your health care provider.
- Take your prescribed dose at the same time every day. Do not take more than your prescribed dose in 24 hours. If you miss a dose, do not take the ER/LA opioid. Take your next dose at your usual time the next day.
- Swallow the ER/LA opioid whole. Do not cut, break, chew, crush, dissolve, or inject the ER/LA opioid.
- **Call your health care provider if the dose you are taking does not control your pain.**
- **Do not stop taking the ER/LA opioid without talking to your health care provider.**
- After you stop taking the ER/LA opioid, flush any unused tablets down the toilet.

While taking the ER/LA opioid Do Not:

- Drive or operate heavy machinery, until you know how the ER/LA opioid affects you. The ER/LA opioid can make you sleepy, dizzy, or lightheaded.
- Drink alcohol or use prescription or over-the-counter medicines that contain alcohol.

The possible side effects of the ER/LA opioid are:

- Constipation, nausea, sleepiness, vomiting, tiredness, headache, dizziness. Call your health care provider if you have any of these symptoms and they are severe.

Get emergency medical help if you have:

- Trouble breathing, shortness of breath, fast heartbeat, chest pain, swelling of your face, tongue or throat, extreme drowsiness, or you are feeling faint.

These are not all the possible side effects of the ER/LA opioid. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. **For more information go to dailymed.nlm.nih.gov**

*Individual ER/LA opioid medication guides contain additional product-specific content.

ER/LA = extended-release/long-acting; FDA = U.S. Food and Drug Administration.

Source: Reference 24.

WHEN PATIENTS NO LONGER HAVE A NEED FOR CONTROLLED SUBSTANCES but have remaining medication, it is important to dispose of the medication promptly and safely.

- After using a patch, fold it in half so the sticky parts seal together and then safely dispose of it.
- Make sure patches (including used patches) are kept away from other people and pets.

Educating Patients to Dispose of Opioids Safely

Medications that are improperly placed in the trash can be ingested or applied by children or pets, leading to serious adverse events and deaths. Fentanyl skin patches are of particular concern and young children have died or become seriously ill from accidental exposure to these patches. For example, toddlers may find improperly discarded patches and ingest them or stick patches on themselves.²⁶ Additionally, patients may forget to remove an old patch or inadvertently add a second patch.

When patients no longer have a need for controlled substances but have remaining medication, it is important to dispose of the medication promptly and safely. In addition to preventing poisoning of children and pets, proper disposal of medications:²⁷

- Deters misuse by teenagers and adults.
- Avoids health problems from accidentally taking the wrong medication, too much of the same medication, or an expired medication.
- Keeps medications from entering streams and rivers when poured down the drain or flushed down the toilet. (However, flushing may be appropriate in some cases, as described below in recommendations from relevant federal agencies.)

Prescription bottles also should be disposed of properly because they have individual patient information that could be used by identity thieves to obtain opioids.

DEA Regulations for Controlled Substance Disposal

Ideally, patients should dispose of unused opioids through methods identified by the U.S. Drug Enforcement Administration (DEA) regulations for the disposal of controlled substances. These regulations state that patients who use controlled substances (referred to as “ultimate users”) can dispose of their controlled substances through authorized collectors, collection receptacles, mail-back packages, and take-back events.²⁸

Patients and caregivers may turn in unused medications to collectors registered with the DEA. These authorized collectors safely and securely collect and dispose of controlled substances and other medications. DEA-authorized collection sites may include community pharmacies, hospital or clinic pharmacies, and law enforcement locations. Some authorized collection sites also may offer mail-back programs or collection receptacles (sometimes called “drop boxes”) to assist consumers in safely disposing of their unused medications. Authorized collectors with mail-back programs must provide customers with mail-back packages; they can charge for the packaging or provide the packaging for free. Individuals may call the DEA Registration Support Center to find an authorized collection receptacle location near them, or can search for an authorized collector location using the





link at www.deadiversion.usdoj.gov/drug_disposal/index.html. To protect personally identifiable information, the DEA encourages people not to place prescription bottles in collection receptacles or mail-back packages.²⁸

In general, the only individuals who may lawfully dispose of controlled substances are the patients or household members of the patient (or pet) that was prescribed the controlled substances. There are only two exceptions to this rule. If someone dies while in lawful possession of controlled substances, then any person who is lawfully entitled to dispose of that person's property may dispose of the controlled substances. In addition, a long-term care facility may dispose of a current or former resident's controlled substances.²⁸

Long-term care facilities should dispose of the controlled substances in an

authorized collection receptacle located at the facility. An authorized retail pharmacy or a hospital/clinic with an on-site pharmacy may install, manage, and maintain a collection receptacle at a long-term care facility. When disposing of pharmaceutical controlled substances by transferring those substances into a collection receptacle, disposal must occur immediately (no longer than 3 business days) after discontinuation of use by the patient. Discontinuation includes a permanent discontinuation of use as directed by the prescriber, as a result of the patient's transfer from the facility, or as a result of death.²⁸

In addition to these strategies, DEA states that patients may dispose of their controlled substances using guidelines from the U.S. Environmental Protection Agency (EPA) and FDA for the disposal of medicines.

Recommendations From EPA and FDA

EPA warns that in homes with septic tanks, prescription and over-the-counter medications flushed down the toilet can leach into the ground and seep into ground water. In cities and towns where residences are connected to wastewater treatment plants, medications poured down the sink or flushed down the toilet can pass through the treatment system and enter rivers and lakes. They may flow downstream into sources for community drinking water supplies. Water treatment plants are generally not equipped to routinely remove medications.

EPA advises patients and caregivers without access to DEA-authorized collectors or controlled substance take-back programs to dispose of most medications in the household trash by following these steps:²⁹

AS PEOPLE AGE, their rates of chronic pain increase and they are likely to be frail or have chronic medical conditions that require additional caution for managing their pain safely.

1. Take the medications out of the original containers.
2. Mix the medications with an undesirable substance, such as cat litter or used coffee grounds.
3. Put the mixture into a disposable container with a lid, such as an empty margarine tub, or into a sealable bag.
4. Conceal or remove any personal information, including Rx number, on the empty containers by covering it with permanent marker or duct tape, or by scratching off the label.
5. Dispose of the sealed container with the medication mixture and the empty prescription containers in the trash.

However, EPA recognizes that some medications (e.g., controlled substances) are potentially fatal with just one dose if used by someone other than the person for whom the medication was prescribed. To prevent accidental ingestion of these potentially dangerous controlled substances, EPA recommends that these medications be flushed down the sink or toilet as soon as they are no longer needed.

According to FDA, medications that are recommended for disposal by flushing include the following controlled substances: fentanyl, morphine, buprenorphine, methylphenidate, meperidine, diazepam, hydromorphone, methadone, hydrocodone, tapentadol, oxycodone, and sodium oxybate. Fentanyl patches in particular should be flushed down the toilet immediately after use.²⁷

Summary

The suboptimal assessment and undertreatment of pain is widespread in the United States, especially in older individuals. At the same time, increases in opioid prescribing in recent decades have been associated with increased rates of adverse events, including overdose deaths across age groups. Striking a balance is challenging but vital, particularly for elderly patients. As people age, their rates of chronic pain increase and they are likely to be frail or have chronic medical conditions that require additional caution for managing their pain safely. Ideally, a balanced approach that includes nonpharmacologic and pharmacologic multimodal strategies should be implemented to support patients with chronic pain. The misuse, abuse, and diversion of opioids hampers legitimate efforts to improve pain management. Although rates of opioid misuse and abuse are low in the elderly population, older individuals may be more prone to the adverse effects of these agents, especially if misused. Older adults also may divert medications or be targets of theft.

Efforts to deter inappropriate use of opioids include risk assessments, screening with prescription drug monitoring programs and toxicology, development of ADF opioids, education for prescribers to promote appropriate patient selection and monitoring, and patient education to support appropriate use, storage, and disposal. Comprehensive programs that implement these strategies can help optimize use of opioids by carefully selected patients and minimize inappropriate use of these medications.

References

1. Institute of Medicine. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington, DC: National Academies Press; 2011.
2. Nagda J, Bajwa ZH. Definitions and classifications of pain. In: Warfield CA, Bajwa ZH, eds. *Principles and Practice of Pain Medicine*. 2nd ed. New York, NY: McGraw-Hill; 2004.
3. Won A. Pain in the elderly. In: Warfield CA, Bajwa ZH, eds. *Principles and Practice of Pain Medicine*. 2nd ed. New York, NY: McGraw-Hill; 2004.
4. Alliance for Balanced Pain Management. Alliance for Balanced Pain Management launch [news release]. November 20, 2014. Available at: <http://www.multimedianewscenter.com/allianceforbalancedpainmanagement/alliance-for-balanced-pain-management-launch>. Accessed October 23, 2015.
5. Chou R, Fanciullo GJ, Fine PG, et al.; American Pain Society–American Academy of Pain Medicine Opioids Guidelines Panel. Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. *J Pain*. 2009;10:113–30.
6. Kalso E, Allan L, Dobrogowski J, et al. Do strong opioids have a role in the early management of back pain? Recommendations from a European expert panel. *Curr Med Res Opin*. 2005;21:1819–28.
7. Abdulla A, Adams N, Bone M, et al.; British Geriatric Society. Guidance on the management of pain in older people. *Age Ageing*. 2013;42(suppl 1):i1–57.
8. Furlan AD, Reardon R, Weppler C; National Opioid Use Guideline Group. Opioids for chronic noncancer pain: a new Canadian practice guideline. *CMAJ*. 2010;182:923–30.
9. Franklin GM; American Academy of Neurology. Opioids for chronic noncancer pain: a position paper of the American Academy of Neurology. *Neurology*. 2014;83:1277–84.
10. Fernandes L, Hagen KB, Bijlsma JW, et al. EULAR recommendations for the non-pharmacological core management of hip and knee osteoarthritis. *Ann Rheum Dis*. 2013;72:1125–35.
11. Lunde LH, Nordhus IH, Pallesen S. The effectiveness of cognitive and behavioural treatment of chronic pain in the elderly: a quantitative review. *J Clin Psychol Med Settings*. 2009;16:254–62.
12. Miller M, Stürmer T, Azraei D, et al. Opioid analgesics and the risk of fractures in older adults with arthritis. *J Am Geriatr Soc*. 2011;59:430–8.
13. Food and Drug Administration. Questions and answers: FDA approves a risk evaluation and mitigation strategy (REMS) for extended-release and long-acting (ER/LA) opioid analgesics. July 9, 2012. Update March 1, 2013. Available at: <http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm309742.htm>. Accessed June 12, 2015.
14. Park TW, Saitz R, Ganoczy D, et al. Benzodiazepine prescribing patterns and deaths from drug overdose among US veterans receiving opioid analgesics: case-cohort study. *BMJ*. 2015;350:h2698.
15. Substance Abuse and Mental Health Services Administration. *Results From the 2010 National Survey on Drug Use and Health: Summary of National Findings*. September 2011. Available at: <http://store.samhsa.gov/product/Results-from-the-2010-National-Survey-on-Drug-Use-and-Health-NSDUH-/SMA11-4658>. Accessed October 23, 2015.
16. Inciardi JA, Surratt HL, Cicero TJ, Beard RA. Prescription opioid abuse and diversion in an urban community: the results of an ultrarapid assessment. *Pain Med*. 2009;10:537–48.
17. Gourlay DL, Heit HA, Almahrezi A. Universal precautions in pain medicine: a rational approach to the treatment of chronic pain. *Pain Med*. 2005;6:107–12.
18. Stanos SP, Bruckenthal P, Barkin RL. Strategies to reduce the tampering and subsequent abuse of long-acting opioids: potential risks and benefits of formulations with physical or pharmacologic deterrents to tampering. *Mayo Clin Proc*. 2012;87:683–94.
19. Food and Drug Administration. FDA issues final guidance on the evaluation and labeling of abuse-deterrent opioids [news release]. April 1, 2015. Available at: <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm440713.htm>. Accessed June 12, 2015.
20. Cicero TJ, Ellis MS. Abuse-deterrent formulations and the prescription opioid abuse epidemic in the United States: lessons learned from OxyContin. *JAMA Psychiatry*. 2015;72:424–30.
21. Cassidy TA, DasMahapatra P, Black RA, et al. Changes in prevalence of prescription opioid abuse after introduction of an abuse-deterrent opioid formulation. *Pain Med*. 2014;15:440–51.
22. Substance Abuse and Mental Health Services Administration. *Results From the 2013 National Survey on Drug Use and Health: Summary of National Findings*. September 2014. Available at: <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFHTML2013/Web/NSDUHresults2013.pdf>. Accessed October 23, 2015.
23. Food and Drug Administration. Risk evaluation and mitigation strategy (REMS) for extended-release and long-acting opioids. Available at: <http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm163647.htm>. Accessed October 23, 2015.
24. Food and Drug Administration. Medication guides. Available at: <http://www.fda.gov/downloads/Drugs/DrugSafety/InformationbyDrugClass/UCM312000.pdf>. Accessed June 12, 2015.
25. Cancer.net Editorial Board. Safe storage and disposal of cancer medications. February 2013. Available at: <http://www.cancer.net/navigating-cancer-care/managing-your-care/safe-storage-and-disposal-cancer-medications>. Accessed June 12, 2015.
26. Food and Drug Administration. Fentanyl patch can be deadly to children. Available at: <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm300803.htm>. Accessed June 16, 2015.
27. Food and Drug Administration. Disposal of unused medicines: what you should know. Available at: <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm>. Accessed June 11, 2015.
28. Drug Enforcement Administration. Disposal Act: General Public Fact Sheet. Available at: http://www.deadiversion.usdoj.gov/drug_disposal/index.html. Accessed June 10, 2015.
29. Environmental Protection Agency. How to Dispose of Medicines Properly. April 2011. Available at: <http://water.epa.gov/scitech/swguidance/ppcp/upload/ppcpflyer.pdf>. Accessed June 12, 2015.

[THE GERONTOLOGICAL SOCIETY OF AMERICA]

1220 L Street NW, Suite 901 ■ Washington, DC 20005-4018 ■ www.geron.org