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How Would You Manage Opioid Use in These Three Patients?

Grand Rounds Discussion From Beth Israel Deaconess Medical Center

Daniel P. Alford, MD, MPH; Marc L. Cohen, MD; and Eileen E. Reynolds, MD

The increase in overdose deaths from prescription opioids and heroin in the United States over the past 20 years is believed to have resulted from increases in prescription of opioids for management of acute and chronic pain. Managing chronic pain is challenging for primary care clinicians for many reasons, including the lack of evidence to guide practice. The Centers for Disease Control and Prevention published a comprehensive guideline in 2016 to help clinicians with opioid prescribing for chronic pain. In this Grand Rounds, the guideline is reviewed and an expert discusses its application to 3 patients prescribed opioids to treat chronic pain.

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For author affiliations, see end of text.

Over the past 2 decades, the rate of opioid prescribing for chronic pain in the United States has increased dramatically, and the rate is even faster for primary care physicians (internal medicine, family medicine, pediatrics) than for other specialists. A multifold increase in annual overdose deaths from prescription opioids and heroin has accompanied this increase.

More than 11% of the U.S. adult population report chronic pain, and approximately 3% to 4% are prescribed long-term opioid therapy. Four of 5 people report starting heroin use after prescription opioid misuse (1). Individual states have shown reductions in opioid prescribing after interventions (2, 3). A clinical guideline may be critical to changing the culture of prescribing and to reducing the tragic opioid crisis.

The guideline from the Centers for Disease Control and Prevention (CDC) for prescribing opioids for chronic pain (4) is written for primary care clinicians who are treating patients with chronic pain in outpatient settings and applies to patients older than 18 years. It does not apply to management of pain associated with active cancer treatment, palliative care, or end-of-life care. It is intended to enhance communication between treating clinicians and patients regarding pain, pain management, and the risks of opioid therapy as well as to reduce the risk for opioid use disorder, overdose, and death. To create the guideline, the CDC chartered an expert advisory committee; updated a systematic review; and obtained input from stakeholders, including the public.

The guideline is divided into 3 major sections, with a total of 12 recommendations (see **Table 1** and the **Supplement**, available at Annals.org). Eleven recommendations are category A ("apply to all persons; most patients should receive the recommended course of action"). Number 10, about urine drug testing, is category B ("individual decision making needed"). The level of evidence behind the recommendations is low and never higher than level 3 on a scale of 1 to 4, where 1 is the strongest. Level 3 is defined as "observational studies or randomized clinical trials with notable limita-

ABOUT BEYOND THE GUIDELINES

Beyond the Guidelines is an educational feature based on recent guidelines. Each considers a patient (or patients) who "falls between the cracks" of available evidence and for whom the optimal clinical course in unclear. Presented at Beth Israel Deaconess Medical Center (BIDMC) Grand Rounds, each conference reviews the background evidence and experts then discuss the patient(s) and field audience questions. Videos of the interviews and conference, the slide presentation, and a CME/MOC activity accompany each article. For more information, visit www.annals.org/GrandRounds.

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Discussant: Daniel P. Alford, MD, MPH

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Table 1. Summary of Guideline Recommendations*

Determining when to initiate/continue opioids:	Selection, dosage, duration, follow-up, and discontinuation of opioids:	Assessing risks and addressing harms of opioids:
1. Do not use opioids as first-line therapy. If used, combine with other therapies. 2. Before starting opioids, establish realistic pain and functional goals. Continue opioids only if meaningful improvements outweigh risks. 3. Before starting and then periodically during therapy, discuss risks and benefits of opioids.	4. When starting opioids, use immediate-release formulations. 5. Prescribe the lowest effective opioid dose. Use caution with any dose, if possible avoid doses ≥90-mg morphine mg equivalents. 6. Prescribe short durations for acute pain. Three days or less often sufficient; more than 7 days rarely needed. 7. Evaluate benefits and harms within 4 weeks of starting an opioid and at least every 3 months thereafter.	8. Use strategies to mitigate risk (e.g., naloxone co-prescribing). 9. Review prescription drug monitoring program data. 10. Use urine drug testing. 11. Avoid concurrent benzodiazepines. 12. Offer or arrange treatment for patients with an opioid use disorder.

* From reference 4.

tions." Some recommendations were based on level 4 evidence ("clinical experience and observations").

Although the recommendations are straightforward, applying them to individual patients can be challenging. Here, we share 3 patients' cases and the impressions of their treating physician, Dr. Cohen. Dr. Alford will then discuss how the guideline applies to each scenario.

Mr. A's Story

Mr. A is aged 65 years and has osteoarthritis and joint replacement, which result in chronic pain. He receives long-term opioids and signed a treatment agreement. He took his wife's benzodiazepine, which resulted in an unexpected urine drug test (UDT) and led to a physician-initiated opioid taper followed by uncontrolled pain. Ultimately, Mr. A was restarted on opioids administered through collaboration between his physician and a pain specialist. He is now followed closely with clear expectations about adherence, monitoring with UDTs, and physician visits every 2 months. His medications include methadone, 10 mg every 6 hours, and oxycodone, 5 mg up to 4 times daily, for breakthrough pain. He has reengaged in activities including getting out of the house, which he had been unable to do after his opioid taper. He has had no concerning behaviors since the establishment of the new agreement that included clear treatment goals. See the **Video** (available at Annals.org) to view the primary care physician describing the successes and challenges faced by this patient and clinician.

Physician's Reflection on Mr. A

Mr. A's case presents the opportunity to reset expectations, which involves discussions about opioid agreements and the dangers of taking nonprescribed medications. He related that although he had signed an "agreement," he didn't understand it.

The CDC guideline sets out the components of successful conversations with patients about opioids and what should be contained in an agreement. For example, it emphasizes setting functional in addition to pain control goals. Mr. A identified things he would like to be able to do, such as going outside on a nice day. He now reports some success and pride in achieving those goals as opposed to focusing on pain scores.

Many people believe that the guideline's recommendation that UDT be used suggests that with any abnormality the agreement should be discontinued. This is likely not the intention of the guideline. How can providers get support around UDTs?

Clinical Questions

Question 1: The guideline refers to "written agreements" and "treatment goals" as a way to "clarify expectations regarding how opioids will be prescribed and monitored" in addition to discontinued or tapered. Why was the initial agreement with this patient ineffective?

Question 2: What is the best way to handle unexpected UDT results?

Discussion

Although the CDC guideline states that evidence is inadequate to support the effectiveness of written agreements to prevent misuse of prescription opioids (5), there is also no evidence that they are harmful. Most experts believe that such agreements help clarify clinician and patient expectations regarding opioid prescribing (6). When used, they should include a treatment plan with realistic goals and informed consent regarding risks (for example, physical dependence, overdose, addiction). Although the elements of agreements have been defined (7, 8), implementation remains a challenge. If having patients sign an agreement is viewed as just another administrative task, it misses the important opportunity to educate them about safe opioid use. Presenting agreements as tools to keep patients safe and to clarify expectations and responsibilities should be the goal. Because of variations in patient health literacy (9), agreements should be written at a sixth-grade reading level (10, 11), and methods such as "teach-back" (12) should be used to confirm comprehension. In 1 study, fewer than 20% of patients who signed a pain agreement consistently remembered having done so (13). Therefore, agreements should be reviewed periodically (for example, annually). Because initiation and review of agreements are time-

consuming, other team members (such as nurses) need to be trained to assist with effective implementation. For Mr. A, the initial agreement may not have been effective because of a problem with the agreement itself (for example, written at an inappropriate reading level) or its implementation (for example, inadequate review initially or periodically).

The guideline emphasizes establishing realistic treatment goals with all patients that focus on function, but the clinician should also emphasize safety, such as not permitting unsanctioned dose escalation between visits. The guideline recommends that opioids be continued only in the setting of "clinically meaningful improvement," defined as a "30% improvement" in pain and function and when such improvement "outweighs risks to patient safety." This definition came from an international expert consensus statement that reviewed empirical evidence of clinically important change in the treatment of low back pain (14). Although these goals are essential, they rely solely on subjective patient reports of benefits even when using validated multidimensional scales (15). Moreover, goals vary from patient to patient and over time.

The guideline recommends UDT as an objective measure of therapeutic adherence (that is, the medication prescribed is detected in the urine) as well as any illicit or nonprescribed drug use. A major hurdle to effective UDTs is lack of clinician competence in ordering the test and interpreting the results (16, 17). Another drawback is that it provides information about a single point in time and does not, in itself, diagnose an opioid use disorder or detect diversion (for example, selling prescription opioids). To accurately interpret UDT results, clinicians must order the correct assay, understand the opioid metabolic pathways, and know the expected drug detection times and potential causes of false-positive and false-negative results. Because of this complexity, clinicians should consult their laboratory for assistance in interpretation.

The guideline discourages dismissing patients in the event of unexpected results. Use of UDTs is not about "catching" patients doing something wrong, but rather assessing increased risk for opioid misuse (18). A confirmed unexpected UDT result in a patient, such as that in Mr. A, indicates a new safety risk. The appropriate change in treatment plan depends on the new level of risk. If UDT results are negative for the prescribed opioid or positive for a nonprescribed drug, the next course of action depends on the most likely diagnosis (for example, diversion, running out early due to unsanctioned dose escalation, substance use disorder). If there is a pattern of unsafe behavior, tapering opioids may be the safest and most appropriate course of action, even in the setting of improvements in pain and function. If tapering is the best approach, it is not the patient being abandoned, but a risky or harmful treatment (that is, opioids). During the taper, other pharmacologic and nonpharmacologic pain management strategies should be instituted.

Mr. A's physician should ensure that the agreement is written at the appropriate grade level and reviewed periodically (for example, annually). The physician should discuss the unexpected UDT result nonjudgmentally and review the risks of taking medications not prescribed to the patient and, specifically, the increased risks for overdose with concurrent benzodiazepine and opioid use (19). The physician should further assess and attempt to manage the symptoms that led Mr. A to self-medicate with his wife's benzodiazepines. He should increase the level of safety monitoring (for example, more frequent face-to-face visits and UDTs) due to a history of unsafe behaviors.

Ms. B's Story

Ms. B is an elderly woman with hypertension who struggles with pain from osteoarthritis, severe varicose veins, and lumbar radiculitis. Magnetic resonance imaging (MRI) of her spine shows severe degenerative disease and facet joint narrowing with neural impingement. Her physician has avoided nonsteroidal anti-inflammatory drugs (NSAIDs) because of the hypertension. She takes 50 mg of tramadol twice daily. Pain control is good. The drug has improved Ms. B's functional ability and allows her to care for her disabled son. She never calls for early refills, appropriately engages in care, sees a physical therapist, and follows up with her orthopedist. She has done well on opioid therapy. See the **Video** (available at Annals.org) to view the primary care physician describing the successes and challenges faced by this patient and clinician.

Physician's Reflection on Ms. B

How long Ms. B's dose has remained stable is surprising. Whether someone with so few risk factors requires visits every 3 months to monitor opioid use is questionable; however, is the clinician meeting the standard of care by reducing the frequency of her visits? It seems that more time should be spent monitoring moderate- to high-risk patients and less on lower-risk patients. Whether it is appropriate or cost-effective with regard to provider time to check the Prescription Drug Monitoring Program (PDMP) for every refill, and the frequency of monitoring dose reassessments for someone with such stable, chronic orthopedic issues is worth debating.

Since the Drug Enforcement Agency (DEA) rescheduled tramadol, many of the rules that apply to acetaminophen with codeine now apply to tramadol. A lot of providers wonder, "Should I apply the guidelines to this medication? Do we considerate it an opioid?" It's confusing.

Clinical Questions

Question 1: Are visits every 3 months necessary for all patients receiving long-term opioid therapy? Is it necessary to check the PDMP every time an opioid is prescribed?

Question 2: Should the rules for tramadol be the same as those for other opioid analgesics?

DISCUSSION

The CDC guideline recommends evaluating patients receiving opioid therapy for benefits and harms at least every 3 months. Other guidelines recommend basing monitoring frequency on a patient's risk for misuse (that is, low, moderate, high) (20). For example, although the guideline recommends UDTs for all patients at least annually, another guideline recommends UDT frequency based on a patient's risk: low risk, every 1 to 2 years; moderate risk, every 6 to 12 months; and high risk, every 3 to 6 months (20). The optimal frequency has not been well-studied, and expert opinion varies.

Although numerous risk assessment tools have been developed (21, 22), including the Screener and Opioid Assessment for Patients with Pain (23) and the Opioid Risk Tool (23), the CDC states that no tool reliably identifies patients at "low risk." Most experts agree that all patients have at least some risk and therefore "universal precautions" should be applied when opioids are prescribed (24)—in other words, all patients prescribed opioids for chronic pain should be monitored for adherence and safety. Because of the lack of consensus on monitoring frequency, it is important for individual practices to agree on policies to ensure consistency. In this way, patients will not feel singled out or stigmatized and systems of care can be standardized.

State PDMPs make patients' controlled prescription histories available to prescribers and pharmacists. The guideline recommends reviewing the PDMP at every refill or at least every 3 months—there is no specific guidance on determining the appropriate frequency for any given patient. Although there is some evidence that PDMP use can change prescriber and patient behaviors (4), no evidence has yet shown that it decreases the rate of adverse events associated with opioid misuse (for example, addiction, overdose deaths). Of note, research on the yield of clinically useful information (for example, multiple prescribers, unexpected controlled substance prescriptions) by regularly checking the PDMP in primary care settings is also lacking. This is particularly important because of the many competing priorities and mandates for the primary care team (25). Is checking the PDMP before every opioid prescription for all patients a good use of prescribers' or their delegates' time (that is, staff with authority to review the PDMP on the prescriber's behalf)? Would that time be better spent reeducating patients about opioid safety? However, this is becoming a moot point because many states are mandating PDMP checks before every prescription, despite lack of evidence of efficacy (26).

The guideline recommendations address all opioid pain medications without singling out specific drugs. Because tramadol has opioid properties, it should be included under the umbrella term of "opioid pain medications." Tramadol is a dual-mechanism analgesic structurally related to codeine. It inhibits spinal cord pain transmission via the descending inhibitory pathway and is an opioid agonist at the μ-opioid receptor (27). The Drug Abuse Advisory Committee of the U.S. Food and Drug Administration initially recommended against scheduling tramadol as a controlled substance on the basis of preliminary human and animal studies that found a low potential for misuse as well as nearly 2 decades of safe use in Europe. Initial epidemiologic studies confirmed that tramadol misuse was low compared with other opioids (28). However, based on subsequent epidemiologic reports and surveillance studies that found diversion and misuse (29) and experimental human studies showing a dose-dependent misuse liability (30), in 2014 the DEA rescheduled tramadol as a controlled substance. It is prudent to treat tramadol with similar universal precautions as other prescribed opioids.

Ms. B's physician should apply these precautions but individualize frequency of monitoring based on her risk factors (31). If she is truly "low risk," face-to-face visits less frequently than every 3 months may be appropriate. He should check the PDMP initially and then periodically based on Ms. B's misuse risk, or if any concerns arise. However, state laws may dictate frequency of PDMP checks. Because tramadol carries some risk for misuse, the physician should apply the same safety monitoring strategies as with other opioids.

MS. C'S STORY

Ms. C is a middle-aged woman transferring her care. She reports a severe degenerative back problem, fibromyalgia, and seizures. At 30, she began having disabling back pain and had to stop working as a cashier. After she developed gastric ulcers from NSAID use, she underwent nerve blocks and ablations with no relief. She has a history of intolerance to numerous other nonopioid therapies, such as tricyclic antidepressants and anticonvulsants. She reports a prior trial of physical therapy, from which she did not perceive much benefit. She was incapacitated by pain until starting high-dose opioids. On good days, she can walk for 5 minutes but often uses a wheelchair or walker. The medications Ms. C was already taking at the time of her initial visit to the office are listed in Table 2.

Ms. C's MRI shows diffuse degenerative disease but no nerve compression. She is between psychiatrists. She expresses fear that someone will take her opioids away. She is due for refills. See the Video (available at Annals.org) to view the primary care physician describing the successes and challenges faced by this patient and clinician.

Table 2. Ms. C's Medications (Listed by Total Daily Dose)

Medication	Dose
Morphine extended release	200 mg
Morphine immediate release	Up to 120–180 mg as needed
Clonazepam	8 mg
Cyclobenzaprine	30 mg
Dextroamphetamine-amphetamine	90 mg
Escitalopram	40 mg
Gabapentin	5400 mg
Quetiapine	900-mg tablet
Acetaminophen	2500 mg

PHYSICIAN'S REFLECTION ON MS. C

No guideline can reduce the stress of this type of visit; however, having a guideline does provide some structure and an objective reference. Clinicians often face a major challenge if they believe a new patient is receiving higher doses than clinically indicated—not reducing the dose feels like a neglect of duty and may carry medicolegal risk now that dose thresholds are a part of a guideline. It is difficult to assess functional improvement in a patient with highly limited baseline function. There is a lot of work involved in moving a patient from "I am in pain, and I need pain control" to "I cannot do X, and I would like to be able to do it in this many weeks."

How can this patient be engaged in nonopioid therapies, given her diffuse pain syndrome, fibromyalgia, and lack of clear pain generators on objective imaging? Nonopioid treatments are probably safer, although the patient has a number of allergies and sensitivities. Developing a reasonable nonopioid pain plan for this type of patient is a struggle for many doctors.

Ms. C lives an hour away and doesn't have reliable transportation. While there may be resources that can assist with these logistics, patients need to understand that regular office visits are an integral aspect of the partnership in order for the clinician to be able to assess pain and function, mental health, and overall medication safety.

CLINICAL QUESTIONS

Question 1: When inheriting patients like Ms. C, how can clinicians adhere to the guideline's dose limits (which may be at odds with the patient's request) and create a collaborative relationship with their patients?

Question 2: Nonpharmacologic therapy and psychosocial supports are key. However, limited accessibility prevents their use. What should providers do when nonopioid choices are limited?

DISCUSSION

This is a complicated patient with disabling chronic pain and psychiatric comorbidities who is receiving high-dose opioids and benzodiazepines; however, she still seems to have poor function and quality of life. Non–primary care providers often underappreciate how complicated these clinical encounters can be. Patients may have unrealistic expectations regarding the potential benefits of opioids and may not understand or may underestimate or disregard their harms. There may also be mistrust between the patient and the health care team. Patients may fear that their pain and suffering is not believed, and clinicians may fear that they are being taken advantage of (32, 33). Although the guideline aims to "improve communication about benefits and risks of opioids for chronic pain," it will not prevent the clinician from having difficult, anxiety-producing, and time-consuming discussions regarding modifying or discontinuing opioid therapy.

Ms. C will probably resist attempts to modify her opioids despite education efforts on the lack of apparent functional benefit and increased risk for fatal overdose when high-dose opioids are combined with benzodiazepines (19). Whether Ms. C is addicted and "drug-seeking," in severe pain and appropriately "pain-relief seeking," or a combination of these (34) is difficult to sort out. Clinicians must base complex treatment decisions on a brief subjective assessment of whether there is sufficient benefit to justify continued therapy or whether harm is sufficient to justify discontinuation. The provider's approach may be at odds with the patient's request. Although it is intended to keep the patient safe, such an approach may threaten the collaborative relationship that clinicians work hard to develop.

The guideline recommends prescribing the "lowest effective [opioid] dose," but what is the definition of "effective"? A patient's response to and tolerance of different opioids and doses are influenced by genetic variations in μ-opioid–receptor binding and opioid metabolism (35–37). Therefore, the optimal effective dose for any given patient that both maximizes benefit and minimizes harm is hard to predict. Dose-limit recommendations are based on low-quality evidence that focuses on associations between dose and overdose risk but could result in some patients being denied treatment despite apparent benefit. Although we should always minimize the dose of any medication, it is unlikely that Ms. C will be open-minded about a dose reduction. She has already expressed fear that "someone will try to take the opioids away." Despite not being the guideline's intent, there is concern that the "recommended" dose thresholds will lead insurers to deny coverage for patients receiving high-dose opioids. To try to avoid arbitrary dose reductions for patients already receiving high doses, the guideline specifically recommends that we "reevaluate high dosages" in established patients rather than automatically decreasing them. Further complicating the concept of opioid dose thresholds is the inexact science and the lack of a universally accepted method of converting different opioids to morphine milligram equivalents (38). Current conversion tables do not take into account pharmacogenetic differences in receptor-binding affinity, physical tolerance, and other pharmacokinetic properties (39).

The guideline recommends "nonpharmacologic therapy" as "preferred" for chronic pain. Ms. C's best chance for improvement will be through team-oriented, evidence-based multimodal care that includes psychobehavioral (for example, cognitive behavioral treatment), physical, interventional, and complementary (for example, acupuncture) (40) methods, as well as self-care and medical treatments led by a pain specialist (41, 42). However, despite comprehensive multimodal pain care being more cost-effective than single-modality treatments (43), it is not universally available (44). It is therefore unlikely that Ms. C and her

physician will be able to adhere to the guideline recommendations of prioritizing evidence-based nonpharmacologic pain care. Unfortunately, clinicians treating patients like Ms. C will be limited to multiple unsatisfactory treatment options: continuing a high-dose regimen that carries risk but does not seem to provide significant benefit; decreasing the opioid dose to a "safer" level, which may result in the patient seeking a new provider; or tapering the opioid and having little else to offer the patient for her severe chronic pain given that she has already tried many nonopioid pharmacologic therapies.

Ms. C's physician will most likely need to take a long-term risk mitigation strategy of tapering her current risky combination of high-dose sedatives (that is, opioids, benzodiazepines, and cyclobenzaprine) and high-dose stimulants (that is, dextroamphetamine) while trying to institute nonpharmacologic pain management strategies. Initially, her physician needs to build trust by empathically validating her symptoms, suffering, and fear and by emphasizing that success requires collaboration. This should be followed by a discussion of her polypharmacy, which, although probably started and titrated with good intentions, is not providing adequate benefits and is putting her health at risk (for example, overdose, falls). Using shared decision making, the clinician and patient need to determine which medications are least beneficial and can be tapered first. During tapering, Ms. C should be referred to multimodal pain management services, if available. If not, she should be given information on available self-care Web sites (such as https://theacpa.org/), smartphone apps, and workbooks (45, 46). Some therapies (for example, physical therapy) that were previously perceived as nonbeneficial should be retried. In addition, her pain might improve on lower-dose opioids if she has developed opioid-induced hyperalgesia (47). Unfortunately, patients like Ms. C may leave their physician before completing the taper and transitioning to new treatments. The provider should not discount the importance of a therapeutic relationship even in the absence of effective treatment. Some patients benefit simply from being listened to and having their symptoms validated by an empathic, caring provider.

SUMMARY

The CDC guideline regarding opioid prescribing for chronic pain seeks to improve communication between patients and clinicians and to reduce patient harms, including substance use disorder and overdose death. Despite limited evidence, clinicians should use the guideline to determine when and how to initiate or continue opioids for chronic pain; for assistance with dose, duration, and continuation of therapy; and for assessment of risks and potential harms from opioid use. Each patient will present unique challenges, but consistent implementation of the guideline may improve care and outcomes.

A transcript of the audience question-and-answer period is available in the **Appendix** (available at Annals.org). To view the entire conference video, including the question-and-answer session, go to Annals.org.

AUTHOR BIOGRAPHIES

Dr. Alford is Director of the Clinical Addiction Research and Education Unit at Boston Medical Center and Professor of Medicine and Assistant Dean for Continuing Medical Education at Boston University School of Medicine, Boston, Massachusetts.

Dr. Cohen has served as chair of the Narcotics Committee and currently as Assistant Medical Director at Healthcare Associates (the hospital-based faculty-resident primary care practice) and member of the Opioid Care Committee at Beth Israel Deaconess Medical Center and is an Instructor in Medicine at Harvard Medical School, Boston, Massachusetts.

Dr. Reynolds is Chief of the Division of General Medicine and Primary Care and Vice Chair for Education in the Department of Medicine at Beth Israel Deaconess Medical Center and Associate Professor of Medicine at Harvard Medical School, Boston, Massachusetts.

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Requests for Single Reprints: Eileen E. Reynolds, MD, Division of General Medicine and Primary Care, Beth Israel Deaconess Medical Center, 330 Brookline Avenue, Boston, MA 02215; e-mail, ereynold@bidmc.harvard.edu.

Current author addresses are available at Annals.org.

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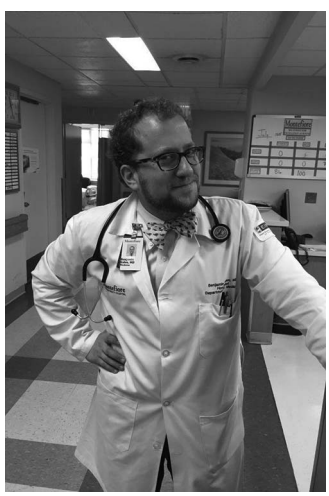
Congratulations to Benjamin T. Galen, MD, winner of the 2016 *Annals* Personae prize. His photograph was published on the cover of the 5 April 2016 issue (vol. 164, no. 7) and is reprinted below.



For more information on the *Annals* Personae prize and to view a list of past winners, go to www.annals.org/aim/pages/personae-photography.

Current Author Addresses: Dr. Alford: Boston Medical Center, 801 Massachusetts Avenue, Boston, MA 02118.
Drs. Cohen and Reynolds: Beth Israel Deaconess Medical Center, 330 Brookline Avenue, Boston, MA 02215.

Appendix: Questions and Comments

Dr. Reynolds: I hope that we have a rich conversation with questions from the audience, but first, let's ask Dr. Cohen and Dr. Alford to start us off with any brief reflections.

Dr. Cohen: I think any advocacy we can do around payment reform—such as at a hospital level or with our professional organizations—so that nonpharmacologic therapies can have support is really important. Lack of coverage for alternatives to pharmacotherapy often limits our ability to move patients off of opioid medications. Especially here at our institution, we have been talking a lot about multidisciplinary care and patient-centered medical homes (PCMHs). We just talked about a lot of recommendations for what makes care safe, and I know probably most people in the room are thinking, "How in the world am I going to have time to do all of this in a visit?" So, have there been any attempts to study, or models that have shown improved efficacy for, multidisciplinary PCMH-based care models, either at your institution or others?

Dr. Alford: I think safe opioid prescribing requires a team effort, and part of the problem is that much of the attention, including education, has been focused only on the prescriber. In primary care, we manage lots of complex medical conditions and prescribe complicated and potentially harmful medications, but we don't do it by ourselves. For example, when you transition a patient onto insulin, we have our nurse and pharmacist colleagues assist us with patient education and monitoring. The whole health care team should be involved. There are lots of things that nurses, pharmacists, medical assistants, and social workers can do in terms of monitoring safe opioid use. There are models out there including in the Veterans Affairs [VA] system. There is a project at the Philadelphia VA called the "Opioid Renewal Clinic," a multidisciplinary model for highest-risk patients with chronic pain on long-term opioids (48). They see very good outcomes in terms of adherence with safe opioid use. Investigators at Boston Medical Center have been studying the effectiveness of a collaborative care model partnering a nurse care manager with physicians to promote adherence to chronic opioid therapy guidelines and reduce patient opioid misuse (49). I think we need to be creative in developing systems to support safe opioid prescribing—for example, use of patient registries and decision-support tools. Implementing agreements and monitoring for adherence and safety take time and do not necessarily need to be done by the prescriber alone.

Dr. Mark Aronson: Could you comment on the pain score as a driver of opioid prescriptions? When I trained, we never had a pain score; it was made a fifth vital sign, and I think it correlates perfectly with the prescriptions of opioids and overdoses.

Dr. Alford: There has been a lot of talk about how making pain the fifth vital sign by The Joint Commission has led to overprescribing opioids. There is probably some truth to that, although I think we would all agree about the importance of thoroughly assessing pain. Moreover, just because a patient has severe pain does not mean that opioids are his or her best treatment option. One problem is with our imperfect assessment tools. Asking somebody about their pain on a 0-to-10 scale is problematic. One patient's 10 is someone else's 8 or is someone else's 20, so it is really, really hard to interpret. We are left with starting somebody on a potentially harmful medication, namely an opioid, with difficulty measuring benefit. There is an assessment tool called the PEG scale [Pain, Enjoyment of life, General activity] (50). This is a more thorough assessment than just asking about pain, but it also is an incomplete measure of function and quality of life. A related and troubling problem is the linkage of reimbursement to patient satisfaction surveys, which ask about adequate pain management. This is problematic because pain treatments are imperfect, so patients may be dissatisfied despite receiving the best quality of care. It has been suggested that these patient satisfaction surveys may drive overprescribing of opioids in an effort to improve patient satisfaction (51).

Dr. Cohen: It is important, also, to remember that probably behind the drive for the fifth vital sign was really a lens on acute pain in an inpatient setting, and here we are talking about chronic pain in an outpatient setting. For chronic pain in an outpatient setting, we are thinking about long-term function. It probably is appropriate for a patient who has a fractured bone, lying in a hospital bed, to have their medications titrated and a pain score followed; but that may not apply to outpatients.

Dr. Peter Zuromskis: There are a limited number of inpatient programs, some of them fairly extensive, obviously costly. What is the role in management of patients like Ms. C for these inpatient programs?

Dr. Alford: If you are going to make a dramatic change in Ms. C's opioid dose, doing it in an inpatient setting may be appropriate. Ideally, tapering her medications needs to be done slowly to avoid precipitating withdrawal. However, if you are worried about her safety to the point that you don't feel comfortable even writing an initial prescription, then referral to an inpatient medically supervised withdrawal program is appropriate. However, the challenge will be in finding a program that will manage both the opioid taper and the chronic pain. A concern about tapering Ms. C as an

outpatient is fear that she will not adhere to the tapering schedule if she is not 100% convinced that she should be tapered off opioids and treated with nonopioid therapies.

Dr. Jacqueline Wolf: As a specialist, my patient—just as in the primary care setting—would come to me and say, "My previous gastroenterologist gave me these pain meds, and my primary care physician won't prescribe them." The patient comes in on chronic narcotics from an outside institution, and we really have no way to monitor it without any nurses or other assistants in our practice. What do you do? How do you get those patients to engage with you? Do you tell them to get another primary care physician and they should monitor it? How do you deal with this situation, which occurs frequently?

Dr. Alford: Primary care providers have the advantage over episodic care and specialty care providers of knowing our patients well over time, including knowing their families, and their functional status in and out of the office. Unfortunately, there is a lot of variability in how generalists manage opioid therapy, including the extremes of never prescribing to overprescribing. From the primary care perspective, when my plan for pain management is to discontinue opioids or not initiate opioids, the first thing that I do is ensure that the patient understands my rationale for the treatment plan. If they believe that I am discontinuing opioids because I don't believe the severity of their pain, then they will not be open to hearing my rationale for changing their treatment. Ideally the patient would say, "You want to make the change because you don't think it's helping me or you think it's hurting me." In terms of what we do next—although we want to be patient-centric in what we do—there are times when we need to make clinical decisions that may be at odds with the patient's requests. I think patients find appreciating personal risk difficult. There will be times when we completely disagree, and a patient will leave unhappy and frustrated and determined to change providers. What we need is universally available comprehensive pain management. In its absence, primary care is left managing most of the patients with complicated chronic pain.

Dr. Diane Brockmeyer: Could you comment on the utility of talking with prior prescribers for a patient like Ms. C? She is coming with clearly no primary care doctor, no psychiatrist, and a big medication list. I am wondering what your expert judgment or the guidelines would say about that.

Dr. Alford: Contacting previous providers is critical, as PDMPs only give part of the patient's prescription history. I think an unintended negative consequence of a PDMP is that we may now be less likely to contact each other. Why? Because in the past if you inherited a patient such as Ms. C, on very high opioid doses you would say, "There is no way I can prescribe these doses until I talk to your previous clinician." Now, we can go online and immediately verify the patient's prescription history and be falsely reassured if we see a history of 1 prescriber and 1 pharmacy. What we don't know from the PDMP is why the patient left their previous provider. Did the previous physician want to change therapy due to a severe adverse event, such as an overdose? A study published in the *Annals of Internal Medicine* based on data from a large U.S. health insurer found that nearly all patients having a nonfatal opioid overdose subsequently continued to receive prescription opioids (52). It is not because we, on the primary care end, are saying, "I am ignoring that overdose." I suspect it is because we did not know about it—because someone did not call us. We need to do a better job communicating with one another. I am glad you brought that up.

Dr. Mark Zeidel: These patients are obviously quite complicated. There are many good-sized practices that have lots of these patients, and although there are some similarities, each practice seems to be setting up its own way of dealing with them. We need some sort of consortium approach, a la ARDSnet, where populations of patients with complex problems are managed by groups where guidelines are followed. This way, we can see what works and actually put some science behind it. Is there any consortium forming up? Wouldn't it make sense for us to develop an ARDSnet-type consortium of practices so this can be done the same way from place to place to place? The needs seem similar but we tend to do very different things, even across town.

I will add one other thing. Surgeons, in managing trauma, have created standards that mandate getting the resources needed to manage things. So coming up with standards might also help us with the issue of having the resources needed to manage the population.

Dr. Alford: I completely agree. The VA has developed system-wide standards (www.va.gov/painmanagement/docs/cpg_opioidtherapy_summary.pdf). Clearly, it has many patients suffering from chronic pain, many of whom are on opioid therapy. Some colleagues who are members of the Society of General Internal Medicine Pain Medicine Interest group have created pain practices within primary care staffed by generalists with expertise in pain management, where all opioid prescribing and monitoring take place. The advantage to this model is you have committed faculty who understand the evidence, guidelines, and best practices and implement them consistently. Residents and medical students who rotate through learn best practices. I agree that we need to do this more collaboratively, share our experiences, and study various models.

Dr. Cohen: The comments from Drs. Wolf, Brockmeyer, and Zeidel all relate to communication, which

I think we need to do a better job of. In Boston, the Harvard Center for Primary Care has recently founded a new Primary Care Improvement Network (https://primarycare.hms.harvard.edu/primary-care-improvement-network/) with one of its first major focuses in fact being safe opioid care. This is a start for bringing some consensus, at least locally. But we need to think about what is going on in other regions, work with the VA, and share.

Dr. Reynolds: Thanks, everyone, for your attention. I also want to thank Drs. Alford and Cohen for their time and Dr. Cohen's patients for their willingness to have us discuss them today.

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