



# Value Added

The newsletter of the CVCR

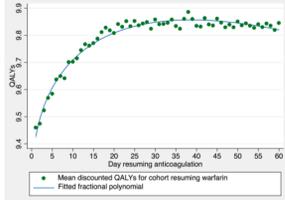
## Restarting anticoagulation after a bleeding event?

October 2018

When patients are diagnosed with atrial fibrillation, they are often prescribed anticoagulants ("blood thinners"). Anticoagulants very effectively reduce the risk of stroke, but when patients are hospitalized for bleeding events, the blood thinner has to be at least temporarily stopped. But how long after a bleed should anticoagulants be restarted? Restart too early, and patients are exposed to higher-than-necessary risk of more bleeding and recurrent hospitalization. Wait too long, and patients are exposed to higher-than-necessary risk of a potentially devastating stroke. Dr. Matthew Pappas has been studying when to restart anticoagulants for patients with atrial fibrillation after a bleeding event, with a goal of balancing the benefits and harms of anticoagulation in this group of patients.

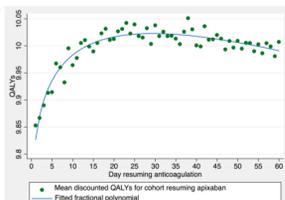
### You've been studying when to restart anticoagulation after a bleeding event. What made you want to study that?

*It's a decision that comes up frequently, and I wasn't very satisfied with the decisions that we were making on our patients' behalf. After a patient is admitted for a serious bleed, we would talk with them about why they should restart, but there's very little guidance for patients or clinicians. In the long term, we know that most patients benefit from restarting anticoagulation, but exactly when they should restart has never been clear. And so we essentially make an educated guess, and saying "2 weeks" or some other interval of time. But that felt very arbitrary to me, and it seemed to me that there must be a better basis for deciding when to restart anticoagulation.*



### If patients benefit in the long term from restarting, why not just restart right away?

*The risk of recurrent bleeding is highest right after a bleeding event. So if you were to restart right away, you would probably cause more recurrent bleeding, more hospitalizations, and more fatal bleeding events. But the daily risk of recurrent bleeding decreases over time. So at some point, the expected harm from more bleeding falls below the benefit benefit of preventing strokes. That's the best time to restart.*



### After patients have just been hospitalized for a bleeding event, are they nervous about restarting anticoagulation?

*Some are, yes. And that's reasonable! Some people die from bleeding, and nobody likes to be hospitalized. But patients also want to avoid strokes, and the death or lifelong disability that can result. Part of our job is to help patients make the best possible decisions, and that requires that we appropriately balance benefits and harms when we make recommendations. To your first question, I didn't feel that we were adequately doing that here.*

### What did you find?

*For warfarin, the best time to restart is around 6 weeks after an upper GI bleed has stopped. For apixaban, the best time to restart is a little earlier — around one month after an upper GI bleed has stopped. That's an average; obviously, some patients should restart sooner, and some should wait longer.*

### How would patients and physicians decide that?

*Fortunately, both stroke risk and recurrent bleeding risk have risk prediction tools already published. If a patient's risk of rebleeding is lower, you would be inclined to restart more quickly. And if a patient's risk of stroke is higher, you'd be inclined to restart more quickly. But it doesn't make as big a difference as you might think. Even the highest stroke-risk patients would still ideally wait more than a month to restart warfarin. Before I started this research project, I almost always set up follow-up appointments with anticoagulation clinics earlier than that.*

### How big of a difference would that make?

*It's hard to say exactly, because current timing is so arbitrary — ask four doctors, and you'll get six opinions. But the health benefit of waiting until 42 days instead of resuming after 14 days (like I might have done before) is around 4 to 5 times larger than what you expect from lung cancer screening. Obviously, these are different patient populations, and those aren't either/or. But the benefit for these patients is nontrivial, and this doesn't require anything more than thoughtful scheduling!*

### How will your findings impact care of these patients?

*Most of these patients are already followed in an anticoagulation clinic. So my first step has been to request a follow-up appointment in the anticoagulation clinic at the right time. So instead of asking for an appointment in two weeks, my team and I ask for an appointment between one month and 7 weeks, as appropriate. Now, most of these patients will have another appointment between discharge and their anticoagulation appointment, and we've tried to describe our reasoning in the discharge summary. We want to communicate that the delay is intentional, not an omission.*

### What are your next steps?

*The first manuscript from this work is under peer review right now. After it's published, I'd like to persuade my colleagues to request follow-up after an appropriate amount of time. I'd also like to answer the same questions for other kinds of bleeding events. Upper GI bleeding is more common, but most anticoagulation-related deaths and disability come from intracranial hemorrhage. Getting the timing right after intracranial hemorrhage (if it's even helpful to restart at all!) would make an even bigger difference to patient outcomes.*

## Featured study-in-progress:

Describing the Scope of Chronic Pain and Chronic Opioid Use in Primary Care

**Principal Investigator:** Michael Rothberg, MD MPH

**Co-Investigator:** Alexander Chaitoff, MPH

### Overview

Especially following its classification as the "fifth vital sign", physicians have been under increasing pressure to recognize and treat pain. Estimates of the prevalence of pain in the US ranges from 39 to well over 100 million persons, or 16-41% of the adult population. However, these estimates come from cross-sectional surveys, which offer no insight into the natural history of chronic pain or the effectiveness of treatments. There is a particular lack of data regarding chronic pain in primary care in the US. The most complete study is nearly two decades old, not limited to the United States, cross-sectional, contains only a limited set of covariates focused mainly on patient mental health status, and provides no information on treatment. Most other studies are limited to patients treated at pain clinics, are not limited to US populations, and provide only short-term follow-up of a few hundred of patients.

More recently, physicians have been discouraged from treating pain with opioids. While pain medication is intended to improve patients' comfort, millions of Americans also engage in nonmedical uses of the prescription opioids each year. The increased use of opioids has led to significant morbidity and healthcare utilization; in 2015, more than 15,000 Americans died from overdoses involving prescription opioids. The severity of the situation led the Surgeon General to publish a call-to-action urging physicians to be more vigilant when considering opioid prescriptions. As calls to limit the use of opioids grow louder, it is important to understand how they may impact patients already at risk of being undertreated for chronic pain. As over half of all opioids are prescribed in primary care, better understanding the scope of chronic pain and trends in opioid prescribing in said population is especially important.

### What is the scope of chronic pain in a primary care population?

In our study of over 180,000 Cleveland Clinic patients, 16.5% of patients reported at least one period of chronic pain (>3 months of pain in the same location) to their primary care provider between 2014-2015. Additionally, 5.4% of over 800,000 visits were associated with self-reported chronic pain, of which most involved complaints related to the lower extremities or back. Those reporting a period of chronic pain tended to be older, female, Black, and to have lower median incomes. Nearly 42% of patient's who reported at least one period of chronic pain had a mental health diagnosis in their chart for which many had been prescribed an antidepressant. It did not seem that providers were jumping to opioid prescriptions to treat pain, as over 60% and 80% of patients reporting chronic pain had received a prescription for an NSAID or Tylenol as well.

### Trends in Opioid Prescribing in Primary Care

Between 2006-2017, 26.8% of primary care patients received at least one chronic opioid prescription (defined as receiving a prescription in 2 or more consecutive months). The percentage of patients on a chronic opioid in any given year increased from 2006 through 2015 where it peaked at 9.5% before beginning to decline. Since 2006, fewer established patients who were opioid-naïve patients have been receiving first-time opioid prescriptions. However, amongst patients new to the Cleveland Clinic system, opioid prescribing rose from 2006-2010 before beginning to decline. In 2016 and 2017, the years following mandatory OARRS review, patients began to be taken off their opioids at higher rates.

### Summary

Chronic pain is highly prevalent and often brought up to primary care providers. Many treatments are trialed for chronic pain, and in recent years fewer patients are receiving chronic opioid prescriptions, meaning new treatments are needed to take their place. Future work may assess how well different treatments for pain work and if those prescribed opioids have any significant decrease in their self-reported pain scores or emergency room visits compared with those with chronic pain who do not receive an opioid.

## Recent Publications

[Patterns of Use and Correlates of Patient Satisfaction with a Large Nationwide Direct to Consumer Telemedicine Service.](#) Martínez KA, Rood M, Jhangiani N, Kou L, Rose S, Boissy A, Rothberg MB. J Gen Intern Med.

[Anticipated Rates and Costs of Guideline-Concordant Preoperative Stress Testing.](#) Pappas MA, Sessler DI, Rothberg MB. Anesth Analg.

[Characteristics of Successful Internal Medicine Resident Research Projects: Predictors of Journal Publication Versus Abstract Presentation.](#) Atreya AR, Stefan M, Friderici JL, Kleppel R, Fitzgerald J, Rothberg MB. Acad Med.

[Association Between Number of Preventive Care Guidelines and Preventive Care Utilization by Patients.](#) Taksler GB, Pfoh ER, Stange KC, Rothberg MB. Am J Prev Med.

[Physicians' Views of Self-Monitoring of Blood Glucose in Patients With Type 2 Diabetes Not on Insulin.](#) Havele SA, Pfoh ER, Yan C, Misra-Hebert AD, Le P, Rothberg MB. Ann Fam Med.

[Reducing age bias in decision analyses of anticoagulation for patients with nonvalvular atrial fibrillation - A microsimulation study.](#) Pappas MA, Vijan S, Rothberg MB, Singer DE. PLoS One.

[Comparative Antimicrobial Efficacy of Two Hand Sanitizers in Intensive Care Units Common Areas: A Randomized, Controlled Trial.](#) Deshpande A, Fox J, Wong KK, Cadnum JL, Sankar T, Jencson A, Schramm S, Fraser TG, Donskey CJ, Gordon S. Infect Control Hosp Epidemiol.

[Cost-Effectiveness of Competing Treatment Strategies for Clostridium difficile Infection: A Systematic Review.](#) Le P, Nghiem VT, Mullen PD, Deshpande A. Infect Control Hosp Epidemiol.

[Cost-effectiveness of the Adjuvanted Herpes Zoster Subunit Vaccine in Older Adults.](#) Le P, Rothberg MB. JAMA Intern Med.

## Featured Publication



### Implications of false-positive results for future cancer screenings.

Glen B. Taksler PhD, Nancy L. Keating MD MPH, Michael B. Rothberg MD MPH

## Spotlight: Recent Awards

