Transcript Details
This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/clinicians-roundtable/timely-surgery-hip-fractures-anticoagulant/37622/

ReachMD
www.reachmd.com
info@reachmd.com
(866) 423-7849

Timely Surgery for Hip Fractures: Addressing Anticoagulant Challenges

Announcer:
You're listening to *Clinician's Roundtable* on ReachMD, and this episode is sponsored by CSL Behring. Here's your host, Dr. Steve Jackson.

Dr. Jackson:
This is *Clinician's Roundtable* on ReachMD, and I'm Dr. Steve Jackson. Joining me to discuss the importance of timely anticoagulation reversal in high-risk fracture patients are Drs. Anna Miller and Michael Weaver.

Dr. Miller is a Professor of Orthopedics and the Chair of the Department of Orthopedics at Dartmouth-Hitchcock Medical Center and the Geisel School of Medicine at Dartmouth in Lebanon, New Hampshire.

Dr. Miller, welcome to the program.

Dr. Miller:
Thank you so much. It's great to be here.

Dr. Jackson:
And Dr. Weaver is an Associate Professor of Orthopedic Surgery at Harvard Medical School, as well as the Chief of Orthopedic Trauma and Distinguished Chair in Orthopedic Surgery at Brigham and Women's Hospital in Boston.

Dr. Weaver, thanks for being here today.

Dr. Weaver:
Happy to do it.

Dr. Jackson:
So let's get started. Dr. Miller, according to the American Academy of Orthopedic Surgeons, or AAOS for short, hip fracture surgery should be performed within 24 to 48 hours after admission. And given that recommendation, what's at stake if that window is missed?

Dr. Miller:
I think we have quite a bit of data now that shows that our patients really are at higher risk of mortality in particular if these windows are missed. There was even a study more recently that showed that perhaps we should even consider shorter windows. So the mortality is a big one.

We also see patients that get other issues like delirium from being in a windowless room. Prolonged hospitalization, obviously, is an issue. They potentially could get other complications such as bedsores or pneumonia if they're in bed for an extended period of time and can't move with their hip fracture.

Dr. Jackson:
And Dr. Weaver, with those risks in mind, it's important to recognize that surgery is often delayed when patients arrive on anticoagulants. Why is that the case, and which agents or patient scenarios pose the biggest challenges?

Dr. Weaver:
Hip fracture surgery, despite advances in medical technology and technique, is still a big surgery and a big surgical insult for our patients. Anticoagulants, including direct oral anticoagulants, medications like warfarin, and antiplatelet therapies all increase the risk of bleeding during the surgery and during the immediate post-operative period. And so this increased risk of bleeding in these patients

needs to be balanced against the benefit of timely surgery.

As far as which agents are the biggest challenge, things like direct oral anticoagulants that have a significant anticoagulation effect and an increased risk of bleeding are a particular risk, as are things like warfarin, particularly when the INR is high. Other factors that play a role are patient comorbidities. Geriatric hip fracture patients are not all the same. Some patients that have significant medical comorbidities can't tolerate a lot of blood loss, and so they're at particular risk.

And then the type of fracture that they have and the surgery that's required to treat it is also a particularly important factor. There are some hip fracture surgeries, such as percutaneous pinning or percutaneous nail placement, that involve a pretty small risk of blood loss with a low expected EBL, whereas other surgeries, like an open plating of a periprosthetic femur fracture, are much larger surgeries that take a lot longer and have a much higher risk of bleeding.

So these three things need to be put together: the type of anticoagulant the patient has, the patient's medical comorbidities and their frailty, and then the expected surgery that's required to treat their problem.

Dr. Miller:
I would just add that there are more recent studies that show that these direct oral anticoagulants maybe don't cause as much of a concern as we thought, so there is a little bit more science now that actually supports us being able to do these early surgeries within the first 24 to 48 hours, even on patients who are taking one of these medications.

So, to Dr. Weaver's point, certainly you have to take everything into account, but I do think one of the delays in the past was because surgeons maybe were afraid that all patients that were on one of these medications should be delayed, and that does not seem to be the case.

Dr. Jackson:
For those just tuning in, you're listening to *Clinician's Roundtable* on ReachMD. I'm Dr. Steve Jackson, and I'm speaking with Drs. Anna Miller and Michael Weaver about the connection between guidelines and real-world decision-making for fracture patients on anticoagulants.

So, Dr. Miller, we know that even when guidelines are clearly established, care doesn't always follow the ideal path. Now, with that being said, where do you see the biggest disconnects between those recommendations and what actually happens when it comes to managing fracture patients?

Dr. Miller:
Thanks, Steve. This is a great question and unfortunately one of our biggest challenges in looking at these patients scientifically to understand what needs to happen with them. One of the biggest delays that we see is in patients who are very medically sick or unstable and unable to go to surgery right away, because it would cause more stress and, potentially, more mortality. So one of the biggest things that we have concerns about is whether the risk of delaying the hip fracture surgery or the risk of their current medical condition is more severe. And we have to balance that with our multidisciplinary teams, which often include people from the anesthesia side, from the hospital or internal medicine side, and maybe even cardiology, along with our surgical recommendations. So probably our biggest disconnect is when a patient is too medically sick for surgery and can't proceed in that 24 to 48 hour window.

Unfortunately, we also still see inefficiencies in surgical and hospital management from when patients come in to when they get a diagnosis of a hip fracture; from when the diagnosis of hip fracture by the emergency department is conveyed to the orthopedic surgery team; from when the orthopedic surgery team decides they need a surgery to when the patient has an operating room available. And there are a lot of disconnects that can happen along the way there. It also, of course, depends on the hospital resources that are available.

So one of the things that we have really pushed from a national trauma guideline standpoint is that we really need these resources to be available at trauma centers across the country so that the physical logistics are not the thing that's delaying the patient getting to surgery.

Dr. Jackson:
And Dr. Weaver, as a follow-up to that, what strategies do you recommend for bridging those gaps? And does your institution have any best practices that you follow to move fracture patients efficiently from admission to surgery?

Dr. Weaver:
I think the optimal care of geriatric fracture patients really involves a multidisciplinary approach. So all of the patients that are admitted to our hospital are evaluated by the geriatric service and are admitted in a co-management fashion to orthopedics, where they're seen by

geriatricians, orthopedic surgeons, and then anesthesia to optimize their path into the operating room.

And I think one of the big gaps that exists is the difference between the guidelines and recommendations for elective surgery and those for emergency surgery. Most of the guidelines that have come out about anticoagulation and surgery are really about elective surgery—things like an elective hip or knee replacement—and that's not the case for fracture patients. They have an urgent need for surgery, and I think the guidelines need to catch up to where our patients are.

Dr. Jackson:
Before we wrap up our program, I'd like to ask each of you one more question—Dr. Miller, starting with you. How do you think collaboration between specialties can help improve outcomes?

Dr. Miller:
I think collaboration between specialties is one of the most important things that we can do to improve outcomes. For all of the reasons Dr. Weaver and I have outlined, there are so many factors that affect our frail hip fracture patients especially, who are usually geriatric and elderly and may have a lot of medical comorbidities. We really need to all work together to make sure that these patients get the best possible outcome.

There are multiple studies that have looked at co-management of these hip fracture patients and geriatric fracture patients with medical teams, anesthesia teams, and surgical teams, of course, as well as partnering with our physical therapy colleagues, our pharmacy colleagues, and even geriatrician colleagues to really help understand the best possible care for these patients.

So when these teams work together, we can all understand who can get to the operating room as quickly as possible, what's the safest way to get somebody to the operating room, and then afterwards, getting the patient out of the hospital as quickly as possible to avoid all of the complications we talked about earlier, like delirium, bed sores, those sorts of things. So working together with collaboration between specialties is absolutely the best model for these patients.

Dr. Jackson:
And finally, looking ahead, Dr. Weaver, are there any research avenues or policy changes that need to be explored to ensure the best care for high-risk fracture patients?

Dr. Weaver:
There's been a lot of work that's been done that Dr. Miller just talked about looking at the importance of multidisciplinary care and care pathways. I think we all recognize that frailty is a really important part of understanding the risk profile of our patients before they get to the operating room. And I think there's a lot of work to be done in figuring out what medical issues need to be addressed prior to surgery. And I think anticoagulation is one of those things. I think, most of the time, we understand that it is safe to proceed with hip fracture surgery in the face of direct oral anticoagulants, warfarin as long as the INR is under two, and even dual antiplatelet therapy. But there may be some patients where reversal is needed, and kind of teasing out that patient population needs to be figured out.

And I think as far as a policy situation, we need to incentivize physicians and hospitals to prioritize the care of elderly fracture patients. If there is some kind of incentive for hospitals to ensure access to resources for the timely care of these patients, I think that would really drive their care forward.

Dr. Jackson:
And those are important comments for us to think upon as we come to the end of today's program. And I want to thank my guests, Drs. Anna Miller and Michael Weaver, for joining me to discuss how we can optimize the anticoagulant reversal in high-risk fracture patients.

Drs. Miller and Weaver, it was great having you both on the program.

Dr. Miller:
Thank you so much.

Dr. Weaver:
Thank you. It was a pleasure.

Announcer:
You've been listening to *Clinician's Roundtable*, and this episode was sponsored by CSL Behring. To access this and other episodes in our series, visit *Clinician's Roundtable* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!