Mayo Clinic Q&A - Dr. Matthew Abdel - Dr. Hugh Smith - Outpa...

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SPEAKERS

Dr. Hugh Smith, Dr. Halena Gazelka, Narrator, Dr. Matthew Abdel

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N **Narrator** 00:01

Coming up on Mayo Clinic Q&A, a new trend in arthroplasty, or joint replacement surgery.

D **Dr. Hugh Smith** 00:07

It is a coordinated integrated effort by a broad set of care providers and the systems that support them that enable this type of outcome to be able to get a hip or knee replaced and leave the hospital on the same day.

N **Narrator** 00:21

Joint replacement, or arthroplasty surgery, used to require days in the hospital for recovery. Today that same surgery can be an outpatient procedure.

D **Dr. Matthew Abdel** 00:31

It's a patient satisfier. You recuperate with your family. You recuperate in your own home environment. You don't feel like you're institutionalized. You feel like you're a part of a well model, not a healing or sick model.

D **Dr. Halena Gazelka** 00:43

Welcome everyone to Mayo Clinic Q&A. I'm your host Dr. Halena Gazelka. Remember when having a joint replacement meant staying in the hospital for days? Well nationwide, there's a trend in healthcare to move total joint arthroplasty from inpatient to outpatient. Patients

benefit by a shorter stay in the hospital, and they get to recover at home. At Mayo Clinic, physicians from orthopedics and anesthesiology are working together on this initiative. Joining us today are orthopedic surgeon, Dr. Matthew Abdel, and anesthesiologist, Dr. Hugh Smith. Thanks for being here today, gentlemen.

D **Dr. Matthew Abdel** 01:19

Thanks for having us.

D **Dr. Hugh Smith** 01:20

Thank you for having us.

D **Dr. Halena Gazelka** 01:22

Well, I have to say having worked on the pain service and seeing many of these patients inpatient for so many years, it is amazing that you can do outpatient joint replacements.

D **Dr. Matthew Abdel** 01:34

Yeah, it's been really exciting, Dr. Gazelka. As you have noted, over time, particularly with this OASIS project, which is really orthopedic surgery and anesthesiology surgical improvement strategies, Hugh and I, two good friends, over the last four or five years have been able to drive our length of stay down quite a bit which now allows us to do outpatient total joint arthroplasties, and a lot of aspects of that include pain control, optimization, and a multidisciplinary team that works closely together.

D **Dr. Hugh Smith** 02:09

That's exactly right. And, you know, just in terms of everyone's understanding of what we mean by outpatient surgery, I think a lot of people envision GI procedures, dermatologic procedures, maybe a hernia repair. But what's really unique about this is we're taking operations that are considered intermediate risk that have always been done as an inpatient in the past and allowing patients to leave the hospital on the same day of their surgery.

D **Dr. Halena Gazelka** 02:39

So, it's not that they're going and having this in a procedure room, they're going into an operating room and having their joint replaced just as they always did, but they're getting to leave the hospital.

D **Dr. Matthew Abdel** 02:49

That's exactly right. So, we've optimized all aspects of their care. But it still fundamentally is a major surgery. It is a transplant of a joint, a hip, a knee, a shoulder, an elbow, and it's still done in an operating room, but all aspects around that, from the patient optimization, to education, to expectations, to a multidisciplinary team working together have been optimized to allow that patient to go home four, five, or six hours after that total joint replacement.

D Dr. Halena Gazelka 03:20

I'm curious what patients think of this and how they benefit.

D Dr. Matthew Abdel 03:24

Maybe I'll take that one, Hugh, first. So, patients love it. We've seen this trend throughout the nation, and I would say there are three main reasons for it. Number one, patient outcomes. So, if we look at patient outcomes in regards to risk factors for nosocomial infections, infections you acquire in the hospital, blood clots, heart and lung problems like heart attacks, and pneumonias and atelectasis. All of those risk factors are mitigated when you do an outpatient total joint arthroplasty. That's number one. Number two, patients like it. It's a patient satisfier. You recuperate with your family. You recuperate in your own home environment. You don't feel like you're institutionalized. You feel like you're a part of a well model, not a healing or sick model. So, that's number two. And number three, I think it's fair to say, and the whole world has felt this, that with the COVID-19 pandemic, hospital resources have been limited. And this has allowed us to optimize this process to do outpatient total joint arthroplasty safely, effectively, and in a time in which sometimes we had to halt elective surgery. So, still providing that high level of care, even when resources were constrained in the hospital setting.

D Dr. Halena Gazelka 04:40

What joints lend themselves to outpatient surgery or going home the same day after your joint replacement? Can you do any joint that way?

D Dr. Hugh Smith 04:51

Yeah, essentially any joint can be done on an outpatient basis. The primary joints that are done on an elective basis at our hospital are shoulders, elbows, hips, and knees. And so, you know, in theory any joint could be done in an outpatient basis. What we're finding is that our hip population is probably the number one group that's most amenable to an outpatient disposition. Knees are a short second, and then probably shoulders and elbows. And what limits outpatient surgery really are two things, number one, whether we can get the patient to be comfortable and safe in their home environment. And so, that means having adequate pain control. That also means having a provider in the home environment. That ends up being one of the big determinants of whether or not we can and should be letting our patients leave the hospital after a joint replacement.

D Dr. Halena Gazelka 05:51

Dr. Halena Gazelka 05:51

And I have to admit, Hugh, that as a pain physician, that was one of the first things I wanted to ask you was, are patients fearful about their pain control afterward? And about mobility is the other thing that had occurred to me that might be challenging. I always remember physical therapy coming in the room to work with patients afterward. How do you manage that?

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Dr. Hugh Smith 06:11

Yeah, that's a great question, Halena. So, the focus on developing a successful outpatient model is really a team approach. We've been having our physical therapists work with our patients before patients even arrive at the hospital. We've developed a more robust fluid protocol strategy so that we can make sure patients are hydrated, and they won't be leaving the hospital and passing out on their way home. And then we've really worked hard on optimizing the surgical procedures and the anesthesia care patients receive. So, we're trying to perform shorter acting spinal anesthetics that resolve more quickly so patients can be ambulatory faster. We work on a two-part analgesic strategy that includes an arthroplasty injection technique that our surgeons have mastered, as well as motor sparing nerve blocks that the anesthesia teams are doing. So, we're tracking how our patients are doing with a new outpatient surgical survey tool. And so far, patients are able to get home, and there doesn't seem to be any worsening in terms of our hospital readmission rates or patient satisfaction scores suffering at all. But it is a pretty broad set of practice modifications that we really have had to evolve in order to achieve this kind of outcome.

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Dr. Halena Gazelka 07:39

Wow. I know you touched on this some, Hugh, but Hugh or Matt, are there differences in how the process takes place for patients when the surgery is done and they go home the same day or as an outpatient than if they're coming into the hospital?

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Dr. Matthew Abdel 07:55

Maybe, Hugh, I could start just on the aspects that happened prior to the surgery. And that's the biggest change, Halena, that we've seen is what's going on in the clinic. So, we have to optimize our preoperative education. So, for patients to be an outpatient total joint arthroplasty, those patients we don't have the touch point immediately after surgery the next day if they were to stay in the hospital. So, we go through all the education in the clinic before. We give different written materials. We talk about expectations, and as Hugh nicely pointed out, making sure that they have an individual with them that also can provide the care they need and are also educated. We work with the pre-op physical therapist so they have their crutches, their walker. They understand how to put their sling on and off before surgery. We talk about pain medications, how to use them appropriately. And then we have more touch points with them after. So, whereas we wouldn't call a patient immediately after surgery, we now call them the day after surgery, answer any questions that they may have. So, those are the biggest changes that we've noticed from a surgical perspective. And I want to comment on one thing that Hugh said, perfectly stated, is part of it is making sure that the surgical portion is perfect every time. There aren't fluid shifts, surgical time is optimized, that when the patient goes to recovery, the surgery has went smoothly, the blood loss is minimal. The fluids are

optimized so that the patient is a good candidate to go home safely. And so, those are all the things that we've looked at to make the process a little bit different. But in reality, it's a lot of the innovations we've done in the practice already over the last several years that have allowed us to do this very safely. In fact, if you look at our re-admission and complication rates, they've actually continued to decline, indicating that it's not only safe, it may be safer. Maybe. That may be an association, but it's certainly not worse.

D Dr. Halena Gazelka 09:55

That's impressive. Matt, when you're seeing a patient in the clinic, how do you decide If they would be a candidate to go home the day of their surgery? I assume there are still patients who come inpatient.

D Dr. Matthew Abdel 10:07

Yeah, you asked the most pertinent question, of course. So, patient selection is key. And we know that. In all of medicine, all of surgery, patient selection is key. I'll tell you my pragmatic approach, and Hugh and I have talked about this a lot with our entire, and we should acknowledge, wonderful OASIS team. This is a huge team across all levels of the patient episode of care, particularly our nursing staff that have participated in this. For me, it's really number one, do you have someone, the social support to help with transportation and being available. Number two, there are some very serious medical conditions that are exclusionary. So, I wouldn't say hey, you got a certain score, you've got these conditions, because a lot of people have very stable chronic medical conditions that you can safely do an outpatient total joint. It's the acute exasperation of chronic medical conditions, which I would ask you to be in the hospital. And then finally, and maybe most importantly, it's a discussion. If Hugh and I are there together, we'll talk and say the patient did really well, everything looks stable, let's continue on the course. And I think that relationship between surgeon, anesthesiologist, nursing, therapy, and all the other team members making sure that it is safe for the patient is what helps make that decision.

D Dr. Halena Gazelka 11:21

So, in general how long would a patient stay inpatient if they have a joint replacement versus how many hours do they stay with us if they go home the same day?

D Dr. Matthew Abdel 11:31

Yeah, we were just talking about that. It wasn't that long ago, maybe a decade that patients stayed in hospital a week after a hip or knee replacement. And when Matt and I began kind of working on practice optimization for our orthopedic patients, maybe four years ago, our length of stay was closer to four days. And then one of our first projects that we've been working under the title of OASIS, it stands for orthopedic surgery and anesthesia surgical improvement strategy, which is this team approach to practice optimization. One of our first targets was to try to bring down that length of stay. So, then pretty soon, length of stay became three days, and then two days, and then was hovering about a day and a half before this latest effort,

which was to really allow patients to get home the same day. So, after a surgery right now, patients are not required to stay in any specific length of time. They could leave, you know, within an hour or two of surgery. And I'll just give you a brief anecdote, not more than a couple of weeks ago I took care of a patient who was listed as the first operation in one of our ORs in the day. He was out of the operating room before 9am, went to our recovery room. He stayed there for about 15 minutes and then left the outpatient unit at 11 o'clock in the morning, and at 3 p.m., he caught a flight from Minneapolis to the East coast. So, it's not that we are advocating air travel after you know having a total joint replaced, but patients are being allowed to essentially return to some level of function and leave the hospital much more rapidly than we did in the past.

D Dr. Halena Gazelka 13:24

That's incredible, Hugh. Now I have really learned something today. How do you make sure that that patient has the right services lined up at home to help them when they get there? I would presume they still need physical therapy, etc.

D Dr. Matthew Abdel 13:39

Yeah, it's a good question. We've taken a multistakeholder and multifaceted media approach at this. And what that means is we have specific written education. We have specific phone calls that go out to them before that procedure. We have specific in hospital education that we will do with them in the outpatient unit before they go home. Phone calls we have the next day. And what I like to call is the outpatient FAQ. So, they are things that we want to optimize for them in the home setting before they go home, how they get their medications, and how to take the medication before they go, and small changes that they need to do at home. So, in reality for hip replacement, we don't do physical therapy. We tell patients that you leave the hospital, and we want straight level walking. Winter conditions at a mall or otherwise on outdoor level surfaces. For knees, about half of us still do physical therapy, and we have a prescriptive protocol that they can execute at home or anywhere actually in the world that we give to them. So, the demands in the home setting are not as much as they used to be. And big credit to all of you, our anesthesia colleagues. The motor sparing blockades have been revolutionary. These short acting anesthetics have been revolutionary. The non-opioid pathways have been revolutionary, fluid management. So, a lot of the wins that we've had have been in the anesthesia world and optimizing these patients. And I really tell them, this is a well model. You are coming here, you are getting better, you are better the minute you leave the operating room than when you came in. And this is not a sick model. You're better off now on that same day of the surgery.

D Dr. Halena Gazelka 15:27

It seems to me that the more you do something, the better you are at doing it. And so, how do patients know if they are getting the best orthopedic care that they can get, and the best surgical care?

D Dr. Matthew Abdel 15:38

Maybe I'll just take that one, because we're talking about orthopedic surgical care. So, number one, I'll tell you what I tell my patients. Select a surgeon, surgical team, and institution that you trust. Because it's about that team approach that does it well. And that's, I think, what always is highlighted to us. But particularly here at Mayo Clinic, and particularly with the Department of Orthopedic Surgery, which is the pre-eminent orthopedic surgical department in the nation. But that's one portion of it. It's a collaboration with the Department of Anesthesiology and perioperative medicine with our physical therapist colleagues and, you know, physical medicine and rehabilitation, and all of the other resources that make this ecosystem the number one ecosystem in the world. And so, that's what I tell patients. I tell patients look at the surgeon and the surgical team but look at all of the other ecosystem that surrounds it. Because it really does take a village. So, even though we're doing outpatient total joints, the process goes quick. There's a huge, huge number of people, processes, and continuous improvement processes that underlie that ability to do that. And Hugh, maybe you might want to comment on this, because this is this is an important question.

D Dr. Hugh Smith 16:54

Yeah, I think that's exactly right, Matt, that it takes a village. And so, we're talking about delivering very sophisticated, fairly innovative surgical and anesthetic techniques. But ultimately, what it comes down to is the people. So, it is a coordinated integrated effort by a broad set of care providers and the systems that support them that enable this type of outcome, getting patients, you know, to be able to get a hip or knee replaced and leave the hospital on the same day. And I guess the analogy I kind of liken it to is, it's like a sports team, right? If you've got a football team, whether you're the linebacker, or the wide receiver, or the quarterback, you all have a single purpose, a single goal when you're on the field. Your goal is to put the ball in the end zone. And so, our challenge with our OASIS project and practice optimization within orthopedic surgery, is to figure out A) who's all on our team, right? And that includes instructional designers, and patient education experts, and people from the Office of Patient Experience, and PAs, and PTs, and nurses, and anesthesiologists, and surgeons. And so, we've tried to bring all of those people together into a project so that everyone can understand what our purpose is with this outpatient surgical model and have everybody function like a high performing team. So, it ultimately comes down to the people.

D Dr. Halena Gazelka 18:20

That's a great analogy, Hugh. Thank you both for being here today.

D Dr. Hugh Smith 18:26

Our pleasure. Thank you for having us.

D Dr. Matthew Abdel 18:27

Definitely. Our pleasure. Thank you.

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Dr. Halena Gazelka 18:29

Our thanks to Dr. Matt Abdel from orthopedic surgery, and Dr. Hugh Smith, anesthesiology, for being here today to represent the OASIS team and talk to us about joint replacements and returning home the same day. I hope that you learned something. I know that I did. We wish each of you a wonderful day.

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Narrator 18:48

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