Central Line
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(SOUNDBITE OF MUSIC)

VOICEOVER:

Welcome to ASA's Central Line, the official podcast series of the American Society of Anesthesiologists, edited by Dr. Adam Striker.

DR. ADAM STRIKER (HOST):

Welcome to another episode of Central Line. I'm your host and editor, Dr. Adam Striker. I'm joined by Dr. Daniel McIsaac, Associate Professor of Anesthesiology and Pain Medicine at the University of Ottawa, and Dr. Mark Neuman, Horatio C. Wood, Associate Professor of Anesthesiology and Critical Care at the University of Pennsylvania Perelman School of Medicine.

We're going to discuss the work of ASA's Committee on Geriatric Anesthesia and specifically the new Frailty Toolkit the committee has released.

Welcome to the show.

DR. MARK NEUMAN:

It's a pleasure to be here.

DR. DANIEL McISAAC:

Thank you for the invite.

DR. STRIKER:

Yeah, absolutely. Let's just start with a little bit of, of background. You both sit on the Committee on Geriatric Anesthesia. Can you tell us a little bit about the committee and its work? Dr. Neuman, you're the past Chair and a current member. Why don't you start?

DR. NEUMAN:

Yeah, well, we've been interested in helping to support ASA members for several years to take the best care possible of older adults undergoing surgery and older adults are becoming a larger and larger segment of, of all patients who are, are getting surgery in the United States and worldwide. And, and we've been trying to find ways to support that. We did a survey of ASA members and got responses from about 1,700 ASA members in 2018. And part of that survey was to ask what kinds of resources people were looking to have to improve their practice. Web-based guidance and other resources to implement best practices for care of older adults like frailty screening, as we're going to discuss today, was something that members highlighted to us as, as a high priority.

DR. STRIKER:

Well, and let's go ahead and just dive right in on the Frailty Toolkit. Dr. McIsaac, why don't you tell our listeners what the members should expect from the new Toolkit and how they might use it?

DR. McISAAC:

Absolutely. So, I think the first thing to, to mention here is that this is a toolkit, it's not meant as a practice guideline. This isn't the Committee on Geriatrics or the ASA telling members how they should be caring for or assessing older patients. This is meant as a practical resource to support some of these needs that have been identified amongst members of the ASA when it comes to, you know, taking steps toward providing, you know, really high quality perioperative and anesthesia care to our, our older surgical patients.

So, the, the focus of the Tool Kit is, is to give people practical tools. And I think there are probably two big picture pieces of value that they're going to get out of this. No one is, is for people who they've heard of frailty, that they get a sense that it's probably important, but they want to learn a little bit more, but they don't necessarily want to head to PubMed and, and read 50 articles. They just want to get the distilled essence of what frailty is and why it might be relevant to their practice. So, for sure, that kind of information is going to be there for them.

I think the second group is, is kind of naturally the next step you take from there, which is, what can I do now that I understand what frailty is in terms of potentially considering incorporating it into the perioperative care that I'm providing? So, what are some practical resources so that I can understand what frailty tools are out

there, what they're pluses and minuses are, how I may be able to choose the best one for my practice.

And then finally, where might I use it? So, we actually have multiple modules put together within this Toolkit that have been developed and reviewed by experts on the Committee on Geriatric Anesthesia to first give people an introduction, but a really, you know, distilled, succinct clinical perspective on what frailty is. Then a, a nice overview with some nice visuals around what different frailty assessments are commonly used, what different tools there are, how they can use them, and how they can maybe pick one that has the right strengths for the kind of setting that they're working in.

And then finally a number of use cases so that either they may be able to, you know, identify from one of those use cases a similar place in their practice where they may want to apply for LT assessment, or maybe if they're thinking about improving some processes or changing how they may be, you know, assessing older patients before surgery, they may be able to link back to some of these use cases again to get a sense of where they may be able to bring these tools in to their practice should they see that being, you know, appropriate. So, you know, at the end of the day, as I mentioned, this is there as a resource. And certainly, the ASA is currently working on more specific guidance for care of older surgical patients in general. But this is meant as a resource for members who need some practical information and may want or may not want to move that over to the practice depending on their own circumstances.

DR. STRIKER:

Well, this might be a good time to lay out a little bit of the history with regard to frailty. When and how did anesthesiologists begin to consider a patient's level of frailty an indicator of post procedural outcomes? Maybe even comment a little bit on how that idea of frailty has changed over time or if more attention paid to it has affected how anesthesiologists think about it?

DR. McISAAC:

For sure. I think that's a, a great question. I think an obvious place to start is, you know, what are we talking about when we're talking about frailty? So, frailty is a concept that's kind of been around medicine in general for the past twenty five years or so, understandably, something that started off in geriatrics and something that has kind of progressed over time and, and kind of moved over into the acute care sphere as well. So about 10 years ago, we started to see some, some publications

coming out looking at this concept of frailty that had been, you know, translated over from geriatrics and trying to see how that may allow us to better identify older surgical patients at high risk of bad outcomes after surgery.

I think it made sense at that time. We're starting to see that significant growth in our older, you know, demographic among surgical patients. And, and so we started to see some study and we started to see some promising results that this may be a useful tool for us to be able to identify older patients who are particularly high risk before surgery.

Now, frailty is also a, a challenging concept, you know, to try and get your head around if you're just going to go out and attack the literature or, or do a Google search. And that is because frailty has not had one single definition that everybody agrees upon, either at the start or even now, twenty-five years into it. What we can certainly see general agreement on when it comes to frailty, is that frailty is in a lot of ways reflective of biologic age as opposed to, you know, calendar years. I think everybody can probably relate to seeing two patients in clinic on a given day, both in their late 70s, both have coronary artery disease, both have hypertension, both are coming for a knee replacement, but when you look at them from the end of the bed and you think about their overall health status, one is clearly a lot more vulnerable to having a bad outcome after surgery than the other one is.

And frailty is really a useful tool for trying to quantify and differentiate between these two individuals and, and the kind of foundation of it, frailty is, is something that affects health in a multi-dimensional manner. So, it's not just affecting your physical performance, it's not just protecting, affecting your cognitive performance. But multiple dimensions of health have lost some degree of reserve. And because of this, that older patient is vulnerable to having adverse outcomes after surgery. And by doing a frailty assessment, we can try to, start to quantify that risk, and allow the patient to get a better sense of the risk they're facing, while also hopefully allowing the anesthesia care team and the other members of the perioperative team to start making a plan that is potentially more aligned with the specific needs that they may have.

Now, certainly at this point, 10 years into, you know, frailty being well studied in the perioperative space by anesthesiologists, by surgeons, by geriatricians and others, we know that there's a very strong association between frailty and having poor outcomes after surgery. So, if you think about classic outcomes like morbidity and mortality, we're typically even after adjusting for other, you know, patient level variables and procedural variables, looking at probably a, a three-fold or greater risk of, you know, mortality or serious morbidity after surgery on an absolute basis, older

people with frailty probably experience a complication about 50% of the time. So obviously pretty substantial, but it also impacts things that patients and their families really care about that we maybe don't do such a good job of measuring. It certainly impairs their ability to functionally recover after surgery and impact their ability to get home successfully when discharged from hospital and can certainly, even in, in the longer term, you know, impact some of the return to independence that they'd like to have.

Finally, if you're thinking about it from a health system perspective, certainly somebody coming through the perioperative period who does have frailty is likely to, you know, use up more health care resources. And there may be some things that we can do to try and improve that risk beforehand. So, by doing a frailty assessment and getting that information, we may be able to identify the patient before surgery, who's at greater risk, make sure that they recognize that, make sure that if they do choose to have surgery, the team is ready for them. But importantly, frailty may actually represent a risk factor that we have enough time before surgery we might be able to modify risk because of its multidimen, dimensional nature. So, if a patient does have some physical deficits, then there's starting to be some promising information out there that perhaps, you know, something like physical rehabilitation may be helpful. If they have malnutrition issues, potentially trying to address those malnutrition deficits may be helpful.

You know, delirium prevention has been a big focus of the Perioperative Brain Health Initiative. Frailty is one of the, the strongest risk factors for delirium that we have. So, to identify as someone who may need a real focus on keeping a good perioperative brain health as they move through. So knowing this information can potentially make a big difference. But you need to know about frailty, and you need to know how to assess it if you're going to start to move the needle at all.

DR. STRIKER:

Well, certainly, if it's a modifiable risk factor, certainly a useful indicator to track and something that can certainly affect outcomes. So let's talk about the challenges. Dr. Neuman, why is it so hard to grapple with this concept?

DR. NEUMAN:
You know, frailty is a, a complicated construct. As Dr. McIsaac mentioned there are a lot of different dimensions to what might constitute frailty, and over time there have been a number of different ways of measuring it and sometimes these measurements don't agree with each other.

What we do in the Frailty Toolkit for ASA members is not to try and pick one single measurement that we think is the one answer to this, but to present some of the heterogeneity of, of how people have described and tried to characterize this larger concept of frailty. So, we put forward some information on common assessments that anesthesiologists may run into or may see in the clinical setting and may consider and put information out there about the pros and cons of each.

We also present some information on how they might be applied in practice. Again, the idea here is not to prioritize a single way of looking at frailty, but to recognize it's still a work in progress, that we're figuring out what these different measures mean. But at this point, I think, as Dan mentioned, we know enough to know that frailty, somehow defined, is an important construct for understanding what determines outcomes for our older patients.

DR. STRIKER:

Well, what are the specific implementation challenges? You kind of touched on that, Dr. Neuman, but Dr. McIsaac, maybe you could talk a little bit about the challenges and also maybe give us some examples of when or how we should apply a frailty test. And I imagine some of that information is going to be in the Toolkit, but at least maybe give a little bit of preview of how, how this would work.

DR. McISAAC:

Oh, ab, absolutely. So, I think, you know, one of the points that Dr. Neuman made is a key one. I think, you know, when it comes specifically to frailty, if you decide, OK, we'd like to undertake a, a process change in our clinic, we want to start to do a frailty assessment. But you're not, you know, deep in the frailty literature all the time, you approach it, you say, well, there's all these different tools. Which one do I use? So that is certainly a, a key challenge, and as Dr. Neuman mentioned, one of the things that we've tried to do with the Toolkit is say, well, here are five tools that anesthesiologists and perioperative clinicians have been using routinely for a good amount of time. They're well studied. So, let's narrow in what choices you may be considering.

And then we take it a step further and we try and let people know, OK, we recognize whether it's a frailty assessment or any other assessment before surgery, your time is valuable. You're already asked to do more than you probably think you can fit into a given day. So how much time might you expect to have to add to a given assessment if you're going to start to do frailty assessment? Because, you know, let's be honest, anesthesiologists, probably, like all physicians, are always crunched

for time. Other resources may be required as well, so, you know, some frailty assessments require certain equipment like a grip strength measurement tool, a handheld dynamometer.

Some may require some space to do a walking test. Those types of, of assessments are also going to require a bit more time. Some may require a bit more knowledge to do because there may be a potentially subjective aspect to it. So how do you start to try and overcome some of that subjectivity and some of the bias that you could be bringing to the table?

And then finally, you know, we are certainly living in an era where health data, IT technology, etc., is becoming a bigger and bigger part of practice. How can we leverage some of the information that's already there to potentially, you know, use information already available in the EHR, for example, to potentially help do some of the frailty assessment for you?

So, we really try to think about practical barriers to implementation: time, equipment, knowledge, IT infrastructure, and things like that, and actually let the anesthesiologist and the ASA member who's going to be looking at these materials, get a sense of what they may need. You know, the Clinical Frailty Scale, for example, well demonstrated to add less than a minute to your preoperative assessment. So fairly quick, you need to do a little bit to familiarize yourself with that, that tool in advance. But once you've done that, you can tend to, to apply it with relatively low, you know, subjectivity. You get a really useful frailty assessment out of that and really, you've hardly added any time to that assessment at all.

Other tools like the Fried phenotype, for example, do require, you know, some changes, probably to process your clinic where you have a, a gait speed measurement done, where you have a handheld dynamometer that may work really well in some clinics, it may not work so well in another clinic.

And then finally, some of the tools like the Frailty Index or the Risk Analysis Index, there are good examples out there of those being incorporated into the EHR data when those data have adequate, multidimensional variables available. So not just comorbidities and medications, but also things like functional measures, cognitive measures and that kind of thing. And, and we go through in a fairly succinct manner, the different pros and cons again, so that people can say, here's my menu of five tools, which one looks like it may fit best for us and why? And then the ASA team has done a phenomenal job of kind of providing some infographics that can really give you a quick snapshot of what may be needed and how much time it may require. And then that should link really well to people understanding what their

implementation challenges are, picking the right tool for their setting. As Dr. Neuman said, it's not about picking the right tool, it's picking a good tool and then using a routine.

DR. STRIKER:

Well, do you mind just touching a little bit a, additionally on the idea of unnecessary risk? Some might, some might say that if a patient is particularly frail, surgery might be an unnecessary risk. So just talk a little bit about this balance, if you don't mind. In other words, does frailty decrease the value and impact of surgery?

DR. McISAAC:

And I think this is, this is, you know, this is probably more than the million-dollar question. This is a really big question. That's a big question that patients and anesthesiologists and surgeons and other folks face on a day-to-day basis as we get more and more older people with medical complexity coming in for surgery. I think there's, you know, the, the key thing I think we always need to think about here is that frailty is, is not a, a gatekeeper, so to speak, in terms of accessing surgical services and anesthesia services. Just because someone has frailty, by no means does that mean that they cannot benefit from having surgery. And a key reason for that is probably because oftentimes the reason that somebody is considering having surgery is often fairly tightly tied in to why they may have frailty. And you can think about that, you know, joint replacement, a really common major surgery in older patients. Well, someone may have developed a fair amount of frailty because their knee osteoarthritis is so bad, they've really slowed down. They become deconditioned and, you know, across different frailty tools, you'd, you'd find that they'd be, they'd have frailty.

Well, potentially, if we can safely get that person through the perioperative period into their recovery phase, maybe if they can improve their mobility, their level of activity, and perhaps, you know, they could potentially see improvements in their frailty and their overall health if they can safely move through the perioperative period.

And you may see a similar thing in and oncology setting where tumor related symptoms and peraneoplastic syndromes may be causing somebody to have frailty. You know, in the setting of their cancer diagnosis, and again, if we can safely, surgically treat that cancer with good perioperative anesthesia care, and perhaps that person has the ability to have better health and less frailty after surgery.

So, it's really important, number one, that we don't think about someone having frailty as a barrier, but as a new piece of information that that patient and their family can have to consider, whether it's a risk that they're willing to take number one. And then number two, if that is something that they're willing to move forward with, with that extra information at hand about their vulnerability, then we in the, you know, anesthesia setting and in, in the hospital setting afterwards can perhaps put things in place to better meet the needs that they have based on having, you know, frailty. Again, reflecting back to kind of the, the modifiable nature of frailty.

So, you know, every patient's journey through the perioperative period is going to be different. Having frailty is absolutely going to influence that. But by no means does that mean that somebody can't benefit from having surgery and that they can't have a meaningful recovery, especially if we think about what meaningful recovery means to them.

DR. STRIKER:

Well, this certainly seems like a great example, broadening this out, a bit of the value anesthesiologists bring that goes even beyond the operating room and, and perhaps underscoring our role as perioperative physicians. Dr. Neuman, do you think, do you think that's accurate? And if so, are we going to see more assessments like this? Maybe comment on how this might become part of even value-based payments? So basically, not only how is it used now, but how might that change in the future?

DR. NEUMAN:

I think it's a great question, Dr. Striker. You know, frailty assessments and improving care of older adults is a major part of, of large-scale efforts to improve health care value. These have been undertaken by individual health systems as well as, as other organizations through initiatives like the Age Friendly Health System or the American College of Surgeons Geriatric Surgery Verification Program. These are, are large scale initiatives that that are growing that anesthesiologists and ASA members are going to come into contact with and learn about over time.

Knowing about frailty, knowing about high quality care for older adults is, is a really important way of, of staying relevant in practice in the context of these large-scale initiatives. Whether this ultimately becomes part of Value-Based Payment or other policy initiatives to drive value is a bigger question. But this is all part of the same landscape of trying to improve health care value. Most fundamentally, it's about improving the outcomes for the individual patient, but it's something that's risen to the level of attention of policymakers and system leaders. And our goal in the

Geriatrics Committee is to really equip our members to sort of thrive and, and move forward in that landscape.

DR. STRIKER:

Well, and I just think this, like other concepts that are coming to the forefront of anesthesia care, are, continue to highlight the value that, that we as perioperative physicians bring to the patient's experience throughout their entire course, both inpatient and outpatient, and, and also highlights the importance of any kind of anesthetic experience. It's not simply a technical skill. It's not simply a rote routine procedure that everybody has to go, go through. There are significant effects, and we as perioperative physicians can significantly affect the outcome for these patients.

DR. McISAAC:

And I think you really hit the nail on the head there, Dr. Striker, and the key thing and I think what frailty, you know, brings that value proposition so far to the forefront for anesthesiologists is when frailty assessment often matters most is when patients are having procedures that we may think aren't so high risk. And in fact, the literature generally shows that the impact of frailty on outcomes after surgery can be greatest after what we consider to be relatively routine procedures, like knee replacement, like, you know, an appendectomy or cholecystectomy, and procedures where we don't see it as being this, this, you know, hugely invasive surgery. So as anesthesiologists, you can actually use frailty assessment to, to identify even amongst the high-volume routine surgeries, the patients who may actually really struggle and we really need to keep a closer eye on.

DR. NEUMAN:

Yeah, I mean, I want to echo what you had to say, Dr. Striker, this is an opportunity to show the range of what modern anesthesia practice really is. As you mentioned, it's, it's, it's far more than a technical specialty. It's a cognitive specialty. And it really is about being a complete physician. I think being aware of what frailty is, what conversations are happening about frailty, what geriatricians are talking about right now in terms of how to improve outcomes for older adults, it's a way to develop the specialty. And also, as, as you say, to, to highlight what we have to add in the operating room, before the operating room and, and beyond.

DR. STRIKER:

Well, let's talk Toolkits now, because I would like to touch on the ASA's work, the resources that the Society offers and how listeners can take advantage of it. And then also let's touch on how to access this.

DR. NEUMAN:

Absolutely. Well, it's a brand new resource, so it's something that we hope awareness will increase around over time. It's something that we have to acknowledge. We, we actually got a lot of support from other committees that are aligned with the Committee on Geriatric Anesthesia. When we proposed this, we engaged our partners in the Brain Health Initiative Committee and have had support from other committees in developing it.

This is all on the ASA website and there are links to other relevant committee pages like Brain Health Initiative. The website for frailty, actually is a dedicated link that members can go to, asahq.org/frailty (F R A I L T Y), and it includes a ton of great resources. There are infographics on specific frailty measures highlighting strengths of, of each of the measures we've selected.

There are use case examples showing about how frailty can be applied in practice. There's a detailed bibliography of academic literature for those members who want to dig deeper. And there's, there's additional resources and literature describing the overall concept and, and how this, these can be applied. The infographics, can be printed out, circulated, posted. It's a great way to communicate the information within a practice or within a group. So please, when, when it comes up, we encourage people to look at it, asahq.org/frailty.

DR. STRIKER:

Well, great, and I just like to point out that this, along with many other resources on the ASA website, are available for members, just continue to be some, some really valuable tools at members disposal. And just want to thank both of you for joining us today and also want to thank ASA's industry sponsors for their support of the Perioperative Brain Health Initiative, Acacia Pharma, Edwards Lifesciences, Fresenius Kabi, Heron Therapeutics, Masimo and Medtronic.

So, thank you both, Dr. McIsaac and Dr. Neuman for joining us today and giving us some insight into this initiative.

DR. NEUMAN:

Thank you so much.

DR. McISAAC:

Thank you.

DR. STRIKER:

Thanks, everyone, for listening and joining us on this episode of Central Line. Please tune in again next time.

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VOICEOVER:

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