

Transcript Details

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Keys to Achieving a Patient-Centered Focus in Vascular Access Care

Mr. Nacinovich:

In a world of vascular access care, studies have continuously shown that planning at the early stages and a patient-centric focus will lead to better care and improved outcomes. But amid the challenges that are often encountered during treatment, how can we ensure that we're keeping the patient at the center of it all?

Welcome to Vascular Viewpoints on ReachMD. I'm Mario Nacinovich, and joining me to talk more about how we can achieve a patient-centered focus in vascular access care is Dr. Kelly Cawcutt, an infectious disease and critical care physician at the University of Nebraska Medical Center.

Mr. Nacinovich:

Dr. Cawcutt, it's nice to meet you.

Dr. Cawcutt:

Thank you. It's a pleasure to meet you also.

Mr. Nacinovich:

So, to start, Dr. Cawcutt, can you walk us through how you assess patients for vascular access care?

Dr. Cawcutt:

Absolutely. So, when we have a patient that needs vascular access, there are several things that we need to be considering, given that vascular access starting with the most simplistic form of peripheral IV is actually the most common invasive procedure we perform in a hospital. With that in mind, as we're considering our procedural access points and the type of device we need, we need to consider the patients themselves and where they have available vascular access, what kind of access they need, what kind of medication is it for, or is it for a blood draw, or is there some other reason that they need more of a long-term access, which that also segues to what is the anticipated duration. And thinking through this advanced decision-making for vascular access is one of the most critical steps in choosing the right device for the right patient at the right time. Our team has a vascular access algorithm that we've developed to try to help provide some guidance with that so that we do our best to not have inappropriate access devices placed that may put a patient at undue risk or leave them with a permanent side effect or adverse event unnecessarily.

Mr. Nacinovich:

So, once a patient walks through your door, for instance, what are the steps your medical team follows?

Dr. Cawcutt:

So, in an emergency setting we would evaluate the patient for, generally speaking, a peripheral IV if we aren't sure that they need long-term access. In patients who may have more difficult venous access or are requiring emergent lines for either a transfusion or vasopressors in an intensive care unit, depending on how they enter the hospital, or considering how urgent the need is for the line, how quickly we can place an appropriate line and what the line truly is needed for as far as administration requirements for different kinds of lines—so if he's needing central access for something like vasopressor infusions—if we have patients with difficult venous access, we may be looking at placing something such as a midline early on so that we have the capacity to draw blood and have a more durable line in those who do not have adequate peripheral access.

Mr. Nacinovich:

And what other kind of factors influence a patient's diagnosis? Should we be taking into account their medical history or maybe even some social and economic factors as well?

Dr. Cawcutt:

I absolutely think that we need to take into account the patient's diagnosis and why they need vascular access. We may be limited to vascular access in patients who are already on dialysis or have renal failure and we want to preserve their veins for future possible AV fistulas because we know that it's a better access for dialysis than chronic, indwelling tunneled or short-term dialysis lines. We need to be considering our patients who have lymphedema due to prior surgeries or other medical conditions and their risk of developing clots or other vascular anomalies in the setting of placing vascular access in those areas, or our patients with strokes, broken limbs or other trauma that may impact our access points.

I also think, as far as your question about social and economic factors, that those are important factors to consider, particularly in the nonemergent setting when we know a patient is going to need vascular access for a period of time, potentially a period of time that extends out of the hospital. So, some of our patients don't have the social or economic support to have a peripherally inserted central catheter with home health for dressing changes and appropriate flushes, or they don't have the capacity to do that themselves; or even financially, especially when you are looking at patients who may not have insurance, they may not be able to afford maintenance of those lines, and so we have to be cognizant of the entire patient situation as we're considering the vascular access and be forward-thinking regarding whether it's going to be feasible for the patient as we're putting the line in.

Now, all of this being said, there are emergencies where we don't have all the information, we are not sure what the best decision is, and we do the best thing for the patient at that moment, which is to get vascular access in whatever way we need to when we're talking about lifesaving measures, and that's a bit of a different discussion.

Mr. Nacinovich:

So, now that we know more about the diagnostic process, what can you tell us about the vascular access devices?

Dr. Cawcutt:

So, we have our short-term vascular access lines, which we generally think of as our peripheral IVs or our short-term, non-tunneled central venous catheters or dialysis catheters. They are not intended to be with the patient for long term. They are not intended to be with the patient when they are discharged from the hospital. When we think about some of our more intermediate or medium-length duration indwell time for vascular access, we kind of think more about our midline devices, which are an extended version of a peripheral IV that are placed in the arm similar to a PICC, but they do not extend all the way centrally and really by varying guidelines should not indwell more than 14 to 28 days depending on the literature and manufacturer guidelines that you're following. Our peripherally inserted central catheters, or PICC lines, fall into this medium category also, especially when you're looking at going over that 14- to 28-day mark, but can also be left in place for longer, and some patients will have those in place for weeks to months. When we think about truly the longer-term devices, someone who is going to have a chronic need for access, that is where we start to think about does this patient need more of a tunneled line or port that has more durability for a long-term use. And all of these devices come with varying materials, varying numbers of access points and opportunities to prevent infections or complications.

Mr. Nacinovich:

And just out of curiosity, do patients ever request a less invasive approach? If so, what's your plan of action?

Dr. Cawcutt:

Yes, there are times where patients ask particularly, "Do I need to have this line placed?" And I find, when you look at the literature and in my own practice, many of the times we are placing different types of catheters for antibiotic administration for infections. We have many infections that have become more drug-resistant or require intravenous antibiotic therapy based on the severity of the infection or type of infection, and in those situations a frequent question becomes, "Are you sure I need this? Can I do this with just a peripheral IV in my hand that I go home with? Is there an option to not place this line and treat me in any other way?" And, first of all, I think that's an incredibly important question when a patient asks that because 1) we need to address their concerns regarding vascular access and why we have recommended it, 2) with mounting evidence that we may not need as many intravenous therapies anymore, particularly in the infectious realm, or even in some of the critical care realms, we may be able to switch to oral medications or use a peripheral IV for shorter term in the hospital and avoid some of these placements. So I think we also, as clinicians, need to come back to a situation and say, "Are there viable options? What is the evidence for treating this condition with a vascular access device versus some other type of

treatment?” and to engage in that discussion and shared decision-making with the patient with the best evidence we have for whatever it is we’re treating combined with the need for vascular access.

Mr. Nacinovich:

Does this less invasive approach come with any additional risks?

Dr. Cawcutt:

It can. I think it depends truly on why you’re choosing a less invasive approach and if you can still provide an optimal alternative to therapy without vascular access, and we are seeing more and more literature that in many ways that is becoming increasingly possible. I think any time we make a decision with a patient though, we talk about having informed consent, and if we initially are recommending vascular access devices and an intravenous treatment plan and then we kind of backpedal and say, “No, we can choose this oral plan and an oral antibiotic,” I think that does require a discussion with the patient of the risks and benefits of placing a vascular access device. And we have to help guide those decisions to the best of our ability to meet the patients where they are, to meet their needs appropriately, and to really provide more of a holistic decision-making and care for the patient.

Mr. Nacinovich:

For those just tuning in, you’re listening to Vascular Viewpoints on ReachMD. I’m Mario Nacinovich, and today I’m speaking with Dr. Kelly Cawcutt about how we can keep our patients at the center of our vascular access care decisions.

So, Dr. Cawcutt, considering the risk of vein depletion with chronic VAD, how can medical teams assess what the patient will need, not just now but down the road?

Dr. Cawcutt:

Oh, this is such a great question, and it’s such a complicated one, actually, when we really think about this. So, I do think our teams need to be forward-thinking. When we see any given patient, we can’t always predict what future medical problems they may or may not have. We don’t have that crystal ball. That makes it somewhat difficult. But there are conditions that, when we see the patient, we can consider up front. We can consider if we already know they have a complicated infection that’s going to require a long-term IV antibiotic, we can consider if we know they have an emergency that we’re talking about starting intravenous chemotherapy, we know they have chronic kidney disease and they are likely moving towards dialysis. As we think about our vascular access devices and as a medical team evaluating a patient, we need to recognize that we need to have that forward-thinking. We need to do our best to project what do we think the most likely needs of the patient are going to be so that we are not having vein destruction and chronic depletion because we have difficulty maintaining peripheral IV as opposed to moving to something that may be more durable for that patient. And I think that’s a challenge, but I think we can try to think ahead, try to see what’s coming and try to anticipate that as we make our vascular access decisions today, and that requires a little bit of preemptive thought and forward-thinking on what might happen next for this patient.

Mr. Nacinovich:

So, building upon that now in your opinion, is there a better way to plan for this from the early stages that actually may lead to better care and improved outcomes?

Dr. Cawcutt:

I think as we talk about how to plan, we need to start talking about how to help our frontline providers make the best possible decisions that they can right from the start, and I think having a vascular access team is one way that many institutions have done that. Having experts in vascular access who can walk through decision-making, who understand the risks of vein depletion and the patients who may have higher risk for certain infectious or noninfectious complications can help improve outcomes from early stages. Not every institution has a vascular access team. And we, even in that setting, if our vascular access orders to place a line come in through some of those expert groups—the team that might place the PICCs, the anesthesiologists, the critical care doctors—if we can provide them with education of the risks and benefits of different types of lines, if we can stay up-to-date on best practices and evidence, and if we can provide guidance, whether it’s clinical decision support, whether it’s an algorithm they can review as they are making a decision, I think all of those can really help us, again, think from the beginning regarding what kind of device do we need. And if we can consider these options of what we need it for, do we really need it and if we’re going to need it for a period of time, what category—short-term, immediate or long-term—do we anticipate, and can we move to the appropriate line earlier to mitigate the risk is really where we’re going to make the biggest impact for our patients.

Mr. Nacinovich:

And before we close, Dr. Cawcutt, are there any other concepts or takeaways that you'd like to leave us with and with our audience?

Dr. Cawcutt:

Yes, I would. I think that when we are talking about vascular access decision-making, the minute you decide a patient needs a vascular access device, you are committing them to an invasive procedure that carries risks, and those risks can include death from infection at the extreme end. In that scenario we need to consider patient factors, what you need the line for, how long you need it, and what the risks and benefits of that vascular access device are for. I would encourage everyone to be very thoughtful, be forward-thinking, and whenever possible engage in shared decision-making with your patient regarding vascular access devices and both the type that is placed and also the location that it's placed so it's a feasible location for them to manage and complete their activities of daily living, especially if they are leaving the hospital with it.

Mr. Nacinovich:

Well, with those takeaway points in mind, I'd like that thank Dr. Kelly Cawcutt for joining me to discuss the keys to achieving a patient-centered focus in vascular access care. It was great having you on the program, Dr. Cawcutt.

Dr. Cawcutt:

Thank you so much for the invitation. It was a pleasure to be on the program.