PODCAST TITLE: PREVENTION/MEDICAL MANAGEMENT OF COMORBIDITIES

ADULT STROKE REHABILITATION AND RECOVERY PODCAST SERIES

AMERICAN STROKE ASSOCIATION

Pre-recorded:	00:04	This podcast is supported by Kindred Healthcare. Kindred Healthcare is a sponsor of the American Stroke Association's Together to End Stroke initiative.
Patty Clements:	00:15	Hello and welcome back. This podcast is part of a series on key recommendations from the American Stroke Association guidelines for adult stroke rehabilitation and recovery. My name is Patty Clements and I'm with the communications team at the American Heart Association. Today we're talking with Doctor Richard Zorowitz about the prevention and medical management of comorbidities. Doctor Zorowitz is an attending physician at MedStar National Rehabilitation Network and Professor of Clinical Rehabilitation Medicine at the Georgetown University School of Medicine. We're pleased to have him speak with us on such an important topic. Welcome, Doctor Zorowitz.
Zorowitz:	00:51	Thanks. Glad to be here.
Patty Clements:	00:53	Can you share with us how you became interested in this aspect of stroke recovery?
Zorowitz:	00:58	I've been involved with stroke rehabilitation for nearly 30 years, and whether you're either a rehabilitation professional or a neurologist it's important to understand what happens in stroke from the time the patient first goes into the hospital through the rehabilitation process and throughout the rest of their lives. So the idea of understanding preventative measures that will help people from having secondary complications and future strokes is a very important one.
Patty Clements:	01:30	So just surviving a stroke may not mean that the patient is out of harm's way. Talk about that.
Zorowitz:	01:36	So that is very true. People who have strokes first of all may have weakness. They may have numbness, they may have problems with their vision, with their speech and with their cognition. And these are things that may add up to the rest of their lives. The problem is that if you don't take care of issues, you can have further issues that can occur. And then, of course,

you can have a second stroke or a third stroke as you go through the rest of your life.

Patty Clements: 02:05 What kind of specific conditions are common?

Zorowitz: 02:10 There are a lot of complications that can occur after a stroke. They can include things like skin breakdown, spasticity, contractures, venous thrombosis, bowel and bladder incontinence, falls, different types of pain and depression.

Patty Clements: 02:25 That is a lot to cover, so give us a little bit more detail if you would.

Zorowitz: 02:31 So let's start with skin breakdown, for example. Skin breakdown is something that happens with patients specifically who are either immobile or may have bowel and bladder incontinence. So when you see patients like this, it's important to first of all manage their bowel and bladder incontinence. And we'll talk about that in a little bit. But also to manage their skin as well.

Zorowitz: 02:54 And this may include things like regular skin assessments, making sure that you're not seeing any types of pressure sores that are occurring over time. Minimizing skin friction, that's not only in bed but that can also be in wheelchairs or any other types of surfaces that patients may come in contact with. Anything that can prevent either pressure or moisture to prevent ulcers, so that actually can include things like cushions on wheelchairs. And then finally you want to take a look at patients in bed. Make sure that when they're in bed that they're positioned properly so that they're not in one position for a very long time. So a lot of times we recommend that patients are turned every two hours if they can't do that themselves.

Patty Clements: 03:44 What other complications can be prevented or managed during recovery?

Zorowitz: 03:47 Other things that we can see during the course of rehabilitation and afterwards are things like spasticity and contractures. These can occur early on and contractures certainly can occur over time due to lack of movement. And so what we recommend is first of all making sure that spasticity is managed so that patients don't end up with contractures down the road. This can include physical things such as wrist splints, ankle splints, regular stretching, make sure they have appropriate positioning in bed. So those are things that can be worked on either with nursing, with therapists or with your physician.

Zorowitz:	04:28	Spasticity management is a whole major issue that we get to deal with, which can include things like medications, botulinum toxin injections and intrathecal baclofen. Other things that we can do as well is just stressing the importance of doing these things really from the get go. So even if a patient doesn't have a lot of contracture, you want to make sure that they're doing range of motion exercises so that contracture doesn't occur down the road. And making sure that they follow up with their physicians, and if any of these issues start to occur that they are referred to appropriate physicians and therapists who can help manage these issues.
Patty Clements:	05:12	So this can create issues beyond the obvious challenges to immobility.
Zorowitz:	05:18	Absolutely. Other things that we look at if patients don't move well, especially in their shoulder, is what we call the hemiplegic shoulder. That can occur very early on and this can actually result in pain. And so again it's very, very important that patients continue range of motion, especially when they don't have movement, in order to prevent problems like this from occurring. When they do occur, we can use things such as surface or intramuscular, neuromuscular electrical stimulation to help reduce the pain. We can also use steroid injections to the shoulder to decrease pain and hopefully increase the mobility of the shoulder. The other thing that we also have to take into consideration, both in the upper and largely in the lower extremity, is the fact that if you don't get mobility in those limbs you can end up with venous thrombosis.
Patty Clements:	06:16	What interventions can be taken to prevent DVTs?
Zorowitz:	06:19	Well, from the get go what we usually see is prophylactic use of anticoagulants such as heparin or any of the low molecular weight heparins. Usually we'll see these used in the hospital and in rehabilitation facilities, and sometimes in skilled nursing facilities as well. So these can be used for the duration of their stay and typically we see them used until the patient is able to be mobile again. The interesting part of this is that starting prophylaxis is a very, very well known guideline. The problem is when to actually stop, and that really is a clinical call when the patient is able to mobilize themselves adequately.
Patty Clements:	07:09	We know that falls are common after stroke and the injuries that result from a fall can make recovery that much more challenging. What can be done to minimize fall risk?

Zorowitz:	07:18	The first thing that we can do to minimize fall risk is therapy. By far the best thing is that if you can get range of motion and you can get strength in the limbs, that will help the patient become more mobile and hopefully prevent their falls as well. A fall prevention program in the hospital and in rehabilitation is ultimately the major thing that will help to do this. This means, as I said, working with the patient and also working with caregivers to help manage that patient so that falls don't occur that way. The other thing we can do with some patients too is that as part as their therapies, not only do we strengthen them but we actually teach them that if they do end up on the floor, can they get themselves up? And hopefully we can teach them how to get themselves up from the floor as well.
Patty Clements:	08:11	Earlier you mentioned incontinence. How do the guidelines address that?
Zorowitz:	08:16	The first thing in terms of urinary incontinence is that we want indwelling bladder catheters to be removed as quickly as possible, usually within 24 hours after admission to the hospital or into rehabilitation. This is a CDC recommendation that is very strong because of the fact that indwelling catheters can cause urinary tract infections if left there too long.
Zorowitz:	08:46	For patients who have urinary incontinence or retention, often what can happen is that we can screen these people in rehabilitation or in the hospital using bladder ultrasound to see whether or not they have too much or not enough bladder, or not enough volume of urine left in their bladders. These are very helpful because, if need be, we can either use that data to start medications or, if we still have questions to be answered, we can then refer them over to urology who can do interventions such as urodynamics to classify the type of bladder and hopefully be able to provide medications for that patient.
Zorowitz:	09:34	The other things that we can do often is that if the patient can't empty their bladder on their own, we usually start something like intermittent catheterization to help clear the bladder and make sure that the patient does not end up with a UTI. These also help because then the patient will not become incontinent. Incontinence is a really, really major issue in getting back into the community because these are things that affect quality of life. With incontinence, patients can't get out into the community. They're pretty much isolated. They really can't participate in their activities as much as possible and that obviously leads to other problems.

Patty Clements:	10:14	Which brings us to another subject, which would be depression. Talk to us about that a little bit.
Zorowitz:	10:20	Depression is a really very important aspect of stroke. We sometimes call it the most underdiagnosed and undertreated complication after stroke. If you look at the literature, depression is very variable depending on the literature that you read. It can be from the low 20s up to the 70s in terms of percentage occurrence. But because of that it probably needs to be looked at very, very carefully. So it's important that patients are screened and treated if depression is diagnosed.
Patty Clements:	10:59	Is there a recommended tool for screening?
Zorowitz:	11:01	Well, there are many, many tools out there. One of the easy ones that we can use is the Public Health Questionnaire 2 which can be done very easily for post stroke depression either as an inpatient or certainly as an outpatient. The important thing, though, is to make sure you don't miss that. Talking with both the patient and with the caregivers about depression is a very, very important aspect of post stroke care so that patients can get the appropriate treatment for this.
Zorowitz:	11:34	And treatment can include things like medication or psychotherapy. Usually the combination of the two is the best. The other things that we try to do is getting the patient out into the community. Get them socialized, because patients who are isolated typically are the ones who end up being more depressed. And really what that brings home the point is that you not only see depression early on when you're in the hospital or in rehab, because you're just trying to deal with this catastrophic event that has occurred, but down the road you can also become depressed when those episodes of isolation occur.
Patty Clements:	12:13	So important to deal with both the physical aspects but also the mental health, mental aspects. Correct?
Zorowitz:	12:19	Absolutely. We not only deal with those physical aspects, but the cognitive, psychological. We really have to deal with the whole person to make sure that patients do well after their strokes.
Patty Clements:	12:30	A lot of good information here today. Any overarching advice or final points you'd like to add?

Zorowitz:	12:36	Well, really I think the one thing that I always tell everybody is that now the treatment of stroke can occur over really the first 24 hours after stroke. Rehabilitation and recovery is really the remainder of that patient's lifetime. And so it is really an ongoing journey for that patient. And just like some people have said, it takes a village. It really takes a physician, it takes therapists, it may take a number of consultants.
Zorowitz:	13:05	But a lot of people can be involved in the stroke survivor's recovery and in their rehabilitation. Ultimately the center of that is the patient, making sure that the patient gets the benefit of all these things. We also want to make sure that caregivers that take care of these stroke survivors are also benefited from the kinds of things that we do, because there is a lot of stress that can occur with caregiving. So it really involves a lot of people, a lot of time and a lot of effort.
Patty Clements:	13:39	Thank you so much, Doctor Zorowitz. This is such an important topic for the American Stroke Association and we are happy you've taken the time to speak with us.
Zorowitz:	13:48	My pleasure.
Patty Clements:	13:49	Thank you to our listeners as well. Don't forget, this podcast is part of a five part series and we encourage you to listen to all five. Other topics include the rehabilitation program, assessment, sensory motor impairments and activities, and transitions in care and community interventions. For more information, visit heart.org/strokerehabguidelines.