

Melanie Cole (Host): The Spine Center at Pennsylvania Hospital is one of the most comprehensive and sophisticated of its kind offering multidisciplinary treatment for every type of back and neck conditions. My guest today is Dr. William Welch. He's the Medical Director of The Spine Center at Pennsylvania Hospital.

Dr. Welch, I'm so glad to have you join us. Tell us first, what is an integrated spine center model? Tell us a little bit about that.

William C. Welch, MD, FACS, FICS (Guest): The integrated spine care model is really patient driven.

So, with Penn Medicine, specifically at Pennsylvania Hospital, we developed and conceived and built a comprehensive type of spine center which has in it, orthopedics, neurosurgery, physical medicine and rehabilitation, anesthesia, pain. In the same building, we will have physical therapy shortly. We have MRI scans. We have neurosurgery. So, this is an attempt to really surround the patient with a specific disease process, a spine problem; surround them with the experts that can come to them.

Host: So, as we're talking about the benefits of this type of care for the patient, what about to the physicians? What is the benefit for you when you have it all located in one place?

Dr. Welch: Well it's really tremendous for me because I get to describe a potentially complex patient to my colleague in real time, frequently right in front of the patient. We get to review the films together. We get to review the history to make sure that I've obtained the important historical facts. And we get the patients to meet the physician or nurse liaison who will be guiding them through the next stage of their care. The patients get immediate recognition by the next level of care and we get to make arrangements in real time. And the patients absolutely love it.

Host: Expand a little bit more on that multidisciplinary patient-centered focus. What kinds of providers do you have in the building?

Dr. Welch: We have neurosurgeons, we have orthopedic spine surgeons specifically interested in spinal surgery, we have physical medicine and rehab physicians otherwise known as physiatrists. So, the physiatrists of course can oversee the nonsurgical treatment of the patient which includes physical therapy, they can perform injections as needed, directed injections as needed. And we have our anesthesiologists who are pain specialists who are again, world-renowned in injections, if the patients need injections. They are world-renowned in trials of different types of medical therapies.

So, the patient gets a really a comprehensive view with their problem whether ultimately, they require surgery or don't require surgery. Most patients don't require surgery. But we can get them involved efficiently with nonsurgical specialists.

Host: Dr. Welch, if a patient hasn't responded to chiropractic care, can they easily be referred to interventional pain management as you said, with your anesthesiologists or to a surgeon if that needs to be the case? Tell us about how referrals work within the system.

Dr. Welch: So, that's a very, very smooth process. Because we support each other. We all

have the patient's best interests in mind. We all get along very well. So, what you're saying is exactly correct. So, a patient could have a problem that doesn't require surgical intervention that might be best managed with various types of oral medications and physical therapy. Again, I can make an immediate referral of that patient to my physical medicine and rehab colleagues. Say the patient does require surgery. We are very, very subspecialized even in the surgeries that we do.

So, I saw a patient yesterday, came from the emergency room was seen by me. The patient has a tumor of a nerve root and I felt that patient would best be managed by one of my other partners and was seen by my other partners. So, the patient got seen in the emergency room and then by two neurosurgeons who got the care directed basically in hours for what might have taken somebody weeks or potentially even months

So, this is referrals. These are treatments. Everything is designed with the patient's best outcomes in mind. We take a minimally invasive approach whenever we can. We don't prescribe surgery or any intervention unless we think that an intervention is going to have a significantly positive impact on the patient's outcome. We freely and fluidly refer amongst ourselves to obtain the best possible results for the patient whether they be surgical or nonsurgical.

Host: What important points Dr. Welch. Tell us about some of the exciting technology you have available.

Dr. Welch: So, the patients are registered and then we'll evaluate them. We have highly specialized radiographic studies available to us including one that's called EOS which is a machine that looks at the patient with low dose radiation, literally from head to foot and it lets us look at their curves in their spine.

We have a high quality MRI scanners. Outstanding CT scans. We still do the occasional myelogram where we can inject contrast material around the nerves and obtain studies. We can do discograms where necessary which is an injection into the disc space itself to see if that reproduces the patient's pain. Every study that you could imagine, SPECT studies. Any study that exists that I know that has any proven efficacy in the spine we have available to us within about a 50 or 100 yard radius.

Now, as nice as that is from a diagnostic perspective, it still always comes down to what does the patient need, how will the patient be treated. Patients, depending on how they enter our system, they may have a nurse navigator who might oversee their care in the system. Once we see them, our nurses take over navigating their care. We obtain the preoperative radiographic study, precertification's if their insurance company requires that. If the patient needs surgery, we have the patients meet our onsite social worker so that we can begin the postoperative or post treatment discharge planning before the patient is even admitted. We talk to the patients about what family members are at home, what help they will have at home. If they need a rehab center, we try to make some early arrangements with rehabilitation centers.

All this again is designed to have the briefest but most useful time in the hospital and the safest transition after a hospitalization or a surgical intervention to the next of care.

Host: Dr. Welch tell us about community physicians or other providers that might want to refer to The Spine Center at Pennsylvania Hospital.

Dr. Welch: First of all, we encourage any physician, if they have a question, if they have a medical question; they can call me anytime, they can call The Spine Center anytime. I can always take a phone call from a physician. I certainly prefer that they call us because if they're concerned enough, then we really do prefer a call because it helps us triage the patient right then and right on the spot. So, if they are describing a patient with a progressive neurological deficit; usually we will just ask that doctor to direct the patient directly to the Spine Center and we will just squeeze that patient in to the best of our abilities.

Or, we'll direct the patient to the emergency room either the local emergency room or one of the University of Pennsylvania Health System emergency rooms. But once we see the patient, if I have any questions specific questions as I see the patient; I'll actually call the referring physician and say Mrs. Johnson is in the office and I just want to get your feel on what you thought about X, Y and Z. certainly, all the physicians get the immediate follow up letter as soon as we're done seeing them in the office, we send the doctors a letter and I try to have the letters completed before the patient leaves the office. And finally, we give the patients themselves a copy of the office note, if they want, they can access this over the internet as well.

If the patients are coming in for surgery; they get a tremendous amount of information and feedback from my office who is making the arrangements for the surgery. And then personally, after I operate on a patient, I try to call typically the next day and get hold of the referring physician and just tell them the surgery that was done and the expected patient outcome and I make sure that they all have my cell phone number, that the referring doctors all have my cell phone number so that they can call me anytime.

Host: Do you have any final thoughts what you'd like other providers to know about The Spine Center at Pennsylvania Hospital?

Dr. Welch: So, the referring doctor should feel very comfortable that the patients are getting the most efficient value driven effective treatments that are available with the opportunity to participate in clinical research trials if those are available and frankly, we invite the referring physician to come and visit us. We have had them come down with the patients themselves sometimes. The referring doctor will come down just to gauge the experience that the patient is having.

Host: What a great comprehensive multidisciplinary approach and so many benefits of a spine center model. Thank you so much for joining us today Dr. Welch. To refer your patient to a specialist at the Penn Medicine Spine Center; please head on over to our website at www.pennmedicine.org/refer. Or you can call 877-937-PENN for more information and to get connected with one of our providers. Please remember to subscribe, rate and review this podcast and all the other Penn Medicine podcasts. For more health tips and updates on the latest medical advancements and breakthroughs follow us on Facebook and Twitter. Until next time, I'm Melanie Cole.