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PTs and PTAs Shine on Long COVID Care Teams

How providers mesh can mean the difference between successful outcomes and a patient's continued loss of function.

By Stephanie Stephens

More than 80% of Americans have contracted COVID-19 at least once, according to a July 2022 study from the Institute for Health Metrics and Evaluation, an independent global health research center at the University of Washington. As if the burden of just having COVID-19 wasn't enough, research from the Centers for Disease Control and Prevention's National Center for Health Statistics shows that, of those who were infected with the virus, nearly 30% experience post-COVID conditions, or long COVID.

In October 2021, the World Health Organization said long COVID occurs in people "with a history of probable or confirmed SARS CoV-2 infection, usually three months from the onset of COVID-19, with symptoms that last for at least two months and cannot be explained by an alternative diagnosis." Long COVID is estimated to have affected 200 million people worldwide, according to an analysis published in November 2022 in the *Journal of Infectious Diseases*.

WHO lists typical symptoms as fatigue, shortness of breath, and cognitive dysfunction, but the American Medical Association said in an April 2022 guidance document that as many as 200 symptoms have been documented. Symptoms may be newly onset after a person has recovered or can persist from the initial illness, and they may fluctuate or relapse over time.

Impacts on the economy from long COVID are also likely severe, since as many as 16.3 million working-age Americans have it, and approximately 2 to 4 million can't work because of it, according to the Brookings Institution, a nonprofit public policy organization based in Washington, D.C.

For many reasons, patients with long COVID need expert care on an ongoing basis.

Joining Forces to Treat Long COVID

Since patients with long COVID can experience several different types of symptoms that impact multiple systems within the body, it only makes sense that treating long COVID can — and should — be a multidisciplinary affair. How they all mesh can mean the difference between successful outcomes and continued loss of function for a patient with long COVID.

“It’s kind of naive to think we could treat such a complex illness, that can affect every organ system, with one specialty alone,” says David Putrino, PT, PhD, director of rehabilitation innovation for the Mount Sinai Health System and associate professor of rehabilitation and human performance at the Icahn School of Medicine at Mount Sinai. In his department, Putrino leads five clinical centers that focus on innovation in different fields. One focuses on long COVID and other forms of infection-associated complex chronic illness.

“The very central role of the physical therapist in the landscape of long COVID is to successfully rehabilitate the autonomic nervous system, and that takes effort and skill,” Putrino says. “To date, that is the most effective way to reduce symptom burden for those patients that we have. It doesn’t appear to completely cure them, but it can significantly reduce severity of symptoms.”

More than 70% of patients with long COVID display signs and symptoms consistent with dysautonomia, and at least 85% have symptoms of post-exertional malaise, he says.

PTs play an influential role in treating long COVID. They may be part of interdisciplinary teams at long COVID treatment centers, most often affiliated with academic medical centers. Or they may create their own “clinic without walls” through referral networks and outreach in their communities.

They know long COVID is here to stay — but don’t know how long the “long” will be. Nonetheless, PTs come to work every day to give their best to patients who erroneously thought, “Thank goodness, I’m done with COVID-19,” only to learn that no, they are not.

Fortunately, they — both PTs and their patients — have help.

PTs May Spot Long COVID First

While PTs are ideally suited to care for those with long COVID, coordinating with other health professionals can provide the best care for patients.

“An interdisciplinary team can reduce overlaps and gaps in care,” says Rebecca Martin, PT, DPT, PhD, board-certified clinical specialist in neurologic physical therapy.

“PTs have been collaborating like this for a long time, long before COVID-19. Members of collaborative teams typically know who’s best within their team to treat different symptoms,” says Martin, who is also chair of APTA’s COVID-19 Core Outcome Measures Task Force that originated in April 2020. “This reduces the number of visits a patient may need and makes it less likely, for example, that a patient will go to seven different providers for the same test.”

For a patient with a complicated or less-understood health condition, one team member typically directs treatment, she says. “Normally it’s the physician treating them for their most prominent symptom, but it can be a physical therapist.” In the latter case, Martin continues, “because physical therapists often have more time with their patients, they may see changes sooner. For example, a patient on a new medication may be observed by a PT or PTA three

times in a week, while a primary care physician may only have 15 minutes to spend with them over the course of a month.”

The PT or PTA may be the first to recognize a patient’s symptom as long COVID, she says. “If a patient tells us, ‘I get dizzy when I stand,’ we can further investigate to discern if this originates from cardiovascular changes or dysautonomia related to long COVID.”

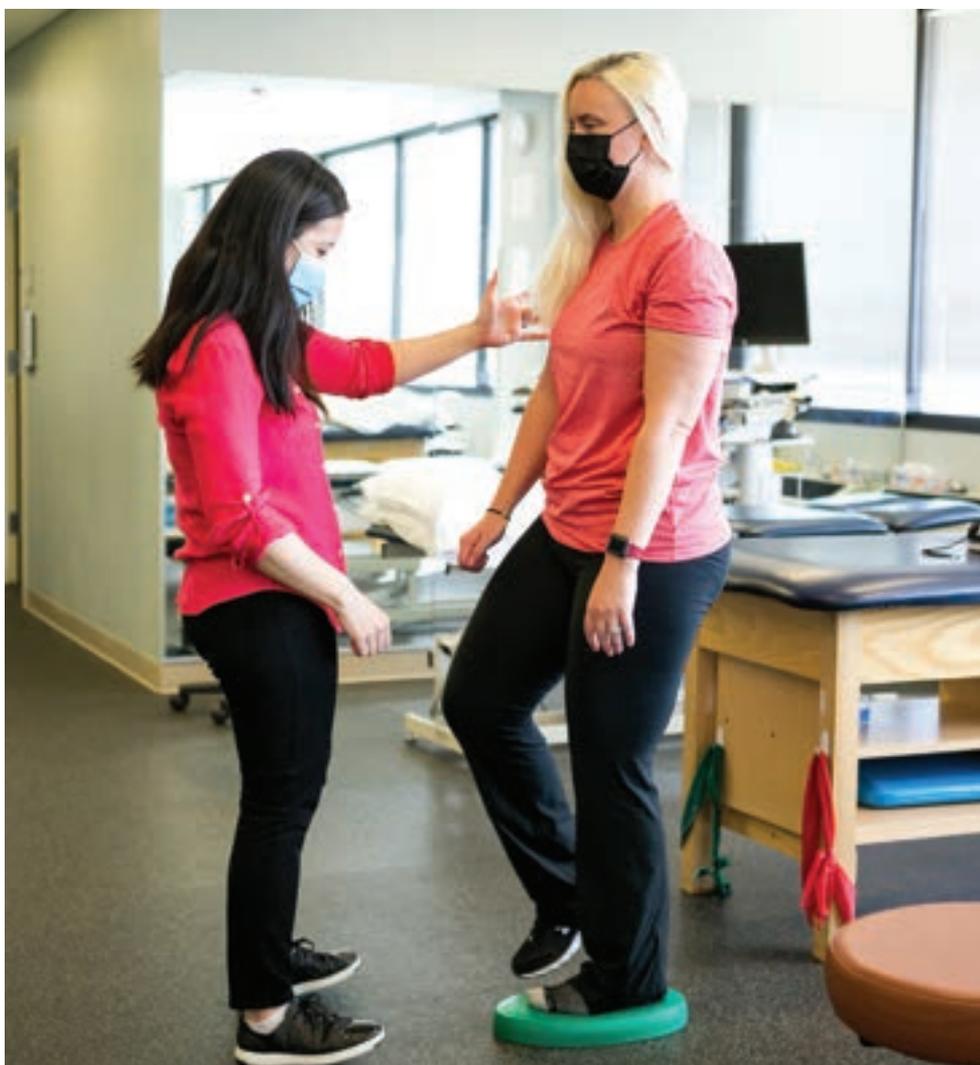
Care coordination can emanate from all areas of health care, depending on the need. Martin recently worked with a long COVID patient whose salivary glands were affected, strategizing treatment options with a local dentist and a speech-language pathologist.

“People came to see us for orthopedic issues and didn’t realize they had long COVID until we worked them up,” reflects Corey Malone, PT, DPT, clinic director at KORT Physical Therapy in Louisville, Kentucky. Malone, a board-certified clinical specialist in orthopaedic physical therapy, has seen more than 50 patients with the condition.

A study published in March 2022 from the Universities of Cambridge and Exeter in the United Kingdom found that 69% of long COVID participants reported brain fog. Malone says his patient population wasn’t immune from the symptom and, once screened, he referred them to an occupational therapist or cognitive rehabilitation specialist, usually at partner Norton Hospital’s long COVID clinic.

Malone participated in a group with Norton clinicians, formed during COVID-19’s first tumultuous year, that met to discuss what providers were seeing, all hungry to know anything valuable about the deadly new virus. He says PTs found themselves in the middle of very fruitful discussions, which have continued as the health care world has shifted from acute COVID-19 care into care for those with long COVID.

“With very complex patients, we’d share our stories of them with teams of nurses, physicians, and physician



“Because physical therapists often have more time with their patients, they may see changes sooner.”



Rebecca Martin



assistants. I might ask, ‘Can we get Sarah into see you, with this symptom?’ or ‘Is there any other testing you have done that might give us more information about John, whom we’re seeing for that symptom?’”

It worked both ways. During the weekly round-robin, Malone says a corresponding team member might ask if they could refer to him, or they’d discuss the next plan of care for a mutual patient.

Teams Comprising ‘Helpers’

“Look for the helpers. You will always find people who are helping,” said public television children’s show host Fred Rogers to his viewers. His mantra works well for Daria Oller, PT, DPT, ATC, volunteer founding member and co-director of education at Long COVID Physio.

Long COVID Physio is a virtual platform, self-described as an international peer support, education and advocacy, patient-led association

of physiotherapists living with long COVID — like Oller herself — and their allies, such as clinicians, researchers, and academics.

She says it’s been exceptionally valuable to talk to international PTs and other clinicians with experience in treating post-viral illness who can say, “Here’s what we already know about a previously similar condition, and here’s what to look out for now.”

“I’ve learned a lot about pacing from many occupational therapists and other clinicians, because for some of us PTs, that can be a foreign concept,” Oller says. “For example, at the physiologic level, long COVID is an energy-limiting condition, and we all only have so much energy available. We also know we must be careful with recommending exercise.”

Oller works for Pro-Activity in New Jersey, specializing in health promotion and prevention for employer clients at their work sites. When she discovers long COVID in an employee, she’s afforded time and privacy that supports meaningful conversations about what they experience and what they need.

“Our desks are right next to each other, and even before COVID-19, and certainly during the pandemic, we communicated across disciplines quickly.”



Traci Norris



Jenna Tosto, PT, DPT, a colleague of David Putrino, works with a patient with long COVID in the Abilities Research Center at Mount Sinai in New York. Tosto is monitoring the patient's heart rate while she conducts exercises.



David Putrino

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“I always thought I’d practiced patient-centered care, but with long COVID, I learned it even more so.”



Suzanne Tinsley

“Even if you’re the most highly experienced PT, every day we can tease out new information from other people,” she says, advising that providers shouldn’t forget that patients, too, can be experts on long COVID.

PTs Team Up In-Office

When you need to discuss options for patients with long COVID, it’s nice to have your own team within earshot, instead of across the street in another building.

“Our desks are right next to each other, and even before COVID-19, and certainly during the pandemic, we communicated across disciplines quickly,” says Traci Lynn Norris, PT, DPT, in describing her relationship with both a neighbor OT and a speech-language pathologist. All three work together under one manager at Barnes-Jewish Hospital in St. Louis, Missouri.

There, the exchange of ideas around long COVID, in addition to conversations with physicians, occurs frequently in her role as inpatient physical therapist and rehabilitation clinical specialist.

At the hospital, the therapy team works out of integrated satellite areas so that all three disciplines can talk about plans of care as needed. “I might say, ‘Did you see anything?’ or just ‘What did you think about Mrs. Smith today?’” Norris says. “Early in the pandemic, we’d ask each other, ‘What does that patient really need?’ or ‘What changes do you think we can make?’”

She says anyone who comes to the hospital gets tested for COVID-19 and asked if they’ve had it. If the answer is yes, the patient receives whatever therapy services are indicated, and the hospital-based therapy team will make discharge recommendations and refer to other providers as needed.

“There are no delays in care, and we try to be diligent about sharing information,” she says.

Norris feels connected to long COVID as president of APTA Acute Care and former chair of the academy’s

Practice Committee. During 2020’s COVID-19 surge, representatives from all APTA academies attended free Saturday webinars as part of a national interdisciplinary team collaboration.

Unique and Equally Represented Practitioners

“I always thought I’d practiced patient-centered care, but with long COVID, I learned it even more so,” says Suzanne Tinsley, PT, PhD, assistant vice chancellor of institutional advancement and assistant director of the Center for Brain Health at LSU Health-Shreveport in Louisiana.

“These patients have issues with fatigue, endurance, and mental cloudiness. How we address those is very different based on where they are in the life process,” Tinsley says. To get to what matters right away, she says she’ll ask them, “What is it in your life, where you are right now, that you can’t do?”

Her practice is housed in a different physical location from the health system’s long COVID clinic. Once patients are seen in clinic, help for pulmonary, sleep, cardiac, and neurological issues is close by in the academic medical center via referral. “In addition to PT, patients can also access OT, speech, respiratory, and sleep experts in their various departments,” says Tinsley.

Her successful long COVID collaborations in-house have brought her referrals from outside community physicians, and with those, she may then refer to another colleague at the center. She calls the communications among colleagues “very translational. It’s the only way I know to work effectively.”

Tinsley recalls early on when her colleagues in other departments would call to get advice about a COVID-19 patient discharge. “They would say, ‘They’ve been on a ventilator, and we need somewhere to send them’ — they weren’t going to inpatient rehab, and some were using walkers or in wheelchairs, often with peripheral neuropathy, an acute COVID component.”



“Our rehab team was and is ideally trained and cultured to work positively together, able to deliver rapid response, and we still operate with a ‘putting patients first’ philosophy.”



Jonathan Whiteson

Now, after seeing at least 20 long COVID patients, Tinsley, like Norris, knows it takes a village. “Long COVID has brought to the forefront how successful we can be when we all work together. As practitioners, we’re all unique and equally represented,” Tinsley says.

Finding Time to Talk

“Speaking to one another is so important,” Putrino says. “That means finding a time to discuss complex cases to determine a unified care plan.” Even though, as Putrino notes, such interactions aren’t billable, “We try to make intentional space for these conversations, and, sometimes, some of the most important conversations happen coincidentally, when two of us bump into each other in the hall.

“We might say, ‘This is what I’ve been thinking,’ and the other person says, ‘OK, let’s do that.’”

On Putrino’s comprehensive team, cardiology, neurology, immunology, occupational therapy, speech-language pathology, and otolaryngology providers work together as a unit on patients with long COVID; he says the team’s approach is generally physiatry-led.

“Pre-COVID-19, we worked with survivors of traumatic brain injury to help with cognitive impairment, so that work has been very helpful to our patients with long COVID who have severe cognitive impairment as a result of this illness,” he says. “We do have some neuropsychologists with experience in managing traumatic brain injury.”

Long COVID has brought a variety of experts to his team’s discussion table. “We work closely with ENT because a lot of people with long COVID experience vocal cord dysfunction, which can lead to shortness-of-breath issues,” Putrino says. “Registered dietitians also contribute, since many people with long COVID experience new and emerging food sensitivities that can lead to malnourishment — they don’t know what foods are safe to eat.”

A skilled physical therapist understands that long COVID is not deconditioning, he says, and doesn’t benefit from a no pain, no gain

approach. “We understand that if exercise is medicine, you need to dose it and prescribe it appropriately.”

Teams Deliver Enhanced Outcomes

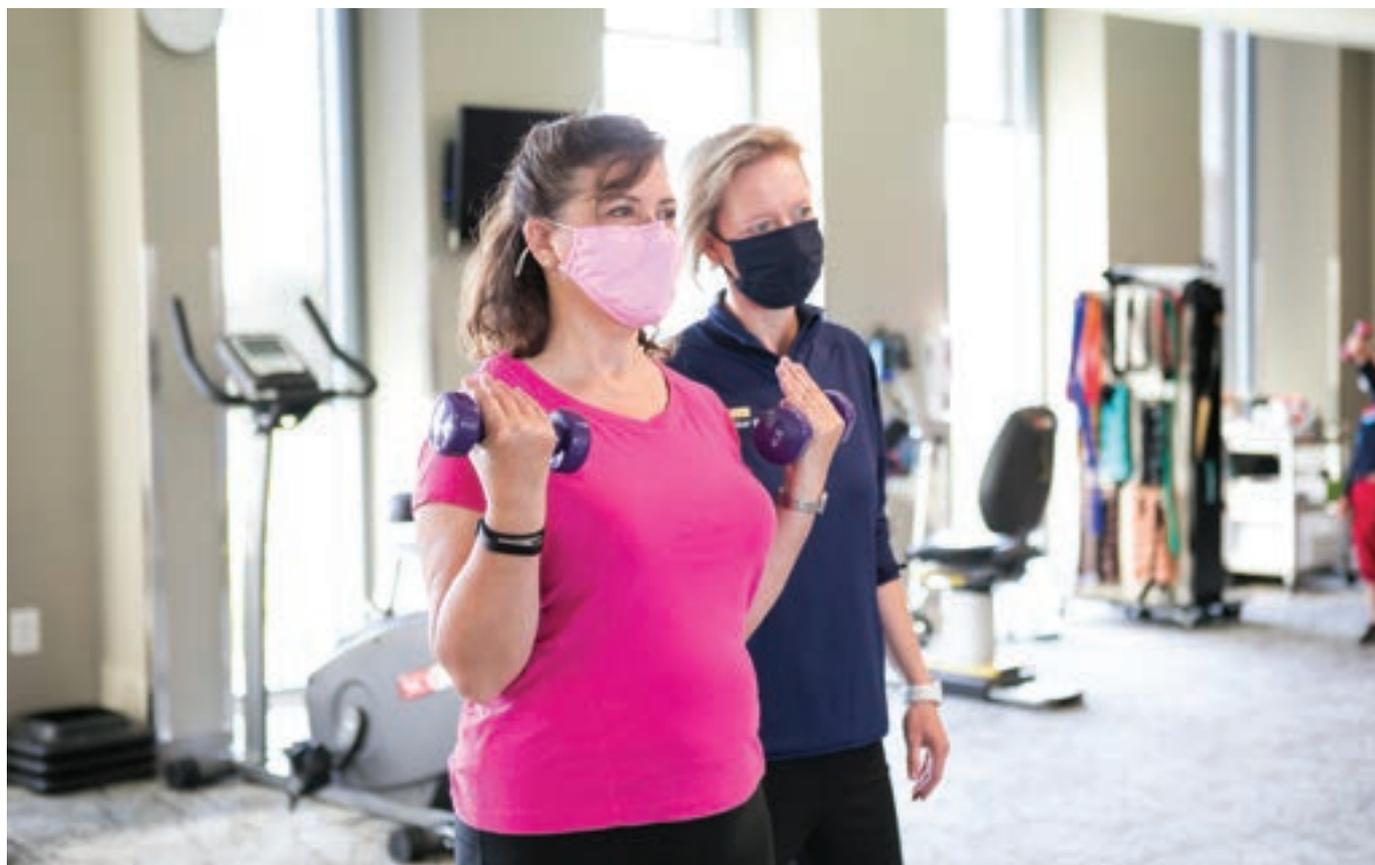
“As collective team members, we look at the whole person to address functional limitations,” says Jonathan H. Whiteson, MD, associate professor of rehabilitation medicine and Medicine at NYU Grossman School of Medicine. At NYU Langone Health’s Rusk Rehabilitation, he is vice chair of clinical operations and medical director of cardiac and pulmonary rehabilitation.

Whiteson says that because long COVID can affect every organ system, it’s important to frame treatment with a broad perspective. “I like the term ‘post-COVID

“Long COVID patients carry tension up through the thoracic cage, and they may breathe fast — up to 26 to 30 breaths per minute.”



Ashley Davis





“I love having PTs help with a view through their lens, and I see patients benefit so much from having both of our perspectives on the team.”



Emily Rich

conditions,’ because that really encompasses everything after infection from COVID-19, a multiorgan infection that requires a multi-specialty approach.”

From his perspective, one team member stands out above everyone else on the multidisciplinary team, and that’s the physical therapist. Patients with long COVID who continue to have general weakness and fatigue need PTs to help regain strength, and to improve balance, disequilibrium, and vestibular vertigo problems, he says.

“We know that people in the hospital with severe COVID-19 can develop pneumonia and resultant low oxygen,” Whiteson says. “They do well by being treated in prone positions versus on their backs. PTs are integrally involved in positioning patients, turning them manually after they’ve been prescribed muscle relaxers. Safe positioning is critical, making sure the arms, legs, and head are in the correct place to prevent pressure injuries or nerve damage.”

He also cites the important contributions that physical therapy providers make to early mobilization. “We want to get COVID-19 patients stretching, standing, walking, moving muscles, and improving range of motion. PTs are the key therapists, working with physiatrists and other doctors.”

Frequent long COVID team meetings yield positive results, Whiteson says. “We’re used to collaborating, having gained experience during early 2020 surges. Our rehab team was and is ideally trained and cultured to work positively together, able to deliver rapid response, and we still operate with a ‘putting patients first’ philosophy.”

He says the rehab team culture has allowed PTs, OTs, SLPs, and physiatrists to deliver enhanced outcomes for patients with long COVID. Because the illness can involve cardiac, neurological, and respiratory systems, he, like Putrino, appreciates that PTs can specialize and even subspecialize in those areas.

Using PTs' Skills to Better Treat Patients

Ashley Davis, MS, is a certified speech-language pathologist with the Division of Otolaryngology-Head and Neck Cancer at Johns Hopkins University. Davis specializes in voice, swallowing, and upper airway, and works as part of a multidisciplinary team in the laryngology division.

Her team works with PTs in a long COVID group to achieve very specific patient goals. "PTs understand diaphragm and pelvic stability as it relates to respiratory treatment," she says. "PTs who specialize in the pelvic floor understand that with chronic cough of long COVID can come urinary incontinence, and they can advise on pelvic floor dysfunction, a common complaint of many women with long COVID."

Davis also appreciates PTs' expertise in diaphragmatic breathing, especially in a patient with diaphragmatic dysfunction emerging as a long COVID symptom. "Having them help with anchoring and strengthening the diaphragm can profoundly impact patients' ability to have a better cough with airway clearance, to have a better voice, and to help with swallowing."

PTs also can work with patients who have long COVID to improve lung expansion. "Long COVID patients carry tension up through the thoracic cage, and they may breathe fast — up to 26 to 30 breaths per minute," Davis says.

Being on an interdisciplinary team with PTs means learning which PTs can do what's needed for a certain patient, Davis says. "PTs who perform manual therapy can help off-load areas of trigger point tension a patient carries in the extrinsic/gross muscles throughout the chest and neck, so our specialty can address the finer motor voicing and swallowing coordination. Then that person can start to feel better."

Patients with long COVID want to feel better about their daily lives, and that's where PTs and OTs help make change, says Davis, who has a brother who's a PT and a sister-in-law who's an OT.

PTs Bring a View Through Their Lens

"Physical therapists are experts in movement, and in my role as an occupational therapist, I work with patients on lifestyle redesign, daily life participation, and function," says Emily Rich, OTR/L, MOTR, a PhD student at Texas Woman's University and clinician at Tucson Medical Center in Arizona. "I love having PTs help with a view through their lens, and I see patients benefit so much from having both of our perspectives on the team."

Plus, Rich says, the interdisciplinary work allows each to practice at the peak of their licenses, to use their expertise in the best way possible with patients who have long COVID. "I don't feel like I'm the only one on the team addressing certain issues and being pulled in different directions. Plus, honestly, I like not having to do as much movement," Rich says.

"PTs are the best with dizziness, working on vestibular exercises, balance and exercise, and I work on vision," Rich continues. She enjoys taking the "homework" a PT gives her patients and integrating it into a user-friendly program patients can follow through with at home.

Aside from exceptional skills and the ability to converse eloquently with other specialists, the work done by interdisciplinary teams can be grounded in empathy, Whiteson says. "We are humans before providers or physicians. We respect each other as humans and value the well-being we can enjoy in life."

Davis adds, "It's important that people with the condition know there are brilliant minds thinking hard about long COVID, and that teams are doing their best to help individuals regain their quality of life." ■

Stephanie Stephens is a writer, TV/streaming producer, voiceover talent, and on-camera host.



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