APTA Magazine

/ Rethinking Rehab for Total Knee Arthroplasty

/ Leaders at Every Stage: APTA's 2026 Honors & Awards

/ Defining Moment: The Ten Yards to Hope

October/November 2026 / Vol. 18 No. 5 The Signature Publication for Members of the American Physical Therapy Association



From Visits to Value

What's Next in Value-Based Care for Physical Therapy

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It could be OA



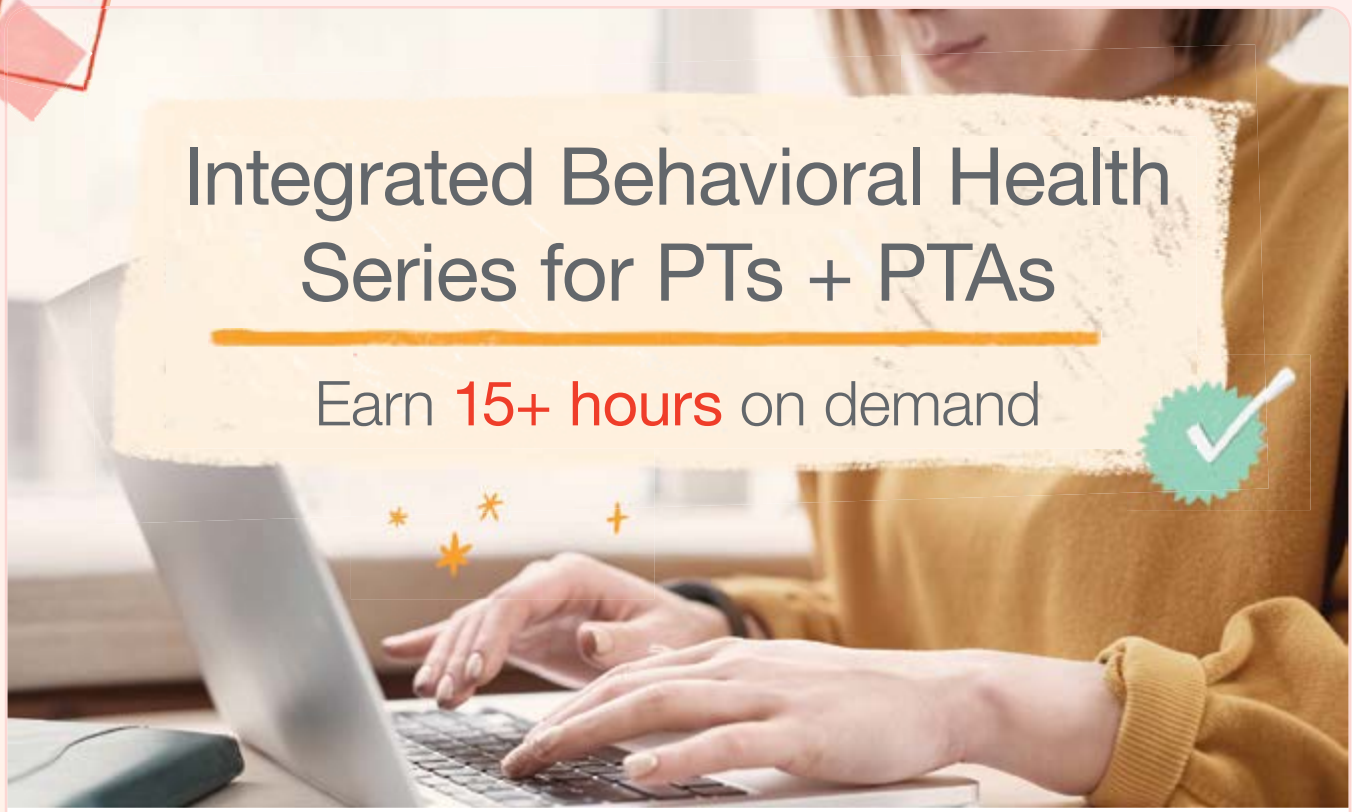
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Reference: 1. He Y, *et al*. Global burden of osteoarthritis in adults aged 30 to 44 years, 1990 to 2019: results from the Global Burden of Disease Study 2019. BMC Musculoskelet Disord. 2024;25(1):303.



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From Visits to Value

New payment models and a physical therapist-led frailty pilot are creating openings for the profession. Seizing them will require PTs to connect functional gains to the cost and quality of a patient's entire care journey.

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Defining Moment

A short walk with a patient in a skilled nursing facility taught this PT that recovery is about more than simple movement.

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Rethinking Rehab for Total Knee Arthroplasty

A revised clinical practice guideline strengthens the case for progressive exercise, embraces digital care, and offers clearer direction on what works, what doesn't, and what's next for patients undergoing total knee arthroplasty.



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Leaders at Every Stage

From newly recognized Outstanding Students to Emerging Leaders and APTA's newest Catherine Worthingham Fellows, these honorees are shaping the future of physical therapy through service, innovation, and impact.

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From Roles to Relationships

Building high trust between therapy teams in modern practice.

On the cover: A physical therapist with Hartford HealthCare Rehabilitation Network (left) works with a patient in APTA's Growing Older and Living Stronger™ pilot program.

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“Waiting for a payer to hand the profession a ready-made model is unlikely to work… Unless we take a proactive role to engage and learn about value-based care and create ways to be more aggressive in this space, then it won’t happen.”

— Joseph Kamerath, MD, in “From Visits to Value” on Page 12.

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[5] Source: IRS "If you pay the entire cost of a health or accident insurance plan, don't include any amounts you receive for your disability as income on your tax return." (https://www.irs.gov/faqs/interest-dividends-other-types-of-income/life-insurance-disability-insurance-proceeds/life-insurance-disability-insurance-proceeds-1).

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The future of our profession is shaped not only by what we know, but by how we apply that knowledge in service of our patients, communities, and one another.

President's Note

Choosing What Matters

One of the most important responsibilities we have as a profession is deciding what matters most.

That may sound simple. But in a healthcare environment that grows more complex each year, clarity has become a competitive advantage. New research emerges. New technologies arrive. New payment models reshape expectations. The challenge is not a lack of information. It's knowing where to focus our attention and how to apply what we learn in ways that make a meaningful difference for patients and communities.

This month's issue highlights several examples of that work.

The revised clinical practice guideline for total knee arthroplasty (Page 26) reflects the profession at its best: asking hard questions, examining the evidence, and refining our approach accordingly. Some recommendations are strengthened. New areas, including digital health, receive greater attention. Other interventions now carry clearer guidance because the evidence does not support routine use. The goal is not change for the sake of change. The goal is to help you make informed decisions about the care you provide every day.

You'll also read about the growing conversation around value-based care (Page 12). At its core, value-based care challenges us to think beyond the individual visit and consider the broader impact of physical therapist services. It asks us to demonstrate not only that patients improve, but that the care we provide contributes to better outcomes across their healthcare journey. That shift requires new partnerships, new measures of success, and, in some cases, a new way of telling the story of our profession.

In this issue, we also recognize the recipients of APTA's 2026 Honors & Awards (Page 34).





Kyle Covington

APTA President Kyle Covington, PT, DPT, PhD, has been a member since 2002. His previous association service includes terms on the APTA Board of Directors, being the president of APTA North Carolina, and being a delegate to the APTA House of Delegates. In 2021, he received APTA North Carolina's Founders' Lectureship Award, and he was recognized in 2011 with an APTA Emerging Leader Award.

#

Continue the conversation by following Kyle Covington, PT, DPT, PhD, on social media.

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Recognition is more than celebrating achievement. It is an opportunity to highlight the contributions that strengthen our profession and expand our impact. The individuals honored this year have advanced practice, research, education, advocacy, leadership, and service in ways that continue to influence those around them. Their accomplishments remind us that progress is rarely the result of a single breakthrough. More often, it comes from people who show up consistently, invest in others, and remain committed to moving the profession forward.

Taken together, these stories reflect an important reality. The future of physical therapy will not be defined only by what we know. It will be shaped by the choices we make with that knowledge. That includes the evidence we adopt, the partnerships we build, the outcomes we prioritize, and the ways we invest in one another.

As you read this issue, I hope you'll consider not only what these stories say about the profession today, but also what they suggest about where we are headed. More importantly, I hope you'll reflect on the role you want to play in that journey.



KYLE COVINGTON, PT, DPT, PHD
APTA PRESIDENT

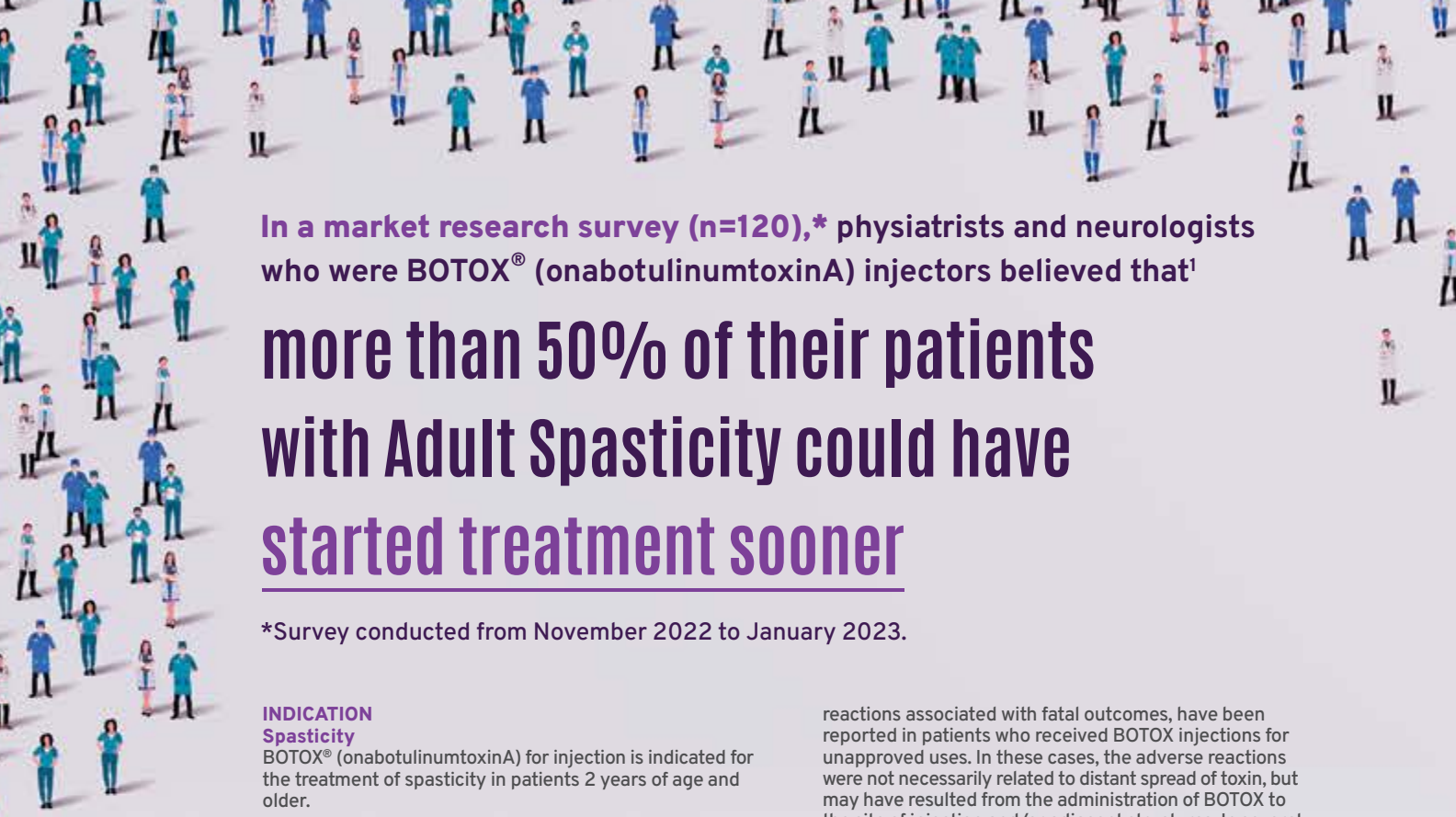


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In a market research survey (n=120),* physiatrists and neurologists who were BOTOX® (onabotulinumtoxinA) injectors believed that[1]

more than 50% of their patients with Adult Spasticity could have started treatment sooner

*Survey conducted from November 2022 to January 2023.

INDICATION

Spasticity

BOTOX® (onabotulinumtoxinA) for injection is indicated for the treatment of spasticity in patients 2 years of age and older.

Limitations of Use

BOTOX has not been shown to improve upper extremity functional abilities or range of motion at a joint affected by a fixed contracture.

IMPORTANT SAFETY INFORMATION, INCLUDING BOXED WARNING

WARNING: DISTANT SPREAD OF TOXIN EFFECT

Postmarketing reports indicate that the effects of BOTOX and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These may include asthenia, generalized muscle weakness, diplopia, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence, and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening, and there have been reports of death. The risk of symptoms is probably greatest in children treated for spasticity, but symptoms can also occur in adults treated for spasticity and other conditions, particularly in those patients who have an underlying condition that would predispose them to these symptoms. In unapproved uses and approved indications, cases of spread of effect have been reported at doses comparable to those used to treat cervical dystonia and spasticity and at lower doses.

CONTRAINDICATIONS

BOTOX is contraindicated in the presence of infection at the proposed injection site(s) and in patients who are hypersensitive to any botulinum toxin product or to any of the components in the formulation.

WARNINGS AND PRECAUTIONS

Spread of Toxin Effect

See *Boxed Warning*.

Lack of Interchangeability Between Botulinum Toxin Products

The potency Units of BOTOX are specific to the preparation and assay method utilized. They are not interchangeable with other preparations of botulinum toxin products and, therefore, Units of biological activity of BOTOX cannot be compared to nor converted into Units of any other botulinum toxin products assessed with any other specific assay method.

Serious Adverse Reactions With Unapproved Use

Serious adverse reactions, including excessive weakness, dysphagia, and aspiration pneumonia, with some adverse reactions associated with fatal outcomes, have been reported in patients who received BOTOX injections for unapproved uses. In these cases, the adverse reactions were not necessarily related to distant spread of toxin, but may have resulted from the administration of BOTOX to the site of injection and/or adjacent structures. In several of the cases, patients had preexisting dysphagia or other significant disabilities. There is insufficient information to identify factors associated with an increased risk for adverse reactions associated with the unapproved uses of BOTOX. The safety and effectiveness of BOTOX for unapproved uses have not been established.

Hypersensitivity Reactions

Serious and/or immediate hypersensitivity reactions have been reported. These reactions include anaphylaxis, serum sickness, urticaria, soft-tissue edema, and dyspnea. If such a reaction occurs, further injection of BOTOX should be discontinued and appropriate medical therapy immediately instituted. One fatal case of anaphylaxis has been reported in which lidocaine was used as the diluent, and consequently, the causal agent cannot be reliably determined.

Increased Risk of Clinically Significant Effects With Preexisting Neuromuscular Disorders

Individuals with peripheral motor neuropathic diseases, amyotrophic lateral sclerosis (ALS), or neuromuscular junction disorders (eg, myasthenia gravis or Lambert-Eaton syndrome) should be monitored when given botulinum toxin. Patients with known or unrecognized neuromuscular disorders or neuromuscular junction disorders may be at increased risk of clinically significant effects, including generalized muscle weakness, diplopia, ptosis, dysphonia, dysarthria, severe dysphagia, and respiratory compromise from therapeutic doses of BOTOX (see *Warnings and Precautions*).

Dysphagia and Breathing Difficulties

Treatment with BOTOX and other botulinum toxin products can result in swallowing or breathing difficulties. Patients with preexisting swallowing or breathing difficulties may be more susceptible to these complications. In most cases, this is a consequence of weakening of muscles in the area of injection that are involved in breathing or oropharyngeal muscles that control swallowing or breathing (see *Boxed Warning*).

Pulmonary Effects of BOTOX in Patients With Compromised Respiratory Status Treated for Spasticity

Patients with compromised respiratory status treated with BOTOX for spasticity should be monitored closely.



BOTOX®
onabotulinumtoxinA injection

Identify early symptoms of Spasticity during physical therapy, and coordinate with a physiatrist or neurologist for timely treatment.[2,3]

Learn more about BOTOX® for Adult Spasticity

IMPORTANT SAFETY INFORMATION (continued)
WARNINGS AND PRECAUTIONS (continued)

Bronchitis and Upper Respiratory Tract Infections in Patients Treated for Spasticity
Bronchitis was reported more frequently as an adverse reaction in adult patients treated for upper limb spasticity with BOTOX (3% at 251 Units to 360 Units total dose) compared to placebo (1%). In adult patients with reduced lung function treated for upper limb spasticity, upper respiratory tract infections were also reported more frequently as adverse reactions in patients treated with BOTOX (11% at 360 Units total dose; 8% at 240 Units total dose) compared to placebo (6%). In adult patients treated for lower limb spasticity, upper respiratory tract infections were reported more frequently as an adverse reaction in patients treated with BOTOX (2% at 300 Units to 400 Units total dose) compared to placebo (1%).

Human Albumin and Transmission of Viral Diseases
This product contains albumin, a derivative of human blood. Based on effective donor screening and product manufacturing processes, it carries an extremely remote risk for transmission of viral diseases and variant Creutzfeldt-Jakob disease (vCJD). There is a theoretical risk for transmission of Creutzfeldt-Jakob disease (CJD), but if that risk actually exists, the risk of transmission would also be considered extremely remote. No cases of transmission of viral diseases, CJD, or vCJD have ever been identified for licensed albumin or albumin contained in other licensed products.

ADVERSE REACTIONS
Adverse reactions to BOTOX for injection are discussed in greater detail in the following sections: *Boxed Warning, Contraindications,* and *Warnings and Precautions.*

Adult Upper Limb Spasticity
The most frequently reported adverse reactions following injection of BOTOX for upper limb spasticity include pain in extremity, muscular weakness, fatigue, nausea, and bronchitis.

Adult Lower Limb Spasticity
The most frequently reported adverse reactions following injection of BOTOX for lower limb spasticity include arthralgia, back pain, myalgia, upper respiratory tract infection, and injection-site pain.

Postmarketing Experience
Adverse reactions that have been identified during postapproval use of BOTOX are discussed in greater detail in *Postmarketing Experience* (Section 6.3 of the Prescribing Information).

There have been spontaneous reports of death, sometimes associated with dysphagia, pneumonia, and/or other significant debility or anaphylaxis, after treatment with botulinum toxin. There have also been reports of adverse events involving the cardiovascular system, including arrhythmia and myocardial infarction, some with fatal outcomes. Some of these patients had risk factors, including cardiovascular disease. The exact relationship of these events to the botulinum toxin injection has not been established.

DRUG INTERACTIONS
Co-administration of BOTOX and other agents interfering with neuromuscular transmission (eg, aminoglycosides, curare-like compounds) should only be performed with caution as the effect of the toxin may be potentiated. Use of anticholinergic drugs after administration of BOTOX may potentiate systemic anticholinergic effects. The effect of administering different botulinum neurotoxin products at the same time or within several months of each other is unknown. Excessive neuromuscular weakness may be exacerbated by administration of another botulinum toxin prior to the resolution of the effects of a previously administered botulinum toxin. Excessive weakness may also be exaggerated by administration of a muscle relaxant before or after administration of BOTOX.

Please see Brief Summary of full Prescribing Information, including Boxed Warning, on the following pages.

For full Prescribing Information, including Boxed Warning, visit https://www.rxabbvie.com/pdf/botox_pi.pdf.

References

1. Data on file, AbbVie Inc. REF-109148.
2. Verduzco-Gutierrez M, Raghavan P, Pruente J, et al. *PM R.* 2024;16(8):864-887.
3. Bandela S, McPherson L, Harvey RL, et al. *Stroke.* 2026;57(4):e146-e159.

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BOTOX® (onabotulinumtoxinA)
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WARNING: DISTANT SPREAD OF TOXIN EFFECT

Postmarketing reports indicate that the effects of BOTOX and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These may include asthenia, generalized muscle weakness, diplopia, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening and there have been reports of death. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can also occur in adults treated for spasticity and other conditions, particularly in those patients who have an underlying condition that would predispose them to these symptoms. In unapproved uses and in approved indications, cases of spread of effect have been reported at doses comparable to those used to treat cervical dystonia and spasticity and at lower doses *[see Warnings and Precautions]*.

INDICATIONS AND USAGE

Spasticity

BOTOX is indicated for the treatment of spasticity in patients 2 years of age and older.

Limitations of Use

BOTOX has not been shown to improve upper extremity functional abilities, or range of motion at a joint affected by a fixed contracture.

CONTRAINDICATIONS

BOTOX is contraindicated:

- In patients who are hypersensitive to any botulinum toxin product or to any of the components in the formulation *[see Warnings and Precautions]*.
- In the presence of infection at the proposed injection site(s).

WARNINGS AND PRECAUTIONS

Spread of Toxin Effect

Postmarketing safety data from BOTOX and other approved botulinum toxins suggest that botulinum toxin effects may, in some cases, be observed beyond the site of local injection. The symptoms are consistent with the mechanism of action of botulinum toxin and may include asthenia, generalized muscle weakness, diplopia, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence, and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening and there have been reports of death related to spread of toxin effects. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can also occur in adults treated for spasticity and other conditions, and particularly in those patients who have an underlying condition that would predispose them to these symptoms. In unapproved uses and in approved indications, symptoms consistent with spread of toxin effect have been reported at doses comparable to or lower than doses used to treat cervical dystonia and spasticity. Patients or caregivers should be advised to seek immediate medical care if swallowing, speech or respiratory disorders occur.

Lack of Interchangeability between Botulinum Toxin Products

The potency Units of BOTOX are specific to the preparation and assay method utilized. They are not interchangeable with other preparations of botulinum toxin products and, therefore, units of biological activity of BOTOX cannot be compared to nor converted into units of any other botulinum toxin products assessed with any other specific assay method.

Serious Adverse Reactions with Unapproved Use

Serious adverse reactions, including excessive weakness, dysphagia, and aspiration pneumonia, with some adverse reactions associated with fatal outcomes, have been reported in patients who received BOTOX injections for unapproved uses. In these cases, the adverse reactions were not necessarily related to distant spread of toxin, but may have resulted from the administration of BOTOX to the site of injection and/or adjacent structures. In several of the cases, patients had pre-existing dysphagia or other significant disabilities. There is insufficient information to identify factors associated with an increased risk for adverse reactions associated with the unapproved uses of BOTOX. The safety and effectiveness of BOTOX for unapproved uses have not been established.

Hypersensitivity Reactions

Serious and/or immediate hypersensitivity reactions have been reported. These reactions include anaphylaxis, serum sickness, urticaria, soft tissue edema, and dyspnea. If such a reaction occurs, further injection of BOTOX should be discontinued and appropriate medical therapy immediately instituted. One fatal case of anaphylaxis has been reported in which lidocaine was used as the diluent, and consequently the causal agent cannot be reliably determined.

Increased Risk of Clinically Significant Effects with Pre-Existing Neuromuscular Disorders

Individuals with peripheral motor neuropathic diseases, amyotrophic lateral sclerosis or neuromuscular junction disorders (e.g., myasthenia gravis or Lambert-Eaton syndrome) should be monitored when given botulinum toxin. Patients with known or unrecognized neuromuscular disorders or neuromuscular junction disorders may be at increased risk of clinically significant effects including generalized muscle weakness, diplopia, ptosis, dysphonia, dysarthria, severe dysphagia and respiratory compromise from therapeutic doses of BOTOX *[see Warnings and Precautions]*.

Dysphagia and Breathing Difficulties

Treatment with BOTOX and other botulinum toxin products can result in swallowing or breathing difficulties. Patients with pre-existing swallowing or breathing difficulties may be more susceptible to these complications. In most cases, this is a consequence of weakening of muscles in the area of injection that are involved in breathing or oropharyngeal muscles that control swallowing or breathing *[see Warnings and Precautions]*.

Deaths as a complication of severe dysphagia have been reported after treatment with botulinum toxin. Dysphagia may persist for several months, and require use of a feeding tube to maintain adequate nutrition and hydration. Aspiration may result from severe dysphagia and is a particular risk when treating patients in whom swallowing or respiratory function is already compromised.

Treatment with botulinum toxins may weaken neck muscles that serve as accessory muscles of ventilation. This may result in a critical loss of breathing capacity in patients with respiratory disorders who may have become dependent upon these accessory muscles. There have been postmarketing reports of serious breathing difficulties, including respiratory failure.

Patients with smaller neck muscle mass and patients who require bilateral injections into the sternocleidomastoid muscle for the treatment of cervical dystonia have been reported to be at greater risk for dysphagia. Limiting the dose injected into the sternocleidomastoid muscle may reduce the occurrence of dysphagia. Injections into the levator scapulae may be associated with an increased risk of upper respiratory infection and dysphagia.

Patients treated with botulinum toxin may require immediate medical attention should they develop problems with swallowing, speech or respiratory disorders. These reactions can occur within hours to weeks after injection with botulinum toxin *[see Warnings and Precautions]*.

Pulmonary Effects of BOTOX in Patients with Compromised Respiratory Status Treated for Spasticity

Patients with compromised respiratory status treated with BOTOX for spasticity should be monitored closely. In a double-blind, placebo-controlled, parallel group study in adult patients treated for upper limb spasticity with stable reduced pulmonary function (defined as FEV_1 40-80% of predicted value and $FEV_1/FVC \leq 0.75$), the event rate in change of Forced Vital Capacity (FVC) ≥15% or ≥20% was generally greater in patients treated with BOTOX than in patients treated with placebo (see Table 1).

Table 1: Event Rate Per Patient Treatment Cycle Among Adult Upper Limb Spasticity Patients with Reduced Lung Function Who Experienced at Least a 15% or 20% Decrease in FVC From Baseline at Week 1, 6, 12 Post-injection with Up to Two Treatment Cycles with BOTOX or Placebo

	BOTOX 360 Units		BOTOX 240 Units		Placebo	
	≥15%	≥20%	≥15%	≥20%	≥15%	≥20%
Week 1	4%	0%	3%	0%	7%	3%
Week 6	7%	4%	4%	2%	2%	2%
Week 12	10%	5%	2%	1%	4%	1%

Differences from placebo were not statistically significant

In adult spasticity patients with reduced lung function, upper respiratory tract infections were also reported more frequently as adverse reactions in patients treated with BOTOX than in patients treated with placebo *[see Warnings and Precautions]*.

Bronchitis and Upper Respiratory Tract Infections in Patients Treated for Spasticity

Bronchitis was reported more frequently as an adverse reaction in adult patients treated for upper limb spasticity with BOTOX (3% at 251 Units-360 Units total dose), compared to placebo (1%). In adult patients with reduced lung function treated for upper limb spasticity, upper respiratory tract infections were also reported more frequently as adverse reactions in patients treated with BOTOX (11% at 360 Units total dose; 8% at 240 Units total dose) compared to placebo (6%). In adult patients treated for lower limb spasticity, upper respiratory tract infections were reported more frequently as an adverse reaction in patients treated with BOTOX (2% at 300 Units to 400 Units total dose) compared to placebo (1%). In pediatric patients treated for upper limb spasticity, upper respiratory tract infections were reported more frequently as an adverse reaction in patients treated with BOTOX (17% at 6 Units/kg and 10% at 3 Units/kg) compared to placebo (9%). In pediatric patients treated for lower limb spasticity, upper respiratory tract infection was not reported with an incidence greater than placebo.

Human Albumin and Transmission of Viral Diseases

This product contains albumin, a derivative of human blood. Based on effective donor screening and product manufacturing processes, it carries an extremely remote risk for transmission of viral diseases and variant Creutzfeldt-Jakob disease (vCJD). There is a theoretical risk for transmission of Creutzfeldt-Jakob disease (CJD), but if that risk actually exists, the risk of transmission would also be considered extremely remote. No cases of transmission of viral diseases, CJD or vCJD have ever been identified for licensed albumin or albumin contained in other licensed products.

ADVERSE REACTIONS

The following adverse reactions to BOTOX (onabotulinumtoxinA) for injection are discussed in greater detail in other sections of the labeling:

- Spread of Toxin Effects *[see Warnings and Precautions]*
- Serious Adverse Reactions with Unapproved Use *[see Warnings and Precautions]*
- Hypersensitivity Reactions *[see Contraindications and Warnings and Precautions]*
- Increased Risk of Clinically Significant Effects with Pre-Existing Neuromuscular Disorders *[see Warnings and Precautions]*
- Dysphagia and Breathing Difficulties *[see Warnings and Precautions]*
- Pulmonary Effects of BOTOX in Patients with Compromised Respiratory Status Treated for Spasticity *[see Warnings and Precautions]*
- Bronchitis and Upper Respiratory Tract Infections in Patients Treated for Spasticity *[see Warnings and Precautions]*

Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, the adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

BOTOX and BOTOX Cosmetic contain the same active ingredient in the same formulation, but with different labeled Indications and Usage. Therefore, adverse reactions observed with the use of BOTOX Cosmetic also have the potential to be observed with the use of BOTOX.

In general, adverse reactions occur within the first week following injection of BOTOX and, while generally transient, may have a duration of several months or longer. Localized pain, infection, inflammation, tenderness, swelling, erythema, and/or bleeding/bruising may be associated with the injection. Symptoms associated with flu-like symptoms (e.g., nausea, fever, myalgia) have been reported after treatment. Needle-related pain and/or anxiety may result in vasovagal responses (including syncope, hypotension), which may require appropriate medical therapy.

Local weakness of the injected muscle(s) represents the expected pharmacological action of botulinum toxin. However, weakness of nearby muscles may also occur due to spread of toxin *[see Warnings and Precautions]*.

Adult Upper Limb Spasticity

The most frequently reported adverse reactions following injection of BOTOX for adult upper limb spasticity appear in Table 2.

Table 2: Adverse Reactions Reported by ≥2% of BOTOX Treated Patients and More Frequent than in Placebo-Treated Patients in Adult Upper Limb Spasticity Double-Blind, Placebo-Controlled Clinical Trials

Adverse Reactions	BOTOX 251 Units - 360 Units (N=115) %	BOTOX 150 Units - 250 Units (N=188) %	BOTOX <150 Units (N=54) %	Placebo (N=182) %
Gastrointestinal disorder				
Nausea	3	2	2	1
General disorders and administration site conditions				
Fatigue	3	2	2	0
Infections and infestations				
Bronchitis	3	2	0	1
Musculoskeletal and connective tissue disorders				
Pain in extremity	6	5	9	4
Muscular weakness	0	4	2	1

Twenty-two adult patients, enrolled in double-blind placebo controlled studies, received 400 Units or higher of BOTOX for treatment of upper limb spasticity. In addition, 44 adults received 400 Units of BOTOX or higher for four consecutive treatments over approximately one year for treatment of upper limb spasticity. The type and frequency of adverse reactions observed in patients treated with 400 Units of BOTOX were similar to those reported in patients treated for upper limb spasticity with 360 Units of BOTOX.

Adult Lower Limb Spasticity

The most frequently reported adverse reactions following injection of BOTOX for adult lower limb spasticity appear in Table 3. Two hundred thirty-one patients enrolled in a double-blind placebo controlled study (Study 7) received 300 Units to 400 Units of BOTOX, and were compared with 233 patients who received placebo. Patients were followed for an average of 91 days after injection.

Table 3: Adverse Reactions Reported by ≥2% of BOTOX Treated Patients and More Frequent than in Placebo-Treated Patients in Adult Lower Limb Spasticity Double-Blind, Placebo-Controlled Clinical Trial (Study 7)

Adverse Reactions	BOTOX (N=231) %	Placebo (N=233) %
Musculoskeletal and connective tissue disorders		
Arthralgia	3	1
Back pain	3	2
Myalgia	2	1
Infections and infestations		
Upper respiratory tract infection	2	1
General disorders and administration site conditions		
Injection site pain	2	1

Pediatric Upper Limb Spasticity

The most frequently reported adverse reactions following injection of BOTOX in pediatric patients 2 to 17 years of age with upper limb spasticity appear in Table 4. In a double-blind, placebo-controlled trial (Study 1), 78 patients were treated with 3 Units/kg of BOTOX, and 77 patients received 6 Units/kg to a maximum dose of 200 Units of BOTOX, and were compared to 79 patients who received placebo. Patients were followed for an average of 91 days after injection.

Table 4: Adverse Reactions Reported by ≥2% of BOTOX 6 Units/kg Treated Patients and More Frequent than in Placebo-Treated Patients in Pediatric Upper Limb Spasticity Double-Blind, Placebo-Controlled Clinical Trial (Study 1)

Adverse Reactions	BOTOX 6 Units/kg (N=77) %	BOTOX 3 Units/kg (N=78) %	Placebo (N=79) %
Infections and infestations			
Upper respiratory tract infection*	17	10	9
General disorders and administration site conditions			
Injection site pain	4	3	1
Gastrointestinal disorders			
Nausea	4	0	0
Constipation	3	0	1
Respiratory, thoracic and mediastinal disorders			
Rhinorrhea	4	0	1
Nasal congestion	3	0	1
Nervous system disorders			
Seizure**	5	1	0

*Includes upper respiratory tract infection and viral upper respiratory tract infection

**Includes seizure and partial seizure

Pediatric Lower Limb Spasticity

The most frequently reported adverse reactions following injection of BOTOX in pediatric patients 2 to 17 years of age with lower limb spasticity appear in Table 5. In a double-blind, placebo-controlled trial (Study 2), 126 patients were treated with 4 Units/kg of BOTOX, and 128 patients received 8 Units/kg to a maximum dose of 300 Units of BOTOX, and were compared to 128 patients who received placebo. Patients were followed for an average of 89 days after injection.

Table 5: Adverse Reactions Reported by ≥2% of BOTOX 8 Units/kg Treated Patients and More Frequent than in Placebo-Treated Patients in Pediatric Lower Limb Spasticity Double-Blind, Placebo-Controlled Clinical Trial (Study 2)

Adverse Reactions	BOTOX 8 Units/kg (N=128) %	BOTOX 4 Units/kg (N=126) %	Placebo (N=128) %
General disorders and administration site conditions			
Injection site erythema	2	0	0
Injection site pain	2	2	0
Respiratory, thoracic and mediastinal disorders			
Oropharyngeal pain	2	0	1
Injury, poisoning and procedural complications			
Ligament sprain	2	1	0
Skin abrasion	2	0	0
Metabolism and nutrition disorders			
Decreased appetite	2	0	0

Immunogenicity
As with all therapeutic proteins, there is a potential for immunogenicity. The detection of antibody formation is highly dependent on the sensitivity and specificity of the assay. Additionally, the observed incidence of antibody (including neutralizing antibody) positivity in an assay may be influenced by several factors including assay methodology, sample handling, timing of sample collection, concomitant medications, and underlying disease. For these reasons, comparison of the incidence of antibodies to onabotulinumtoxinA in the studies described below with the incidence of antibodies in other studies or to other products may be misleading.

Two patients among the 380 adult upper limb spasticity patients (0.5%) with analyzed specimens developed the presence of neutralizing antibodies.

In one Phase 3 study and the open-label extension study in patients with pediatric lower limb spasticity, neutralizing antibodies developed in 2 of 264 patients (0.8%) treated with BOTOX for up to 5 treatment cycles. Both patients continued to experience clinical benefit following subsequent BOTOX treatments.

The data reflect the patients whose test results were considered positive for neutralizing activity to BOTOX in a mouse protection assay or negative based on a screening ELISA assay or mouse protection assay.

Formation of neutralizing antibodies to botulinum toxin type A may reduce the effectiveness of BOTOX treatment by inactivating the biological activity of the toxin. The critical factors for neutralizing antibody formation have not been well characterized. The results from some studies suggest that BOTOX injections at more frequent intervals or at higher doses may lead to greater incidence of antibody formation. The potential for antibody formation may be minimized by injecting with the lowest effective dose given at the longest feasible intervals between injections.

Postmarketing Experience
The following adverse reactions have been identified during post-approval use of BOTOX. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure. These reactions include: abdominal pain; alopecia, including madarosis; anorexia; brachial plexopathy; denervation/muscle atrophy; diarrhea; dry eye; eyelid edema (following periocular injection); hyperhidrosis; hypoacusis; hypoaesthesia; localized muscle twitching; malaise; Mephisto sign; paresthesia; peripheral neuropathy; radiculopathy; erythema multiforme, dermatitis psoriasiform, and psoriasiform eruption; strabismus; tinnitus; and visual disturbances.

There have been spontaneous reports of death, sometimes associated with dysphagia, pneumonia, and/or other significant debility or anaphylaxis, after treatment with botulinum toxin *[see Warnings and Precautions]*.

There have also been reports of adverse events involving the cardiovascular system, including arrhythmia and myocardial infarction, some with fatal outcomes. Some of these patients had risk factors including cardiovascular disease. The exact relationship of these events to the botulinum toxin injection has not been established.

New onset or recurrent seizures have also been reported, typically in patients who are predisposed to experiencing these events. The exact relationship of these events to the botulinum toxin injection has not been established.

DRUG INTERACTIONS

Aminoglycosides and Other Agents Interfering with Neuromuscular Transmission
Co-administration of BOTOX and aminoglycosides or other agents interfering with neuromuscular transmission (e.g., curare-like compounds) should only be performed with caution as the effect of the toxin may be potentiated.

Anticholinergic Drugs
Use of anticholinergic drugs after administration of BOTOX may potentiate systemic anticholinergic effects.

Other Botulinum Neurotoxin Products
The effect of administering different botulinum neurotoxin products at the same time or within several months of each other is unknown. Excessive neuromuscular weakness may be exacerbated by administration of another botulinum toxin prior to the resolution of the effects of a previously administered botulinum toxin.

Muscle Relaxants
Excessive weakness may also be exaggerated by administration of a muscle relaxant before or after administration of BOTOX.

USE IN SPECIFIC POPULATIONS

Pregnancy
Risk Summary
There are no studies or adequate data from postmarketing surveillance on the developmental risk associated with use of BOTOX in pregnant women. In animal studies, administration of BOTOX during pregnancy resulted in adverse effects on fetal growth (decreased fetal weight and skeletal ossification) at clinically relevant doses, which were associated with maternal toxicity *[see Data]*.

In the U.S. general population, the estimated background risk of major birth defects and miscarriages in clinically recognized pregnancies is 2-4% and 15-20%, respectively. The background risk of major birth defects and miscarriage for the indicated populations is unknown.

Data
Animal Data
When BOTOX (4, 8, or 16 Units/kg) was administered intramuscularly to pregnant mice or rats two times during the period of organogenesis (on gestation days 5 and 13), reductions in fetal body weight and decreased fetal skeletal ossification were observed at the two highest doses. The no-effect dose for developmental toxicity in these studies (4 Units/kg) is approximately equal to the human dose of 400 Units, on a body weight basis (Units/kg).

When BOTOX was administered intramuscularly to pregnant rats (0.125, 0.25, 0.5, 1, 4, or 8 Units/kg) or rabbits (0.063, 0.125, 0.25, or 0.5 Units/kg) daily during the period of organogenesis (total of 12 doses in rats, 13 doses in rabbits), reduced fetal body weights and decreased fetal skeletal ossification were observed at the two highest doses in rats and at the highest dose in rabbits. These doses were also associated with significant maternal toxicity, including abortions, early deliveries, and maternal death. The developmental no-effect doses in these studies of 1 Unit/kg in rats and 0.25 Units/kg in rabbits are less than the human dose of 400 Units, based on Units/kg.

When pregnant rats received single intramuscular injections (1, 4, or 16 Units/kg) at three different periods of development (prior to implantation, implantation, or organogenesis), no adverse effects on fetal development were observed. The developmental no-effect level for a single maternal dose in rats (16 Units/kg) is approximately 2 times the human dose of 400 Units, based on Units/kg.

Lactation
Risk Summary
There are no data on the presence of BOTOX in human or animal milk, the effects on the breastfed infant, or the effects on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for BOTOX and any potential adverse effects on the breastfed infant from BOTOX or from the underlying maternal conditions.

Pediatric Use
Spasticity
Safety and effectiveness have been established in pediatric patients 2 to 17 years of age *[see Warnings and Precautions and Adverse Reactions]*. The safety and effectiveness of BOTOX have been established by evidence from adequate and well-controlled studies of BOTOX in patients 2 to 17 years of age with upper and lower limb spasticity.

Safety and effectiveness in pediatric patients below the age of 2 years have not been established *[see Boxed Warning and Warnings and Precautions]*.

Juvenile Animal Data
In a study in which juvenile rats received intramuscular injection of BOTOX (0, 8, 16, or 24 Units/kg) every other week from postnatal day 21 for 12 weeks, changes in bone size/geometry associated with decreased bone density and bone mass were observed at all doses, in association with limb disuse, decreased muscle contraction, and decreased body weight gain. Impairment of fertility and male reproductive organ histopathology (degeneration of seminiferous tubules of the testis) were observed at the mid and high doses. Bone and male reproductive organ effects showed evidence of reversibility after dosing cessation. The no-effect dose for adverse developmental effects in juvenile animals (8 Units/kg) is similar to the human dose (400 Units) on a body weight (kg) basis.

Geriatric Use
Of the 2145 adult patients in placebo-controlled clinical studies of BOTOX for the treatment of spasticity, 33.5% were 65 or older, and 7.7% were 75 years of age or older. No overall differences in safety were observed between elderly patients and adult patients younger than 65 years of age.

In clinical studies of BOTOX across other indications, no overall differences in safety were observed between elderly patients and younger adult patients, with the exception of Overactive Bladder. Other reported clinical experience has not identified differences in responses between the elderly and younger adult patients, but greater sensitivity of some older individuals cannot be ruled out.

OVERDOSAGE

Excessive doses of BOTOX (onabotulinumtoxinA) for injection may be expected to produce neuromuscular weakness with a variety of symptoms.

Symptoms of overdose are likely not to be present immediately following injection. Should accidental injection or oral ingestion occur or overdose be suspected, the person should be medically supervised for several weeks for signs and symptoms of systemic muscular weakness which could be local, or distant from the site of injection *[see Boxed Warning and Warnings and Precautions]*. These patients should be considered for further medical evaluation and appropriate medical therapy immediately instituted, which may include hospitalization.

If the musculature of the oropharynx and esophagus are affected, aspiration may occur which may lead to development of aspiration pneumonia. If the respiratory muscles become paralyzed or sufficiently weakened, intubation and assisted respiration may be necessary until recovery takes place. Supportive care could involve the need for a tracheostomy and/or prolonged mechanical ventilation, in addition to other general supportive care.

In the event of overdose, antitoxin raised against botulinum toxin is available from the Centers for Disease Control and Prevention (CDC) in Atlanta, GA. However, the antitoxin will not reverse any botulinum toxin-induced effects already apparent by the time of antitoxin administration. In the event of suspected or actual cases of botulinum toxin poisoning, please contact your local or state Health Department to process a request for antitoxin through the CDC. If you do not receive a response within 30 minutes, please contact the CDC directly at 1-770-488-7100. More information can be obtained at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5232a8.htm.

NONCLINICAL TOXICOLOGY

Carcinogenesis, Mutagenesis, Impairment of Fertility
Carcinogenesis
Long term studies in animals have not been performed to evaluate the carcinogenic potential of BOTOX.

Mutagenesis
BOTOX was negative in a battery of in vitro (microbial reverse mutation assay, mammalian cell mutation assay, and chromosomal aberration assay) and in vivo (micronucleus assay) genetic toxicology assays.

Impairment of Fertility
In fertility studies of BOTOX (4, 8, or 16 Units/kg) in which either male or female rats were injected intramuscularly prior to mating and on the day of mating (3 doses, 2 weeks apart for males: 2 doses, 2 weeks apart for females) to untreated animals, reduced fertility was observed in males at the intermediate and high doses and in females at the high dose. The no-effect doses for reproductive toxicity (4 Units/kg in males, 8 Units/kg in females) are approximately equal to the human dose of 400 Units, on a body weight basis (Units/kg).

Animal Toxicology and/or Pharmacology
In a study to evaluate inadvertent peribladder administration, bladder stones were observed in 1 of 4 male monkeys that were injected with a total of 6.8 Units/kg divided into the prostatic urethra and proximal rectum (single administration). No bladder stones were observed in male or female monkeys following injection of up to 36 Units/kg (~12X the highest human bladder dose) directly to the bladder as either single or 4 repeat dose injections or in female rats for single injections up to 100 Units/kg (~33X the highest human bladder dose [200 Units], based on Units/kg).

PATIENT COUNSELING INFORMATION

Advise the patient or caretaker to read the FDA-approved patient labeling (Medication Guide).

Swallowing, Speaking or Breathing Difficulties, or Other Unusual Symptoms

Advise patients or their caretaker(s) to inform their doctor or pharmacist if they develop any unusual symptoms (including difficulty with swallowing, speaking, or breathing), or if any existing symptom worsens *[see Boxed Warning and Warnings and Precautions]*.

Ability to Operate Machinery or Vehicles

Advise patients or their caretaker(s) that if loss of strength, muscle weakness, blurred vision, dizziness, or drooping eyelids occur, they should avoid driving a car or engaging in other potentially hazardous activities.

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From Visits to Value



New payment models and a physical therapist-led frailty pilot are creating openings for the profession. Seizing them will require PTs to connect functional gains to the cost and quality of a patient's entire care journey.

By Keith Loria

For years, value-based care has occupied an uncomfortable place in physical therapy: close enough to seem inevitable, but distant enough that many practices could continue treating it as a future concern.

That distance is shrinking.

Federal payment models are beginning to create more explicit roles for physical therapists. Accountable care organizations and health systems facing responsibility for total costs are looking for ways to prevent falls, avoid unnecessary procedures, and keep people functioning independently.

None of that means fee-for-service is disappearing tomorrow. Most physical therapist services are still paid according to visits and units, and PTs often remain outside contracts where savings and risk are shared. The profession is at an inflection point, nevertheless. Its opportunity is no longer simply to show that patients improve between evaluation and discharge. It is to demonstrate that timely, efficient physical therapist care changes what happens next across the healthcare system — and to secure payment that recognizes that contribution.

"We still have one foot in each world, and it's very difficult to move entirely because the payment



structure hasn't moved entirely," says Alice Bell, PT, DPT, senior specialist, health policy and payment at APTA. "People are trying to balance making the transition while keeping their practices financially viable."

A Different Definition of Success

Fee-for-service and value-based payment reward fundamentally different things. Under fee-for-service, a provider generally is paid for each covered service delivered. In a value-based arrangement, some portion of payment is tied to quality, outcomes, cost, or a combination of the three. Depending on the model, a provider may earn an incentive for meeting a target, share in savings, receive a prospective or bundled payment, or assume responsibility for losses as well as gains.

"In a fee-for-service environment, volume drives payment. The more you do, the more you get paid," Bell says. "In a value-based environment, the idea is optimal efficiency in your service delivery, producing the best outcome with the lowest consumption of resources."

That alignment should be intuitive to physical therapists, who already judge their work by gains

> **"In a fee-for-service environment, volume drives payment. The more you do, the more you get paid. In a value-based environment, the idea is optimal efficiency in your service delivery, producing the best outcome with the lowest consumption of resources."**
>
> — Alice Bell





Alice Bell, PT, DPT



Chris Carlin, OTR/L, MBA



Craig Johnson, PT, DPT, MBA

in function and participation. Yet a good clinical result alone does not establish value. A practice also must know what resources produced the result, whether the improvement endured, and whether it helped avert other care. In other words, a patient whose back pain improves after six physical therapy visits may represent value if that improvement lasts and helps avoid the need for future imaging, injections, or surgery.

Value-based care also changes workforce questions. That's why PTs should work at the top of their license, expanding access to evaluation, prognosis, and care-plan development while fully engaging physical therapist assistants to provide appropriate interventions under the PT's direction and supervision. The objective is not simply fewer visits; it is deploying the team's skills efficiently while preserving quality and access.

Joseph Kamerath, MD, senior medical director for rehabilitation at Intermountain Health, headquartered in Salt Lake City, Utah, notes value-based care for physical therapy has been "floating around in the nebula" for years without a clear playbook for physical therapy. Health systems and payers have received frameworks for managing populations and financial risk, but traditional physical therapy practices have largely remained in a familiar unit-based business model.

"Waiting for a payer to hand the profession a ready-made model is unlikely to work," he says.

Virtual-first musculoskeletal companies already have approached employers and health plans with promises of convenient access, population-level data, and downstream savings. Regardless of how those offerings compare with traditional care, their growth illustrates what happens when an organization frames its service around a patient's problem rather than around visits.

"Unless we take a proactive role to engage and learn about value-based care and create ways to be more aggressive in this space, then it won't happen," Kamerath says.

Beyond the Therapy Episode

Physical therapy's strongest value proposition may be what does not happen after a patient receives appropriate care: an avoidable emergency department visit, imaging study, injection, surgery, fall, or hospitalization. Capturing that benefit requires a wider lens than the traditional episode from first visit to discharge.

Dana Strauss, PT, DPT, lead director of public policy and government affairs at CVS Health, notes PTs should think less transactionally and develop longer-term relationships in which patients view a PT as a trusted member of their healthcare team. A patient with recurring low back pain, for example, may return for timely reassessment instead of beginning a more expensive and invasive path through the system if they view their PT as a longitudinal healthcare partner rather than a service provider.

"The value we really bring, the true value that we haven't even begun to touch, is seeing much more of the population, many of them for way fewer visits than we have traditionally done under a volume-incentivized system in fee-for-service, and then being that touchpoint over time," Strauss says. The distinction, she adds, is between a patient



saying, “I go to physical therapy” versus “I go to my physical therapist.”

Few organizations have the ability to view rehabilitation from both the payer and provider perspectives. Using integrated data from Intermountain, Kamerath and his colleagues have examined what happens after a therapy episode ends. In an analysis of patients with low back pain, the organization found nearly four times fewer physical therapy encounters over a 30-month period when care was delivered within its own system, while maintaining favorable clinical outcomes. For Kamerath, findings like these demonstrate why rehabilitation should be evaluated not only by the outcomes it achieves, but by the healthcare utilization it avoids.

Craig Johnson, PT, DPT, MBA, an executive consultant who works with independent practices and serves on the APTA Board of Directors, has seen the same principle in payer pilots.

Standardized patient-reported outcome measures can demonstrate quality, while utilization data shows how efficiently a practice produces them. Research and claims analyses also have linked earlier or direct access to physical therapist services with lower downstream spending, he says.

What generally has not followed is a share of those savings for PTs. Most arrangements involving physical therapist practices still focus on managing the cost and outcome of the therapy episode itself. Payers often retain prior authorization and other utilization controls, even when providers are asked to deliver value.

“We’ve been successful in that kind of a framework,” Johnson says of episode management. “What we haven’t really engaged in is a model where physical therapists are getting some kind of shared savings on those downstream savings.”

Models Create Openings

The Center for Medicare and Medicaid Innovation began its 10-year Advancing Chronic Care with Effective, Scalable Solutions, aka ACCESS, model in July. It includes a musculoskeletal track for chronic pain and uses outcome-aligned payments for technology-supported care.



Joseph Kamerath, MD



Dana Strauss, PT, DPT

“What we haven’t really engaged in is a model where physical therapists are getting some kind of shared savings on those downstream savings.”

— Craig Johnson

Ready for Value? Six Questions for Your Practice

Not every practice is ready for a value-based contract today. But every practice can begin building the data, capabilities, and partnerships needed to participate tomorrow. Before pursuing a value-based arrangement, make sure you can answer these six foundational questions.

1. **Which population or condition can you manage especially well?**

   Start narrowly. Low back pain, falls risk, postacute transitions, or an employer's musculoskeletal population may offer a clearer case than an all-purpose value claim.

2. **Are your outcomes credible outside your clinic?**

   Use standardized, validated measures appropriate to the population. Know your baseline, expected change, completion rate, and performance relative to available benchmarks.

3. **What does it cost to produce the result?**

   Calculate visits or encounters per episode, staff time, technology, and overhead. A favorable outcome is not sustainable if payment does not cover the resources required to achieve it.

4. **Can you connect the episode to what happens next?**

   Determine how you will assess durability and downstream use of emergency care, imaging, injections, surgery, or hospitalization. That may require a payer, ACO, health system, or employer partner with access to claims or longitudinal data.

5. **Do you understand the risk?**

   Identify the attributed population, performance period, benchmark, quality measures, exclusions, data-sharing rules, and payment timing. Clarify whether the arrangement offers an upside incentive only or also exposes the practice to losses.

6. **Whose problem are you solving?**

   Learn what a local payer, primary care group, hospital, ACO, or employer is accountable for. Lead with a specific solution — faster access, falls prevention, more reliable transitions, or lower avoidable utilization — and the evidence your practice can provide.



PTs also are among the Medicare Part B practitioners eligible for a comanagement payment for reviewing care updates and performing related coordination activities completed by the ACCESS organization.

Another model, CMMI's LEAD, is scheduled to begin in 2027 as the successor to CMMI's ACO REACH model, which is slated to end on Dec. 31. LEAD, or Long-Term Enhanced ACO Design, will allow participating accountable care organizations to establish downstream contractual arrangements with other providers.

Beginning in 2028, LEAD's embedded voluntary model, the CMS-Administered Risk Arrangements initiative, or CARA, is expected to include RISE to Age in Place, otherwise known as the Resilience and Independence in a Safe Environment model. This is an interdisciplinary,

A physical therapist assistant with Hartford HealthCare Rehabilitation Network (right) works with a patient in APTA's Growing Older and Living Stronger™ pilot program.

longitudinal episode-of-care model in which physical therapists, occupational therapists, and registered nurses collaborate on falls risk assessments, strength and balance interventions, medication management, and communication with other providers.

Those models do not automatically place every physical therapist in a value-based contract. They do, however, give practices identifiable partners and problems to address.

Strauss recommends that outpatient practices learn which physicians and health systems in their communities participate in Original Medicare's accountable care organizations, including the CMS Medicare Shared Savings Program, CMMI's ACO REACH, and its replacement, the LEAD model, which begins Jan. 1, 2027. Once these practices have been identified, Strauss recommends offering specific solutions that address the gaps that primary care physicians, advanced practice providers, and behavioral health providers aren't best equipped to manage.

A physical therapy practice might guarantee an evaluation for low back pain within 24 hours, place a PT in a primary care office on designated days, help patients referred to physical therapy by specialists to schedule their annual wellness visit with their primary care provider, identify open ACO quality gaps, or provide a reliable transition after hospitalization.

"The first part of participating in models is truly building trust," Strauss says. "It's the opportunity to elevate the profession as a partner to the rest of the physician and practitioner community."

Johnson agrees that productive payer relationships begin with understanding the other party's

TEACH PATIENTS WHY THEY HURT

One in four people suffer from chronic pain worldwide. Research shows that when people learn about pain, their lives are improved. Discover pain neuroscience education (PNE) resources from Adriaan Louw, PT, PhD, that will help you integrate practical pain education tools into your practice, so you can be part of the solution to this global epidemic.





WhyYouHurt.com: This free online resource, hosted by Adriaan Louw, is a great first step in integrating PNE into your practice.



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objectives. Arriving only with complaints about rates or utilization policies is unlikely to open a conversation about shared accountability, but showing that a practice understands a payer's population, pressure points, and measures can.

Turning Prevention Into Evidence

APTA's Growing Older and Living Stronger™, or GOALS, model puts that idea into practice. An early outcome of "Advancing Our Payment," a core pillar of APTA's Strategic Framework for 2030, is the yearlong pilot with Hartford HealthCare Rehabilitation Network, which uses physical therapists to screen and assess older adults for frailty and functional decline. Based on the findings, the PT recommends an appropriate path, which could include wellness services, physical therapist services, or another intervention.

The premise is straightforward: Identify risk while there is still time to prevent its most damaging consequences. The pilot will track changes in frailty and function, engagement with recommended services, falls, emergency department visits, hospitalizations, independence, and whether participants remain in their current living setting. Early findings are expected in late 2026, with a fuller analysis slated for 2027.

Chris Carlin, OTR/L, MBA, vice president of operations for Hartford HealthCare Community Network, says Hartford HealthCare saw a natural alignment between the model and its efforts to keep people at their highest level of function and out of the hospital. The health system had patients, therapists, and the ability to test the model in real-world care; payers who had heard about the concept wanted evidence before deciding whether to cover it.

"Physical therapists are well positioned to help in this value-based preventive space," Carlin says. "They have the ability to identify risk factors early, create or recommend individualized intervention plans, and, in general, keep people moving and at their highest level of independence."

The pilot's importance extends beyond frailty. It demonstrates how the profession can help design value-based care instead of waiting to be added to someone else's model. If the approach improves outcomes and reduces costly events, the data could support adoption by other health systems, independent practices, ACOs, and risk-bearing organizations.

It also will confront a central payment question: Who funds proactive screening before a patient has a reimbursable injury or decline? Carlin says one goal is to generate findings that can help identify "a sustainable funding source for some of this proactive screening that's not currently reimbursable."

Build the Capacity Before the Contract

The first step toward value-based payment once was simply to measure something. Bell says the



"The first part of participating in models is truly building trust. It's the opportunity to elevate the profession as a partner to the rest of the physician and practitioner community."

— Dana Strauss

Value-Based Care Vocabulary

Value-based care may be built on outcomes, but it certainly relies on acronyms. From ACCESS to VBC, use this quick guide to the programs, models, and organizations that are key to value-based care.

ACCESS

Advancing Chronic Care with Effective, Scalable Solutions. A 10-year Center for Medicare and Medicaid Innovation model that launched in July 2025 and includes a musculoskeletal track for chronic pain.

ACO

Accountable Care Organization. A group of healthcare providers that work together to improve quality, coordinate care, and manage the total cost of care for a defined patient population.

ACO REACH

Accountable Care Organization Realizing Equity, Access, and Community Health. CMMI's accountable care model, which ends Dec. 31 and is being succeeded by the LEAD model.

CARA

CMS-Administered Risk Arrangements. A voluntary component of the LEAD model that allows participating providers to take on accountability for specific populations or services.

CMS

Centers for Medicare & Medicaid Services. The federal agency that administers Medicare, Medicaid, and several value-based payment initiatives.

CMMI

Center for Medicare and Medicaid Innovation. The CMS Innovation Center is responsible for testing new payment and care-delivery models.

GOALS

Growing Older and Living Stronger™. APTA's frailty-screening and prevention value-based care model pilot being tested with Hartford HealthCare Rehabilitation Network.

LEAD

Long-Term Enhanced ACO Design. CMMI's next-generation accountable care model, scheduled to launch Jan. 1, 2027, as the successor to ACO REACH.

RISE

Resilience and Independence in a Safe Environment. A planned interdisciplinary aging-in-place model within CARA, focused on falls prevention, functional independence, and coordinated care.

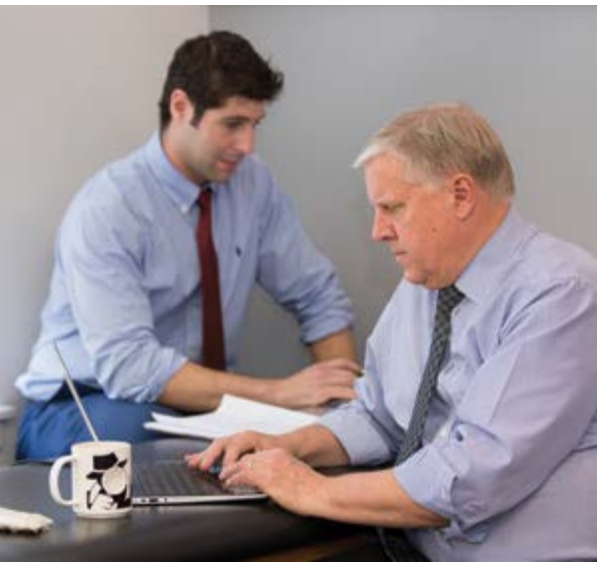
SPARC

State Payer Advocacy Resource Consortium. The collaborative initiative between APTA, APTA Orthopedics, and APTA Private Practice through which the new value-based care provider and payer guides, as well as other state payment advocacy resources, are available.

VBC

Value-Based Care. A payment and care-delivery approach that ties reimbursement, in whole or in part, to quality, outcomes, patient experience, and cost efficiency rather than volume of service





"Physical therapists are well positioned to help in this value-based preventive space. They have the ability to identify risk factors early, create or recommend individualized intervention plans, and, in general, keep people moving and at their highest level of independence."

— Chris Carlin

profession has now moved beyond that. Practices now should determine whether their measures are standardized, meaningful to the population being treated, and useful in contract negotiations. They must attach cost and utilization to outcomes, risk-stratify their populations when appropriate, and follow patients after the skilled episode ends.

"It's not enough just to know that you got a patient from A to B to C," Bell says. "What did it cost to get that patient there?"

Practices also need to ask whether the result was sustained, whether the patient later sought avoidable care, and whether the plan of care matched the patient's goals.

Significant barriers remain. Many rehabilitation-focused electronic health records do not meet the certified technology requirements embedded in federal models, and acquiring compatible systems may be prohibitive for small practices. PTs often lack access to claims data showing downstream utilization. Measures vary across organizations, and many payment models still treat the physician or hospital as the front door to care.

Smaller practices do not need to begin with downside risk. Johnson says a practice that understands its cost per episode, utilization by payer or population, and standardized outcomes may be prepared for a one-sided arrangement that rewards improvement without requiring repayment for a miss. Those fundamentals also allow leaders to evaluate whether a proposed benchmark is achievable and whether the payment covers the cost of delivering the promised result.

Two new guides developed by APTA, the American Occupational Therapy Association, and the American Speech-Language-Hearing Association can help. Available through the State Payer Advocacy Resource Consortium, or SPARC, "Value-Based Care for Therapy: A Provider's Guide" explains payment categories, measurement, risk,

Access the "Value-Based Care for Therapy: A Provider's Guide" on APTA's State Payer Advocacy Resource Consortium, or SPARC, by scanning the QR code or going to **sparc.apta.org.**

and operational readiness. A companion payer guide outlines considerations specific to therapy services. The Alternative Payment Models Open Forum on the APTA Community also gives members a place to learn from peers.

The resources matter because value-based contracting brings a new vocabulary and a different way of managing a practice. But the transition ultimately depends on a few questions every physical therapy organization can begin answering now:

- Which patient populations do we help most effectively?
- What is the total cost of delivering that care?
- How sustainable are the outcomes we achieve?
- What downstream healthcare costs can our services help prevent or reduce?
- Which organizations could be strong strategic partners, and who is looking for solutions to reduce healthcare costs?

"If you have the data and the relationships, then you can engage a lot sooner," Johnson says.

Value-based care will not arrive as a single replacement for fee-for-service. It will continue to emerge through pilots, payer contracts, ACO partnerships, employer arrangements, and condition-specific models. Practices that prepare now can help shape those arrangements and move physical therapy's value from a clinical conviction to a basis for payment.

Keith Loria is a freelance writer and a frequent contributor to APTA Magazine.



Encompass Health
Rehabilitation Hospitals

From roles to relationships: Building high trust between therapy teams in modern practice

A perspective on communication, trust and shared accountability in rehabilitation

By Kathleen “Kathy” Lovato, PT, DPT

In inpatient rehabilitation, we often emphasize clinical expertise as the primary driver of patient outcomes. In my experience as a physical therapist assistant (PTA), a physical therapist (PT) and now a director of therapy operations, the differentiator is not just what we do, but how effectively we work together.

Each stage of my career has shaped how I view the relationship between the PT and the PTA. As a PTA, I focused on executing the plan of care and communicating patient responses. As a PT, I came to understand the responsibility of developing and directing that plan. In my current leadership role, I see more clearly how the strength of that partnership directly influences patient progression, discharge timelines, interdisciplinary trust and overall team performance.

How weak communication can impact care and frustrate families

Our weekly interdisciplinary team conference is underway as the case manager turns to the physical therapist: “Where are we with Mr. Rivera? Is he on track for discharge Friday?”

The PT hesitates. Her PTA has treated the patient for the past three sessions, but there have been no formal check-ins, only brief session notes documenting whether goals were met and providing general functional status updates. She pieces together an answer from memory, as she has not had another conversation with the patient or therapist.

“He’s making progress toward discharge,” she said. “But, I cannot clearly speak to his current functional level, family support, understanding of the plan of care, carryover between sessions or whether a Friday discharge is realistic.”

The case manager moves on, and the physician states, “Discharge pending PT input.”

Friday comes and goes. Mr. Rivera remains in the hospital for three additional days, not because he wasn’t functionally ready, but because the team never had a complete picture of his progress. His family is frustrated by the delay and begins to question the quality of his care.

Trust, once lost, is not easily rebuilt.

In today’s healthcare environment, the relationship between the PT and PTA is evolving from a traditional supervisory structure into a dynamic, trust-driven partnership. This shift is not simply philosophical; it is both operationally and clinically necessary. As workforce shortages intensify and patient demand rises, the effectiveness of collaboration is increasingly tied to both patient outcomes and organizational sustainability.

The case for cohesive care

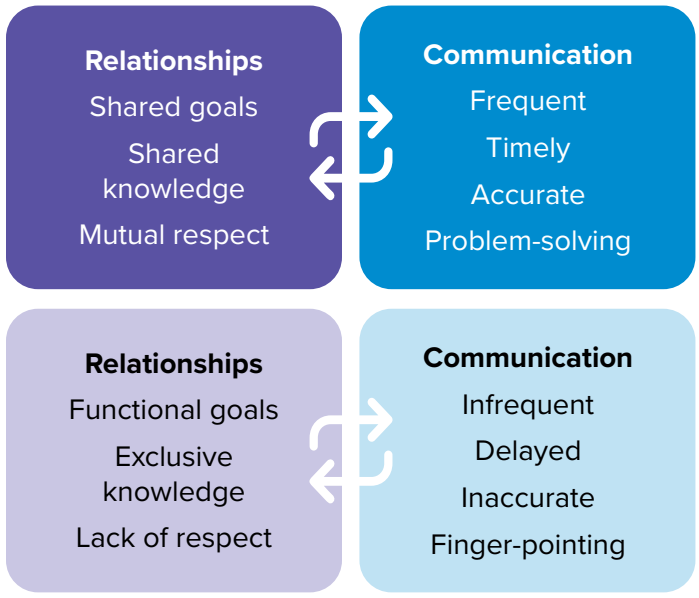
The need for cohesive care teams has never been clearer and more imperative. Current workforce projections estimate a shortage of approximately 12,000 full-time equivalent physical therapists nationwide, with the gap expected to widen in the coming years.

At the same time, available evidence suggests that incorporating PTAs into care planning delivery does not negatively impact key outcomes such as function, pain or discharge status when services are appropriately supervised, and competencies verified.

Historically, the relationship between PTs and PTAs has been framed primarily through supervision and delegation, emphasizing treatment execution, regulatory compliance and hierarchical accountability. The American Physical Therapy Association (APTA) affirms that direction and supervision are foundational to the relationship, with the physical therapist retaining responsibility for patient management and the PTA supporting implementation of the plan of care. While this structure ensures safety and role clarity, it represents only the baseline for effective practice, not the highest level of team performance.

Relational coordination theory, developed by Dr. Jody Hoffer Gittell, provides a framework for understanding high performing healthcare teams as relational rather than purely transactional systems. The theory suggests that effective coordination in interdependent environments is achieved through relationships built on shared goals, shared knowledge and mutual respect, reinforced by communication that is frequent, timely, accurate and focused on problem-solving. Evidence across healthcare settings demonstrates that stronger relational coordination is associated with improved quality outcomes, higher patient satisfaction, greater clinician engagement and reduced burnout. These findings are particularly relevant in rehabilitation, where care delivery requires ongoing coordination across providers, making relational dynamics essential to achieving optimal outcomes. In inpatient rehabilitation, these relational dynamics are not optional; they are essential to coordinating complex patient care.

RELATIONAL COORDINATION THEORY



True collaboration is built on trust

Trust is the cornerstone of effective collaboration within care teams. Research in healthcare settings consistently shows that trust strengthens team functioning, improves work engagement and contributes to better organizational outcomes. In practice, trust is built through reliability, role clarity and transparent communication, particularly when PTs and PTAs demonstrate consistency between expectations and actions. Importantly, trust does not replace accountability; rather, it reduces friction in delegation by enabling autonomous yet aligned contributions from each team member.

Closely linked to trust is the concept of psychological safety, defined as a shared belief that the team is safe for interpersonal risk-taking. Amy Edmondson's foundational research in healthcare states that high-performing teams are more likely to speak up, ask questions and report errors, not because they make more mistakes, but because they operate in environments where candor is expected and supported. For PTs and PTAs, psychological safety enables PTAs to share clinical observations, raise concerns about patient responses and contribute to problem-solving without fear of negative judgment. This openness is critical for making timely adjustments to the plan of care and preventing errors.

Effective communication is the mechanism through which trust and psychological safety are implemented in the interdisciplinary rehabilitation setting. Evidence-based frameworks such as TeamSTEPPS emphasize structured communication strategies, including closed-loop communication, huddles and mutual support behaviors to optimize team performance and patient outcomes. More broadly, research in interprofessional collaboration identifies communication as the strongest predictor of team effectiveness, directly influencing patient safety, efficiency and team innovation. In practice, this translates into intentional behaviors such as daily alignment on patient goals through huddles, reciprocal feedback and shared clinical reasoning conversations.

High-performing therapy teams also demonstrate shared accountability. Rather than viewing outcomes as the sole responsibility of supervising PTs, both individuals recognize their interdependence in achieving patient goals. This shift reflects a deeper understanding of delegation, not as the transfer of tasks but as the coordination of expertise within defined scopes of practice. When PTAs are empowered to fully engage within their role, they contribute valuable insights that enhance clinical decision-making and continuity of care.



Shifting from compliance-based to relationship-based

Ultimately, advancing the PTs and PTAs relationship requires a deliberate shift from a compliance-based model to a relationship-centered one. This evolution does not diminish the importance of supervision, it elevates it. Leadership within physical therapy must prioritize the development of communication competencies, the cultivation of trust and the creation of psychologically safe environments. By doing so, therapy teams can move beyond delegation toward true collaboration, unlocking higher levels of performance, professional satisfaction and patient outcomes.

Educational models increasingly support this collaborative approach. Interprofessional education and shared clinical experiences help PT and PTA students develop teamwork skills early, improving readiness for real-world practice.

Operational success depends on structured communication, clear delegation, team-based workflows and ongoing team development. Hospital leadership that invests in these areas experiences improved productivity, lower burnout and better job satisfaction.

Ultimately, the future of PT depends on our ability to move beyond role definition and toward relationship development. PTs and PTAs are partners in delivering high-quality, patient-centered care, and strong collaboration is essential to meeting the demands in modern healthcare.

ABOUT THE AUTHOR

Dr. Kathleen Lovato is the senior director of therapy operations at Encompass Health Rehabilitation Hospital of East Valley in Mesa, Arizona

Lovato began her career in rehabilitation as a physical therapist assistant in 1994. She earned her Master of Physical Therapy from Loma Linda University in 2000 and completed her Doctor of Physical Therapy degree at A.T. Still University in Mesa, Arizona, in 2005. Lovato is actively engaged in professional leadership and advocacy. She is a member of APTA Leadership and Innovation and serves with the APTA Arizona SIG – Phoenix Physical Therapy Directors, where she leads discussions and networking among physical therapy leaders.

For the past 10 years, Lovato has been an integral member of the Encompass Health Inpatient Rehabilitation Therapy Leadership Board, contributing to system-wide initiatives including: fall prevention programs, leadership of the APTA–Encompass Health collaboration team, initial team member of the CEU University instruction on hip fracture rehabilitation, participation on the Therapy Innovations Committee and multiple regional and national speaking engagements

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Encompass Health
Rehabilitation Hospitals

By Christine Scalora
and Leah Fogarty





Rethinking Rehab for Total Knee Arthroplasty

A revised clinical practice guideline strengthens the case for progressive exercise, embraces digital care, and offers clearer direction on what works, what doesn't, and what's next for patients undergoing total knee arthroplasty.

A patient is discharged after total knee arthroplasty. The physical therapist developing the plan of care faces a familiar set of questions: How should strengthening progress? Which interventions are most likely to improve function? When should digital tools be considered? And which commonly used treatments may not be worth the effort?

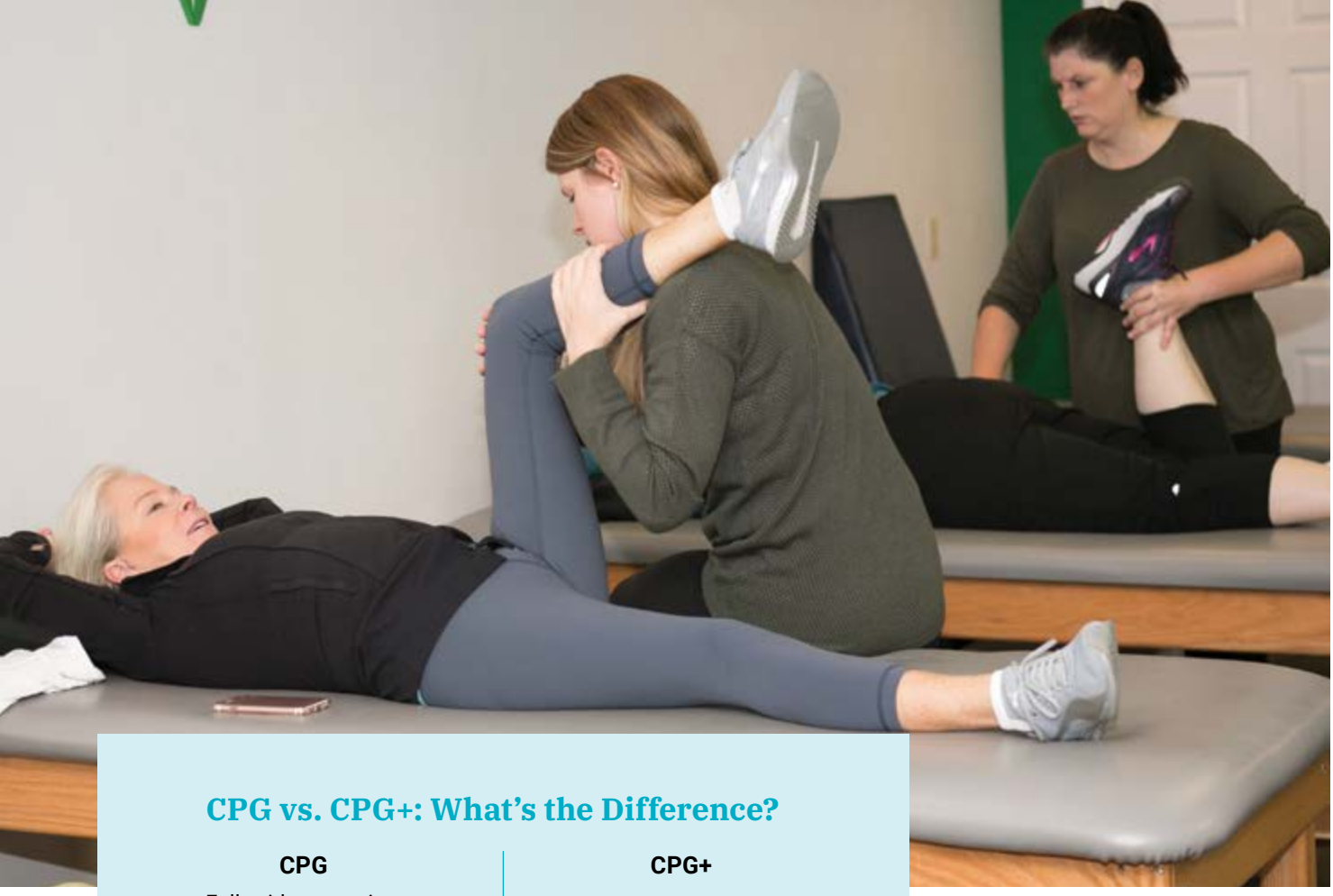
The "Clinical practice guideline for physical therapist management of total knee arthroplasty: revision 2026" aims to help clinicians answer those questions with greater confidence.

The 2026 revision of this CPG is available in PTJ: Physical Therapy & Rehabilitation Journal, APTA's scientific journal. APTA members have full-text access to all PTJ content for free as a member benefit. APTA has also published a CPG+ resource for its members. This quick-reference tool translates the CPG's recommendations into real-time clinical insights. (For more on the difference between a CPG and CPG+, see sidebar on Page 28.)

A Moving Target

According to the American College of Rheumatology, nearly 800,000 Americans undergo total knee arthroplasty each year, making it one of the most common procedures physical therapists will encounter in practice. As the population ages, that number is only expected to increase.

Yet the rehabilitation process continues to evolve, shaped by new evidence, emerging technologies, changing care-delivery models, and growing pressure to demonstrate value. For PTs helping patients regain strength, mobility, and confidence after surgery, the question is no longer whether the evidence has changed. It's how to keep pace with it.



CPG vs. CPG+: What's the Difference?

CPG	CPG+
Full evidence review	Quick-reference clinical tool
Detailed methodology	Point-of-care guidance
Strength of evidence	Practical implementation support
Comprehensive recommendations	Designed for busy clinicians
	Available to APTA members only

BOTTOM LINE:
The CPG tells you what the evidence says.
CPG+ helps you put it into practice.

The revised guideline provides evidence-based recommendations for preoperative education, postoperative rehabilitation, strengthening, gait training, pain management, outcome measures, and other aspects of care to help PTs optimize outcomes for adults who will undergo or have undergone total knee replacement.

While the original CPG for PTs treating patients undergoing TKA was published in 2020, the revision now includes studies published through 2024. To broaden the perspectives represented in the guideline, the revision process brought additional healthcare disciplines to the table.

"To ensure a multidisciplinary perspective, APTA invited other organizations to participate in the guideline development process," says Jeanine Kolman, manager in the Practice Department at APTA. "The American Academy of Orthopaedic Surgeons, American Occupational Therapy Association, and National Association of Orthopaedic Nurses each nominated a representative who joined the workgroup."

The New Playbook

That broader perspective is reflected in a guideline that responds not only to new evidence,but also to changes in how care is delivered.

According to workgroup co-lead Allyn Bove, PT, DPT, PhD, innovations in surgical techniques, growing use of digital health tools, and changes in federal payment policy are all influencing how rehabilitation is delivered before and after TKA.

"We'll continue to see frequent and fast changes in TKA rehabilitation to maximize patient outcomes while minimizing cost of care, so our CPG needs to incorporate all of the evidence we have to support these changes," Bove says.

Key updates include:

- Stronger recommendation for progressive strength training
- Stronger recommendation for motor function training
- New recommendations for manual therapy, transcutaneous electrical nerve stimulation, and psychologically informed techniques in selected patients
- New recommendations for digital health and telerehabilitation
- New recommendations against manual lymphatic drainage and compression due to insufficient evidence

The strongest recommendations in the CPG are for progressive strength training and exercise programs beginning in the early postacute period and for motor function training such as dynamic balance testing, app-assisted gait retraining, and movement training with feedback. There is more data to support these recommendations now, so they have been upgraded from moderate strength to strong in the revised CPG.

Manual therapy, transcutaneous electrical nerve stimulation, and psychologically informed techniques are now recommended in certain situations to help with pain management. Also, digital health tools are recommended as an addition or alternative to in-person care.

Digital health represents one of the most significant additions since the 2020 guideline. Bove noted that research on digital tools has expanded substantially in the past several years, prompting the workgroup to incorporate new evidence and recommendations related to telerehabilitation and other technology-supported care approaches.

"The updated guideline highlights several important advances, including the integration of newer care delivery models such as digital health and

> "We'll continue to see frequent and fast changes in TKA rehabilitation to maximize patient outcomes while minimizing cost of care, so our CPG needs to incorporate all of the evidence we have to support these changes."
>
> — Allyn Bove





telerehabilitation, reflecting how rehabilitation is evolving beyond traditional clinic-based care," says Michael Bade, PT, DPT, PhD, OCS, the other co-lead of the CPG revision workgroup.

"It also provides more specific, actionable recommendations for key interventions such as early, high-intensity neuromuscular electrical stimulation and incorporates emerging evidence supporting interventions like manual therapy and a range of nonpharmacological pain-management strategies."

When Less Is More

The revision also provides more explicit guidance on interventions that offer limited value. "The guideline offers clearer recommendations against lower-value care where evidence consistently shows limited benefit alongside added cost and burden," Bade says.

In the updated CPG, routine use of bracing or splinting to increase range of motion is not recommended. Additionally, the workgroup does not recommend routine use of manual lymphatic drainage, compression dressing, or continuous passive motion to reduce postoperative swelling.

5 Ways the New TKA Guideline Could Influence Your Practice

The revised CPG doesn't require a complete overhaul of care, but it reinforces several evidence-based approaches and challenges clinicians to reconsider others.

1

Progress strength training early and deliberately.

The revised guideline provides stronger support for progressive strengthening in the postacute phase after TKA.

2

Make motor function training a cornerstone of rehabilitation.

Dynamic balance activities, gait retraining, and movement training with feedback now carry stronger support than in the 2020 guideline.

3

Look beyond the clinic walls.

Consider whether telerehabilitation, app-based programs, or other digital health tools could improve access, engagement, or follow-through for appropriate patients.

4

Expand your pain-management toolkit.

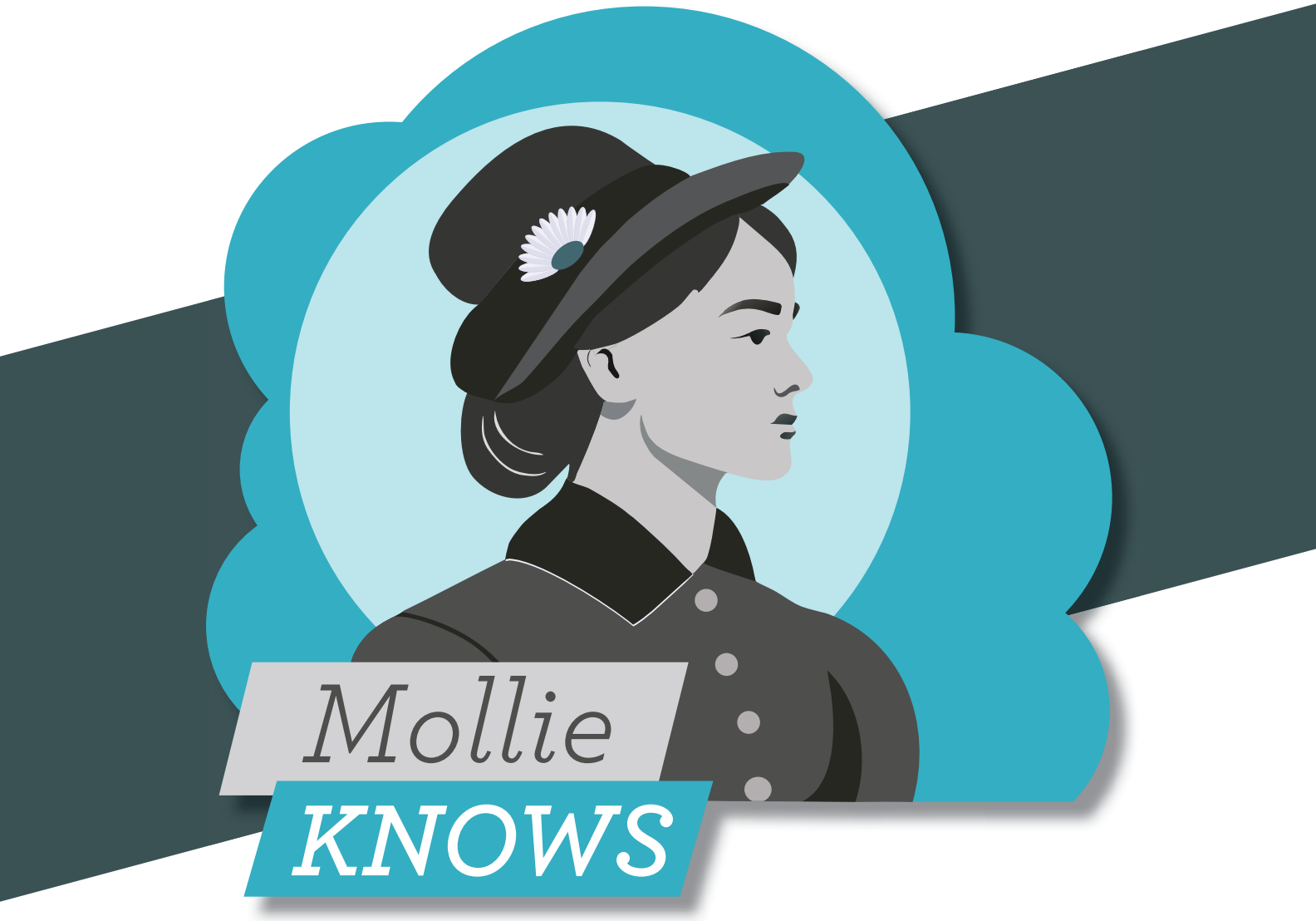
The updated guideline includes recommendations for interventions such as manual therapy, TENS, and psychologically informed approaches in selected patients.

5

Reevaluate lower-value interventions.

The workgroup recommends against routine use of interventions such as bracing, continuous passive motion, and some edema-management approaches because evidence shows limited benefit.

Have You Met Mollie?



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APTA
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From Evidence to Action

Both workgroup leaders emphasized that the guideline is intended as a practical resource for everyday clinical decision-making. Most recommendations apply to patients with uncomplicated TKAs, although therapists should continue to rely on clinical judgment when caring for patients with unique presentations.

Bade encourages PTs to incorporate the recommendations into routine workflows and to track outcomes beyond traditional measures such as knee range of motion.

"By integrating key recommendations into everyday workflows and systematically tracking outcomes beyond knee range of motion, clinicians can deliver more consistent, high-impact care that not only improves patient outcomes but also demonstrates physical therapy's value in the ever-changing landscape of insurance reimbursement policy," he says.

The Future of TKA Rehab

Speaking of that ever-changing landscape, changes in federal payment policy greatly influence TKA rehabilitation, Bove says.

For example, the Centers for Medicare & Medicaid Services proposed the CJR-X model for lower-extremity joint replacement, which offers an opportunity to reinforce the value of physical therapist services for this area.

Bove believes these changes will place increasing emphasis on delivering strong functional outcomes while controlling costs.

"I think physical therapy providers will be asked to continue to provide excellent functional outcomes while keeping costs low," he says. "It's important that we generate and disseminate research regarding how to accomplish this."

Both Bade and Bove emphasize that important questions remain. As outpatient surgery, digital health, and alternative care-delivery models continue to evolve, evidence regarding optimal timing, dosing, and delivery of rehabilitation interventions is still developing. The revised guideline identifies both established best practices and areas where additional research is needed to continue improving outcomes for patients undergoing TKA.

Leah Kerkman Fogarty is the editor of APTA Magazine.

Christine Scalora is a specialist in Member Communications at APTA and a contributing editor to APTA Magazine.



Read the full 2026 clinical practice guideline and the companion CPG+ summary to review the evidence-based recommendations for physical therapist management of total knee arthroplasty. Access them both through the APTA Clinical Practice Guideline Library at **www.apta.org/cpgs** or by scanning the QR code.

"By integrating key recommendations into everyday workflows and systematically tracking outcomes beyond knee range of motion, clinicians can deliver more consistent, high-impact care."

— Michael Bade

Add Value to Your Practice With Digital Health Tools



APTA's Digital Health App Library

Explore safe, compliant apps **for RTM, HEP & more.**

» Grow your digital competency.

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Navigate the library.

APTA American Physical Therapy Association

APTA Digital Health App Library



Fellow recipients line the stage during the APTA Honors & Awards ceremony. Outstanding student recipients are pictured below.

Leaders at Every Stage



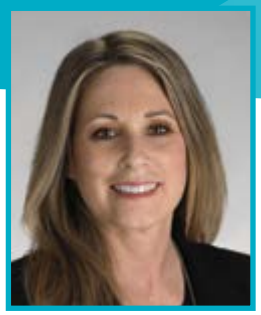
From newly recognized Outstanding Students to Emerging Leaders and APTA's newest Catherine Worthingham Fellows, these honorees are shaping the future of physical therapy through service, innovation, and impact.

Leadership takes many forms throughout a professional journey. Some individuals are just beginning to distinguish themselves as students, while others are already influencing the profession. Together, the 2026 Catherine Worthingham Fellows, APTA Emerging Leaders, and Outstanding Student recipients reflect the depth of talent, commitment, and vision helping to move the physical therapy profession forward. Meet this year's honorees.





2026 Catherine Worthingham Fellows of APTA



Sandra Billinger, PT, PhD, FAPTA
Roeland Park, Kan.



Andrea Crunkhorn, PT, DPT, FAPTA
Fairfax, Va.



Sharon Dunn, PT, PhD, OCS, FAPTA
Shreveport, La.



Ann Marie Flores, PT, PhD, FAPTA
Chicago



David Logerstedt, PT, MPT, PhD, FAPTA
Ambler, Penn.



Mark Paterno, PT, PhD, MBA, SCS, FAPTA
Cold Spring, Ky.



Daniel Rhon, PT, DPT, DSc, PhD, OCS, FAPTA
Flagstaff, Ariz.



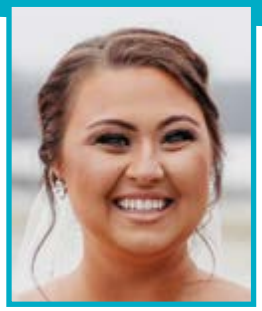
Yasser Salem, PT, MAPT, PhD, NCS, PCS, FAPTA
Brooklyn, N.Y.



Kimberly Topp, PT, PhD, FAPTA
Aptos, Calif.

2026 APTA Emerging Leaders

(Nominating component is identified under each name.)



Alexandra Alexander, PT, DPT, GCS
Hendersonville, Tenn.
APTA Geriatrics



Emily Baumann, PT, DPT
Anchorage, Alaska
APTA Alaska



Christina Berrios, PT, DPT
Newington, Conn.
APTA Connecticut



Kathleen Zenker Brophy, PT, DPT
South Bend, Ind.
APTA Indiana



Abigail Catamas, PTA
Murfreesboro, Tenn.
APTA Acute Care



Rachel Chatmas, PT, DPT, GCS
South Portland, Maine
APTA Maine



Kelly Clark, PT, DPT, OCS
Washington, D.C.
APTA District of Columbia



Kenneth Felder, PT, DPT
Greenville, S.C.
APTA South Carolina



Kayla Gault, PT, DPT, ONCPS
Westerville, Ohio
APTA Oncology



Emily Gee, PT, DPT, OCS
Commerce City, Colo.
APTA Colorado



Kaci Handlery, PT, DPT, EdD, NCS
Fort Smith, Ark.
Academy of Neurologic Physical Therapy



Matthew Harville, PT, DPT, PWCS
Durham, N.C.
APTA Pelvic Health



Maral Hassanshahi, PT, DPT
Burlingame, Calif.
APTA Leadership & Innovation



Rhoda Hernando, PT, DPT, OCS, ATC
Monterey Park, Calif.
California Physical Therapy Association



Jenna Floyd Hightower, PT, DPT, CCS
Dunwoody, Ga.
APTA Cardiovascular and Pulmonary



Analissa Mandile, PT
Wethersfield, Conn.
APTA Rhode Island



Jessica Marengo, PT, DPT
Boston
APTA Massachusetts



Gavin McBride, PT, DPT, MS, CCS
Portland, Ore.
APTA Oregon



Ryann Montano, PT, DPT, PCS
Albuquerque, N.M.
APTA New Mexico



Stacy Pepitone, PT, SCS
Falls Church, Va.
APTA Federal



Paulina Pohlman, PTA
Fond du Lac, Wis.
APTA Wisconsin



Bradley Powell, PT, DPT
South Jordan, Utah
APTA Utah



Ketul Shah, PT, DPT, SCS
Estero, Fla.
Florida Physical Therapy Association



Kevin Strehler, PT, DPT, PhD
Mobile, Ala.
APTA Alabama

2026 APTA Emerging Leaders

(Nominating component is identified under each name.)



Rachel Sutter-Leve, PT, DPT, NCS
Minneapolis
APTA Minnesota



John Wehrer, PT, DPT, SCS
Spokane, Wash.
APTA Washington

Not Pictured

Katharine Cline, PT, DPT, PWCS
Grand Rapids, Mich.
APTA Michigan

2026 APTA Outstanding Students



Sophie Willihnganz, SPT
University of Wisconsin-Milwaukee
Milwaukee



Kaegan Robertson, SPTA
Somerset Community College
Somerset, Ky.

What Does It Take to Be a Fellow, Emerging Leader, or Outstanding Student?

Criteria for each award is different, but recipients of all three show characteristics of leadership and commitment to advancing the profession of physical therapy.

Catherine Worthingham Fellows

Being named a Catherine Worthingham Fellow of the American Physical Therapy Association — with the distinction of the abbreviation "FAPTA" as a designation after a fellow's name — is the association's highest membership category. It acknowledges awardees who have made exceptional efforts to advance the profession through leadership, influence, and recognized achievement in a primary domain of either advocacy, education, practice, or research over the past 15 years or longer.

Catherine Worthingham, PT, PhD, FAPTA, was the association's president from 1940 to 1944 and, in 1982, the award's first recipient. Worthingham was



Catherine Worthingham, PT, PhD, FAPTA

a change agent who was effective, respectful, and honest, and motivated others to make an impact within the physical therapy profession. She was also a visionary who demonstrated leadership across the domains of advocacy, education, practice, and research.

Beyond her service as president, Worthingham's contributions to the profession covered a long time span and wide range. Among the highlights was her leadership during World War II, when she not only helped increase the number of PTs available for wartime service but also worked in liaison with other professional medical groups at home and abroad to coordinate a comprehensive and efficient response to the U.S. military's need overseas for rehabilitative care.

Nominations for the 2027 cohort of Catherine Worthingham Fellows are open until Dec. 1, so if you know of a deserving candidate, don't delay in preparing a submission.

For more information on criteria and the nomination process, go to the APTA Honors & Awards Program webpage by scanning the QR code.

APTA Emerging Leaders

Awardees in the APTA Emerging Leaders Program are PTs or PTAs who have "demonstrated exceptional service" in their first five to 10 years after graduation. These individuals — nominated by their chapter or section/academy — have a record of accomplishment and contributions to the profession, their component, and the association. Each component can nominate one PT or PTA for the award.

For more information about the award, see the APTA Board of Directors policy "Emerging Leader Award" under "Awards" on the APTA Policies and Bylaws webpage. Information for component presidents or component awards committee chairs, who are responsible for submitting nominations, will be posted in the Component Leaders Community on the APTA Hub.

Nominations are due May 15 every year, and recipients are recognized in the fall.

To read more about the APTA Emerging Leader Award, scan the QR code.

APTA Outstanding Students

One PT student and one PTA student are selected annually for the APTA Outstanding Student Award. Candidates demonstrate exceptional overall accomplishments and contributions to APTA and the physical therapy profession. Any APTA member may nominate a candidate; students even are encouraged to nominate themselves.

Nominations for the 2027 APTA Outstanding Student Award are **open until Dec. 1**, so if you know of a deserving candidate, don't delay in preparing a submission.

For more information on criteria and the nomination process, go to the APTA Honors & Awards Program webpage by scanning the QR code, or contact students@apta.org.

Honoring Achievement, Leadership, and Service

Recognizing the award recipients of the 2026 APTA Honors & Awards.

Every year, the APTA Honors & Awards Program shines a spotlight on members who have strengthened the profession through leadership, education, service, research, advocacy, and clinical excellence.

In addition to the Fellows, Emerging Leaders, and Outstanding Students featured on Page 34, several other awards are bestowed each year. Here is the complete list of 2026 honorees, along with profiles of several award recipients to offer a look at the people and passion behind the accolades.



Helping Students See What's Possible

Drew Wilcox has built his work around increasing opportunity and confidence for others.

For Andrew "Drew" Wilcox, PTA, PhD, MHA, the path into the physical therapy profession was unorthodox. Originally an English major who planned to pursue a career in coaching and athletic training, Wilcox eventually found his way into a physical therapist assistant program, where he discovered a profession that combined intellectual challenge, an expectation of lifelong learning, and the opportunity to make a lasting difference in people's lives.

After graduating, Wilcox built a clinical career spanning acute care, outpatient orthopedics, and neurologic rehabilitation. Those experiences strengthened both his clinical skills and his appreciation for the vital role PTAs play across the continuum of care. He credits many mentors, including instructors, colleagues, and family members, with shaping his approach to leadership, collaboration, and patient-centered care.

His return to the classroom happened naturally. What began as service on the advisory committee of a developing PTA program evolved into guest lecturing, adjunct teaching, and eventually a full-time academic career.

Today, Wilcox serves as associate professor of physical therapy and program director of the physical therapist assistant program at Utah Tech University in St. George. He also contributes to the profession through leadership roles with the Commission on Accreditation in Physical Therapy Education, APTA Utah, and other organizations focused on advancing education and access to care.

As an educator, Wilcox is passionate about helping students recognize their own potential, particularly those who may not have previously viewed themselves as successful learners.

"Some of my most rewarding experiences as an educator involve students who may not have excelled in traditional educational settings but find purpose and confidence through physical therapy."

To Wilcox, his work reflects a deep belief that PTAs are essential members of the care team — not only as skilled clinicians, but also as advocates, educators, motivators, and trusted partners in a patient's recovery.

Receiving the 2026 Outstanding Physical Therapist Assistant Educator Award was especially meaningful, Wilcox says, because it came through the recognition of respected peers. He believes the honor also shines a light on the important contributions of PTA educators nationwide and the students they prepare to serve patients and communities.

He encourages those students and all clinicians to never stop putting compassion first. "Love people and serve them every day. Learn to love research and evidence-based practice. And say yes to opportunities to serve," Wilcox says.



Opening Doors Through Leadership

Inspired by mentors who believed in him, Michael Robinson is helping future PTs discover their own potential.

For Michael Robinson, PT, DPT, DHSc, a career in physical therapy was inspired by an example much closer to home than a classroom or clinic. Growing up, he often accompanied his mother, a home health nurse, on patient visits. Watching her bring compassion, dignity, and comfort into people's homes showed him that healthcare is about far more than treating illness and ailments — it is about "making a meaningful difference in someone's life."

Today, Robinson serves as an assistant professor in the Doctor of Physical Therapy program at Howard University in Washington, D.C., where he combines teaching, mentoring, and scholarship with a commitment to expanding opportunities within the profession. Working at a historically Black university is particularly meaningful to Robinson, and he views his role as an avenue for supporting and encouraging students from backgrounds that remain underrepresented in physical therapy.

Robinson credits much of his own professional development to the mentorship of Senora Simpson, PT, DrPH, who introduced him to physical therapy as an undergraduate student at Howard. Robinson says that Simpson's belief in his own potential helped shape his understanding of leadership as an act of service and helped him gain a level of confidence in himself that he had not previously known.

"Dr. Simpson showed me that leadership isn't just about personal achievement; it's about investing in others and opening doors for those coming behind you," Robinson says. "She saw potential in me before I fully saw it in myself, and I've tried to carry that lesson forward in my own career."

Receiving the 2026 Dimensions of Leadership Pathways Grant was both surprising and deeply affirming to Robinson. More than a personal achievement, he views the recognition as an investment in work aimed at creating a roadmap into physical therapy for students who might not consider it a career suited to them.

"This grant represents an opportunity to create pathways into physical therapy for students who may not have otherwise considered the profession," he says. "For that, I'm incredibly grateful, deeply humbled, and excited to make the most of this opportunity."

"She saw potential in me before I fully saw it in myself, and I've tried to carry that lesson forward in my own career."

In his role as an educator, Robinson says he relishes encouraging young clinicians to never underestimate their ability to make a difference.

"Meaningful leadership does not need to require decades of experience — it begins wherever you are, with a willingness to serve, mentor, and create opportunities for others."



Bringing Care Home

Paras Goel finds meaning in helping older adults maintain independence where it matters most.

For Paras Goel, PT, DPT, PhD, MBA, MEd, GCS, the commitment to improving lives through healthcare began long before he entered the profession. Growing up in India, he participated in the country's polio eradication program, joining healthcare workers as they went door to door, encouraging families to vaccinate their children. Those experiences exposed him to the power of healthcare outreach and the life-changing impact mobility can have on a person's independence and quality of life.

Today, Goel practices in home health physical therapy, serving primarily older adults recovering from strokes, orthopedic surgeries, chronic illness, and age-related functional decline. He believes working in patients' homes gives him a unique perspective on their daily lives and goals. Some of the most meaningful victories, he says, are often the simplest: helping someone safely walk to the mailbox, preventing a fall, or enabling a patient to remain in the home they love.

"Knowing that I can be there for someone during one of the most vulnerable times in their life gives me immense purpose and satisfaction," Goel says. "It is a privilege that I never take for granted."

Receiving the 2026 Henry O. and Florence P. Kendall Practice Award was a full-circle moment for Goel. As a physical therapy student in India, he studied from a library copy of the Kendalls' renowned textbook, often waiting his turn and taking extensive handwritten notes. Decades later, being honored with an award bearing their names was almost unimaginable.

"Never in my wildest dreams did I think one day I would receive an award named after Henry O. and Florence P. Kendall — a couple whose work helped educate generations of physical therapists around the world."

Goel's path to practice in the United States included learning licensure requirements, adapting to a new cultural environment, and navigating a new healthcare system while continuing his education and professional development. Through it all, he has believed that humanity has no borders. Whether in India or the United States, people want the same thing: to live with dignity, independence, and hope. Helping them achieve that goal continues to inspire his work every day.

His advice to students is simple. "Never lose sight of why you chose physical therapy," he says. "Technical skills are important, but your compassion, integrity, and willingness to truly listen to patients will define your career."

"Technical skills are important, but your compassion, integrity, and willingness to truly listen to patients will define your career."



Following Curiosity Wherever It Leads

Sophie Willihnganz has forged an unconventional path into the profession.

For Sophie Willihnganz, SPT, a passion for helping others began long before she decided to pursue physical therapy education. As a child, she spent hours creating a miniature "trauma center" behind her parents' living room armchair, fashioning splints, prostheses, and wheelchairs for dolls and action figures. What started as imaginative play eventually evolved into a lifelong commitment to service, community engagement, and, ultimately, physical therapy.

Willihnganz says her path to becoming a physical therapist has been shaped by experiences both close to home and around the world. Participating in a volunteer outreach project in Argentina opened her eyes to the profound impact healthcare providers can have on individual lives, while watching her mother recover from a serious shoulder injury introduced her to the compassion, skill, and patience of physical therapists. Those experiences reinforced a desire not only to help people, but to do so in meaningful and often unconventional ways.

Throughout physical therapy school, Willihnganz has actively sought opportunities to serve others, volunteering with adaptive climbing programs and the Wisconsin Special Olympics. Along the way, she became fascinated by emerging practice areas, particularly disaster medicine and wilderness physical therapy.



Inspired by mentors she connected with through APTA, she has further explored how physical therapists can work in remote and austere environments — even being invited to help teach a class on wilderness physical therapy at Joshua Tree National Park as part of APTA Combined Sections Meeting.

Willihnganz's journey to physical therapy school was not a traditional one, as she previously worked as an arborist, grief support specialist, firefighter, and EMT while earning a master's degree in trauma science. Those experiences, she says, shaped both her perspective and her approach to patient care.

Learning she had received the 2026 Outstanding Student Scholarship Award and the 2026 Mary McMillan Scholarship Award was a moment of validation and gratitude, according to Willihnganz. After years of perseverance, growth, and trusting her own path, the recognition affirmed the value of pursuing a unique vision for her future in the profession.

When asked to share advice with fellow students, her message is simple: "Stay curious, embrace opportunities that spark your interest, and remember that physical therapy offers countless ways to make a difference."



Exploring the Science of Movement

Jacqueline Palmer is advancing the science behind recovery and functional independence.

A lifelong fascination with human movement led Jacqueline Palmer, PT, DPT, PhD, to a career at the intersection of rehabilitation, neuroscience, and discovery. What began as an interest in sports and athletic performance evolved into a passion for helping people with neurologic conditions to regain movement and function.

Palmer was drawn to the idea that the same principles used to help elite athletes refine motor skills could also help individuals recovering from stroke or other neurologic disorders reclaim part of their independence.

Today, Palmer serves as faculty in the University of Minnesota's Doctor of Physical Therapy program and directs the program's Brains in Motion Laboratory. Her research examines how cerebrovascular health, neuroplasticity, and movement control interact across aging and neurologic disease. Through this work, Palmer and her colleagues seek to better understand why some individuals maintain function as they age or recover more successfully following neurologic injury, with the ultimate goal of advancing more personalized rehabilitation approaches.

Palmer says her professional growth has been shaped by a series of mentors who encouraged scientific rigor, intellectual curiosity, and collaborative leadership. Their willingness to share both successes and failures left a lasting impression and informed her own approach to mentoring students, researchers, and future clinicians.

"One of the most important traits that I have valued in my mentors has been their willingness to share their own mistakes and failures, and how they encouraged me to learn from mine," she says.

Palmer believes that receiving the 2026 Eugene Michels New Investigator Award recognizes the research that bridges fundamental neuroscience and clinical physical therapy practice. She views the honor as affirmation that physical therapists can lead transformative, mechanistic research and be at the forefront of precision rehabilitation science while remaining deeply connected to patient care.

As someone who values the opportunity to mentor students and early-career clinicians, Palmer has no shortage of advice for them. She says the key to succeeding early in your career is to listen carefully to patients and stay curious.

The most important questions in physical therapy, she believes, often emerge directly from the people who PTs and PTAs serve every day. "Observe your patients and listen. They will tell you the most meaningful questions to ask."





LUCY BLAIR SERVICE AWARD

Kathryn Brown, PT, MS, NCS
Roy Film, PT, DPT, MPT, OCS
Jeremy Foster, PTA
Michael Geelhoed, PT, DPT
Marcie Harris-Hayes, PT, DPT, MSci
Emily Herndon, PT, DPT
Lisa Johnston, PT, DPT, MS
Maria Jones, PT, PhD
Matthew Mesibov, PT, GCS
Aimee Perron, PT, DPT, NCS
Leiselle Pilgrim, PT, DPT, EdD, MPH
Jennifer Ryan, PT, DPT, MS
Arie Van Duijn, PT, MSPT, EdD

HELEN HISLOP AWARD FOR OUTSTANDING CONTRIBUTIONS TO PROFESSIONAL LITERATURE

David Sinacore, PT, PhD, FAPTA

HENRY O. AND FLORENCE P. KENDALL PRACTICE AWARD

Paras Goel, PT, DPT, MBA, MEd, GCS

MARILYN MOFFAT LEADERSHIP AWARD

Jennifer Green-Wilson, PT, EdD, MBA

SOCIETAL IMPACT AWARD

Paras Goel, PT, DPT, MBA, MEd, GCS
Preeti Oza, PT, MSPT, PhD

HUMANITARIAN AWARD

Thomas Fischer, PT

EUGENE MICHELS NEW INVESTIGATOR AWARD

Kristan Leech, PT, DPT, PhD
Trevor Lentz, PT, PhD, MPH
Jacqueline Palmer, PT, DPT, PhD

MARIAN WILLIAMS AWARD FOR RESEARCH IN PHYSICAL THERAPY

Karin Gravare Silbernagel, PT, ATC, PhD, FAPTA

JULES M. ROTHSTEIN GOLDEN PEN AWARD FOR SCIENTIFIC WRITING

Kathleen Mangione, PT, PhD, FAPTA

DOROTHY E. BAETHKE-ELEANOR J. CARLIN AWARD FOR EXCELLENCE IN ACADEMIC TEACHING

Jason Craig, PT
BJ Lehecka, PT, DPT, PhD

SIGNE BRUNNSTRÖM AWARD FOR EXCELLENCE IN CLINICAL TEACHING

Jonathan Bray, PT, DPT, EdD, MS

MARGARET L. MOORE AWARD FOR OUTSTANDING NEW ACADEMIC FACULTY MEMBER

Abigail Anderson, PT, DPT, PhD

OUTSTANDING PHYSICAL THERAPIST ASSISTANT EDUCATOR

Beverly Labosky, PTA, MEd, BS
Andrew Wilcox, PTA, PhD, MHA

OUTSTANDING RESEARCH AWARD

Shane McClinton, PT, DPT, PhD





OUTSTANDING PHYSICAL THERAPIST RESIDENT AWARD

Chloe Artrip, PT, NCS
Mason Myers, PT, DPT

OUTSTANDING PHYSICAL THERAPIST FELLOW AWARD

Andreas Remis, PT, DPT, OCS, SCS

OUTSTANDING PHYSICAL THERAPIST/PHYSICAL THERAPIST ASSISTANT TEAM AWARD

Zeeshan Bhimani, PT, BSPT, MHS
Rohit Gaikwad, PT
George France, PTA

MARY MCMILLAN SCHOLARSHIP AWARDS

Rachel Burba, SPTA
Jared Mattley, SPTA
Kaleb Reilly, SPT
Jade Vella-Wright, SPT
Sophie Willihnganz, SPT
Zepei Xie, SPT, BS

ACCESS AND OPPORTUNITY SCHOLARSHIP – FACULTY DEVELOPMENT

Carla Huggins, PT, DPT

ACCESS AND OPPORTUNITY SCHOLARSHIP – STUDENT

Emiliano Chirigliano, SPT
Porfirio Garcia-Hernandez, SPT
Hermes Gomez, SPT
Brooke Hadley, SPTA
Elisiah Jones, SPT
Jonathan Morrow, SPT
Yousef Tamimi, SPT, BS

DIMENSIONS OF LEADERSHIP PATHWAYS GRANT

Michael Robinson, PT, DPT, DHSc

FEDERAL GOVERNMENT AFFAIRS LEADERSHIP AWARD

Joshua Smith, PT, DPT

STATE LEGISLATIVE LEADERSHIP AWARD

Emily Herndon, PT, DPT
Bradley Powell, PT, DPT

STATE LEGISLATIVE COMMITMENT AWARD

Gabe Freyaldenhoven, PT, DPT

HONORARY MEMBERSHIP

Kevin Ford

The achievements highlighted here are made possible by peers who take the time to recognize excellence. Nominations for the 2027 APTA Honors & Awards cycle will be open through Dec. 1 at apply.apta.org. Consider nominating a colleague whose work is advancing the profession and improving the lives of patients and communities.

APTA CSM Philadelphia: Made to Move

APTA Combined Sections Meeting

Feb. 4-6, 2027 / Philadelphia, Pennsylvania

Pennsylvania Convention Center

Where innovation, leadership, and community converge to advance physical therapy.

Join thousands of PTs, PTAs, and students at the nation's largest physical therapy conference.

Register by Nov. 4 for the lowest early bird rates.

Add preconference courses to your registration!

Feb. 2-3, 2027

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APTA **Combined Sections Meeting**

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Acute Care

- Leveraging Research Principles to Supercharge Your Quality Improvement Project
- ICU Readiness Isn't Free: From Bedside to Budget — Leveraging Data and Story
- Stop the Leak: Applying the Professional Resource Lifecycle to Maximize Value in Your PT Department

Aquatics

- The Science of Water Walking: Understanding Its Parameters to Maximize Its Benefits
- Reflexes, Regulation & Results: OT/PT Strategies in Pediatric Aquatic Therapy
- Strong Foundations: Stability Training in the Water

Cardiovascular & Pulmonary

- Practice Innovation: From Evidence Synthesis to Clinical Practice Guideline Recommendations
- Take My Breath Away: A Dyspnea Guide for When to Panic, Treat, or Refer
- Stop the Revolving Door: Reclaiming Lost Weeks of Cardiac Rehab Through a Novel Phase Shift

Clinical Electrophysiology & Wound Management

- Shaping the Future of Wound Care: Opportunities for Collaborative Innovation
- Unlocking the Versatility of Dynamic Ultrasound: Expanding the Focus of POCUS in Physical Therapy Practice
- PT for Polyneuropathy: Science or Snake Oil?

Education

- Predicting Success: Academic Variables and NPTE Performance
- Integrating Generative AI as a Metacognitive Coaching Assistant in Physical Therapy Education
- Hybrid vs. Residential Education: Career Regret, Cost, and Learning Outcomes Using PT-GQ

Federal Physical Therapy

- Making Behavior Change Work: Theory-Informed Strategies for Physical Therapy Practice
- Past the Plateau: Evidence-Based Approach to Optimize Prosthetic Outcomes After Lower Limb Amputation
- Getting the Skinny on GLP-1s: An Interdisciplinary Guide for Physical Therapists

Geriatrics

- How Hard Is Hard Enough? Delivering High-Intensity Rehabilitation in Medically Complex Older Adults
- Fall in Love With Safe Fall Landing Strategies
- AMA-Zing Insights on the Annual Mobility Assessment: From Screening to Reimbursement

Hand and Upper Extremity

- The Stalled Upper Extremity Athlete: A Multidisciplinary Approach to Evaluation and Management
- It's Not Just Tommy John: Differential Diagnosis and Management of Elbow Injuries in Baseball
- Little Phanatics: Rehabilitation Considerations for Upper Extremity Injuries in the Youth Thrower

Home Health

- Current and Hot Topics in Home Health
- Driving Clinician Success in Home Health: Integrating OASIS, Leadership, and Burnout Reduction
- #OldNotWeak: From Bed Mobility to Back Squats, Scaling Intensity for Every Patient

Leadership & Innovation

- LAMP Leadership TED-Style Talks — Beyond the Title: The True Work of Leading
- Navigating Substance Use Conversations in Physical Therapy Practice
- The Primary Care PT Tidal Wave: How to Redefine, Reposition, and Revolutionize the PT Profession

Neurology

- No, We Are Not Fooling Ourselves: The Critical Importance of Dosage Parameters During Locomotor Training
- Anne Shumway-Cook Lecture: Sustaining Innovation in Neurologic Physical Therapy Practice
- Asymmetry, Gain, and Saccades: Demystifying the Video Head Impulse Test for Physical Therapists

Oncology

- Prognosis to Plan of Care: Decision-Making in Inpatient and Outpatient Cancer Rehab
- What Do I Say Now? Practical Skills for Responding to Decline and Uncertainty in Rehabilitation
- From Evidence to Action: Navigating the Oncology Rehab Clinical Practice Guideline Landscape

Orthopedics

- Claiming Movement as the Foundation of Clinical Reasoning in Physical Therapy
- From Uncertainty to Objectivity: Enhancing Clinical Decisions With Handheld Ultrasound and Motion Analysis
- The Right Load at the Right Time: Optimizing Musculoskeletal Rehabilitation and Performance

Pediatrics

- What's Old Is New Again: Nuanced Manual Techniques for Weak Coughs
- New Clinical Practice Guideline for Promoting Mobility in Ambulatory Youth With Cerebral Palsy
- Physical Therapy Management of Idiopathic Toe Walking: An APTA Pediatrics Clinical Practice Guideline

Pelvic Health

- Advanced Management of Endometriosis: Assembling the Avengers
- Beliefs, Bodies, and Behaviors: Interprofessional Approaches to Pelvic Pain and Sexual Health
- Postpartum Care: Breaking the Delayed Referral Model in Pelvic Health Physical Therapy

Private Practice

- Mastering the 2027 Payer Landscape: Contracting, Compliance, and Choice
- More Than a Clinician: Unlocking Your Entrepreneurial Mindset in Physical Therapy
- Your Expertise Is Newsworthy: How to Leverage Earned Media to Grow Your Career and Practice

Research

- Eugene Michels Research Forum
- Comparing Pathways to Competency: A Multi-Institutional Logic Model Analysis of CBEPT Implementation
- Brain Drain or Strategic Expansion? The Future of Physical Therapy Research Outside PT Departments

Sports

- Evolution of Injuries in Baseball, Tennis, and Golf: What Modern Clinicians Need to Know
- Achilles Tendinopathy in Runners: A Current-Evidence Update on Assessment and Management
- Availability Is the Best Ability: From Residual Injury to Performance Longevity in Elite Athletes

Advocacy Update

Whether you're contacting lawmakers, weighing in on regulations, or mobilizing patients, APTA offers simple tools that make advocacy fast, effective, and accessible for every member.

Ready to get involved? Visit **apta.org/advocacy/take-action** to explore APTA's advocacy resources, sign up for action alerts, and start making your voice heard.

Advocate With the Click of a Button

Advocacy can feel intimidating. But making your voice heard on issues that affect the physical therapy profession doesn't require a trip to Capitol Hill or hours of research.

With that in mind, APTA has created a suite of advocacy resources to help members act quickly and confidently, whether they're responding to federal legislation, commenting on proposed regulations, or encouraging patients to engage in the advocacy process. The goal is simple: make participation easy, so more physical therapists and physical therapist assistants can help shape the policies that affect the profession and the patients they serve.

Over the last six years, more than 36,000 letters have been sent to Congress, and nearly 500 advocates have used APTA's Regulatory Comment Tool to draft a personalized letter to send to federal agencies.

Your Voice Matters

APTA maintains an ongoing advocacy presence with members of Congress, federal agencies, and commercial payers. But member engagement remains one of the profession's most powerful tools. Your clinical expertise matters.

When lawmakers and regulators hear directly from clinicians working with patients every day, those stories help bring policy issues to life. In



fact, federal agencies have previously cited APTA member comments in their rules. That's why APTA provides ready-to-use resources that allow members to add their voices to advocacy efforts in just a few minutes.

A One-Stop Hub for Taking Action

Members can access multiple tools tailored to different advocacy opportunities. These resources help streamline the process and remove many of the barriers that often prevent busy clinicians from getting involved.

APTA Advocacy Network

The first step should be to join the APTA Advocacy Network and be part of the movement shaping the future of physical therapy. Receive timely action alerts, legislative updates, advocacy tools, and direct opportunities to connect with policymakers. Best of all, this is a free, member-only benefit.

Legislative Action Center

When federal legislation impacts physical therapy, APTA members can log in to the Legislative Action Center and send prewritten messages directly to their elected representatives. Members can quickly support key advocacy priorities without drafting letters from scratch.

Regulatory Action Center

Not every important policy decision is made by Congress. Through the Regulatory Action Center, members can access template letters and resources for communicating with agencies such as the Centers for Medicare & Medicaid Services and other federal regulators. These tools make it easier to weigh in on policies that affect patient care and practice. This is also where you can find APTA's award-winning personalized comment tool to share your personal clinical expertise and feedback on proposed Medicare changes affecting payment, coding, practice operations, and patient access to care.

When lawmakers and regulators hear directly from clinicians working with patients every day, those stories help bring policy issues to life.

Patient Action Center

Advocacy efforts become even more powerful when patients participate. The Patient Action Center enables anyone to send prewritten messages to legislators, helping amplify support for priority issues that impact access to physical therapist services.

Advocacy in Your Pocket

For members looking for the most convenient way to engage, APTA offers a free advocacy app that puts advocacy tools directly on a smartphone.

Using the APTA Advocacy app, users can send messages to legislators in just a few taps, access issue briefs and talking points, identify their elected officials, and stay connected to current advocacy campaigns. The app also allows users to directly support PTPAC, which is the political action committee of APTA.

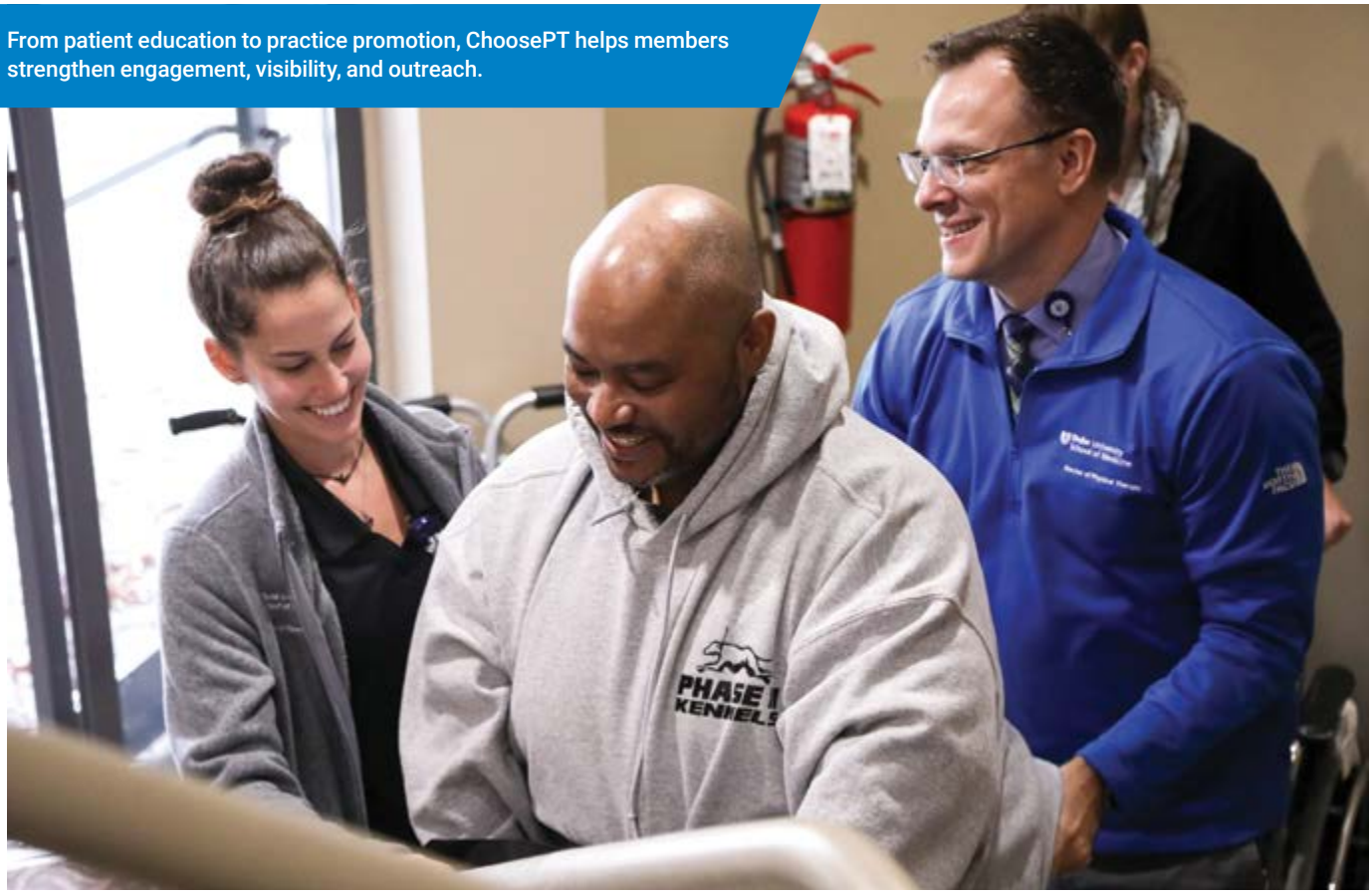
Small Actions, Big Impact

Whether you spend five minutes sending a message to your members of Congress, responding to a regulatory proposal, or encouraging a patient to get involved because their access to physical therapist services is at risk, every action helps strengthen the profession's collective voice.

APTA's advocacy tools are designed to make participation simple, convenient, and impactful, proving that advancing the profession can sometimes be as easy as clicking a button.

Member Value

From patient education to practice promotion, ChoosePT helps members strengthen engagement, visibility, and outreach.



Visit ChoosePT.com by scanning the QR code to explore the full range of consumer resources available for patient education, community outreach, and practice promotion. While you're there, create or update your Find a PT profile through your APTA account so consumers seeking care can more easily connect with you and your services.

BY MAKENIZE MAZIN, PT, DScPT

ChoosePT: More Than a Public Awareness Campaign

Every day, PTs and PTAs find ways to educate patients, strengthen community connections, and raise awareness of the value of physical therapist services. APTA's comprehensive consumer-facing resource library, housed on ChoosePT.com, is a powerful, easy-to-access tool to help them do just that.

ChoosePT helps people understand the value of physical therapy, find a qualified provider, and access trustworthy, PT-vetted health information. For clinicians, those same tools can support patient education, reinforce treatment recommendations, improve online visibility, and strengthen community outreach efforts.

At a time when there's an overwhelming amount of health information online, ChoosePT offers something increasingly valuable: evidence-informed content from the profession's trusted voice. Developed and reviewed in collaboration with APTA members, academies, and subject-matter experts, these resources provide reliable, accurate information that clinicians can confidently share with patients. Here's how these resources can support your daily practice.

Find a PT Directory

The Find a PT directory helps bridge the gap between consumer awareness and access to care. In 2025, 2 million people used the directory to locate a physical therapist. By maintaining a complete and up-to-date Find a

PT profile, clinicians can increase their visibility to prospective patients while highlighting their areas of expertise, specialty certifications, and advanced training. Even PTs working in academic, research, or nonclinical roles can use a Find a PT profile to showcase their expertise and help strengthen the profession's visibility.

Symptoms & Conditions Guides

With 167 patient-friendly guides to physical therapist treatment for common and not-so-common symptoms spanning the continuum of care, clinicians can easily find resources tailored to their patients' needs.

Topics range from hip impingement and low back pain to Parkinson's disease, Bell's palsy, neonatal abstinence syndrome, and above-knee amputation. Each guide explains the condition, common symptoms, diagnosis, and how physical therapist services can help.

Health Tips

ChoosePT's Health Tips library translates physical therapists' expertise into practical advice consumers can use every day. Topics include injury prevention, healthy aging, chronic disease management, exercise, and overall wellness.

Clinicians can use these articles to extend patient education beyond the clinic and reinforce healthy behaviors between visits.



Nominations for the APTA Honors & Awards open Sept. 1!

The APTA Honors & Awards Program recognizes outstanding achievements by members in education, practice and service, research, publications, and overall accomplishment.

Know someone making a difference?
Nominate them for an APTA honor, award, or scholarship.

Start a nomination Sept. 1-Dec. 1.

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More Ways for Consumers and Patients to Learn

Beyond the core patient education materials, ChoosePT offers a range of supplemental resources, including patient stories, "Did You Know?" research summaries, videos, and podcasts. These resources cover a variety of popular topics to help engage the public through expert insights, practical guidance, and real-world stories that reinforce the benefits of physical therapy.

PT For Future Me Campaign

PT For Future Me is APTA's newest consumer awareness campaign and multi-year ChoosePT theme.

The campaign highlights how physical therapy can support health, mobility, strength, resilience, and independence throughout every stage of life, not just after injury. It emphasizes that physical therapy is an investment in long-term health and quality of life.

The campaign includes:

- Consumer-facing educational content
- Life-stage-specific resources
- Patient fact sheets
- Wellness messaging
- Videos and promotional materials
- A Find a PT connection for consumers seeking care

This campaign aligns perfectly with clinics looking to expand into prevention, wellness, healthy aging, and movement optimization services.

Public Relations and Marketing Portal

The APTA Public Relations and Marketing Portal provides downloadable public awareness materials that members, clinics, academies, and chapters can use year-round.

Available resources include:

- National Physical Therapy Month graphics
- PT For Future Me toolkit resources
- Social media or website graphics
- Patient education handouts
- Press release templates
- Promotional videos

ChoosePT was created to help the public better understand the value of physical therapy. For APTA members, it can do even more. From patient education and community outreach to practice promotion and referral generation through the Find a PT directory, these resources can help you amplify your expertise, strengthen patient connections, and expand awareness of how physical therapy can support lifelong health, recovery from surgery or injury, pain management, and improved quality of life.

ChoosePT was created to help the public better understand the value of physical therapy. For APTA members, it can do even more.

PTPAC: APTA's Political Voice on Capitol Hill



Thank you to our generous members who have supported PTPAC to advance the profession. Our voice continues to grow in the halls of Congress. Unfortunately, our work is far from done. PTPAC fosters legislative champions in Congress who will benefit our clinics, patients, and the profession. Access to members of Congress through PTPAC is essential to telling our story about how we improve the health of society.

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For more information visit PTPAC.org

Success Story

By supporting caregivers, teachers, and families, two PTs created lasting change for children in Africa.



BY REGINA HARBOURNE, PT, PHD, AND MARY POMEROY, PT

Do you have a Success Story to share? Scan the QR code or email the editor at aptamag@apta.org.

Empowering Children With Disabilities in Africa Through Pediatric Physical Therapy

Being problem-solvers is part of the job description for physical therapists and physical therapist assistants. In each edition of Success Story, APTA members share their insights into an issue they faced at work and the creative solution they used to address it. This installment features Mary Pomeroy, PT, a pediatric physical therapist in Anchorage, Alaska, and Reggie Harbourne, PT, PhD, professor emeritus and director of the Infant Development Lab at Duquesne University in Pittsburgh.

The Issue

As pediatric physical therapists, we often work within systems that can complicate the delivery of care. In the U.S., those barriers often include access, reimbursement, and administrative burdens. But in parts of Africa, the barriers can be even greater. Children with developmental disabilities may be excluded from community life and education, and have little to no access to therapeutic support. Factors such as poverty,

a shortage of medical professionals, and poor access to healthcare or educational resources contribute to minimal or no services for children with developmental needs.

Our work in pediatric physical therapy led us to two different communities in Africa. We each found a different but successful way to engage with communities in need of support: Mary in Malawi through Malawi Children's Village, and Reggie in Cameroon through the Nwankem Benevolent Foundation at St. Rita's School.

The Solution

As the saying goes, "It takes a village." In the U.S., pediatric PTs are always part of a village, whether working with a family and child at home, with teachers at school, or with other health professionals in the community. But when we first thought about how to support children in Africa, we did not know where to start. We found quite different paths to use our pediatric physical therapy skills; for Mary, direct in-person connections were made, and for Reggie, an online strategy created connections.

Although our paths were very different, we both discovered the same lesson: Sustainable change comes from empowering local caregivers, teachers, and communities to support children with disabilities.

Mary's path began with friends who were former Peace Corps volunteers. These friends founded a nonprofit organization, called Malawi Children's Village, dedicated to supporting children in a 39-village area in Malawi, who were orphaned due to HIV and AIDS. The program evolved to care for vulnerable children's health and educational needs, and that is where Mary stepped in.

In 2008, Mary, accompanied by her husband and two sons, traveled to Malawi for a family volunteer trip. The experience became an ongoing commitment for Mary, who continues to return each year through her work with the Mawlawi Children's Village. Her husband and sons have remained connected to Malawi through their own volunteer efforts. During her time there, Mary founded the Malawi Children's Village Special Needs Program, which began with 10 infants at the original orphanage. She spent her time caring for each child while also training local caregivers in essential skills like proper positioning and feeding.

Mary eventually took on the responsibility of educating others on how to support and care for children with cerebral palsy and other developmental challenges. A big part of Mary's work involved raising awareness of various disabilities, dispelling myths, and fostering a sense of belonging. She also worked to convince families that children with disabilities could attend school and engage in their communities.

Reggie's path began through research and interdisciplinary work in Pennsylvania, which connected her with a group supporting St. Rita's School in Buea, Cameroon, founded by Margaret Mbeseha, MD.

In response to the unique challenges that students with disabilities face in Cameroon,

In Their Own Words

> "I never thought my daughter would be able to use her hands and stand without using any support. The physiotherapists at the Malawi Children's Village Special Needs Program have given us hope for a brighter future. From our hearts, we sincerely say thank you."
>
> — Parent in Malawi

Opposite: Mary Pomeroy shows a child that physical therapy can be fun while helping her stand up straighter.



Regina Harbourne helped a child with cerebral palsy to be able to write using a tilt board and clay on his pencil grip.

Reggie joined a team of specialists, including occupational therapists, speech-language pathologists, and educators. Together, they created comprehensive teacher-training modules through the Nwankem Benevolent Foundation, which supports St. Rita's School.

St. Rita's School, which opened in 2012 with an initial enrollment of 164 students, offers inclusive education in a country where such practices are not the norm. Recognizing the limited training available to teachers working with children with disabilities, Reggie and her colleagues used collaborative tools such as Zoom and WhatsApp to provide ongoing support and consultation to teachers at St. Rita's School. They shared videos, photos, and insights gathered from the teaching staff to tailor programs that meet the individual needs of their students.

Through this experience, Reggie contributed her expertise as a physical therapist and also helped to expand educational opportunities for children with disabilities in Cameroon. Her collaboration on the training modules led to the creation of the St. Rita's Professional Development Academy, an online distance-education program operated by the foundation.

For Mary, the experience reinforced the truth behind the saying, 'It takes a village.'

The Outcome

We each found success and great rewards working to reach children with disabilities in Africa.

By 2025, the program Mary worked for had evolved into three programs, run by local Malawians in the villages, all supported by the Malawi Children's Village. The first is the cerebral palsy clinic that operates once a week, enabling families to consult with a doctor, nutritionist, social worker, physiotherapist, and rehabilitation technicians. Over 1,000 children and their families visited the clinic last year. The second program is village-based care, in which health aides make weekly visits to families in need, provide support and education, and meet with village chiefs to share their plans and learn about other families who may benefit from care. The third program is an equipment workshop to assemble wheelchairs, walkers, adapted chairs, and standers for children who need them.

For Reggie and her colleagues, the teaching modules have proven very effective, resulting in increasing enrollment at St. Rita's School. In 2020, the school had over 400 students, including 49 students with disabilities. Every year, more teachers earn their certificates through the St. Rita's Professional Development Academy and continue to collaborate with professionals in the U.S. to improve their individual educational and therapeutic programs.

Reflection

Reflecting on her experience, Mary recalls how she gained an appreciation of the skills that physical therapists hone, being adept problem-solvers and good listeners when facing obstacles. She also found that sometimes all a family needed to improve their quality of life and that of their children with disabilities was as simple as a single, concise idea or solution.

For Mary, the experience reinforced the truth behind the saying, 'It takes a village.'

She saw that supporting children with disabilities begins with helping families and communities recognize each child's potential. When parents become aware of their child's potential, it enables growth for both the child and parent. The education Mary helped provide empowered families to continue sharing knowledge with one another, creating a support network that fosters ongoing growth and understanding.

For Reggie, working with the team and teachers at St. Rita's School and the Development Academy reminded her of the importance of communication in our field and the power of teamwork toward a common goal. She observed that despite the limited resources in Cameroon, there is a remarkable capacity to adapt to individual children's needs. It's also inspiring for her to witness the eagerness of teachers and aides to learn and grow. Ultimately, Reggie feels that we share more in common than differences, even when our environments are dissimilar.

In Their Own Words

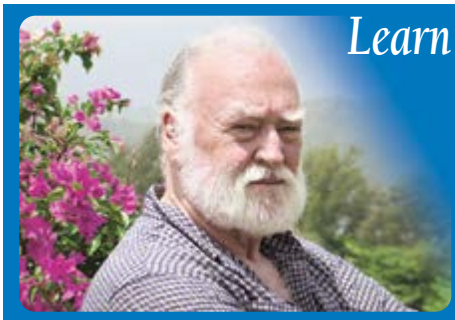
"I would like to talk about Miracle. She is my student now, and she is 6 years old. Miracle has difficulty walking. But after applying the knowledge gained from occupational therapy and physical therapy, my partner and I will not carry or push her in a wheelchair. Rather, we will support her walking around during outdoor lessons.

After a while, we stopped supporting her and she started by moving five steps and now she can go 50 meters without support."

— Teacher at St. Rita's



Children at St. Rita's School in Cameroon.



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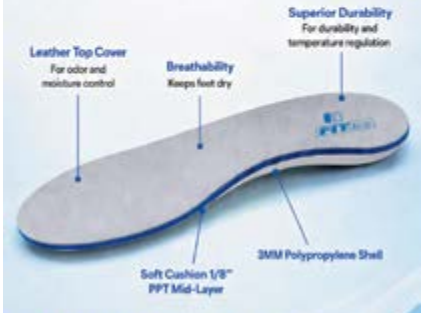
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/ By Neha Sabharwal, PT, DPT

A short walk with a patient in a skilled nursing facility taught this PT that recovery is about more than simple movement.

The Ten Yards to Hope



The distance from the bed to the doorway was barely 30 feet, or just about 10 yards. Yet for the patient sitting in front of me, it might as well have been the length of an entire city block.

At the time, I was four years into my career in skilled nursing. Like many therapists, I tracked recovery through goals, progress notes, and discharge plans. But I had not fully understood how differently patients experienced rehabilitation.

This patient had spent most of her life living independently. She drove herself wherever she needed to go, managed her home without assistance, and rarely asked anyone for help. A sudden illness had changed that reality. After several weeks in the hospital, she arrived at a skilled nursing facility weak, uncertain, and worried about whether she would ever return to the life she once knew.

When I first met her, she could sit upright at the edge of the bed, but standing felt overwhelming. The walker placed in front of her looked unfamiliar and intimidating. It represented a level of dependence she had never imagined for herself.

By that time, I had been treating the patient for several sessions. Progress had been slow and uneven, and I had watched uncertainty and frustration



Neha Sabharwal, PT, DPT, is the director of rehabilitation for Vintage Faire Nursing and Rehabilitation in Modesto, California.



Neha Sabharwal (right) helps a patient walk down the hall.

To comment on this story or inquire about submitting a "Defining Moment" column in a future issue of APTA Magazine, email the editor by scanning the QR code.

Defining Moment spotlights a particular moment, incident, or case that either led the writer to a career in physical therapy or confirmed why they chose to become a physical therapist or physical therapist assistant.

settle in each time her body refused to cooperate. She rarely complained, but the quiet confidence that had once defined her was beginning to fade.

Our goal that morning was simple. Stand up.

She paused for a moment, looking down at the floor before placing her hands on the walker. When she pushed through her legs and rose to standing, the surprise on her face was immediate. For a moment, she seemed to rediscover something she thought had been lost.

I asked if she would be willing to try a few steps.

The hallway outside her room stretched quietly ahead. Staff moved between patient rooms, and sunlight filtered through a window at the far end of the corridor. It was an ordinary morning inside a rehabilitation facility, yet for her it marked the beginning of something new.



Her first step was careful. The second step was steadier. By the time we reached the doorway, something in her posture had changed. She was no longer looking down at her feet. She was looking forward.

When we returned to her chair after that short walk, she paused before speaking.

"I didn't think I could do that anymore," she said softly.

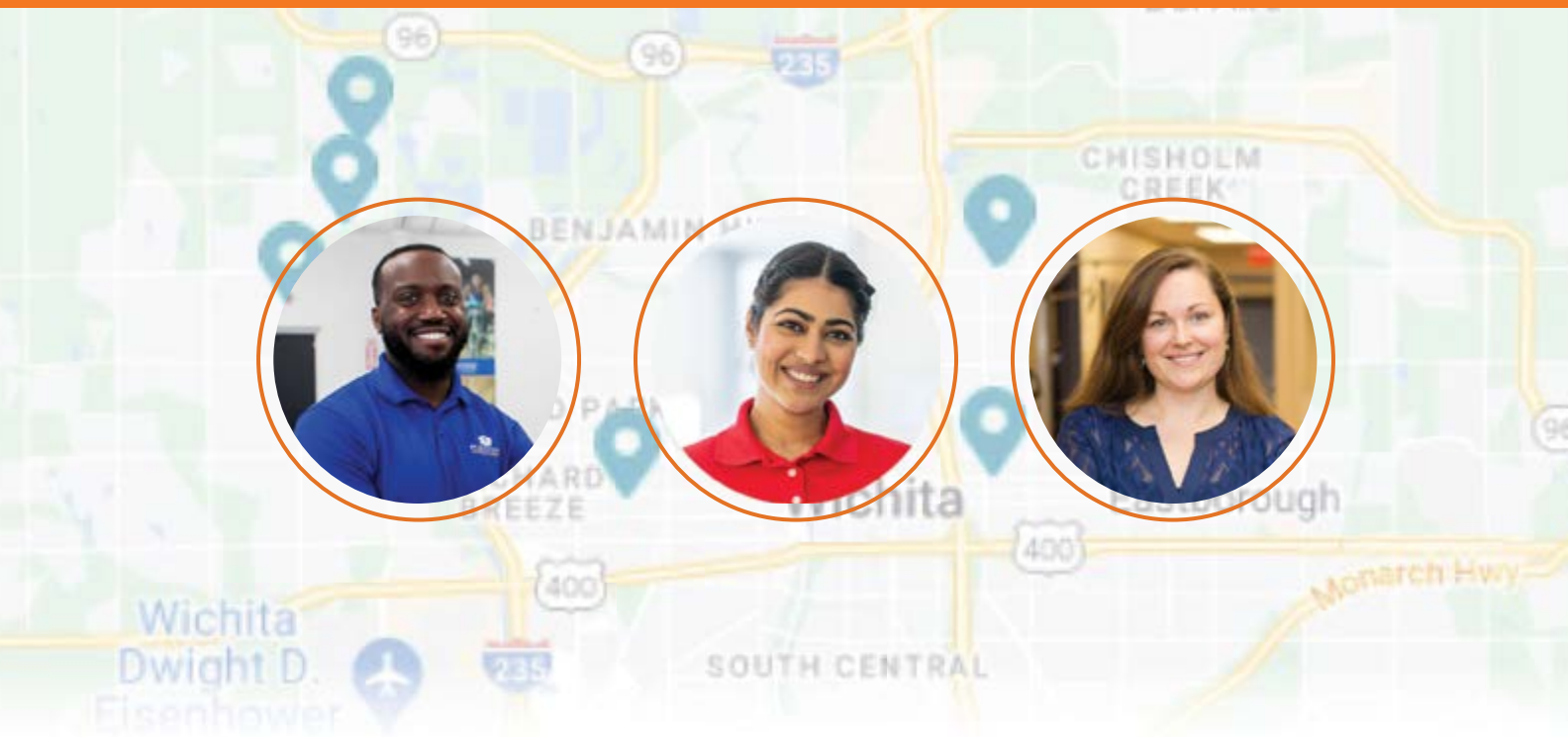
I remember smiling and congratulating her, but internally I was struck by something I had not fully appreciated before. Until that moment, I had been focused on the mechanics of recovery. I was thinking about transfers, balance, gait, and the next treatment session. But my patient? She was thinking about something entirely different.

For a long time afterward, I assumed the walk itself was what made that morning stay with me. Looking back, though, I realize it was not. The walk was the visible part. But the defining moment came in the quiet seconds after she spoke, when I understood what those few steps actually represented to her.

Because I had treated her through the sessions that came before, I had seen the doubt and frustration that preceded them.

By the time we reached the doorway, something in her posture had changed. She was no longer looking down at her feet. She was looking forward.

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For the first time, I understood that physical therapy was not simply about helping people move better. It was about helping people reconnect with who they are when illness or injury threatens to take that away.

I knew what it had cost her simply to believe that trying was worth it. The hallway might have measured 30 feet, but she was weighing something else entirely: whether the life she recognized as her own was still within reach.

As therapists, we spend hours measuring function. We count repetitions, document distances, and track progress from one session to the next. Yet sitting across from her, I realized that what mattered most to her could not be captured by any outcome measure. Those few steps represented the possibility of returning home, making her own decisions, and reclaiming a sense of independence she feared was gone.

I can still remember the feeling that followed. It was a mixture of humility and responsibility. For the first time, I understood that physical therapy was not simply about helping people move better. It was about helping people reconnect with who they are when illness or injury threatens to take that away.

That realization changed how I approached every patient who followed. I still set goals, take measurements, and document progress, because those tools matter. But I no longer mistake them for the whole story. When a patient hesitates before standing, or speaks about the future in uncertain terms, I try to remember what I learned in that hallway: Real work often lies in restoring belief, not just movement.

For that patient, the hallway measured 30 feet. For me, it marked the moment I stopped seeing mobility as a clinical task and began to see it as a pathway back to identity, independence, and hope.

More than a decade later, I still think about that walk whenever a patient doubts what recovery might look like. Thirty feet was all it took to change her belief in what was possible.

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