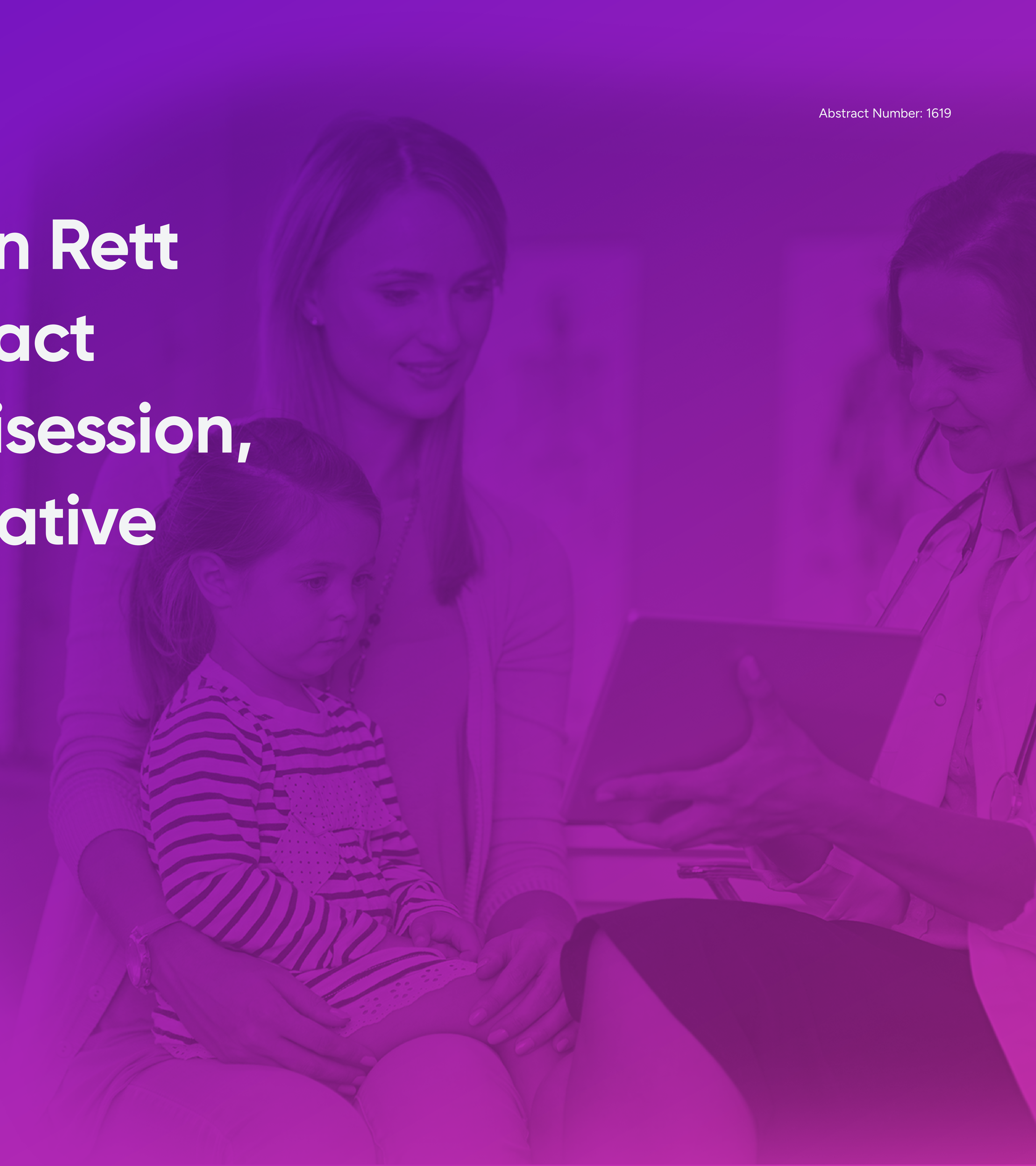


# Driving Measurable Change in Rett Syndrome Management: Impact From a Multidisciplinary, Multisession, Case-based Educational Initiative

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The approval of trofinetide, the first therapy for Rett syndrome (RTT), requires greater clinician preparedness in managing treatment selection, caregiver counseling, and team-based management.

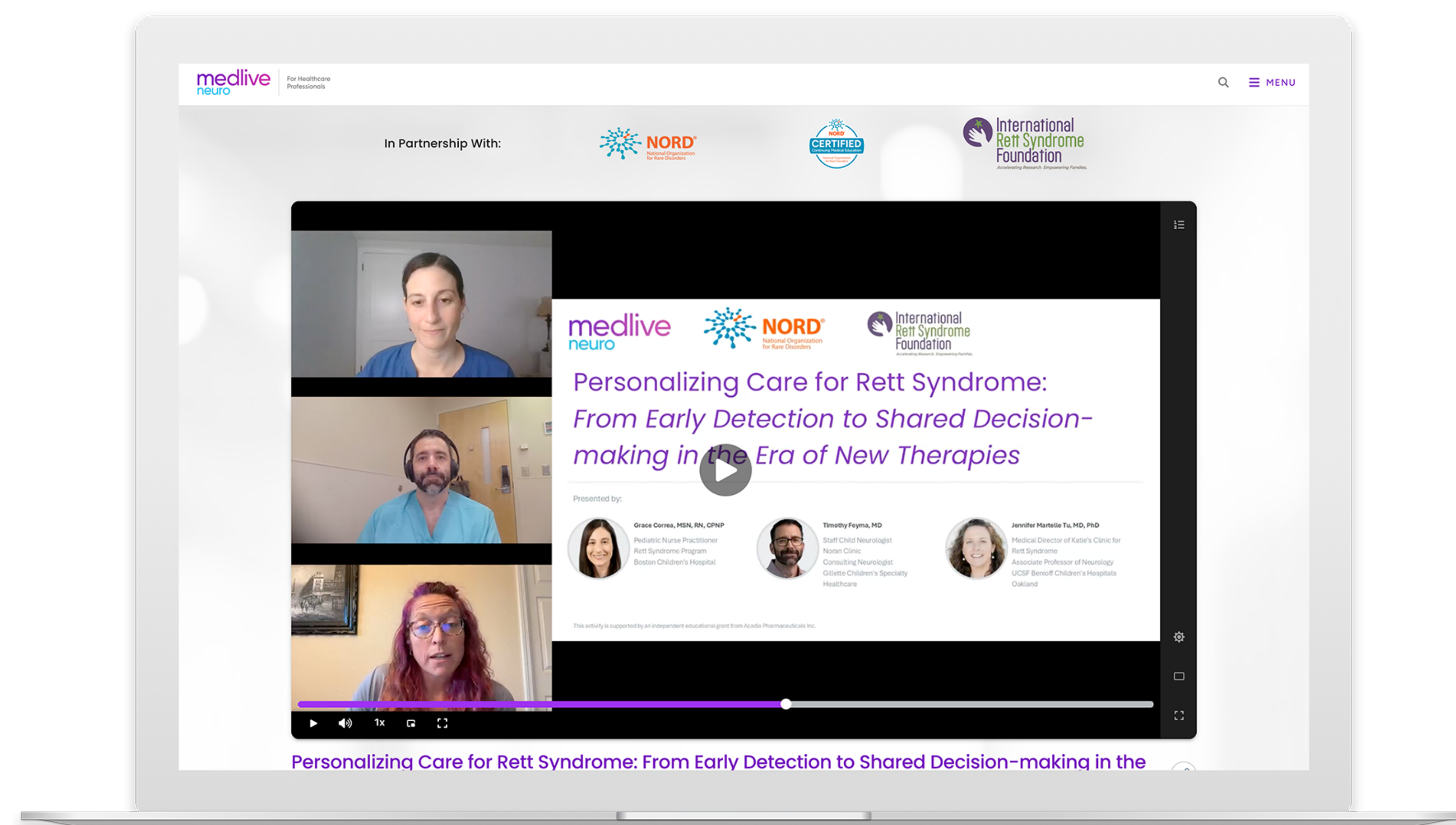
Objective: To address diagnostic and treatment challenges in RTT through multidisciplinary panel discussions of real-world patient scenarios.



# METHODOLOGY

A multidisciplinary expert faculty panel developed a multicomponent CME curriculum (a 60-minute foundational module and a three-part, case-based series) centered on practical strategies to facilitate early diagnosis, therapy selection, adverse-event (AE) management through neurology–gastroenterology collaboration, and integration of rehabilitation therapy. Real-world cases were gathered via a survey of clinicians who manage patients with RTT. Educational reach was extended via a series of micro-learning videos (1-5 minutes in length), each focused on a specific learning objective and targeted to NPI-verified neurologists and pediatricians via LinkedIn.

A survey-based approach measured the impact of the CME as aligned with stated learning objectives via pre- and post-activity knowledge/competence questions developed in accordance with National Board of Medical Examiner guidelines, as well as a post-activity evaluation (inclusive of intended practice changes: open-ended). Statistical tests of significance were applied to comparisons of individual questions (pre- vs post-activity); effect size was estimated with Cohen's d.



# FACULTY



**Theresa Bartolotta, PhD, CCC-SLP**  
Professor of Speech-Language Pathology  
Thomas Jefferson University  
Parent of a Child with RTT



**Todd Levy, MS, OTR/L, CBIST-AP**  
Clinical Specialist, Occupational Therapy  
Center for Rehabilitation  
Children's Hospital of Philadelphia



**Grace Correa, MSN, RN, CPNP**  
Pediatric Nurse Practitioner  
Rett Syndrome Program  
Boston Children's Hospital



**David N. Lieberman, MD, PhD**  
Child Neurologist  
Boston Children's Hospital



**Timothy Feyma, MD**  
Staff Child Neurologist  
Noran Clinic  
Consulting Neurologist  
Gillette Children's Specialty Healthcare



**Eric Marsh, MD, PhD**  
Professor of Neurology and Pediatrics  
Interim Director, Orphan Disease Center  
University of Pennsylvania  
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Attending Neurologist  
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**Henry Hasson, MD**  
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**Jennifer Martelle Tu, MD, PhD**  
Associate Professor in Neurology  
Director of Katie's Clinic for Rett Syndrome  
UCSF Benioff Children's Hospital Oakland



**Lauren Lazar, MD**  
Assistant Professor of Pediatrics  
Division of Pediatric Gastroenterology,  
Hepatology, and Nutrition  
University of Texas Southwestern Medical School

# RESULTS

## CASE CROWDSOURCING SURVEY

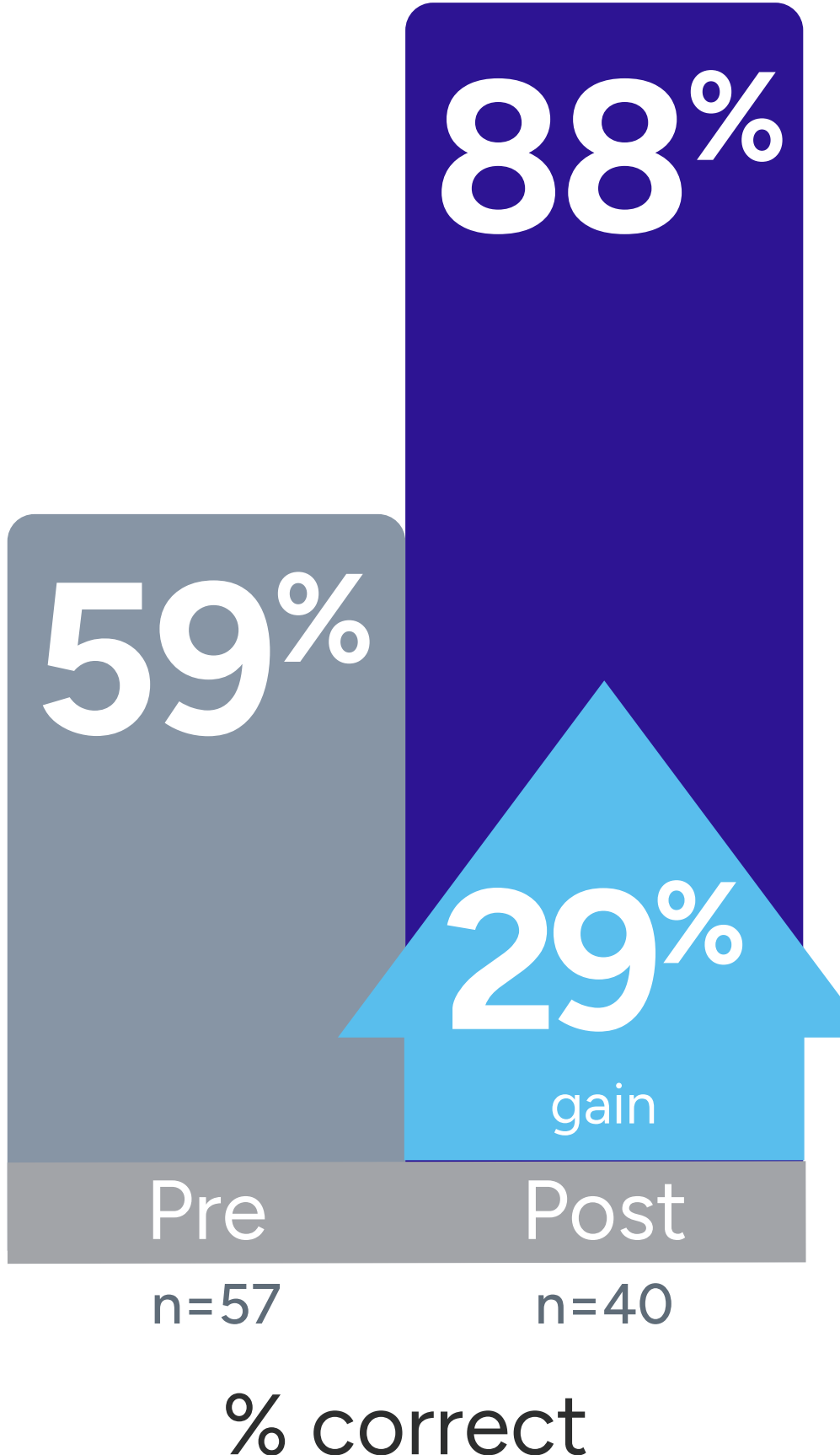
Neurologist survey respondents (n=96) reported meaningful improvements for patients using trofinetide, including gains in attention, engagement, and motor function, but also frequent gastrointestinal AEs. Two-thirds of respondents cited barriers related to insurance approvals or caregiver hesitancy.

## FOUNDATIONAL MODULE

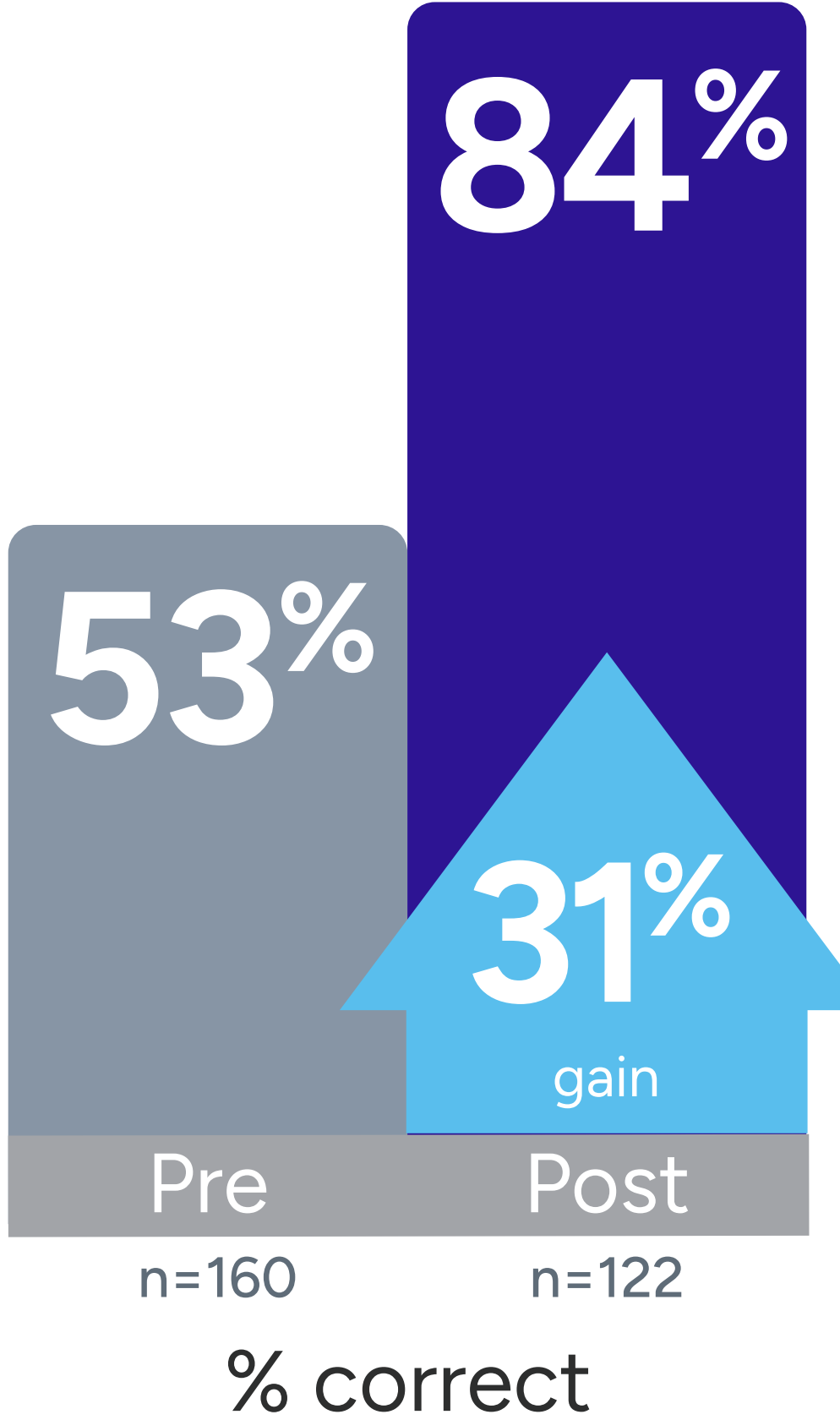
(launched 8/20/2025)

### Overall Learning Gains

**Intended Learners**  
(Neurology, Gastroenterology, Pediatrics)



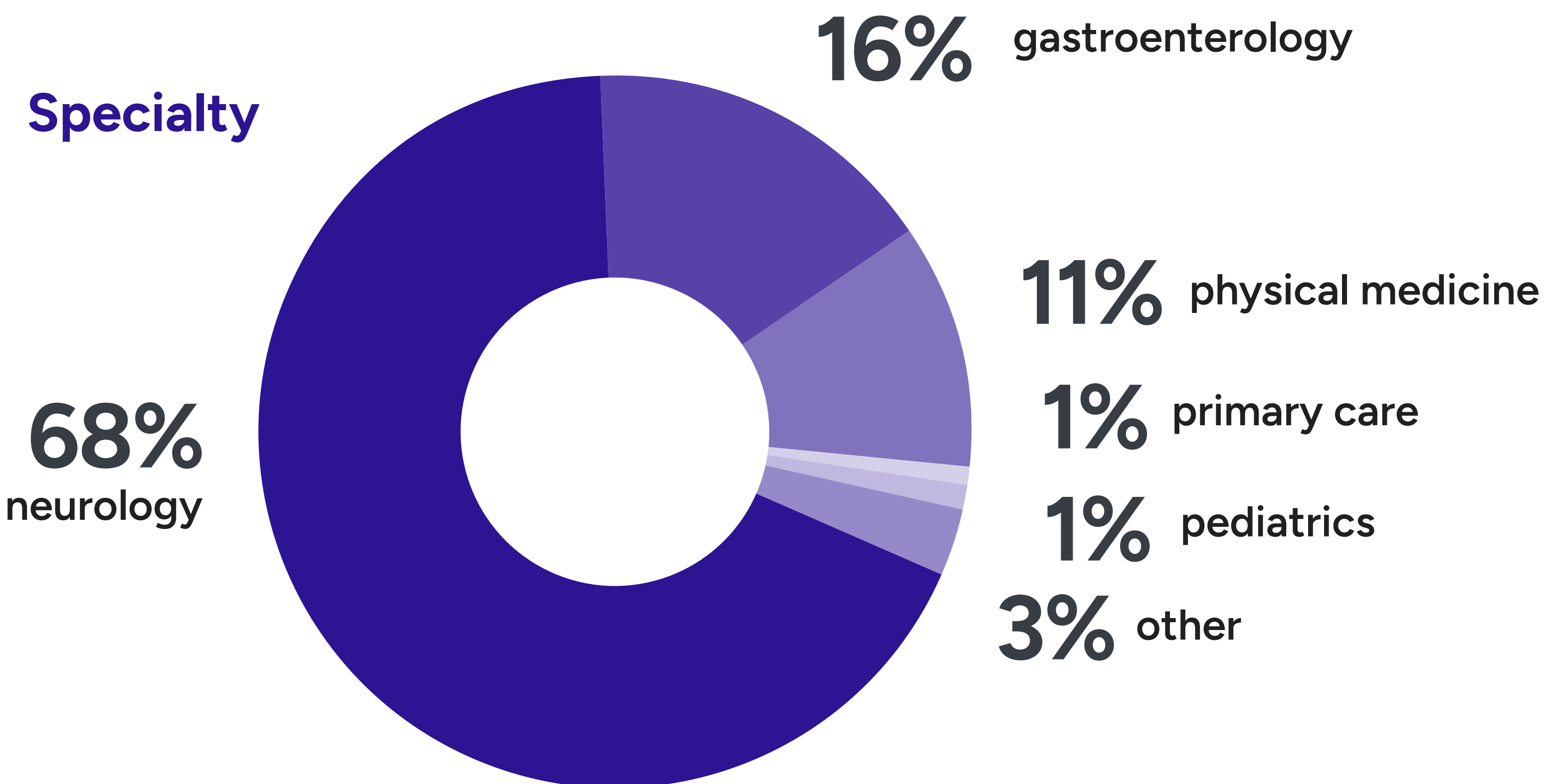
**Other Learners**



## THREE-PART, MULTIDISCIPLINARY, CASE-BASED CME SERIES



**10,998**  
Total participants  
(700 CME enduring  
+ 10,298  
micro-learning)



## CLINICIAN-REPORTED CHALLENGES IN THE MANAGEMENT OF RTT

Top 3 challenges in the early diagnosis of RTT	Percentage
Interpreting early signs in the absence of classic regression patterns	37%
Differentiating from nonspecific global development delays or autism	23%
Limited exposure to RTT cases during training or practice	19%

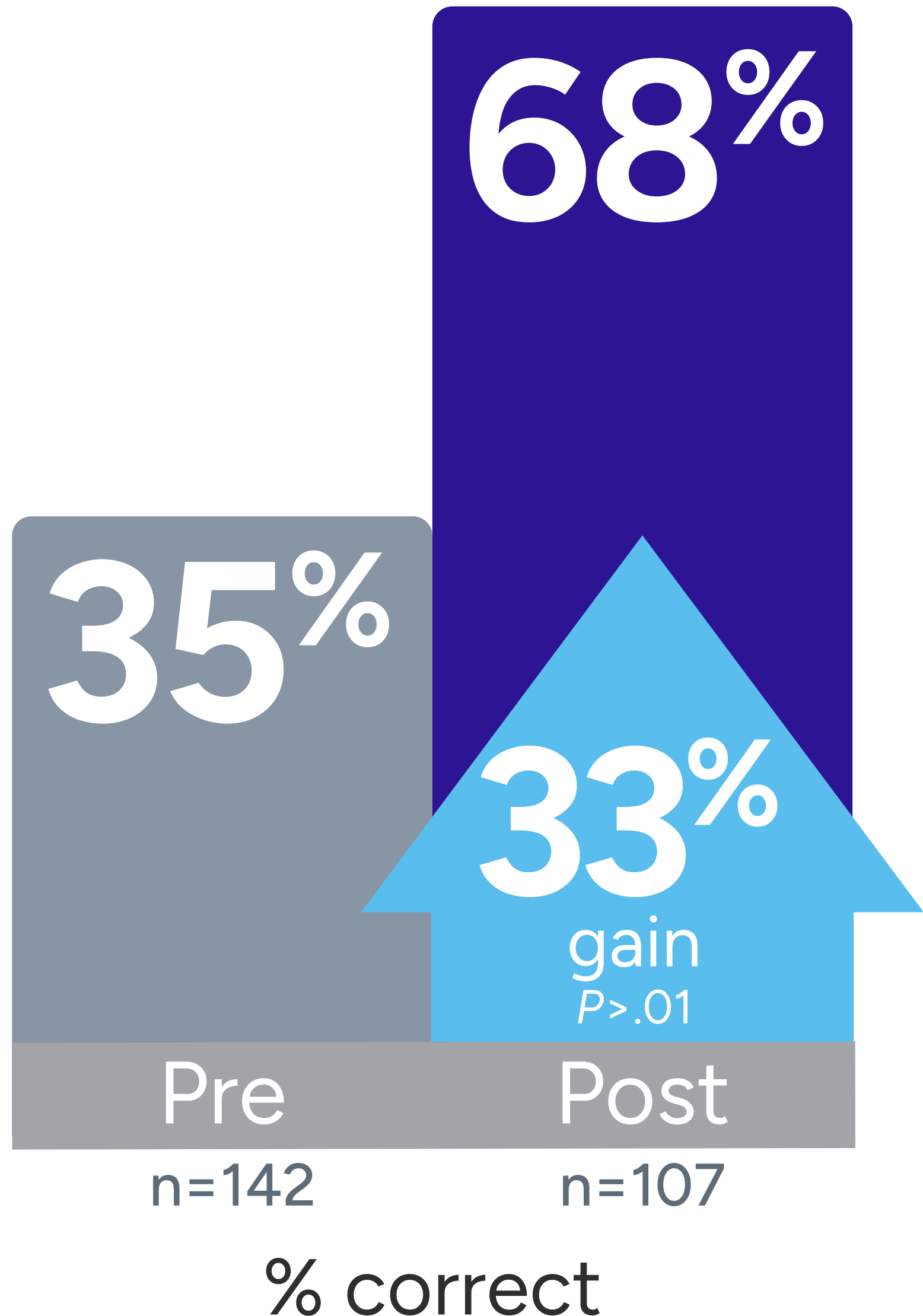
Greatest challenges preparing caregivers for potential gastrointestinal (GI) side effects when starting trofinetide	Percentage
Setting realistic expectations for the frequency and duration of diarrhea or vomiting	37%
Educating caregivers on practical home management strategies for diarrhea	20%
Helping caregivers distinguish AEs from unrelated GI illnesses	17%

# RESULTS - CASE-BASED MODULE 1

## LEARNING GAINS

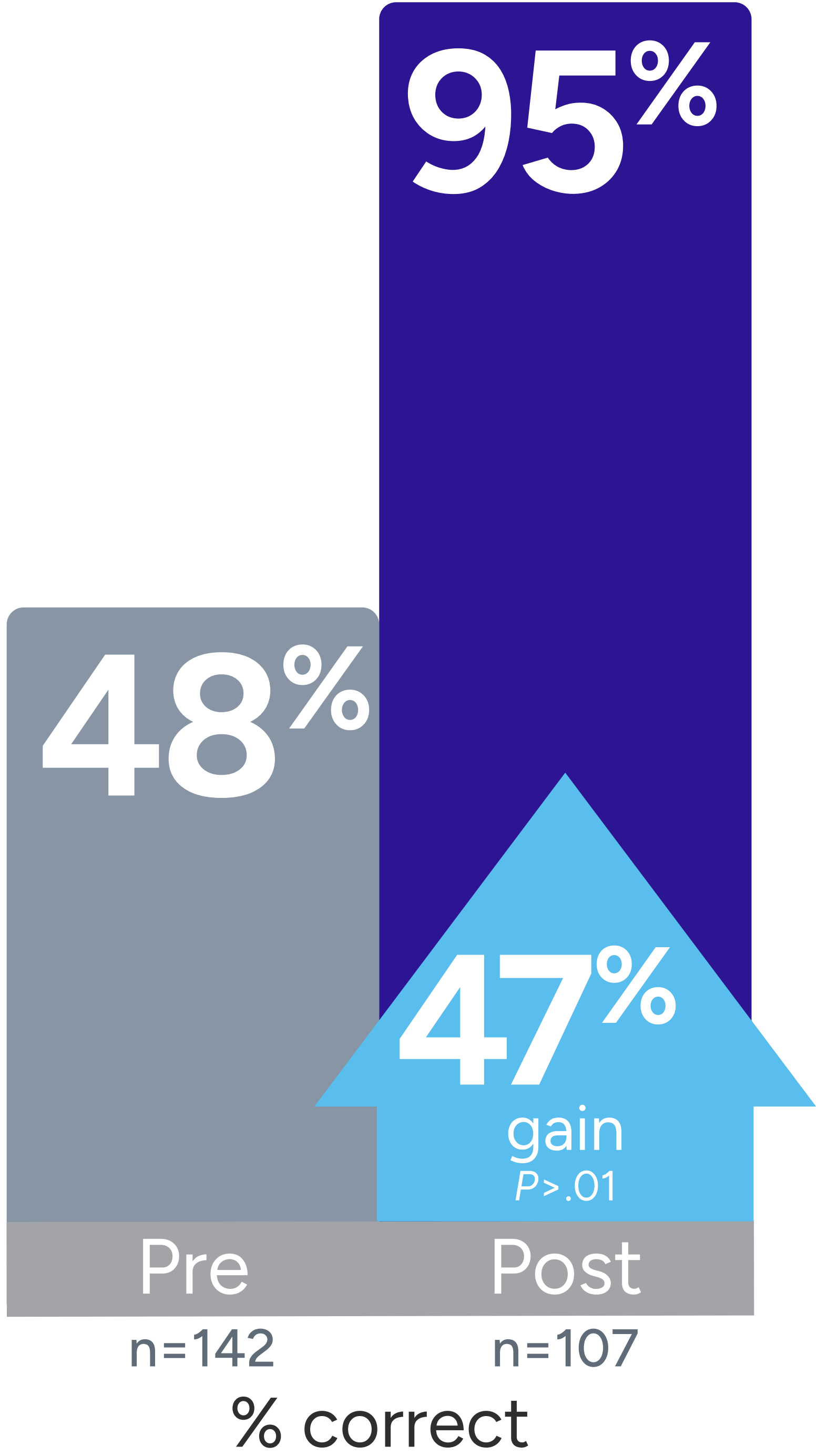
Learners demonstrated substantive gains across 10 pre-/post-activity assessments. Questions included:

Which clinical feature most often contributes to a delay in RTT diagnosis, even when caregivers raise early concerns?



Caregivers often notice improved engagement, social interaction, and reliability with communication

A 5-year-old with RTT diagnosis is eligible for trofinetide. Parents ask what kind of benefits they should realistically expect. Which response best aligns with both trial outcomes and real-world caregiver reports?



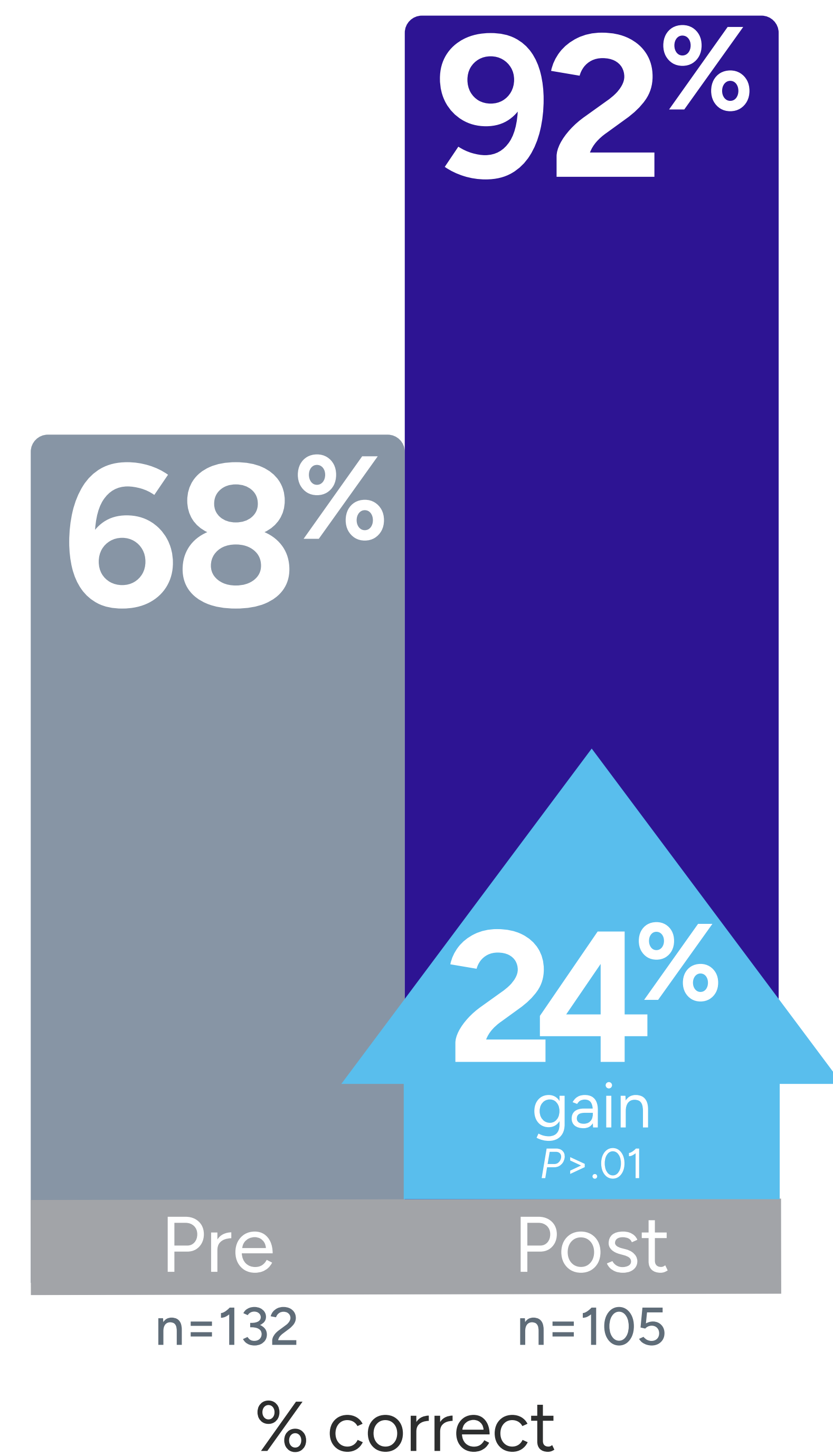
Normal head circumference into early childhood

# RESULTS - CASE-BASED MODULE 2

## LEARNING GAINS

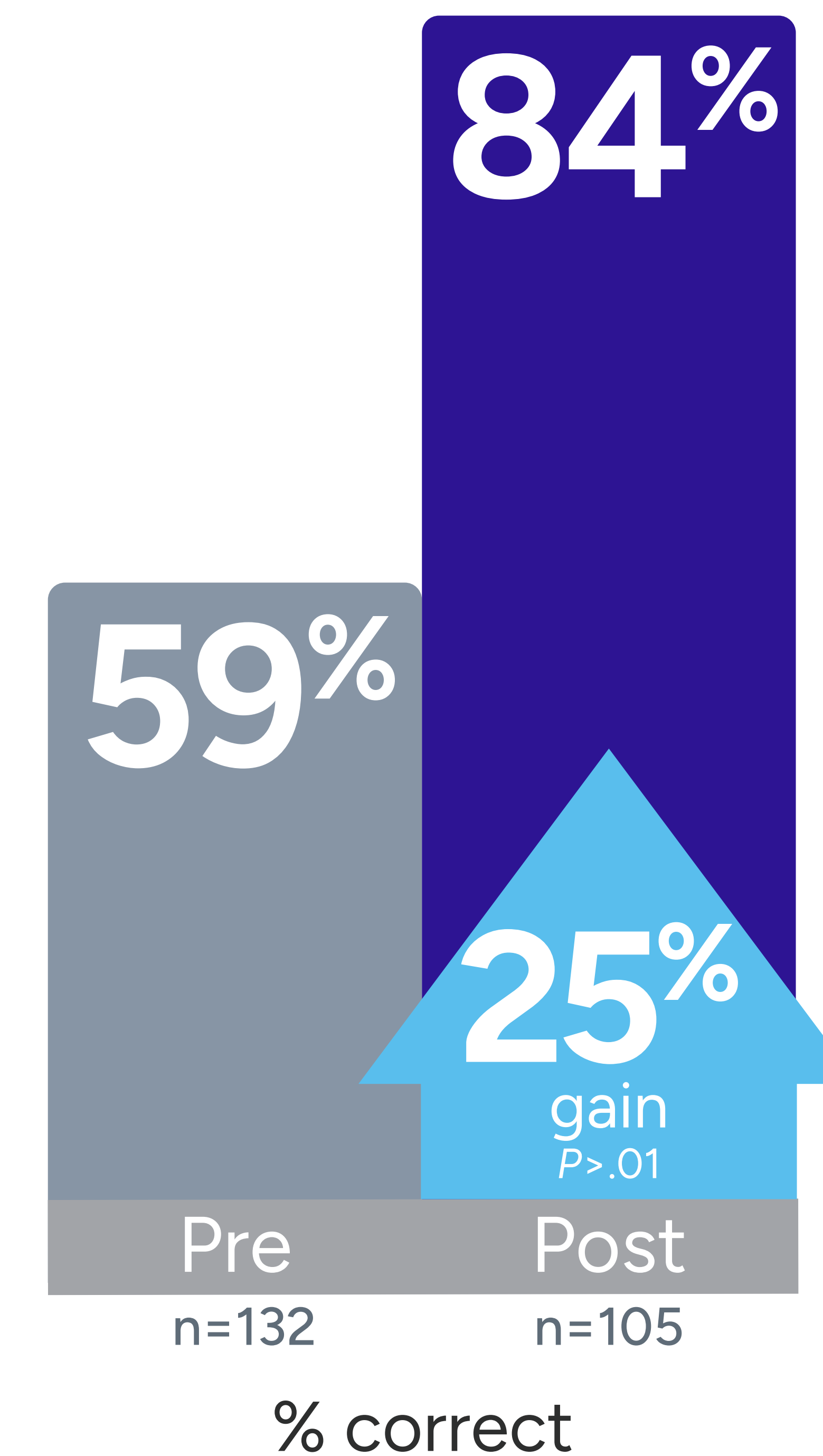
Learners demonstrated substantive gains across 10 pre-/post-activity assessments. Questions included:

Which real-world strategy has been most effective reducing the incidence of diarrhea with trofinetide?



Starting at a lower dose with gradual titration and adjusting or discontinuing laxative regimens

A 12-year-old girl with RTT and GERD on low-dose omeprazole is being considered for trofinetide. Her parents report intermittent gagging episodes. Which strategy best minimizes risk of worsening reflux after therapy initiation?



Optimize proton pump inhibitor dosing prior to initiating trofinetide

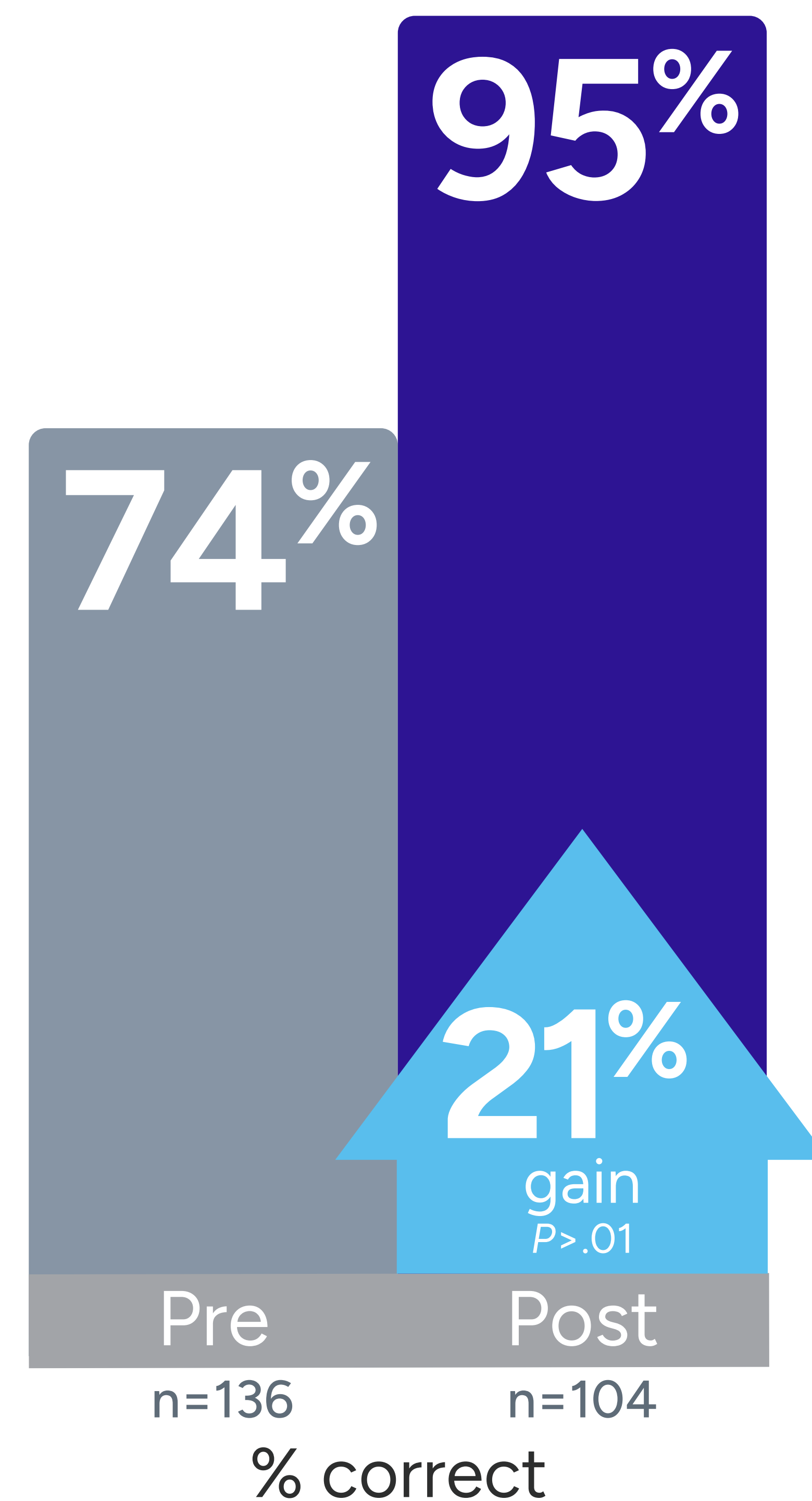
# RESULTS – CASE-BASED MODULE 3

## LEARNING GAINS

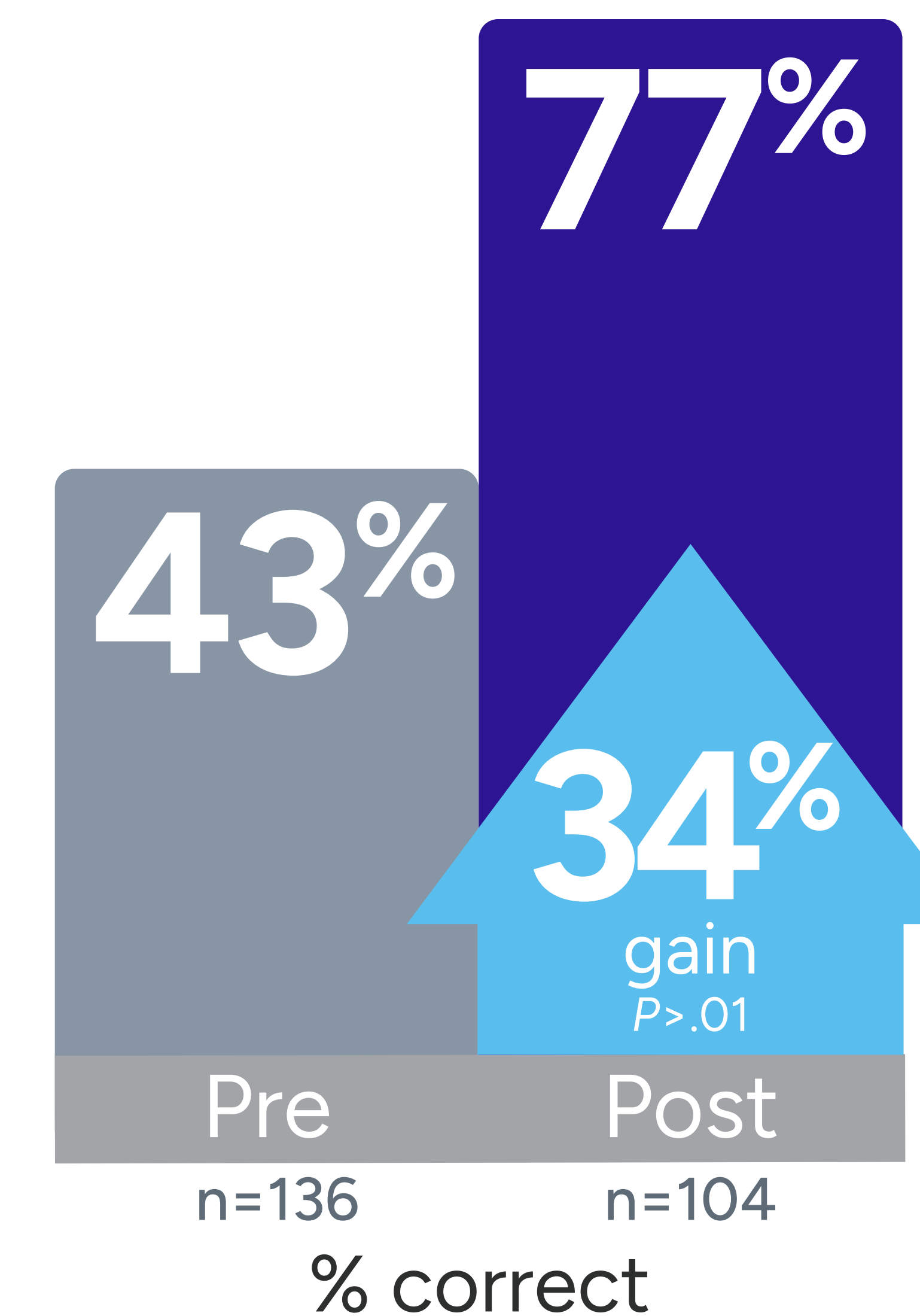
Learners demonstrated substantive gains across 10 pre-/post-activity assessments. Questions included:

A 7-year-old child with RTT exhibits extensive hand stereotypies, poor grasp, and difficulty self-feeding. The occupational therapist (OT) must set treatment priorities alongside the neurologist and parents. Which approach best reflects the OT's evidence-based contribution?

A 10-year-old girl with RTT with frequent seizures is starting trofinetide. Her school team suggests waiting 2-3 months before AAC assessment to "see if speech improves." The parents want to act sooner. Based on best practices, what should the care team recommend?



Adapt daily activities and environments to promote participation in meaningful occupations such as feeding and classroom tasks



Initiate AAC assessment and caregiver training in parallel with trofinetide

# RESULTS

## LEARNING GAINS AND PERSISTENT CHALLENGES

The overall educational effect size was large (Cohen's  $d = 1.2$ ) and higher than current benchmarks.



of learners feel the activity will improve their clinical practice  
(n=302)

41 learners (neurology, gastroenterology, pediatrics) reported (open-ended) intended practice changes, which fell into the following categories:



- Implement new treatment options
- Increase multidisciplinary approaches, including GI care
- Management that incorporates speech therapy, physical therapy, and occupational therapy
- Better/earlier referral

Top persistent challenges developing treatment plans for patients with RTT:	Percentage
Limited access to therapists familiar with Rett-specific rehabilitation strategies	27%
Coordinating speech therapy, physical therapy, and occupational therapy services across school, outpatient, and specialty settings	25%
Balancing therapy intensity with fatigue and limited tolerance	18%
Identifying appropriate AAC and communication supports in nonverbal patients	17%

# RESULTS

## LEARNER QUESTIONS

Category	Examples
Treatment Options and Pipeline Therapies	<ul style="list-style-type: none"><li>• What is the real-world expected magnitude of pharmaceutical (e.g., trofinetide) intervention?</li><li>• What are expert opinions on the current medication options available?</li><li>• How promising is gene therapy in the future management of the condition?</li><li>• What is the most optimal anti-convulsant combo for seizure and mood?</li></ul>
Long-term Management and Care Coordination	<ul style="list-style-type: none"><li>• Are there large centers that are best for coordinating this care?</li><li>• What is the role of the primary care provider in long-term management?</li><li>• What does long-term management and prognosis look like?</li></ul>
Diagnosis and Early Identification	<ul style="list-style-type: none"><li>• How can we diagnose RTT more quickly?</li><li>• Can we start treatment with a clinical diagnosis before confirming with genetics?</li></ul>
Education and Communication	<ul style="list-style-type: none"><li>• What strategies can improve communication and engagement in non-verbal RTT patients?</li><li>• How can I arrange for a family to connect with other families?</li><li>• What are strategies for building trust with families (considering socioeconomic, cultural, and health literacy issues)?</li><li>• What are the best resources for families/caregivers?</li></ul>
Access, Equity, and Insurance	<ul style="list-style-type: none"><li>• How to deal with insurance and other barriers to treatment?</li><li>• What are the best strategies for accessing an expensive treatment?</li></ul>

# CONCLUSION

Data demonstrate that this educational initiative effectively improved clinician knowledge and competence. Although gains were observed across all key domains, remaining barriers related to long-term management and access to multidisciplinary care highlight the need for continued education and system-level support.



This activity was supported by an independent educational grant from Acadia Pharmaceuticals Inc.