# Emerging Challenges in Primary Care: 2017

## Pseudobulbar Affect: A Call to Action

### Avanir Pharmaceuticals Grant : Interim Outcome Report for Live Activities

**December 18, 2017**

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# Curriculum Overview

◆Accredited Live Regional Symposia, Launch Date: May 6, 2017 through October 28, 2017

❖The live symposia was held in 4 cities with simulcast in 2 cities.

◆Non-Accredited "Clinical Highlights" - The program content was reinforced to participants with a document containing key teaching points from the program and is distributed 1 week after each meeting.

◆ Enduring Symposium Webcast, Launch Date: November 6, 2017  End Date: November 5, 2018

❖http://naceonline.com/CME-Courses/course_info.php?course_id=924

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# Key Findings

## Knowledge/Competence

Statistically significant improvement in all questions regarding the diagnosis and management of patients with Pseudobulbar Affect

## Confidence

Over 500% improvement in confidence in the ability to recognize Pseudobulbar Affect in their patient population that persisted 4 weeks after the activity

## Practice

250% improvement in intent to consider a diagnosis of Pseudobulbar Affect in patients who report repeated episodes of laughing or crying 4 weeks after the activity.

## Change of Practice Behavior

After 4 weeks, participants reported the following improved skills regarding the treatment of patients with Pseudobulbar Affect: 76% disease state awareness, 58% diagnostic evaluation, and 54% screening protocols.

4 Weeks Post N= 127

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# Discussion and Implications

❖ Moderate to very confident levels in the ability to ability to the ability to recognize Pseudobulbar Affect in their patient population rose from 15% to 97% after the activity.

❖ At 4 weeks, confidence levels remained at 76%, a significant improvement from baseline

❖ Data obtained from participants 4 weeks after the program demonstrated some slippage in learning from the post-test scores but these remained above baseline.

❖ Participants were more competent and knowledgeable in the recognition and treatment of patients with Pseudobulbar Affect 4 weeks after the activity.

❖ Learners demonstrated persistent gaps in the several areas including:

    ❖ How and when to screen for Pseudobulbar Affect

    ❖ Appropriate treatment strategies

The post-test scores, and intent to change practice patterns regarding the evaluation and management of Pseudobulbar Affect, signifies a clear gap in knowledge and an unmet need among primary care clinicians. It continues to be an important area for future educational programs.

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## Commercial Support

The Emerging Challenges in Primary Care: Update 2017 series of
CME activities were supported through educational grants or donations
from the following companies:

- Avanir

- Boehringer Ingelheim Pharmaceuticals, Inc.

- Grifols

- Lilly USA, LLC

- Sunovion Pharmaceuticals, Inc.

- Sanofi US

- Regeneron Pharmaceuticals

# Emerging Challenges in Primary Care: 2017
## Update 2017 Conference Schedule

| City | Date |
| --- | --- |
| Miami, FL | April 29, 2017 |
| **Baltimore, MD** | **May 6, 2017** |
| St. Louis, MO | May 13, 2017 |
| Birmingham, AL* | May 20, 2017 |
| **Atlanta, GA** | **June 3, 2017** |
| Raleigh, NC* | June 10, 2017 |
| Cleveland, OH | June 17, 2017 |
| Tampa, FL | June 24, 2017 |
| **Anaheim, CA*** | **August 12, 2017** |
| San Francisco, CA | August 19, 2017 |
| Troy, MI* | August 26, 2017 |
| Ft. Lauderdale, FL | September 9, 2017 |
| Nashville, TN* | September 16, 2017 |
| San Antonio, TX | September 23, 2017 |
| Uniondale, NY | October 7, 2017 |
| Denver, CO | October 14, 2017 |
| Houston, TX | October 21, 2017 |
| **San Diego, CA*** | **October 28, 2017** |

**\*Simulcast and Live Conference**
**Bolded** cities are where the lecture was given



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# Learning Objectives

1. Review the epidemiology and impact of Pseudobulbar Affect (PBA)

2. Recognize the importance of early recognition of PBA in primary care

3. Describe diagnostic tools and criteria for objective diagnosis of PBA

4. Discuss therapeutic options for PBA

# Levels of Evaluation

Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on Moore's model. This outcome study reaches Level 5.

Level 1: Participation

Level 2: Satisfaction

Level 3: Declarative and Procedural Knowledge
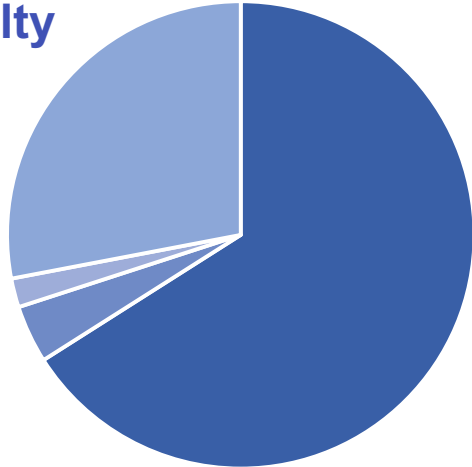
Level 4: Competence

Level 5: Performance

Level 6: Patient Health

Level 7: Community Health

Moore DE Jr, Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. J Contin. Educ. Health Prof. 2009 Winter;29(1):1-15

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# Level 1 (Participation)

**Practice specialty**



- 66% PCPs
- 4% Cardiologist
- 2% Endocrinologist
- 28% Other or did not respond

**1247** total attendees

**4 cities**

**534** remote simulcast

**713** on site

**92%**
Provide direct patient care

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# Level 2 (Satisfaction)

**99%** rated the activity as excellent

**99%** indicated the activity improved their knowledge

**97%** stated that they learned new and useful strategies for patient care

**91%** said they would implement new strategies that they learned

**100%** said the program was fair-balanced and unbiased

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# Attendee Learning Objectives Achievement

Upon completion of this activity, I can now:

- Review the epidemiology and impact of Pseudobulbar Affect (PBA)

- Recognize the importance of early recognition of PBA in primary care

- Describe diagnostic tools and criteria for objective diagnosis of PBA
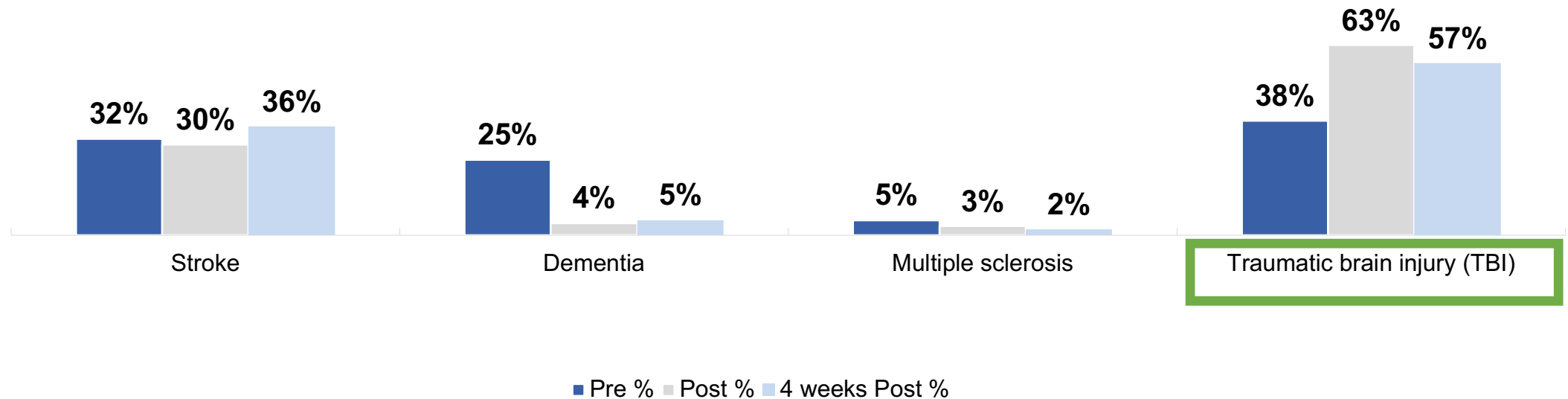
- Discuss therapeutic options for PBA.



| | |
|---|---|
| **84%** | |

84% Yes    15% Somewhat    1% Not at all

Sample Size: N = 753

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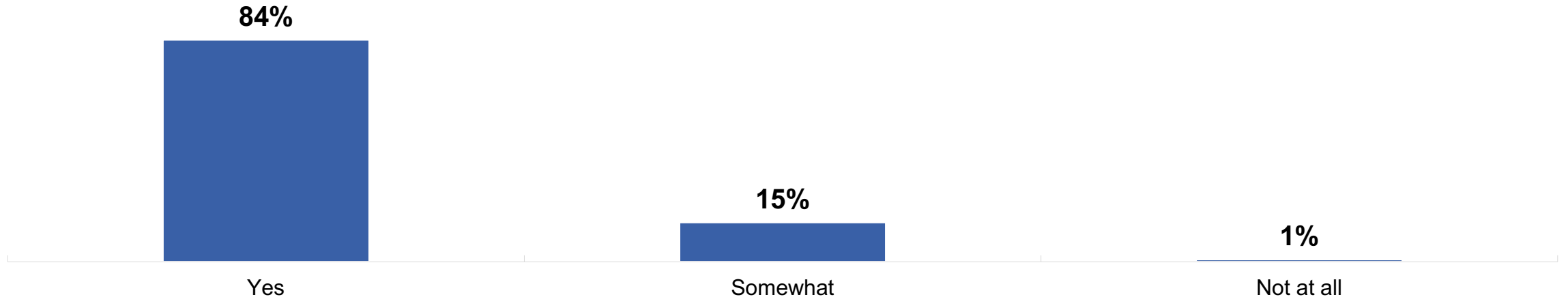
# In the PRISM registry study, the prevalence of Pseudobulbar Affect was highest in patients with which of the following conditions?

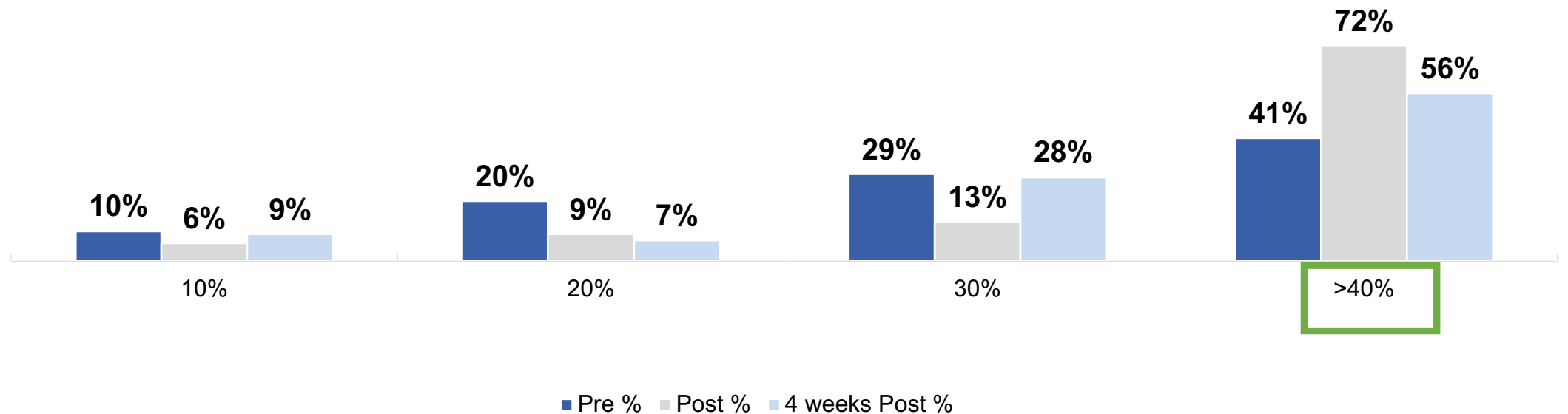**(Learning Objective 1)**

P Value: <0.001 – Significant



Pre N = 575    Post N = 617    4 weeks N = 127

# In a survey of patients with Pseudobulbar Affect, approximately how many reported being housebound by their symptoms?
**(Learning Objective 1 and 2)**
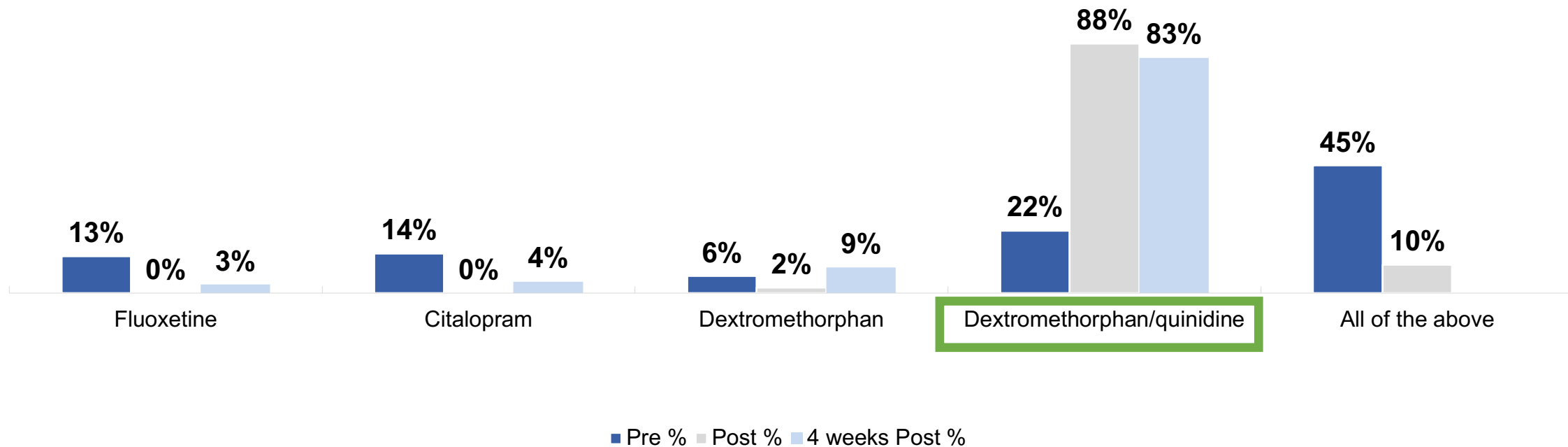
P Value: <0.001 – Significant



■ Pre %   ■ Post %   ■ 4 weeks Post %

Pre N = 580      Post N = 599      4 weeks N = 127

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# Which of the following agents is/are FDA-approved for the treatment of Pseudobulbar Affect?

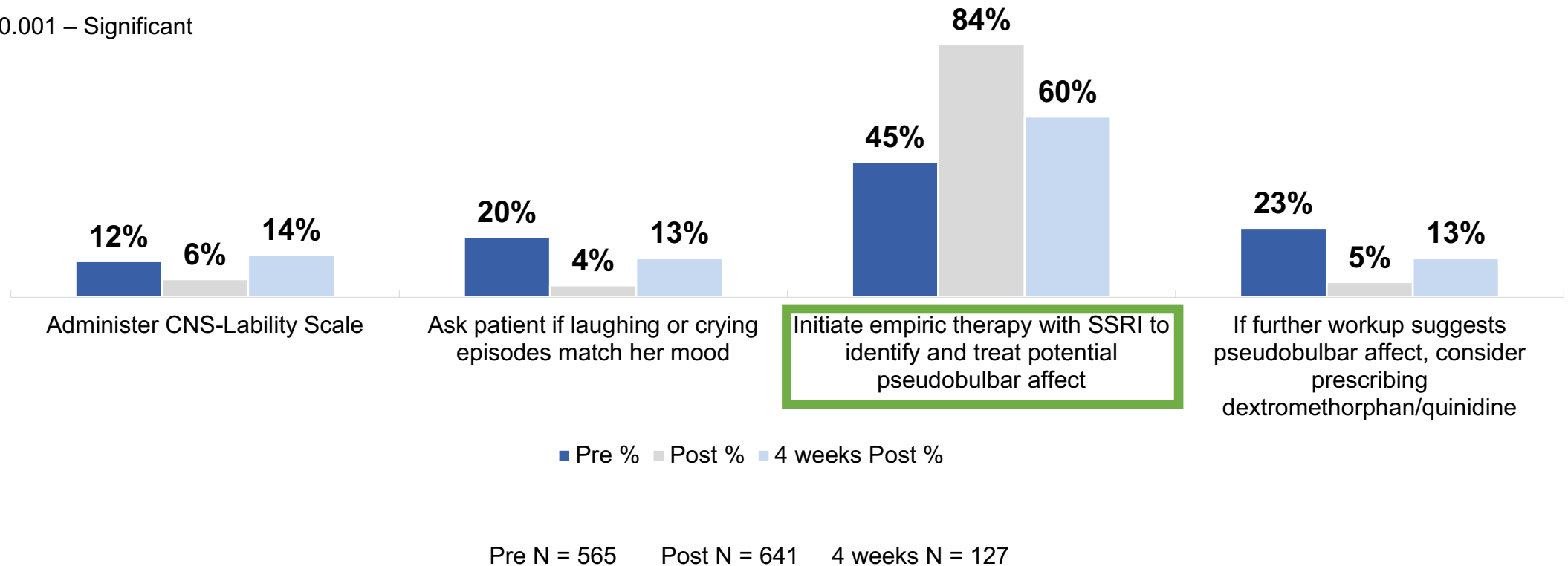**(Learning Objective 4)**

P Value: <0.001 – Significant



Pre N = 571     Post N = 635     4 weeks N = 127

Competence Assessment

**A 63-year-old woman with a history of hypertension, dyslipidemia, and ischemic stroke presents complaining of excessive crying. She says the crying started after her stroke, about 6 months ago, and causes her to stay home most days. On questioning, she denies depressive symptoms and says "I don't know why I'm crying."**
**All of the following might be appropriate at this time, EXCEPT:**
(Learning Objective 3 and 4)

P Value: <0.001 – Significant

Administer CNS-Lability Scale: 12% (Pre), 6% (Post), 14% (4 weeks Post)

Ask patient if laughing or crying episodes match her mood: 20% (Pre), 4% (Post), 13% (4 weeks Post)

Initiate empiric therapy with SSRI to identify and treat potential pseudobulbar affect: 45% (Pre), 84% (Post), 60% (4 weeks Post)

If further workup suggests pseudobulbar affect, consider prescribing dextromethorphan/quinidine: 23% (Pre), 5% (Post), 13% (4 weeks Post)

■ Pre %  ■ Post %  ■ 4 weeks Post %

Pre N = 565     Post N = 641     4 weeks N = 127

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# How often do/will you consider a diagnosis of Pseudobulbar Affect in patients who report repeated episodes of laughing or crying?

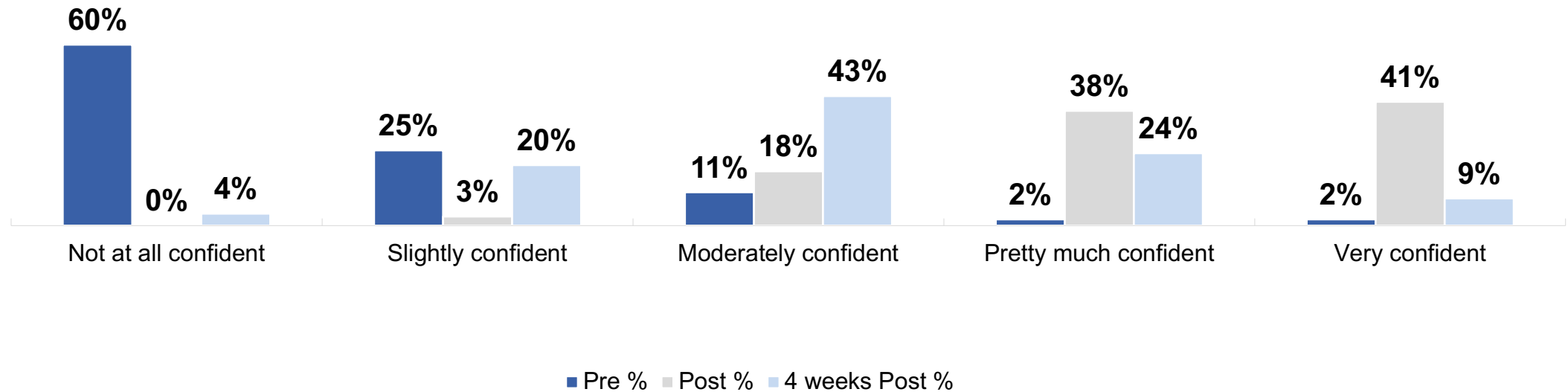P Value: <0.001 – Significant



| | Pre % | Post % | 4 weeks Post % |
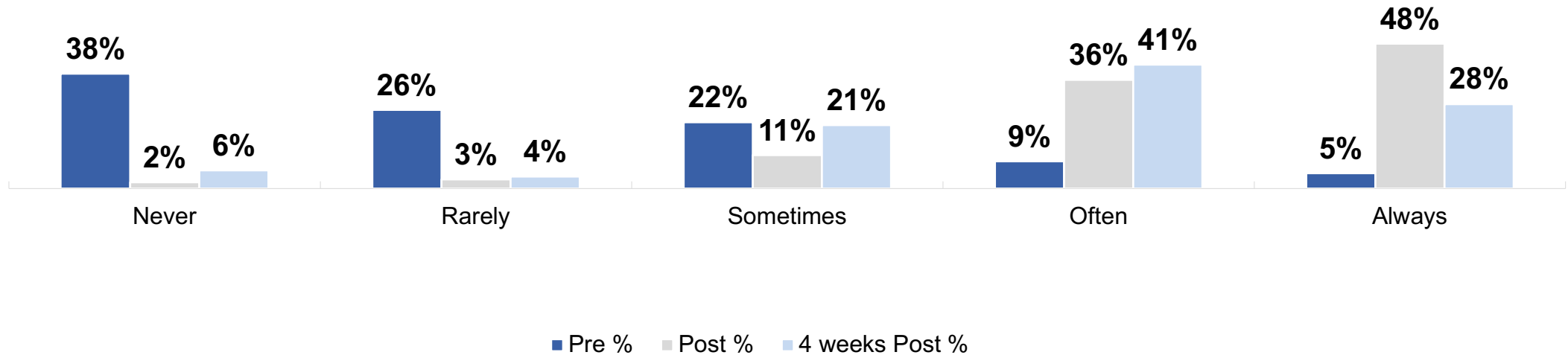
Pre N = 587      Post N = 601      4 weeks N = 127

# Please rate your confidence in your ability to recognize Pseudobulbar Affect in your patient population:

P Value: <0.001 – Significant



Not at all confident: Pre 60%, Post 0%, 4 weeks Post 4%
Slightly confident: Pre 25%, Post 3%, 4 weeks Post 20%
Moderately confident: Pre 11%, Post 18%, 4 weeks Post 43%
Pretty much confident: Pre 2%, Post 38%, 4 weeks Post 24%
Very confident: Pre 2%, Post 41%, 4 weeks Post 9%

■ Pre %  ■ Post %  ■ 4 weeks Post %

Pre N = 599     Post N = 622     4 weeks N = 127

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# Data Interpretation

Understand that Pseudobulbar Affect has the highest prevalence in patients with Traumatic brain injury

Recognize Dextromethorphan/quinidine as the only FDA approved medication for the treatment of PBA

**Participant Educational Gains**

Are aware that >40% of patients with PBA report being housebound by their symptoms

Realize that empiric treatment with SSRI therapy for potential pseudobulbar affect is inappropriate, while treatment with FDA approved dextromethorphan/quinidine is indicated

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# Data Interpretation

Prior to the program, 36% of learners indicated that they would consider a diagnosis of Pseudobulbar Affect in patients with repeated episodes of laughing or crying but after the program this increased to 95%, a 260% increase.

Moderate to very confident levels in the ability to recognize Pseudobulbar affect increased dramatically from 15% to 97%, over 600% increase
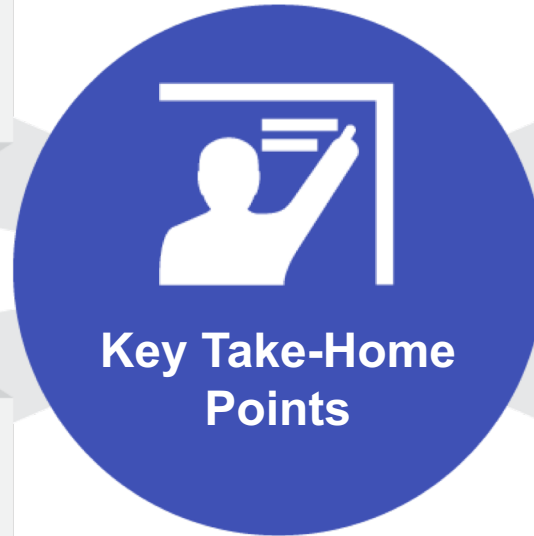
**Key Take-Home Points**

92% of participants are engaged in direct patient care

91% said they would implement new strategies that they learned in their practice

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# Persistent Educational Gaps After 4 Weeks

The relationship between PBA and other neurologic conditions

Awareness of the extent that PBA impacts quality of life

Appropriate evaluation for patient's suspected of having PBA

Management strategies for PBA

# New Specific Behaviors Reported at 4 weeks

I am screening more for head injury/TBI and using CNS-Lability Scale as part of routine screenings

I am including PBA in my differential diagnosis for stroke patients

I have started screening for PBA amongst National Guard service members with known or admitted TBI during annual health screenings
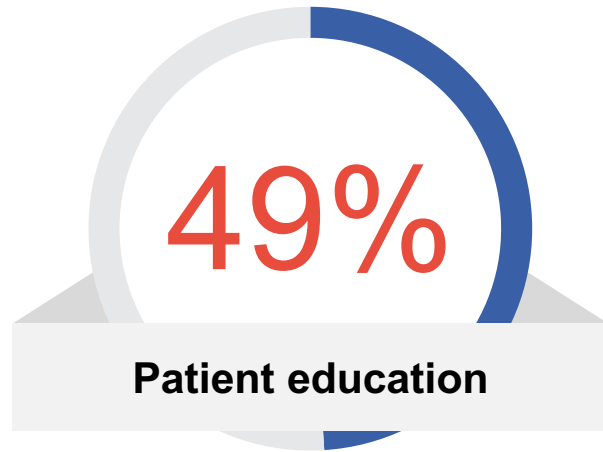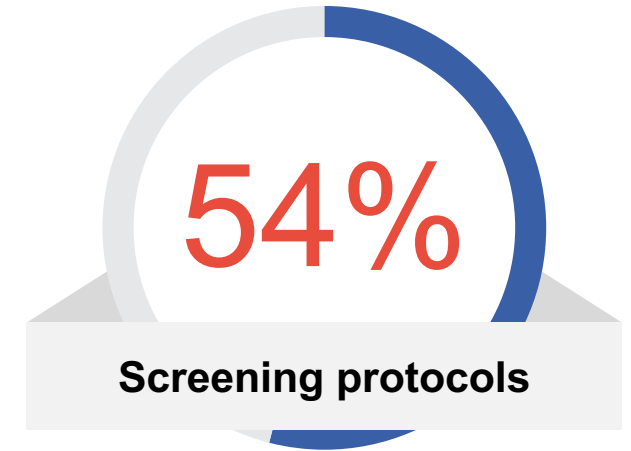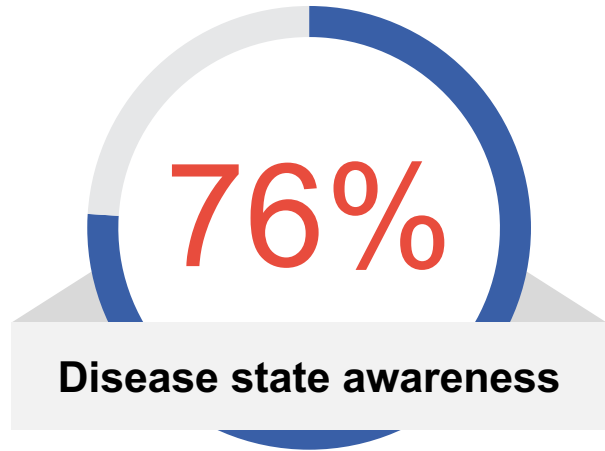
I feel more confident now in identifying, diagnosing and treating patients with PBA

I placed information in a NP tidbit binder and discussed PBA with those NPs not able to attend conference

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**What specific barriers have you encountered that may have prevented you from successfully implementing strategies for patients with Pseudobulbar Affect since this CME activity? (Select all that apply)**

**32%**

**None**

**31%**

**Insurance/financial issues**

**31%**

**Lack of knowledge**

**24%**

**Medication costs**

**24%**

**Patient adherence/ compliance**

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