## **Emerging Challenges in Primary Care: 2017**



# Demystifying A1AT Deficiency and COPD: A Practical Guidance for Clinicians

Grifols US Grant # 002700 - Interim Report for Live Activities

December 14, 2017



#### **Curriculum Overview**

- Accredited Live Regional Symposia, Launch Date: April 29, 2017 through June 10, 2017
  - The live symposia was held in 5 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: August 18, 2017 End Date: August 17, 2018
  - http://naceonline.com/CME-Courses/course\_info.php?course\_id=884



## **Key Findings**



Statistically significant improvement in all questions regarding the diagnosis and management of patients with Alpha-1 Antitrypsin Deficiency



Over 400% improvement in confidence in the ability to integrate the assessment and management of AATD into the care of patients with COPD 4 weeks after the program.



Nearly 300% improvement in intention to consider screening patients with COPD for AATD, which was maintained after 4 weeks



#### **Change of Practice Behavior**

After 4 weeks, participants reported the following improved skills regarding the screening and treatment of patients with alpha1-antitrypsin deficiency (AATD) and COPD: 71% disease state awareness, 56% screening protocols, and 53% diagnostic evaluation.

4 Weeks Post N= 96



### **Discussion and Implications**

- ❖ Moderate to very confident levels in the ability to ability to integrate the assessment and management of AATD into the care of patients with COPD rose from 13% to 86% after the activity.
- \* At 4 weeks, confidence levels remained above baseline at 59%, 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 screening and treatment of patients with Alpha-1 Antitrypsin Deficiency and COPD 4 weeks after the activity.
- Learners demonstrated persistent gaps in the several areas including:
  - How and when to screen for AATD
  - Indications for AATD replacement therapy

The post-test scores, and intent to change practice patterns regarding the evaluation and management of AATD, 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.



#### **Course Director**

Gregg Sherman, MD Chief Medical Office of NACE Plantation, FL

#### **Activity Planning Committee**

Gregg Sherman, MD

Harvey C. Parker, PhD, CHCP

Michelle Frisch, MPH, CHCP

Stephen Webber

Alan Goodstat, LCSW

Cheryl C. Kay

Sheila Lucas, CWEP

#### **Faculty**

Fernando J. Martinez, MD, MS
Chief, Division of Pulmonary and Critical Care Medicine
Bruce Webster Professor of Medicine
Joan and Sanford I. Weill Department of Medicine
Weill Cornell Medical College
New York-Presbyterian Hospital/Weill Cornell Medical Center
New York, NY

Franck Rahaghi, MD, MHS, FCCP
Director of Advanced Lung Disease Clinic
Director, Pulmonary Hypertension Clinic
Head of Alpha-1 Foundation Clinical Resource Center
Chairman, Dept. of Pulmonary and Critical Care
Cleveland Clinic Florida
Weston, FL



#### **Commercial Support**

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- Avanir
- Boehringer Ingelheim Pharmaceuticals, Inc.
- Grifols
- Lilly USA, LLC
- Sunovion Pharmaceuticals, Inc.
- Sanofi US
- Regeneron Pharmaceuticals





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	





## **Learning Objectives**

- 1. Discuss the pathophysiology of Alpha-1 Antitrypsin Deficiency (AATD)
- 2. Utilize appropriate screening for AATD
- 3. Incorporate AATD testing into routine chronic obstructive pulmonary disease (COPD) management algorithms
- 4. Discuss treatment options for AATD and latest GOLD guideline recommendations



#### **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** 

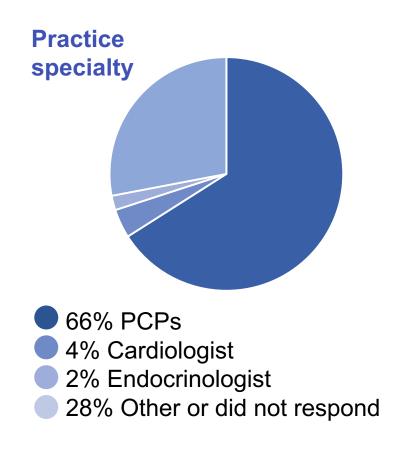
**Level 6: Patient Health** 

**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



## **Level 1 (Participation)**









**322** remote simulcast





92%
Provide direct patient care



## 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



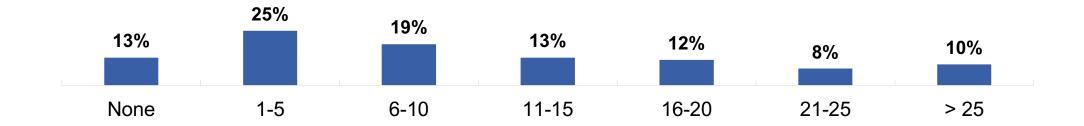
91% said they would implement new strategies that they learned



100% said the program was fair-balanced and unbiased



## Patients visits with COPD seen each week in a clinical setting:



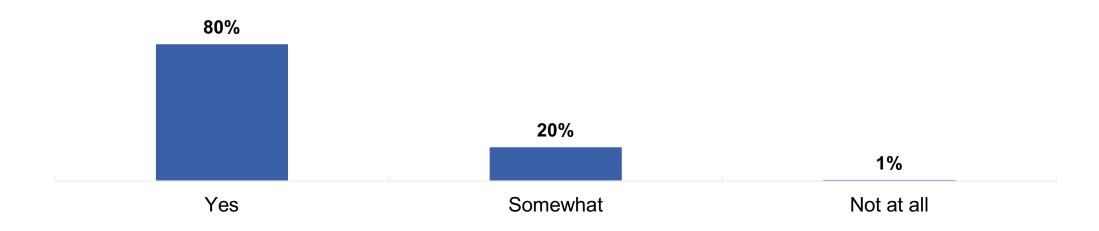
Sample Size: N = 695



### **Attendee Learning Objectives Achievement**

Upon completion of this activity, I can now:

- Discuss the pathophysiology of alpha1-antitrypsin deficiency (AATD)
- Utilize appropriate screening for AATD
- Incorporate AATD testing into routine chronic obstructive pulmonary disease (COPD) management algorithms
- Discuss treatment options for AATD and latest GOLD guideline recommendations.



Sample Size: N = 753

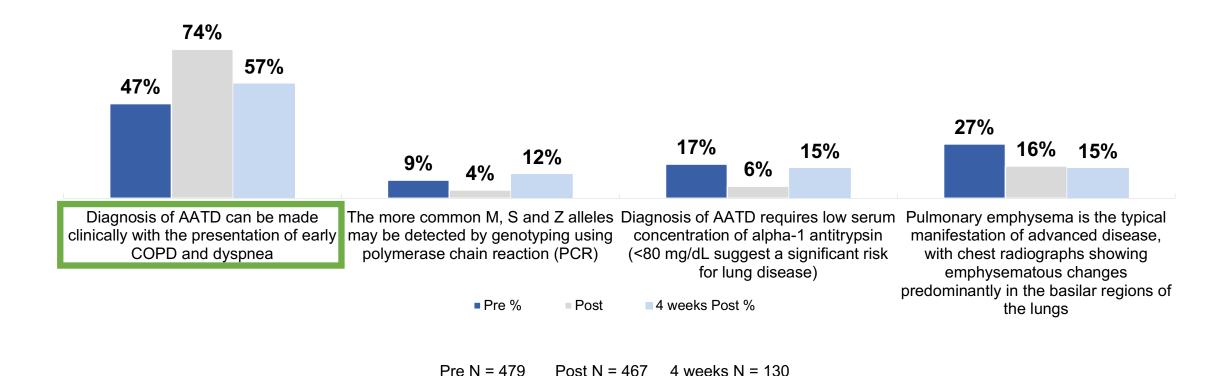


#### **Knowledge Assessment**

John is a 52 y/o smoker with COPD who is not doing well on his current therapy. As you consider how to manage his care, all of the following statements about diagnosing alpha-1 antitrypsin deficiency (AATD) are true, EXCEPT:

(Learning Objective 2)

P Value: <0.001 – Significant



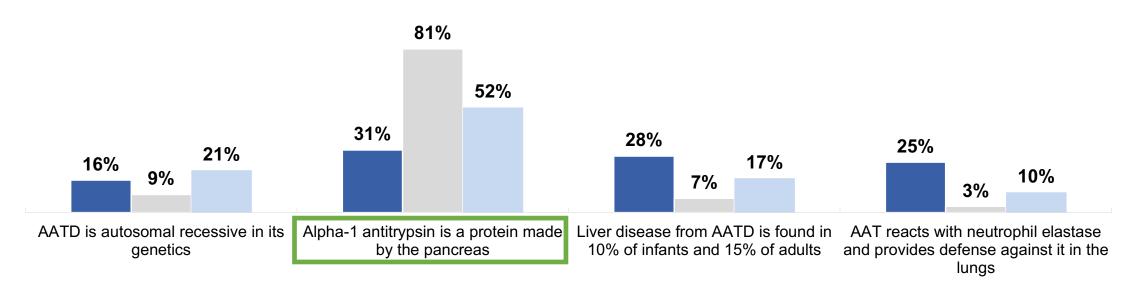


#### **Knowledge Assessment**

## You ultimately diagnose John with AATD. He presents to discuss his condition and you tell him all of the following, EXCEPT:

(Learning Objective 1)

P Value: <0.001 – Significant



■ Pre % ■ Post % ■ 4 weeks Post %

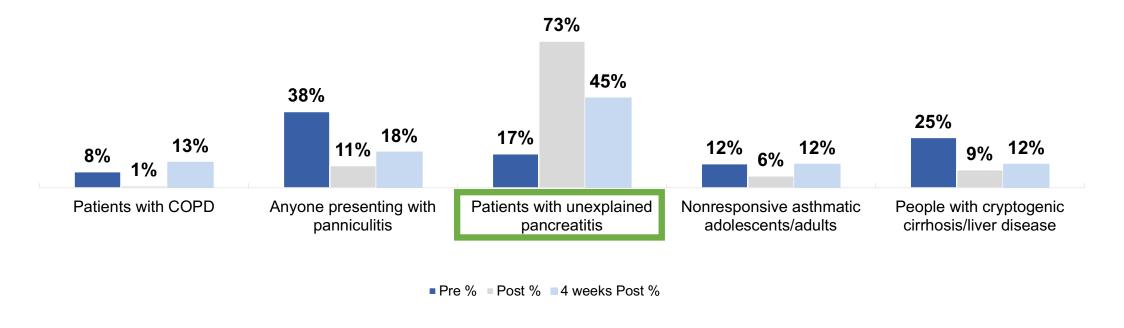
Pre N = 497 Post N = 494 4 weeks N = 130



#### **Knowledge Assessment**

A 55y/o construction worker presents with persistent dyspnea. His FEV1 was 50% predicted and reversibility was demonstrated. He has asthma, initially diagnosed at the age of 40 but it has become progressively worse and unresponsive. According to the ATS, screening for AATD should include all of the following patient types, EXCEPT: (Learning Objective 3)

P Value: <0.001 – Significant



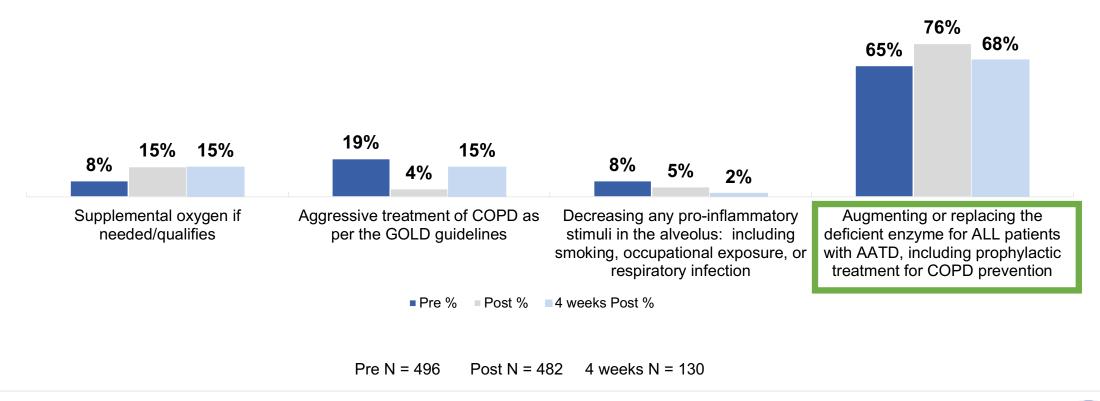
Pre N = 502 Post N = 492 4 weeks N = 130



#### Competence Assessment

When discussing treatment for AATD with John, you note that preventing or slowing the progression of lung disease is the major goal of management. All of the following strategies may be appropriate to achieve this goal for John, EXCEPT: (Learning Objective 4)

P Value: <0.001 - Significant

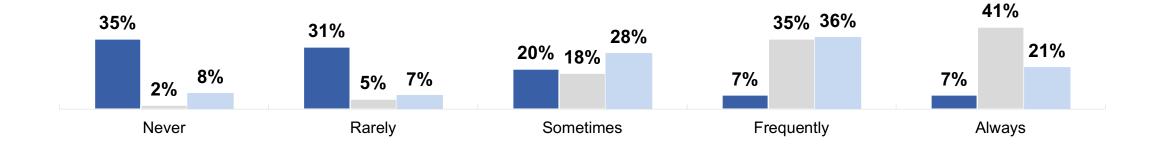




#### **Practice Assessment**

#### How often do/will you consider screening patients with COPD for AATD?

P Value: <0.001 – Significant



■ Pre % ■ Post % ■ 4 weeks Post %

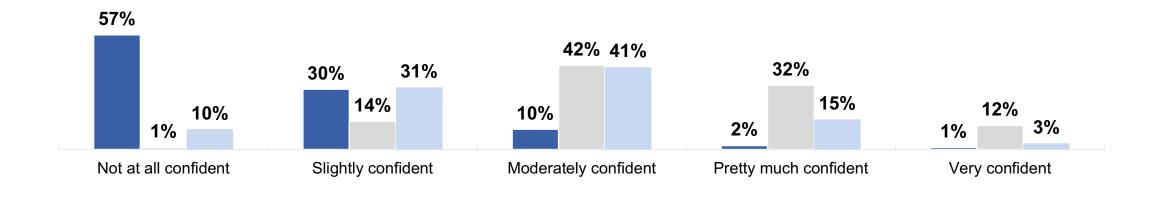
Pre N = 528 Post N = 492 4 weeks N = 130



#### Confidence Assessment

## Please rate your confidence in your ability to integrate the assessment and management of AATD into the care of patients with COPD:

P Value: <0.001 – Significant



Pre N = 520 Post N = 480 4 weeks N = 130

■ Pre % ■ Post % ■ 4 weeks Post %



## **Data Interpretation**

Are more aware that the diagnosis of AATD can not be made clinically and that emphysematous changes are predominantly apical, not basilar

Recognize when to screen patients for AATD, and that unexplained panniculitis, not pancreatitis, is a signal to screen



Understand the genetics of Alpha-1 Antitrypsin and that it is made in the liver, not the pancreas

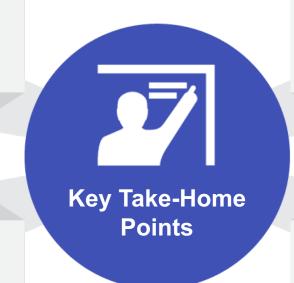
Understand that enzyme replacement therapy is appropriate for all patients with AATD but is not indicated as prophylaxis for COPD prevention



## **Data Interpretation**

85% stated 4 weeks after program they (sometimes-always) consider screening patients with COPD for AATD, improved from 34% prior to the program

91% of participants are likely to utilize information learned from this activity in their practice



Over 400% improvement in confidence in the ability to integrate the assessment and management of AATD into the care of patients with COPD 4 weeks after the program.

43% of attendees report seeing more than 10 patients with COPD weekly; 62% see > than 5, suggesting a significant number of patients impacted



## Persistent Educational Gaps After 4 Weeks

How to screen patients for AATD

When to screen for AATD



The genetics and physiology of Alpha-1 Antitrypsin

Indications for AAT enzyme replacement



## **New Specific Behaviors Reported at 4 weeks**



I now incorporate AATD testing into routine chronic obstructive pulmonary disease (COPD) management algorithms

I have an increased awareness of the condition, when looking at patients with lung disease.

I am more aware of the role of AATD in lung disease.

I watch for people with elevated liver enzymes and asthma

I now think of possible AATD in young COPD patients

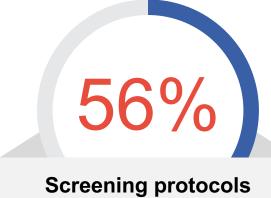




(4-week Post Assessment)

Please select the specific areas of skills, or practice behaviors, you have improved regarding the screening and treatment of patients with alpha1-antitrypsin deficiency (AATD) and COPD since this CME activity? (Select all that apply.)













(4-week Post Assessment)
What specific barriers have you encountered that may have prevented you from successfully implementing screening and treatment strategies for patients with alpha1-antitrypsin deficiency (AATD) and COPD since this CME activity? (Select all that apply)



**Medication costs** 

40%

Insurance/financial issues

23%

Lack of knowledge



Patient adherence/ compliance



**Time constraints** 

