National Jewish Health along with The California Society of Allergy, Asthma and Immunology jointly provided:

The 24th Annual Educational Meeting: A Midsummer Night’s Wheeze

July 15-17, 2016
San Francisco, CA
Program Design: The Office of Professional Education at National Jewish Health along with the California Society of Allergy, Asthma and Immunology developed this CME activity. The three day symposium incorporated interactive case-based presentations with audience response system (ARS) questions for an interactive learning environment. The program focused on new topics in the area of allergy, asthma, and immunology that allowed attendees to return to their practices with the newest tools to improve the care of their patients.

Educational Outcomes Strategy: National Jewish Health and CSAAI aimed at measuring knowledge, competence and performance for this activity. The success of the program was measured by the following:

- Pre-test
- Post-test
- Evaluation
- 60-day post activity follow-up survey
**Background:** The goal of this program was to improve health care provider’s knowledge, competence, and performance by providing education in allergy, asthma and immunology – an area which is especially important in light of new therapeutic options that directly target the mechanisms of the immune system. Physicians are increasingly able to offer mechanism-specific pharmacological management to their patients in addition to symptom control. As the allergy, asthma, and immunology armamentarium expands, so does the complexity of therapeutic regimens, reinforcing the importance that physicians are up-to-date on new therapies as well as established guidelines. This multi-supported initiative delivered the latest updates and provided practical information on asthma, allergy and immunology topics, including asthma management and pediatric asthma.

**Target Audience:** Allergists, Immunologists, Pediatricians and Primary Care Providers

**Certification:** This program was certified for the following: 11.75 *AMA PRA Category 1 Credits™* for Physicians
Executive Summary: Learning Objectives

Upon completion of this activity, participants will be able to:

1. Apply practical lessons learned from a school-centered asthma program and identify opportunities to link this work to a clinic or hospital-based population strategy

2. Discuss personalized medicine and give examples of how to assess asthma control in accordance with asthma guidelines

3. Discuss techniques for optimizing asthma pharmacotherapy

4. Summarize the role of biomarkers and phenotypes in asthma
N=73

Attendee Breakdown

Physicians (47)
Others (26)

*Others: Clinical Pharmacy, Medical Science Liaison, Allied Health Professional, Respiratory

Physician Specialty

- Allergy: 44
- Pediatrics: 1
- Urgent Care: 1
- Internal Medicine: 1

Legend:
- Allergy
- Urgent Care
- Pediatrics
- Internal Medicine
<table>
<thead>
<tr>
<th>Question</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>How well did the activity improve your ability to treat or manage your patients?</td>
<td>100%</td>
</tr>
<tr>
<td>How well did the activity enhance your ability to apply the learning objectives to your practice?</td>
<td>100%</td>
</tr>
<tr>
<td>How well did the activity improve your current skills?</td>
<td>96%</td>
</tr>
<tr>
<td>How well did the activity meet your educational needs?</td>
<td>100%</td>
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n=28
Level 3 and 4 outcomes were measured by comparing participants’ pre- and post-test answers. The attendees’ responses to these questions demonstrated that participants gained knowledge as a result of the activity.

Overall, participants demonstrated an average 35% increase in declarative and procedural knowledge and competence as a result of this activity.

Overall increase in knowledge: 35% from baseline to post-test.
Learning Objective: Discuss personalized medicine and give examples of how to assess asthma control in accordance with asthma guidelines.

Question:
In African Americans with asthma and eczema, who are inadequately controlled on low dose inhaled corticosteroid therapy, the next treatment step should be:

Answer:
Increase the dose of inhaled corticosteroid to medium dose.

Overall increase in knowledge: **22% from baseline to post-test.**
Pre/Post Test Comparison: Analysis of Participants’ Responses

Learning Objectives: Discuss personalized medicine and give examples of how to assess asthma control in accordance with asthma guidelines; Discuss techniques for optimizing asthma pharmacotherapy

Question:
An 18 year-old boy with asthma diagnosed at age 10 year has had three asthma exacerbations in the past year, requires a medium dose inhaled corticosteroid along with a long acting β-adrenergic agonist. He uses his rescue medication three times per week. His asthma is best described as:

Answer:
Not well controlled

Overall increase in knowledge: 5% from baseline to post-test.
Pre/Post Test Comparison: Analysis of Participants’ Responses

**Learning Objectives:** Discuss personalized medicine and give examples of how to assess asthma control in accordance with asthma guidelines; Discuss techniques for optimizing asthma pharmacotherapy

**Question:**
A recognized benefit of the new direction in immunomodulator therapy including anti-IgE, is:

**Answer:**
Prevention of exacerbations

**Overall increase in knowledge:** 4% from baseline to post-test.
Pre/Post Test Comparison: Analysis of Participants’ Responses

Learning Objective: Diagnose and manage primary and acquired immune deficiency

Question:
Regulatory T-Cells...

Answer:
...Inhibit immune response

Overall increase in knowledge: 61% from baseline to post-test.
Pre/Post Test Comparison: Analysis of Participants’ Responses

Learning Objective: Diagnose and manage primary and acquired immune deficiency

Question:
Most secondary immunodeficiency in the developing world is associated with:

Answer:
Malnutrition

Overall increase in knowledge:
75% from baseline to post-test.
Pre/Post Test Comparison: Analysis of Participants’ Responses

Learning Objective: Describe the challenges of diagnosing angioedema and discuss the different therapeutic modalities

Question:
The definitive test to establish the diagnosis of HAE due to C1INH deficiency is:

Answer:
C1INH Function

Overall increase in knowledge: 8% from baseline to post-test.
Main Findings: The attendees’ responses (n=28) to post-meeting evaluation questions demonstrated the following:

• **93%** of respondents indicated that they **intend to change** specific behaviors when treating patients as a result of this activity.

• **100%** of respondents indicated that the activity was **free of commercial bias**.

• **96%** of respondents indicated that the activity **addressed strategies for overcoming barriers** to optimal patient care.

• **100%** of respondents indicated that the activity **contributed valuable information** that will assist in **improving quality for patients**.
Executive Summary: Outcomes

Outcome Results: 60-Day Follow-Up Survey

• 96% of respondents report that the activity provided new ideas or information they have used in practice.

• 100% of respondents report that they are thinking about making changes in their practice as a result of this activity.

• 100% of respondents report that their patients have already benefitted from the information learned during this educational activity.

n=25
Executive Summary: Outcomes

Outcome Results: 60-Day Follow-Up Survey

100% of respondents indicated that their patients have already benefitted from the information learned within 60 days of this educational activity.
**Outcome Results: 60-Day Follow-Up Survey**

**Question:** What change(s) have you incorporated into practice as a result of this activity?

<table>
<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Incorporate different diagnostic strategies into patient evaluation</td>
<td>58.3%</td>
</tr>
<tr>
<td>Change my screening/prevention practice</td>
<td>37.5%</td>
</tr>
<tr>
<td>Modify treatment plans</td>
<td>45.8%</td>
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<tr>
<td>Use alternative communication methodologies with patients and families</td>
<td>20.8%</td>
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Key Learning Points:

✓ “To incorporate new evidence based data into daily practice.”

✓ “The importance of the microbiome in allergies.”

✓ “More individualized approach to each patient.”

✓ “Differential diagnosis and diagnostic works.”

✓ “The algorithms given to aid in clinical decision making were very useful.”
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