Executive Summary

- This curriculum focused on recognizing the pathophysiology and epidemiology of Sarcoidosis, using the latest diagnostic algorithms and integrating current treatment strategies incorporating steroids, mineralocorticoid receptor agonists and other treatments for advanced Sarcoidosis.

- 495 attendees in multiple professional specialties were reached via both live on-site and online formats.

- Significant improvement was noted in several areas across the activity.

- Overall, the program improved the ability of learners to incorporate current diagnostic evaluations for Sarcoidosis and recognize the role of various treatment regimens in the management of this condition.

Persistent Educational Gaps

- Though improvements were observed, learners demonstrated score slippage on the PCA indicating persistent gaps in the several areas including:
  - Epidemiology and pathophysiology of Sarcoidosis
  - Algorithm to accurately diagnose Sarcoidosis
  - Treatment strategies for Sarcoidosis
  - Role and timing of mineralocorticoid receptor antagonists and biologic therapy for in the management of advanced Sarcoidosis

The post-test scores, and self reported confidence regarding the management of patients with Sarcoidosis, signifies a clear gap in knowledge and an unmet need among clinicians. It continues to be an important area for future educational programs.

*These numbers represent the total number of attendees, irrespective of assessment participation.*
Learning Objectives

1. Describe the pathophysiology and the epidemiology of Sarcoidosis.
2. Understand the up-to-date methodology for diagnosis of Sarcoidosis.
3. Review our current understanding of the treatments considered, including steroids, mineralocorticoid receptor agonists and treatments for advanced Sarcoidosis.
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*Presented Sarcoidosis lecture
The Challenges in Pulmonary and Critical Care: 2018 CME activity was supported through educational grants or donations from the following companies:

- Bayer HealthCare Pharmaceuticals, Inc.
- Actelion Pharmaceuticals US, Inc.
- Boehringer Ingelheim Pharmaceuticals, Inc.
- CSL Behring, LLC.
- Grifols
- Insmed
- Mallinckrodt Pharmaceuticals, LLC
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

Level 1:
Participation and Demographics
Level 1: Participation

December 1, 2018     Fort Lauderdale, FL

495  total attendees

On site: 113 attendees

National online simulcast: 382 attendees

90% Provide direct patient care
# Level 1: Demographics and Patient Reach

## Specialty

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Patients seen each week, in any clinical setting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonology</td>
<td>&gt;75</td>
</tr>
<tr>
<td>Primary Care/Internal Medicine</td>
<td>51-75</td>
</tr>
<tr>
<td>Hospitalist</td>
<td>25-50</td>
</tr>
<tr>
<td>Emergency Medicine/Critical Care</td>
<td>&lt;25</td>
</tr>
</tbody>
</table>

**Patient Care Focus: 90%**

## Profession

<table>
<thead>
<tr>
<th>Profession</th>
<th>Years in Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>&lt;5</td>
</tr>
<tr>
<td>DO</td>
<td>5-10</td>
</tr>
<tr>
<td>NP</td>
<td>11-20</td>
</tr>
<tr>
<td>PA</td>
<td>&gt;20</td>
</tr>
<tr>
<td>RN</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**Years in Practice:**

- <5: 31%
- 5-10: 7%
- 11-20: 20%
- >20: 43%
Level 2-5: Outcomes Metrics
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
Confidence Assessment

Please rate your confidence in your ability to manage Sarcoidosis:

(Learning Objective 2,3)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Pre</th>
<th>Post</th>
<th>PCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all confident</td>
<td>42%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Slightly confident</td>
<td>39%</td>
<td>40%</td>
<td>38%</td>
</tr>
<tr>
<td>Moderately confident</td>
<td>10%</td>
<td>26%</td>
<td>41%</td>
</tr>
<tr>
<td>Pretty much confident</td>
<td>6%</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Very confident</td>
<td>3%</td>
<td>12%</td>
<td>3%</td>
</tr>
</tbody>
</table>

N= 175  Post: 162  PCA: 117
All of the below are true about Sarcoidosis, EXCEPT:
(Learning Objective 1)

- High prevalence populations include African Americans and the Nordic populations
- Rare earth metals cause Sarcoidosis
- Mycobacteria have been implicated in the etiology of Sarcoidosis
- Sarcoid patients react to Kveim-Siltzbach test

Knowledge Assessment

| All of the below are true about Sarcoidosis, EXCEPT: (Learning Objective 1) |
|---|---|---|---|---|
| High prevalence populations include African Americans and the Nordic populations | 25% | 23% | 25% | 23% |
| Rare earth metals cause Sarcoidosis | 44% | 41% | 42% | 41% |
| Mycobacteria have been implicated in the etiology of Sarcoidosis | 22% | 29% | 24% | 24% |
| Sarcoid patients react to Kveim-Siltzbach test | 9% | 27% | 11% | 11% |

N= 175  Post: 162  PCA: 117
Which one is correct regarding the diagnosis of Sarcoidosis?

(Learning Objective 2)
Acute symptomatic Sarcoidosis is treated with steroids.

Acute asymptomatic lymphadenopathy is not treated.

A symptomatic patient with Scadding stage III CXR is treated with prednisone which is then tapered to 10mg and continued long term.

Infliximab and RCI are therapies for advanced Sarcoidosis.

Regarding treatment of Sarcoidosis all are true EXCEPT:

(Learning Objective 3)
Please select the specific areas of skills, or practice behaviors, you have improved regarding the screening, diagnosis and treatment of Sarcoidosis since this CME activity. (Select all that apply.)

N=117

- Timely referral: 69%
- Patient education: 67%
- Screening protocols: 66%
- Patient engagement: 63%
- Pharmacotherapy: 63%
What specific barriers have you encountered that may have prevented you from successfully implementing screening, diagnosis and treatment of Sarcoidosis since this CME activity? (Select all that apply)
N=117

- Patient adherence/compliance: 54%
- Time constraints: 52%
- Formulary constrictions: 52%
- System constraints: 49%
- Lack of knowledge: 47%
Participant Educational Gains

- Significant improvement in confidence in ability to manage Sarcoidosis
- 106% increased awareness that in Sarcoidosis, the ratio of T-Helper to T-Suppressor cells is increased
- 310% increase in recognition that non-necrotizing granulomas do not make the diagnosis of Sarcoidosis
- 525% increased recognition that African American and Nordic populations are at high risk for Sarcoidosis
Persistent Educational Gaps After 4 Weeks

- Epidemiology and pathophysiology of Sarcoidosis
- Algorithm to accurately diagnose Sarcoidosis
- Treatment strategies for Sarcoidosis
- Role and timing of mineralocorticoid receptor antagonists and biologic therapy for in the management of advanced Sarcoidosis
Key Take-home Points

90% of clinicians provide direct patient care

91% of clinicians indicated that they would implement new strategies that they learned

After 4 weeks, the following improved skills were reported regarding the screening, diagnosis and treatment of Sarcoidosis: 69% timely referral, 67% patient education and 66% screening protocols

Net gains were seen in several areas but score slippage after 4 weeks reinforces the need for continued education on the management of Sarcoidosis.