Psoriasis: New Thoughts and New Horizons - A Focus on Therapy

Outcome Report for Seven Cities
Report Date: 8/31/2011

Emerging Challenges In Primary Care: 2011
Course Director

Gregg Sherman, MD
Family Practice
Northwest Heart and Health
Margate, FL

Activity Planning Committee
Gregg Sherman, MD
Harvey C. Parker, Ph.D., CCMEP
Michelle Frisch, MPH, CCMEP
Alan Goodstat, LCSW

Course Accreditation
The National Association for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The National Association for Continuing Education designates this educational activity for a maximum of 8 AMA PRA Category 1 Credits (number of credits varies with agenda in each city).

* This applies to the full day CME activity entitled Emerging Challenges in Primary Care.
Commercial Support

The Emerging Challenges in Primary Care: Update 2011 series of CME activities were supported through educational grants or donations from the following companies:

Actelion
Abbott Laboratories Inc.
Amgen
Boehringer Ingelheim Pharmaceuticals
Eli Lilly and Company
Genentech and Biogen Idec
Purdue Pharma L.P
Talecris Biotherapeutics/Grifols
United Therapeutics

Psoriasis: New Thoughts and New Horizons - A Focus on Therapy was supported an independent educational grant Abbott Laboratories Inc.
# Cities and Dates

Emerging Challenges in Primary Care: Update 2011
Conference Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>City</th>
<th>Date</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 30, 2011</td>
<td>St. Louis Missouri</td>
<td>August 13, 2011</td>
<td>Raleigh, North Carolina</td>
</tr>
<tr>
<td>May 7, 2011</td>
<td>Atlanta, Georgia</td>
<td>August 20, 2011</td>
<td>Woodcliff Lakes, New Jersey</td>
</tr>
<tr>
<td>May 21, 2011</td>
<td>Novi, Michigan</td>
<td>September 10, 2011</td>
<td>Anaheim, California</td>
</tr>
<tr>
<td>June 4, 2011</td>
<td>Denver, Colorado</td>
<td>September 17, 2011</td>
<td>Milwaukee, Wisconsin</td>
</tr>
<tr>
<td>June 11, 2011</td>
<td>Columbus, OH</td>
<td>October 1, 2011</td>
<td>Fort Lauderdale, Florida</td>
</tr>
<tr>
<td></td>
<td></td>
<td>October 15, 2011</td>
<td>Baltimore, MD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>October 22, 2011</td>
<td>Tampa, Florida</td>
</tr>
<tr>
<td></td>
<td></td>
<td>October 29, 2011</td>
<td>Uniondale, New York</td>
</tr>
<tr>
<td></td>
<td></td>
<td>November 5, 2011</td>
<td>Birmingham, Alabama</td>
</tr>
<tr>
<td></td>
<td></td>
<td>November 19, 2011</td>
<td>Nashville, Tennessee</td>
</tr>
</tbody>
</table>

Bolded city indicates this topic was held.
Titles of Presentations

Type 2 Diabetes-A Chronic Care Model: Patient Specific Strategies for Enhanced Outcomes
Patrick Boyle, MD; Robert S. Busch, MD, FACE; or Mark Stolar, MD

Risk Stratification, Treatment and Stroke Reduction in Atrial Fibrillation
Jan Basile, MD; Valerian L. Fernandes, MD, MRCP, FACC; Elizabeth A. Jackson, MD, MPH
or Louis Kuritzky, MD

Postmenopausal Osteoporosis: Identifying and Managing Patients at High Risk of Fracture
Vernon Hershberger, MD, FAAFP; Marjorie Luckey, MD or Nelson Watts, MD

Save the Joints, Don't Delay: An Update in Rheumatoid Arthritis
Jefrey Lieberman, MD, FACP; Kenneth S. O'Rourke, MD or Paul G. Sutej, MD

Successfully Managing Persistent Pain in the Older Patient
F. Michael Gloth, III, MD, FACP, AGSF; Bruce E. Robinson, MD, MPH

Psoriasis: New Thoughts and New Horizons - A Focus on Therapy
Brad P. Glick, DO, MPH or Robert G. Greenberg, MD

A Breath of Fresh Air: Improving Outcomes and Quality of Life in Patients with Pulmonary Arterial Hypertension
Franck Rahaghi, MD, MHS, FCCP; Charles D. Burger, MD; Gustavo Ferrer, MD or Roham T. Zamanian, MD, FCCP

Closing the Knowledge Gap: Identification and Management of Alpha-1 Antitrypsin Deficiency(AAT)
MeiLan Han, MD; Franck Rahaghi, MD, MHS, FCCP or Michael Campos, MD
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

- 879 attendees in 7 cities
- 74% Physicians; 22% NPs or PAs; 2% RNs; 2% Other
- Over 80% in community-based practice
- 75% PCPs, 2% Endocrinologists; 1% Rheumatologist; 21% Other or did not respond
- 95% provide direct patient care

Did we reach the right audience? Yes!
Level 2: Satisfaction

- 92% rated the activity as very good to excellent
- 98% indicated the activity improved their knowledge
- 93% stated that they learned new strategies for patient care
- 93% said they would implement new strategies that they learned in their practice
- 99% said the program was fair-balanced and unbiased

Were our learners satisfied? Yes! Data were collected across seven cities for the Emerging Challenges in Primary Care program.
Did Learners Say They Achieved Learning Objective?

Upon completion of this activity, I can now – Define strategies for early recognition and diagnosis of psoriasis and psoriatic arthritis (PsA); Recognize the impact of psoriasis and psoriatic arthritis (PsA), including their effect on mood, cardiovascular risk and quality of life; Evaluate various management options for psoriasis and PsA, and institute appropriate initial treatment; Identify novel therapeutic options for psoriasis management; Implement treatment plans for patients who are candidates for systemic and biologic therapy.

Yes! 91% believed they did. Data were collected across seven cities for the Emerging Challenges in Primary Care program.
Outcome Study Methodology

Goal
To determine the effect this CME activity had on learners with respect to competence to apply critical knowledge, confidence in treating patients with diseases or conditions discussed, and change in practice behavior.

Dependent Variables

- **Level 3-5: Knowledge, Competence, and Performance**
  Case-based vignettes and pre- and post-test knowledge questions were asked with each session in the CME activity. Responses can demonstrate learning and competence in applying critical knowledge. The use of case vignettes for this purpose has considerable predictive value. Vignettes, or written case simulations, have been widely used as indicators of actual practice behavior.¹

- **Practitioner Confidence**
  Confidence with the information relates directly to the likeliness of actively using knowledge. Practitioner confidence in his/her ability to diagnose and treat a disease or condition can affect practice behavior patterns.

- **Level 5: Self-Reported Change in Practice Behavior**
  Intent to change and change four weeks after CME activity.

Psoriasis: New Thoughts and New Horizons - A Focus on Therapy

Faculty

Brad P. Glick, DO, MPH
Robert G. Greenberg, MD

Learning Objectives
1. Define strategies for early recognition and diagnosis of psoriasis and psoriatic arthritis (PsA)
2. Recognize the impact of psoriasis and psoriatic arthritis (PsA), including their effect on mood, cardiovascular risk and quality of life
3. Evaluate various management options for psoriasis and PsA, and institute appropriate initial treatment
4. Identify novel therapeutic options for psoriasis management
5. Implement treatment plans for patients who are candidates for systemic and biologic therapy
# Key Findings

Psoriasis: New Thoughts and New Horizons A Focus on Therapy

<table>
<thead>
<tr>
<th>Knowledge/Competence</th>
<th>Learners demonstrated significant improvement from pre to post-testing in their answers to four out of five of the case-based questions regarding Psoriasis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence</td>
<td>Whereas the majority of learners rated themselves as having very low confidence in their understanding of treating Psoriasis before the education most of the learners showed very high gains in confidence after the program.</td>
</tr>
<tr>
<td>Intent to Perform</td>
<td>Learners stated that they were very likely (67%) to somewhat likely (21%) to implement strategies learned at this session in their practice.</td>
</tr>
<tr>
<td>Change of Practice Behavior</td>
<td>90% of learners indicated that they had changed their practice behavior to implement the learning objectives of this program within four weeks after they attended the activity.</td>
</tr>
</tbody>
</table>
Patients may be considered candidates for systemic or biologic therapy if their body surface area affected is at least (Learning Objectives 1,5):

<table>
<thead>
<tr>
<th></th>
<th>Pre %</th>
<th>Post %</th>
<th>P Value: &lt;0.001 - Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
<td>5</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5%</td>
<td>15</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td>38</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>15%</td>
<td>28</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td>13</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Green highlight indicates significant difference between pre and post testing.
All of the following statements regarding the use of Quantiferon Gold as an alternative to PPD skin testing is/are correct except (Learning Objective 3):

- Experimental laboratory test not currently approved by the FDA for exclusion of latent Tb
- No cross reactivity with BCG vaccine
- Only single office visit necessary
- Ability of repeated testing without “booster effect”
- Quantifies IFN-gamma released by sensitized T cells in the patient's blood after incubation with two synthetic TB-specific proteins

Green highlight indicates significant difference between pre and post testing.
Case Vignette Knowledge and Competence Assessment Questions
presented before and after lecture. Circled answer is correct

The workup included in the current treatment paradigm for the management of psoriasis vulgaris includes all of the following parameters except (Learning Objective 1):

- Body surface area evaluation utilizing the "rule of the psalms"
- Cardiovascular assessment including blood pressure check and evaluation of serum lipids
- Inspection and evaluation of the extent of potential joint involvement
- Placement of purified protein derivative (PPD)
- Psychiatric testing prior to the initiation of biologic therapy

P Value: >0.001 - Not Significant

Pre % | Post %
--- | ---
9 | 3
9 | 6
2 | 5
8 | 17

Red highlight indicates no significant difference between pre and post testing.
A 42 y/o male with a 10 year h/o psoriasis presents with a flare involving his elbows, abdomen, lower back & scalp with worsening subungual hyperkeratosis. New onset R wrist arthralgia is reported with no h/o trauma. Which work-up and therapeutic protocol is most appropriate (Learning Objective 4):

- H&P, triamcinilone cream & moisturizer
- Calcipotriene cream, emollients & ibuprofen
- H&P, clobetasol ointment, moisturizer, check labs, PPD, CXR - consider etanercept therapy and/or Rheumatology consult
- Begin UVB, tazarotene cream and 2.5% HC cream
- CXR, labs, PPD, prednisone, triamcinilone ointment and calcipotriene/betamethasone scalp suspension

P Value: <0.001 - Significant

Green highlight indicates significant difference between pre and post testing.
All of the following are correct statements regarding the relationship between co-morbid conditions and the chronic inflammatory disorder of psoriasis vulgaris except (Learning Objective 2):

- Psoriasis patients have a greater incidence of depression and use of SSRIs
- Studies have demonstrated a greater prevalence of obesity in patients with psoriasis
- Psoriasis patients have a greater incidence of the metabolic syndrome
- Studies show a lower prevalence of cigarette smoking among patients with psoriasis vulgaris
- In one large scale study, psoriasis sufferers, particularly young males, were found to have a greater risk of MI compared to a control group

<table>
<thead>
<tr>
<th>N = 185</th>
<th>Psoriasis patients have a greater incidence of depression and use of SSRIs</th>
<th>Studies have demonstrated a greater prevalence of obesity in patients with psoriasis</th>
<th>Psoriasis patients have a greater incidence of the metabolic syndrome</th>
<th>Studies show a lower prevalence of cigarette smoking among patients with psoriasis vulgaris</th>
<th>In one large scale study, psoriasis sufferers, particularly young males, were found to have a greater risk of MI compared to a control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre %</td>
<td>6</td>
<td>18</td>
<td>8</td>
<td>53</td>
<td>15</td>
</tr>
<tr>
<td>Post %</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>85</td>
<td>5</td>
</tr>
</tbody>
</table>

Green highlight indicates significant difference between pre and post testing.
Patients suffering from Psoriasis may be considered candidates for systemic or biologic therapy if their body surface area affected is at least (Learning Objective 1,5):

Four Week Case Study Questions
Psoriasis: New Thoughts and New Horizons - A Focus on Therapy

Green highlight indicates significant difference between pre and post testing.
With respect to the treatment of Psoriasis, all of the following statements regarding the use of Quantiferon Gold as an alternative to PPD skin testing is/are correct except (Learning Objective 3):

1. Experimental laboratory test not currently approved by the FDA for exclusion of latent Tb
2. No cross reactivity with BCG vaccine
3. Only single office visit necessary
4. Ability of repeated testing without “booster effect”
5. Quantifies IFN-gamma released by sensitized T cells in the patient’s blood after incubation with two synthetic TB-specific proteins

Green highlight indicates significant difference between pre and post testing.
The work up included in the current treatment paradigm for the management of Psoriasis Vulgaris includes all of the following parameters except (Learning Objective 1):

- Body surface area evaluation utilizing the "rule of the palms"
- Cardiovascular assessment including blood pressure check and evaluation of serum lipids
- Inspection and evaluation of the extent of potential joint involvement
- Placement of purified protein derivative (PPD)
- Psychiatric testing prior to the initiation of biologic therapy

Red highlight indicates no significant difference between pre and post testing.
A 42 year old male with a 10 year history of Psoriasis presents with a flare involving his elbows, abdomen, lower back and scalp with worsening subungual hyperkeratosis. New onset right wrist arthralgia is reported with no history of trauma. Which work-up and therapeutic protocol is most appropriate? (Learning Objective 4):
Four Week Case Study Questions
Psoriasis: New Thoughts and New Horizons - A Focus on Therapy

All of the following are correct statements regarding the relationship between co-morbid conditions and the chronic inflammatory disorder of Psoriasis Vulgaris except (Learning Objective 2):

- Studies have demonstrated a greater prevalence of obesity in patients with psoriasis.
- Psoriasis patients have a greater incidence of the metabolic syndrome.
- Psoriasis patients have a greater incidence of depression and use of SSRIs.
- Studies show a lower prevalence of cigarette smoking among patients with psoriasis.
- In one large scale study, psoriasis sufferers, particularly young males, were found to have a greater risk of MI compared to a control group.

N= 85

Green highlight indicates significant difference between pre and post testing.
Changes in Confidence from Pre to Post-Testing
Psoriasis: New Thoughts and New Horizons - A Focus on Therapy

On a scale of 1 to 5 please rate how confident you would be in treating patients who suffer from Psoriasis?

<table>
<thead>
<tr>
<th></th>
<th>Pre %</th>
<th>Post %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>Slightly confident</td>
<td>41</td>
<td>24</td>
</tr>
<tr>
<td>Moderately</td>
<td>21</td>
<td>51</td>
</tr>
<tr>
<td>Pretty much</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Very confident</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
How likely are you to implement strategies learned from this presentation in your practice?

- Very Likely: 69%
- Somewhat Likely: 20%
- Unlikely: 0%
- Not Applicable: 6%
- Did not respond: 5%

N = 879
Discussion and Implications
Psoriasis: New Thoughts and New Horizons - A Focus on Therapy

The need for continued education in Psoriasis was demonstrated based on literature reviews and surveys completed prior to the conference series. Attendee knowledge was assessed at 3 points for this program: prior to the lecture, immediately following the lecture and again at 4 weeks after the conference using the case vignettes listed above. The results indicated a statistically significant improvement in knowledge in 4 of the 5 areas tested, that remained durable at the 4 week mark. Specifically, as a result of this lecture, participants: are more aware that patients can be considered for biologic therapy if their body surface area is at least 5%; understand the role of Quantiferon Gold testing for Tuberculosis; recognize appropriate evaluation and treatment of a patient with established psoriasis; and understand the relationship between co-morbid conditions and Psoriasis. Attendees were aware at baseline that psychiatric testing was not required prior to initiation of biologic therapy.

These results suggest that nearly all of the learning objectives for this activity have been effectively addressed with attendees. Participants indicated a strong overall increase in self-reported confidence levels in managing patients with this condition. Moderate to very confident levels rose from 24% to 68% by the end of the program and 82% of participants are likely to utilize information learned from this presentation in their practice.

The notable changes in post test scores signify a clear gap in knowledge and an unmet need among primary care clinicians. It continues to be an important area for future educational programs. Additional programming should continue to educate clinicians on the assessment of body surface area to consider patients for biologic therapy since this had the greatest fall off in knowledge at 4 weeks. Clinicians will also benefit from additional education on the appropriate evaluation and treatment of psoriasis as well as increasing awareness of its associated co-morbid conditions.