Biologics in Dermatology

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IL-23/T17–mediated effects on immune cell populations and keratinocyte biology in psoriatic skin

IL-36Ra = IL36RN (gene)
Network meta-analysis: Comparative efficacy of novel treatments for moderate to severe psoriasis

- Network meta-analysis assessing the probability of achieving PASI 90 or PASI 100 at primary endpoint (10–16 weeks) and end of maintenance period (44–60 weeks)
- At Weeks 44–60, PASI responses were estimated using data from trial arms in which baseline treatment assignment was maintained during the maintenance period

*P<0.05 vs SKB; †P<0.05 vs SKB and IXE; ‡P<0.05 vs GUS

Armstrong AW, et al. AAD 2019, P10006 Sponsored by AbbVie
US discrete-choice experiment survey to assess patient preferences for selected attributes of biologic psoriasis treatments

- Patients (N=300) ranked the importance of the discrete-choice experiment attributes plus 5 psoriasis-relevant treatment attributes:
  1. Getting clear or almost clear skin more quickly
  2. Effective on all manifestations of psoriasis (palms of hands, soles of the feet, nails, genital area, scalp) and PsA
  3. Complete relief of psoriasis symptoms
  4. Risk of loss of efficacy due to antidrug antibodies
  5. Number of injections required each time the medicine is taken

- Mean age 46 years; 39% male; 50% biologic naïve, 50% biologic experienced; 49% had PsA

- From the discrete-choice experiment attributes, clear skin was more important than other attributes for patients (conditional relative importance score = 1.88; P<0.05)

- Clearance/near clearance and side effects are most important to patients
- The number of injections per dose and injection frequency were ranked least important and imply these factors are over-emphasized by marketing campaigns

Most important treatment attributes selected by patients from direct questioning

- Clear/almost clear skin
- Clear/almost clear skin more quickly
- Treats all manifestations + PsA
- Complete relief of symptoms
- Relief of symptoms
- Long-lasting efficacy and safety
- Injection site reaction
- Frequency of injections
- Antidrug antibodies
- Number of injections each time

Each respondent was asked to iteratively select the most important and least important attribute until a full ranking (1–10) was elicited for each respondent. 

Feldman S, et al. AAD 2019, P10013 Sponsored by Novartis Pharmaceuticals Corporation
IXORA-R: PASI responses over 12 weeks with ixekizumab vs guselkumab among patients with moderate to severe psoriasis

IXORA-R PASI responses (NRI)

- GUS 100 mg (n=507)
- IXE 80 mg (n=520)

PASI 100
- Week 4: 1.0%
- Week 8: 7.2%
- Week 12: 23.8%

PASI 90
- Week 4: 1.0%
- Week 8: 7.2%
- Week 12: 23.8%

*P<0.001 vs GUS

ECLIPSE PASI 90 response over 48 weeks (NRI)

- GUS 100 mg (n=534)
- SKB 300 mg (n=514)

Primary endpoint
- GUS: 84.5
- SKB: 70.0

• This is the second head-to-head study comparing an IL-17 and IL-23p19 antagonist
• Primary endpoint met, but longer-term data are essential, particularly for targeting IL-17 over IL-23
• Is onset of response or durability more important for patients?


Blauvelt A, et al. Maui Derm NP+PA Fall 2019 Sponsored by Eli Lilly and Company
IMMerge: Phase 3, randomized, open-label, active comparator study of risankizumab vs secukinumab for moderate to severe psoriasis

- Patients randomized to either risankizumab (n=164) or secukinumab (n=163)
- **Primary endpoint**: PASI 90 at Week 16 (noninferiority margin of 12%) and Week 52 (superiority of RZB vs SKB)
- **Secondary endpoints** (ranked): PASI 100, sPGA 0/1, and PASI 75 at Week 52
- Patient groups were balanced for baseline characteristics
  - PASI scores were 19.8 ±6.3 (RZB) and 20.1 ±8.1 (SKB)
  - 38% (RZB) and 36% (SKB) had used biologics previously

### Patients achieving PASI 100 and IGA 0/1 (Week 52)

<table>
<thead>
<tr>
<th></th>
<th>RZB (n=164)</th>
<th>SKB (n=163)</th>
<th>Adjusted difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASI 100</td>
<td>66%</td>
<td>40%</td>
<td>26.2%*</td>
</tr>
<tr>
<td>sPGA 0/1</td>
<td>88%</td>
<td>58%</td>
<td>29.8%*</td>
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</table>

Data imputed using NRI

*P<0.001 multiplicity controlled; Cochran-Mantel-Haenszel test stratified by weight and prior biologic use

IMMhance: Efficacy and safety of continuous 12-weekly risankizumab versus treatment withdrawal

Efficacy endpoints at Week 52 (NRI)

- Randomized withdrawal: RZB to placebo (n=225)
- Randomized maintenance of RZB (n=111)

PASI responses over time after rerandomization (NRI)

- Primary endpoint for rerandomized patients
- Secondary endpoints

*P<0.01, †P<0.001 vs RZB/placebo

- Maintenance of response following treatment withdrawal is sustained beyond 5 half-lives of risankizumab, so maintenance of response appears to be attributable to the MoA and requires further investigation
- Could early treatment with risankizumab be appropriate for some patients?

Langley R, et al. AAD 2019, P10093 Sponsored by AbbVie and Boehringer Ingelheim
Network meta-analysis: Quality of life with novel treatments of moderate to severe plaque psoriasis

- Phase 2 and 3 clinical trials all anchored on placebo
- Interventions studied:
  - Anti-TNF agents: adalimumab, etanercept, infliximab, certolizumab pegol
  - Anti-IL agents: ustekinumab, secukinumab, ixekizumab, brodalumab, risankizumab, guselkumab, tildrakizumab
  - Anti-PDE4: apremilast
  - Fumaric acid esters: dimethyl fumarate

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Estimated median DLQI 0/1 response rates at Weeks 12–16

- **Placebo**: 7.6%
- **APR**: 24.2%
- **ETN**: 21.8%
- **ADA**: 52.0%
- **UST**: 48.6%
- **SKB**: 60.6%
- **IXE**: 66.2%
- **BRO**: 64.9%
- **CZP 200**: 43.0%
- **CZP 400**: 47.2%
- **TIL 100**: 51.2%
- **TIL 200**: 55.8%
- **GUS**: 67.9%
- **RZB**: 70.3%

*aWeight-based*

Warren R, et al. EADV 2019, P1716 Sponsored by AbbVie