PUVA:
Shall we still use it for psoriasis in 2019?

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DISCLOSURE OF
RELEVANT RELATIONSHIPS
WITH INDUSTRY

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PUVA:
Shall we still use it for psoriasis in 2019?

Relevant financial relationships: None
Objectives

• Clarify the question
  – Framework for judging treatment as obsolete

• Benefits of PUVA for psoriasis

• Potential harms of PUVA for psoriasis

• Role of PUVA for psoriasis now and in the future
Psoriasis Clinical Practice Guidelines from the past...

• Oral PUVA is indicated and recommended for adults with generalized psoriasis

• Strength of recommendation = A

Shall we still use PUVA for psoriasis in 2019?

Shall we recommend PUVA for psoriasis?  Shall we offer PUVA for psoriasis?

• Active paternalism – telling patients what to do in order to benefit them
• Passive paternalism – restricting patient choice to avoid harming them

What question are we not asking?
Shall we still use phototherapy for psoriasis in 2019?

Framework:

- Changes in existing benefits and harms of the intervention
- Changes in outcomes considered important
- Changes in available alternative interventions
- Change in evidence that current practice is optimal
- Changes in values placed on outcomes
- Changes in available resources
- Judgment of an expert (Dr. Lim) and a generalist (me)

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Benefits of PUVA for Psoriasis:

• Compared to NBUVB, PUVA leads to:
  – *Greater* reduction in BSA
  – *Faster* reduction in BSA
  – *More durable* remission

• Disclaimer about phototherapy data for psoriasis:
  – Heterogeneous studies (e.g. methods, end points, dosing, duration)

Greater Reduction in BSA

Oral PUVA
• PASI-75 = 73%
• “Clearance” = 79%
• “Clearance rate” = 80%
  – OR 2.79 (95% CI: 1.40-5.55)

NBUVB
• PASI-75 = 62%
• “Clearance” = 68%
• “Clearance rate” = 70%

Faster and More Durable Reduction in BSA

**Oral PUVA**
- Time/treatments to PASI-75:
  - 49.2 days (12.7 treatments)
- Treatments to “clearance:”
  - 17
- Remission at 6 months
  - OR = 2.73 (95% CI 1.19-6.27)

**NBUVB**
- Time/treatments to PASI-75:
  - 65.6 days (16.4 treatments)
- Treatments to “clearance:”
  - 25

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Potential Harms of PUVA

• Health-related:
  – Short-term
  – Long-term

• Financial/logistical:
  – Cost/availability of psoralens
Health-related Potential Harms of PUVA: Short-term

**Oral PUVA**

- Erythema and blistering
  - 17%
  - 70% grade II
  - Withdrawal from trial = 5%

- Nausea
  - Significantly greater incidence

**NBVUB**

- Erythema and blistering
  - 7.8%
  - 40% grade II
  - Withdrawal from trial = 2%

# Health-related Potential Harms of PUVA: Long-term

<table>
<thead>
<tr>
<th>Oral PUVA</th>
<th>NBUVB</th>
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<tbody>
<tr>
<td><strong>Skin cancer</strong></td>
<td><strong>No increased risk of skin cancer</strong></td>
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<tr>
<td>- SCC: 25x (~tx # &gt; 300 vs &lt; 100), penile, post-d/c</td>
<td>- No increased incidence</td>
</tr>
<tr>
<td>- US studies: increased risk (2.3x), &gt; 250 tx (4.1x), time &gt;15 y vs &lt; 15 y (5x)</td>
<td>- Archier E, Devaux S, Catela E et al. Ocular damage in patients with psoriasis treated by psoralen UV-A therapy or narrowback UVB: A systematic literature review. <em>JEADV</em> 2012; 26 Suppl 3:32-5.</td>
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<tr>
<td>- European studies: no increased risk</td>
<td>- No increased incidence</td>
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<tr>
<td>- No increased risk in Asians, ME, Africans</td>
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Financial/Logistical Harms of PUVA: Cost of psoralens

• Retail price for 1 month supply (50-70kg person) of oral psoralen (generic) = ~$1000

• Retail price for 1 month supply of oral psoralen (generic) = ~$3500
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Framework:
When should a clinical practice guideline be abandoned?

- Benefits and harms of the intervention – Skin cancer
- Outcomes considered important – NPF treat to target
- Available alternative interventions – Biologics
- Evidence that current practice is optimal – Comorbidities
- Available resources – Cost and availability of PUVA

Role of PUVA for Psoriasis:

• Consider *recommending* for:
  – Short-term use (< 100-150 treatments)
  – Darker skin types (FP ≥ III)
  – Avoiding systemic immunomodulation
  – Means to afford psoralen and access to UVA unit

• Consider *offering* for:
  – If available and not contraindicated
Psoriasis Clinical Practice Guidelines *in press*...

- PUVA *still* recommended for treatment of generalized psoriasis in adults
  - Strength of recommendation = A

- Short-term PUVA monotherapy is more efficacious than NBUVB for treatment of generalized psoriasis in adults
  - Strength of recommendation = B

  *AAD, 2019, In press*
Questions???

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