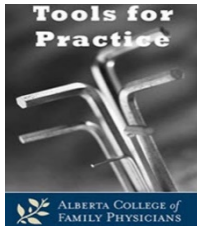


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August 6, 2019  
(en français)



## “Who’s the fairest of them all?": Topical treatments for rosacea

**Clinical Question: Which topical agents provide the best patient reported improvements for rosacea?**



**Bottom Line: For moderate-severe papulopustular rosacea, topical metronidazole, azelaic acid, and ivermectin have similar benefit with ~65-75% achieving patient reported improvement compared to ~40% with placebo over 2-3 months. In head-to-head trials, azelaic acid and ivermectin may be slightly better than metronidazole. Cost may assist choice.**

### Evidence:

- Compared to placebo:
  - Systematic review of randomized, placebo-controlled trials (RCTs) with patient orientated outcomes.<sup>1</sup> Patients age ~50 years, ~65% female (unless stated).
    - Metronidazole: Focusing on 2 similar RCTs of metronidazole 1% daily, 178 patients.<sup>2,3</sup> After two months:
      - Patient perceived symptom improvement (meta-analyzed by PEER):
        - 75% versus 37% placebo; Number needed to treat (NNT)=3.
    - Ivermectin 1% daily: 2 RCTs, 1371 patients.<sup>4</sup> After three months:
      - Good to excellent improvement (meta-analyzed by PEER):
        - 68% versus 37% placebo; NNT=4.
    - Azelaic acid 15-20% BID: 4 RCTs, 1226 patients.<sup>5-7</sup> After three months:
      - Good to excellent improvement:
        - 63% versus 42% placebo; NNT=5.<sup>1</sup>
- Direct comparisons:
  - Ivermectin 1% daily versus metronidazole 0.75% BID: 1 RCT; 962 patients.<sup>8</sup> After 4 months:
    - Good to excellent improvement:
      - 86% ivermectin, 75% metronidazole; NNT=10.
  - Azelaic acid 15% BID versus metronidazole 0.75% BID:
    - Highest quality, largest RCT<sup>9</sup>; 251 patients, mean age 67. After 15 weeks:
      - Good to excellent improvement:
        - 78% azelaic acid, 64% metronidazole; NNT=8.

- 2 smaller, lower quality RCTs favour azelaic acid or show no difference.<sup>10,11</sup>
- Adverse events (primarily burning and stinging):
  - Metronidazole, ivermectin, and azelaic acid: similar to placebo<sup>1</sup>.
  - In one head-to-head trial,<sup>9</sup> more patients on azelaic acid had adverse events than metronidazole (26% versus 7%).
- Limitations: most trials industry sponsored.

### Context:

- Canadian guidelines first-line recommendations: topical metronidazole, azelaic acid, or ivermectin.<sup>12</sup>
- Estimated 90-day cost (Alberta)<sup>13</sup>:
  - Azelaic acid 15% BID (Finacea™): \$92
  - Metronidazole 1% OD (Metrogel™): \$54
  - Ivermectin 1% OD (Rosiver™): \$220
  - Metronidazole 0.75% BID (Metrogel™): \$440
- No clinical difference between 0.75% and 1% metronidazole.<sup>1</sup>
- Other topicals have less evidence<sup>1</sup> or not currently recommended.<sup>12</sup>
- Oral medications reserved for severe symptoms or topical failure.<sup>12</sup>

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### Disclosures:

Authors do not have any conflicts of interest to declare.

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