Evidence-based Clinical Practice Guidelines for Treatment of Acne and Rosacea in Canada

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Acne
## Acne Classification

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comedonal</td>
<td>Closed comedones-small white papules</td>
</tr>
<tr>
<td></td>
<td>Open comedones-grey-white papules</td>
</tr>
<tr>
<td>Mild-to-moderate papulopustular acne</td>
<td>Inflammatory lesions that are mostly superficial with small papules and pustules</td>
</tr>
<tr>
<td>Severe</td>
<td>Deeper and larger papules, pustules and/or nodules</td>
</tr>
<tr>
<td></td>
<td>May be painful</td>
</tr>
<tr>
<td></td>
<td>May extend over large areas</td>
</tr>
</tbody>
</table>
Clinical Assessment of Acne Patients

Is it acne?
- Comedones
- Papules
- Pustules
- Nodules

Exclude acne-like dermatoses
- Rosacea
- Perioral dermatitis
- Gram negative folliculitis
- Keratosis pilaris
- Drug-induced acne

Exclude acne variants
- Acne cosmetica
- Acne mechanica
- Occupational acne
# Treatment of comedonal acne

<table>
<thead>
<tr>
<th>Strength of Recommendation</th>
<th>Treatment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High strength of recommendation (strongly recommended)</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Medium strength of recommendation (can be recommended)</strong></td>
<td>Topical retinoids - adapalene and tazarotene preferred, Benzoyl peroxide (BPO), Fixed-dose combination clindamycin and BPO, Fixed-dose combination adapalene and BPO</td>
</tr>
<tr>
<td><strong>Low strength of recommendation (can be considered)</strong></td>
<td>Clindamycin-tretinoin gel, Combined oral contraceptives</td>
</tr>
<tr>
<td><strong>Negative recommendation (not recommended)</strong></td>
<td>Topical antibiotics alone, Systemic antibiotics, Oral isotretinoin</td>
</tr>
</tbody>
</table>
## Treatment of Mild-to-moderate Papulopustular acne

<table>
<thead>
<tr>
<th>High strength of recommendation (strongly recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed-dose combination adapalene and benzoyl peroxide (BPO)</td>
</tr>
<tr>
<td>Fixed-dose combination clindamycin and BPO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medium strength of recommendation (can be recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPO</td>
</tr>
<tr>
<td>Topical retinoids- adapalene and tazarotene preferred</td>
</tr>
<tr>
<td>Systemic antibiotics in combination with BPO +/- topical retinoid</td>
</tr>
<tr>
<td>Combined oral contraceptives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low strength of recommendation (can be considered)</th>
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</thead>
<tbody>
<tr>
<td>Clindamycin-tretinoin gel</td>
</tr>
<tr>
<td>Blue light monotherapy</td>
</tr>
<tr>
<td>Oral zinc</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative recommendation (not recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topical antibiotics alone</td>
</tr>
<tr>
<td>Systemic antibiotics alone</td>
</tr>
</tbody>
</table>
### Treatment of severe acne

<table>
<thead>
<tr>
<th>Strength of Recommendation</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Oral isotretinoin monotherapy</td>
</tr>
<tr>
<td>Medium</td>
<td>Systemic antibiotics in combination with BPO +/- topical retinoid</td>
</tr>
<tr>
<td>Low</td>
<td>Combined oral contraceptives</td>
</tr>
<tr>
<td>Negative</td>
<td>Topical antibiotics alone, Oral antibiotics alone, All light therapy alone, Chemical peels</td>
</tr>
</tbody>
</table>


Rosacea
Rosacea Subtypes

1. Erythematotelangiectatic
   - Flushing
   - Centrofacial erythema

2. Papulopustular
   - Inflammatory papules and pustules with background erythema

3. Phymatous
   - Skin thickening and surface nodularities

4. Ocular
   - Blepharitis
   - conjunctivitis
Rosacea-DDX

- **flushing**
  - Carcinoid syndrome
  - Systemic mastocytosis
  - Perimenopause
  - Medullary carcinoma of the thyroid
  - Pancreatic tumors
  - Renal cell tumors

- **Centrofacial erythema**
  - Photodamage
  - SLE
  - Facial dermatitis
  - Seborrheic dermatitis
  - Psoriasis

- **Papules/pustules**
  - Acne
  - Folliculitis

- **Phymatous changes**
  - Nonmelanoma skin cancer
  - Granulomatous infiltrations
  - Infectious
  - Noninfectious-sarcoidosis
  - B and T cell lymphomas
Targeted Rosacea Therapy

- Erythema
- Ocular
- Phymatous
- Papules and Pustules
Erythema

Assess severity of erythema and presence of telangiectases

Mild
- Topical brimonidine OR metronidazole OR azelaic acid
- Consider IPL or vascular laser for erythema resistant to therapy

Moderate/severe
- Consider referral to dermatologist
- Topical brimonidine OR metronidazole OR azelaic acid
- Consider IPL or vascular laser for erythema resistant to therapy
- Doxycycline
Papules and Pustules

Assess severity of papules and pustules

Mild
- Topical ivermectin OR metronidazole OR azelaic acid

Moderate/severe
- Consider referral to dermatologist
  - ADD oral doxycycline or tetracycline to topicals
  - Low dose isotretinoin
Assess severity of phyma
Consider referral to dermatologist

Mild/moderate
Topical retinoid OR doxycycline OR tetracycline
Topical retinoid AND oral doxycycline/tetracycline
Isotretinoin

Severe
Surgical/electrosurgical/laser ablation
Isotretinoin
Ocular rosacea

Assess severity of ocular symptoms
*Refer to ophthalmologist if diagnostic uncertainty*

- **Mild**
  - Lid care AND artificial tears
  - Add doxycycline or tetracycline
  - Consider referral to ocular specialist and/or cyclosporine drops

- **Moderate/severe**
  - Refer to ocular specialist AND consider initiating treatment with Lid care/artificial tears AND tetracycline/doxycycline
Assess for improvement; if adequate consider maintenance

Erythema
- Topical metronidazole
  OR brimonidine
  AND/OR laser/IPL

Papules/pustules
- Topical metronidazole
  OR ivermectin
  OR azelaic acid

Phyma
- Topical retinoid
  OR tetracycline/doxycycline

Ocular
- Lid care/artificial tears
  AND tetracycline/doxycycline