ATENOLOL SHORTAGE

Several generic brands of atenolol tablets 25mg, 50mg and 100 mg are approved for marketing by Health Canada (http://webprod5.hc-sc.gc.ca/dpd-bdpp/dispatch-repartition.do?lang=eng)¹ and are on the Saskatchewan Drug Plan Formulary (http://formulary.drugplan.health.gov.sk.ca/)².

Health Canada approved indications³

- mild to moderate hypertension
- long-term management of angina pectoris due to ischemic heart disease

Off-label uses⁴

- post-myocardial infarction
- atrial fibrillation (rate control)
- migraine prophylaxis

Options to handle shortage of atenolol tablets:

- **Evaluate the appropriateness of atenolol therapy.** Evidence suggests that atenolol is less effective than certain other beta-blockers and drugs from other pharmacologic classes in reducing cardiovascular risk when used to treat hypertension, particularly in older adults.⁵ Atenolol has also been associated with increased mortality.⁶ This could be an opportune time to recommend switching atenolol to a more effective and safer alternative.

- **Extemporaneous compounding:** atenolol bulk powder is available (e.g. Medisca⁷) for compounding tablets or capsules.

- **Therapeutic alternatives:**

  **Beta-blockers⁸,⁹:**

<table>
<thead>
<tr>
<th>Indication</th>
<th>Recommended atenolol dose</th>
<th>Alternative(s)</th>
</tr>
</thead>
</table>
  | Mild to moderate hypertension | 50 to 100 mg daily        | - Acebutolol 100 to 400 mg BID  
  |                             |                           | - Bisoprolol 5 to 20 mg once daily  
  |                             |                           | - Labetolol 100 mg to 600 mg BID  
  |                             |                           | - Metoprolol RR 50 to 200 mg BID or 100 to 200 mg SR once daily  
  |                             |                           | - Nadolol 40 to 320 mg daily  
  |                             |                           | - Nebivolol 5 to 20 mg once daily  
  |                             |                           | - Pindolol 5 to 15 mg BID or TID up to 45 mg daily.  
  |                             |                           | - Propranolol RR 40 mg BID up to 320 mg daily or LA 60 to 320 mg daily  
  |                             |                           | - Timolol 5 to 10 mg BID up to 60 mg daily  
  | Angina pectoris              | 50 to 200 mg once daily   | - Acebutolol 200 to 300 mg BID  
  |                             |                           | - Metoprolol 50 to 200 mg BID or 100 to 200 mg SR once daily  
  |                             |                           | - Nadolol 40 to 240 mg daily  
  |                             |                           | - Pindolol 5 mg TID or QID up to 40 mg daily  

- Propranolol RR 10 to 20 mg TID or QID up to 240 mg daily or LA 80 mg daily up to 320 mg daily
- Timolol 5 mg BID or TID up to 45 mg daily
- Atenolol 5 mg BID or TID up to 45 mg daily

**Post-myocardial infarction (Non-approved indication for atenolol)**
- Target 100 mg daily

**Atrial fibrillation (Non-approved indication for atenolol)**
- 50 to 150 mg once daily

**Migraine prevention (Non-approved indication for atenolol)**
- 25 to 100 mg once daily

RR= regular release; SR= slow release, LA = long acting

**Alternatives from other pharmacologic classes**

(Note: if switching to another pharmacologic class, the atenolol must be tapered)

<table>
<thead>
<tr>
<th>Indication</th>
<th>Alternative pharmacologic class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild to moderate hypertension</td>
<td>Diuretics, ACE inhibitors, ARBs, calcium channel blockers</td>
</tr>
<tr>
<td>Angina pectoris</td>
<td>Nitrates, calcium channel blockers, ACE inhibitors</td>
</tr>
<tr>
<td>Atrial fibrillation rate control</td>
<td>Nondihydropyridine calcium channel blockers</td>
</tr>
<tr>
<td>Migraine prevention</td>
<td>TCAs, anticonvulsants, venlafaxine, calcium channel blockers, ACE inhibitors, pizotifen</td>
</tr>
</tbody>
</table>

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medSask, Oct. 2014

References: