**EpiPen Autoinjector Shortage**

There is only one supplier for epinephrine autoinjectors in Canada at this time:

<table>
<thead>
<tr>
<th>DIN</th>
<th>Manufacturer</th>
<th>Product</th>
<th>Active Ingredient</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>00509558</td>
<td>Pfizer Canada</td>
<td>EpiPen</td>
<td>epinephrine</td>
<td>0.3 mg/0.3 ml</td>
</tr>
<tr>
<td>00578657</td>
<td>Pfizer Canada</td>
<td>EpiPen Jr</td>
<td>epinephrine</td>
<td>0.15 mg/0.3 ml</td>
</tr>
</tbody>
</table>

Suppliers of epinephrine 1 mg/ml ampules:

<table>
<thead>
<tr>
<th>DIN</th>
<th>Manufacturer</th>
<th>Product</th>
<th>Active Ingredient</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>02435810</td>
<td>Teligent OU</td>
<td>Epinephrine Injection</td>
<td>epinephrine</td>
<td>1 mg/ml ampule</td>
</tr>
<tr>
<td>00155357</td>
<td>Erfa Canada Ltd (McKesson)</td>
<td>Adrenalin Chloride 1:1000</td>
<td>epinephrine</td>
<td>1 mg/ml ampule</td>
</tr>
</tbody>
</table>

**Management of shortage**

**Autoinjectors:**
- Advise patients to use the product they currently have on hand even if it is expiring. EpiPens expire on the last day of the month indicated on the product packaging. **Health Canada advises anyone having a reaction to USE THEIR EXPIRED PRODUCT and immediately call 911.**
  - There are some stability data of EpiPen devices: two studies indicate most (97.2%) devices retained at least 90% of labeled concentrations for up to 24 months past the labeled expiry date. Another study does not provide detailed results but the range of retained concentrations was 51-102% with the most outdated product (51 months past expiry date) retaining the lowest concentration.
- EpiPen Jr. is currently available and not expected to be affected by shortage. Adults and older children can use two EpiPen Jr autoinjectors. (Disadvantages: two injections, doubling of the cost.)

**Manual injections:**

*In-pharmacy preparation of anaphylactic kit*

**Option 1: Anaphylactic kit with epinephrine ampules**
- 2 – 1 cc syringes and 2 needles
  - Needle gauge and length:
    - Infants < 18 months, 25 – 27 G, 5/8 – 1'A inch
    - Children > 18 months up to 18 years, 23 – 25 G, 5/8 to 1'A inch
    - Adult 23 – 25 G, 1 to 1'A inch
- 2 extra needles
- 2 ampules of epinephrine 1:1,000
- Alcohol swabs, cotton balls, gauze pads
- Small sharps container (Optional)
- Case to hold syringes (e.g., pencil case, eyeglass case)
- Directions for breaking ampule, filling syringe, where and how to administer injection, safe disposal of ampules, needles, syringes, etc.

**Option 2: Anaphylactic kit with prefilled epinephrine syringes (pharmacy must have laminar flow hood)**

- Prepare 2 – 1 cc syringes containing epinephrine 0.3 mg with needles attached*
  - Needle gauge and length:
    - Infants < 18 mon, 25 – 27 G, 5/8 – 1’A inch
    - Children > 18 month up to 18 years, 23 – 25 G, 5/8 to 1’A inch
    - Adult 23 – 25 G, 1 to 1’A inch
- 2 - extra needles
- Alcohol swabs, cotton balls
- Small sharps container (Optional)
- Directions on where and how to administer injection, safe disposal of needles and syringe, etc.
- Storage instructions: room temperature, protect from light, expiry date up to 3 months from preparation date

*Directions for prefilling epinephrine syringes: [https://www.youtube.com/watch?v=rMrJ4MKpHRw](https://www.youtube.com/watch?v=rMrJ4MKpHRw) [https://www.youtube.com/watch?v=0KUwVn1p0ww](https://www.youtube.com/watch?v=0KUwVn1p0ww)

Prepared by K.Jensen MSc, BSP; reviewed by C.Bell BSP
medSask | 25 Jan 2018

**References:**