

RESPIRATORY MEDICATIONS FOR INHALATION AVAILABLE IN CANADA PRODUCTS & DEVICES

Table 1: Dry Powder Inhalers - Availability and Dose Counter Features

| Drug(s) Generic (Brand Name) | Dose per Inhalation; # of doses | Device type | Dose Counter Features |
|---|------------------------------------|----------------|--|
| Bronchodilators | | | |
| Short-acting beta₂-agonist (SABA) | | | |
| Salbutamol (Ventolin Diskus®) | 200 mcg; 60 | Diskus | Dose counter counts down from 60 to 1. The last 5 numbers are in red. |
| Terbutaline (Bricanyl®) | 500 mcg; 100 | Turbuhaler | A red mark shows in the window underneath the mouthpiece when 20 doses are left. When the red mark reaches the bottom of the window, the device is empty. |
| Long-acting beta₂-agonist (LABA) 12-hour acting | | | |
| Formoterol (Foradil®) | 12 mcg; 60 | Aerolizer | No dose counter (capsule inserted into the device) |
| Formoterol (Oxeze®) | 6 or 12 mcg; 60 | Turbuhaler | A red mark shows in the window underneath the mouthpiece when 20 doses are left. When the red mark reaches the bottom of the window. |
| Salmeterol (Serevent Diskhaler®) | 50 mcg; 60 | Diskhaler | No (insert disk into the Diskhaler) |
| Salmeterol (Serevent Diskus®) | 50 mcg; 60 | Diskus | Dose counter counts down from 60 to 1. The last 5 numbers are in red. |
| Long acting beta₂-agonist (LABA) 24-hour acting | | | |
| Indacaterol (Onbrez®) | 75 mcg; 10 and 30 | Breezhaler | No dose counter (capsule inserted into the device) |
| Long-acting muscarinic antagonist (LAMA) (anticholinergic) | | | |
| Acclidinium bromide (Tudorza® Genuair®) | 400 mcg; 30 and 60 | Genuair | Dose counter counts down by 10 from 60 to zero. A red strip band appears in the dose counter window indicating time to obtain a new inhaler. When preparing the last dose, the actuation button will not return to its upper position. |
| Glycopyrronium bromide (Seebri® Breezhaler®) | 50 mcg; 10 and 30 | Breezhaler | No dose counter (capsule inserted into the device) |
| Tiotropium bromide (Spiriva®) | 18 mcg; 10 and 30, 30 refill | Handihaler | No dose counter (capsule inserted into the device) |
| Umeclidinium bromide (Incruse® Ellipta®) | 62.5 mcg; 7 and 30 | Ellipta | Dose counter counts down by one; when fewer than 10 doses are left, half of the dose counter shows red (as a reminder to refill prescription). After you have inhaled the last dose, half of the dose counter shows red and the number 0 is displayed. Your inhaler is now empty. If you open the cover after this, the dose counter will change from half red to completely red. . Discard when the dose counter reads "0", or 6 weeks after removal from foil tray, whichever comes first. |

| Combination products (LAMA/LABA) | | | |
|--|--|------------|---|
| Umeclidinium/vilanterol (Anoro [®] Ellipta [®]) | LAMA/LABA 62.5/ 25 mcg; 7 and 30 | Ellipta | Dose counter counts down by one; when fewer than 10 doses remain, half of the dose counter shows red (as a reminder to refill prescription). After you have inhaled the last dose, half of the dose counter shows red and the number 0 is displayed. Your inhaler is now empty. If you open the cover after this, the dose counter will change from half red to completely red. Discard when the dose counter reads "0", or 6 weeks after removal from foil tray, whichever comes first. |
| Acclidinum/formoterol (Duaklir Genuair [®]) | LAMA/LABA 400/12 mcg; 60 | Genuair | Dose counter counts down by 10 from 60 to zero. A red strip band appears in the dose counter window indicating time to obtain a new inhaler. When preparing the last dose, the actuation button will not return to its upper position. |
| Indacaterol/ glycopyrronium (Ultibro [®] Breezhaler [®]) | LABA/LAMA 110/ 50 mcg; 6 and 30 | Breezhaler | No dose counter (capsule inserted into the device) |
| Inhaled corticosteroids (ICS) | | | |
| Budesonide (Pulmicort [®]) | 100, 200, or 400 mcg; 200 | Turbuhaler | A red mark shows in the window underneath the mouthpiece when 20 doses are left. Discard when the red mark reaches the bottom of the window. |
| Fluticasone propionate (Flovent Diskus [®]) | 100, 250, or 500 mcg; 60 | Diskus | Dose counter counts down from 60 to 1. The last 5 numbers are in red. |
| Fluticasone furoate (Arnuity [®] Ellipta [®]) | 100 or 200 mcg; 14 and 30 | Ellipta | Dose counter counts down by one; when fewer than 10 doses are left, half of the dose counter shows red, to remind you to refill your prescription. After you have used the last dose, half of the dose counter shows red and the number 0 is displayed. Your inhaler is now empty. If you open the cover after this, the dose counter will change from half red to completely red. Discard when the dose counter reads "0", or 6 weeks after removal from foil tray, whichever comes first. |
| Mometasone (Asmanex [®]) | 100, 200 or 400 mcg; 30 – 100 or 400 mcg 60 - 200 or 400 mcg | Twisthaler | Dose counter counts down by one, indicating number of doses remaining. When counter reaches 00, the cap will lock. |
| Combination products (ICS/LABA) | | | |
| Budesonide/formoterol (Symbicort [®]) | 100/6 or 200/6 mcg; 120 - 100/6 mcg 60 & 120 - 200/6 mcg | Turbuhaler | Counts down. Every 20 th dose is marked by a number and every 10 th dose by a dash. A 0 on a red background in the middle of the window indicates empty. |
| Fluticasone/salmeterol (Advair Diskus [®]) | 100/50, 250/50, or 500/50 mcg; 28 and 60 | Diskus | Dose counter counts down from 60 to 1. The last 5 numbers are in red. |
| Fluticasone furoate/vilanterol (Breo [®] Ellipta [®]) | 100/25 or 200/25 mcg; 14 and 30 | Ellipta | Dose counter counts down by one; when fewer than 10 doses remain, half of the dose counter shows red to remind you to refill prescription. After you have inhaled the last dose, half of the dose counter shows red and the number 0 is displayed. Your inhaler is now empty. If you open the cover after this, the dose counter will change from half red to completely red. Discard when the dose counter reads "0", or 6 weeks after removal from foil tray, whichever comes first. |
| Combination products (ICS/LAMA/LABA) | | | |
| Fluticasone furoate/umeclidinium/ vilanterol (Trelegy [®] Ellipta [®]) | 100/62.5/25 mcg; 14 and 30 | Ellipta | As above |

**Table 2: Metered Dose Inhalers (MDIs pressurized):
Availability, Dose Counter Features, and Priming Instructions**

| Drug Name (generic & trade) | Dose Counter Feature | Dose per puff; # puffs per device | Initial priming* (releasing spray into the air) | Re-priming* (releasing spray into the air) |
|--|--|--|--|--|
| Bronchodilators | | | | |
| Short-acting beta₂-agonist (SABA) | | | | |
| Salbutamol Apo-Salvent CFC Free [®] | No dose counter | 100 mcg; 200 | 4 sprays | 4 sprays if not used for 2 weeks |
| Novo-Salbutamol HFA [®] | No dose counter | 100 mcg; 200 | 4 sprays | 4 sprays if not used for 4 weeks |
| Salbutamol HFA (Sanis) | No dose counter | 100 mcg; 200 | 4 sprays | 4 sprays if not used for more than 5 days |
| Ventolin HFA [®] | No dose counter | 100 mcg; 200 | 4 sprays | 4 sprays if not used for 4 weeks; 1 puff after cleaning |
| Salbutamol (in ethanol) Airomir [®] | No dose counter | 100 mcg; 200 (or 100 hospital) | 4 sprays | 4 sprays if not used for 14 days or more |
| Short-acting muscarinic antagonist (SAMA) (anticholinergic) | | | | |
| Ipratropium bromide Atrovent HFA [®] | No dose counter | 20 mcg; 200 | 2 sprays | 1 spray if not used for more than 3 days |
| Combination Products (SAMA/SABA) | | | | |
| Ipratropium/salbutamol Combivent [®] Respimat [®] | Pointer indicates approximate amount remaining | 20/100 mcg 60 and 120 | Until cloud appears + 3 more times | 1 spray if not used for more than 3 days. Full priming if not used for more than 21 days |
| Long-acting muscarinic antagonist (LAMA) 24-hour acting (anticholinergic) | | | | |
| Tiotropium Spiriva [®] Respimat [®] | Pointer indicates approximate amount remaining | 2.5 mcg; 28 and 60 | Until cloud appears + 3 more times | 1 spray if not used for more than 7 days. Full priming if not used for more than 21 days |
| Combination Products (LAMA/LABA) | | | | |
| Tiotropium/olodaterol Inspiralto [®] Respimat [®] | Pointer indicates approximate amount remaining | 2.5/2.5 mcg 28 and 60 | Until cloud appears + 3 more times | 1 spray if not used for more than 7 days. Full priming if not used for more than 21 days |
| Inhaled corticosteroids (ICS) | | | | |
| Beclomethasone (in ethanol) Qvar [®] | No dose counter | 50 or 100 mcg; 100 and 200 | 4 sprays | 4 sprays if not used for 14 days or more |
| Ciclesonide (in ethanol) Alvesco [®] | No dose counter | 100 or 200 mcg; 30 and 120 | 3 sprays | 3 sprays if not used for 7 days or more |
| Fluticasone Flovent HFA [®] | No dose counter | 50, 125 or 250 mcg; 60 and 120 | 1 spray | 1 spray if not used for 7 days or more |
| Combination products (ICS/LABA) | | | | |
| Fluticasone/salmeterol Advair [®] with dose counter | Dose counter shows # puffs remaining | 125/25 or 250/25 mcg; 120 | 1 spray; repeat until dose counter reads 120 | 2 sprays if not used for 7 days or more |
| Mometasone/formoterol (in ethanol) Zenhale [®] | Dose counter shows # puffs remaining | 100/5 or 200/5 mcg; 120 | 4 sprays; dose counter should read 120 | 4 sprays if not used for 5 days or more |

Olodaterol (Striverdi Respimat[®]), a 24-acting LABA is approved by Health Canada, but is not marketed in Canada. Zenhale[®] 50/5 strength is approved, but currently is not marketed in Canada.

***Priming a Pressurized MDI:**

Initial priming is recommended before using the inhaler for the first time and re-priming is recommended if the inhaler has not been used for a period of time (as specified in each product's instructions for use). When priming, shake the inhaler and direct the recommended number of test sprays into the air, away from the face.

Shaking a Pressurized MDI before Use:

Shake all pressurized MDIs before use except QVAR[®] and Respimat[®] products. QVAR[®] is formulated as a solution in HFA propellant. Respimat[®] products are formulated as propellant-free solutions.