### Asthma Patient Care Flow Sheet

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>PHN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comorbid Conditions**

**Year of Diagnosis**

**DATE:** ____________ ____________ ____________ ____________ ____________ ____________

### REVIEW ITEMS

- **Asthma Control**
  - Needs reliever medication ≥ 4 times/week (may use 1 dose/day for exercise)
  - Physical activity limited by symptoms (in past 3 months) *(Sx: coughing, wheezing or chest tightness)*
  - Symptoms wake patient at night ≥ 1 times/week
  - Symptoms ≥ 4 days/week
  - Any urgent visits for asthma since last regular appointment
  - Absence from work/school because of asthma (in last 3 months)

*Client must answer all with NO to have Control, if Yes to one or more questions asthma is not controlled, reassess*

- Smoker or secondhand smoke in the home/vehicles. If yes address smoking *(ask, advise, assist, arrange 4As)*
- Identified asthma triggers:
  - Have steps been taken to reduce exposure to asthma triggers
  - A client that is not reducing exposure to allergens and asthma triggers will be difficult to control. Referral to asthma program

- Does client have a written asthma action plan *
  - If not, provide a written CHR asthma action plan

  - Client understands how to use the asthma action plan

  - Controller medications:
    - Reliever Medications:
      - Economic Concerns (cost of meds):
      - Have patient demonstrate how they use their inhaler device(s)

*Ensure Proper Inhaler Technique*

- Sx of GERD, Rhinitis, Sinusitis
- Asthma meds that may affect other diseases *(Prednisone use, test blood glucose)*
- Sx of depression, anxiety

*If any comorbidities exist with asthma, treat appropriately as these may affect proper asthma control*

### REGULAR OFFICE VISITS FOR ASTHMA

- Comorbidities
  - Sx of **GERD**, **Rhinitis**, **Sinusitis**
  - Asthma meds that may affect other diseases *(Prednisone use, test blood glucose)*
  - Sx of depression, anxiety

### ANNUALLY

- Tests
  - Perform Pre & Post Spirometry testing yearly & prn
  - Height and weight *(especially for pediatrics)*
  - BMD for osteoporosis *(If on ICSs and has risk factors)*

- Management
  - Review asthma action plan, try to reduce medication required while maintaining asthma control
  - Referrals: *Asthma educator* for education & evaluation
    - *for initial education & follow up as needed*
    - *Medical Specialist* – as needed
  - Vaccinations:
    - Annual Influenza vaccine
    - Pneumococcal vaccine if > 65 years
    - Immunizations up to date

Revised as of May 9, 2005 developed by the BHL/chronic respiratory/ Chinook Health Region

**Chinook Health Region**

**Building Healthy Lifestyles**
Asthma Continuum of Care

### Inhaled Corticosteroids (Preventer/controller medications)
ICSS should be introduced as the initial maintenance treatment for asthma, even in subjects who have very mild asthma and use their reliever medication less than 3 times/week. Refer to chart on left for proposed doses for ICSSs.

- **Fluticasone (Flovent) MDI 50, 125 & 250 mcg per dose**
  - BID dosing most effective
- **Fluticasone (Flovent) Diskus 50, 100, 250, 500 mcg per dose**
  - BID dosing most effective
- **Budesonide (Pulmicort) Turbohaler 100, 200 & 400 mcg per dose**
  - BID dosing most effective
- **Budesonide (Pulmicort) Turbuhaler 0.5 mg per dose**
  - Adults & children 6 and older, 1 inhalation as needed
- **Salbutamol (Airomir) MDI 100 mcg per dose**
  - 1 to 2 inhalations as needed

### Add on Therapy if required
If asthma is not controlled by low doses of ICSSs, additional therapy should be considered:

**FIRST OPTION** – Add long-acting beta2 agonist to existing therapy of ICSSs and short-acting beta 2 agonists, or replace ICSSs with a combination medication.

- **Salmeterol (Serevent) MDI 25 mcg per dose**
  - Adults 1 or 2 inhalations BID
  - Children 4 years of age and older 1 or 2 inhalations BID
- **Salmeterol (Serevent) Diskus 50 mcg per dose**
  - Adults 1 inhalation BID
  - Children 6 years of age and older 1 inhalation BID
- **Formenthaler (Oxeze) Turbohaler 6 or 12 mcg per dose**
  - Adults 1 inhalation of 6 or 12 mcg BID (max 48 mcg per day)
  - Children 6-16 1 inhalation of 6 or 12 mcg BID (max 24 mcg day)

OR

- **Advair (Serevent 50 mcg/Flovent 100, 250 & 500 mcg per dose) Diskus**
  - Adults and children 12 and older, 1 inhalation BID
  - Children 6-11 years of age, 1 inhalation BID
  - Adults and children 12 and older, 1 or 2 inhalations BID
  - Children 4 years of age and older, 1 or 2 inhalations BID
- **Symbicort (Oxeze 6 mcg/Pulmicort 100 & 200 mcg per dose) Turbohaler**
  - Adults and children 12 years of age and older, 1 or 2 inhalations BID
  - Children 6 to 11 years of age, 1 or 2 inhalations BID

**SECOND OPTION** - Increase the inhaled corticosteroids (ICSSs) to a moderate dosage as per chart or add in a leukotriene receptor antagonist.

- **Montelukast (Singulair) 4, 5 & 10 mg chewable tablet**
  - Adults and children 15 years of age and older one 10 mg tablet daily at bedtime
  - Children 6 to 14 years of age one 5 mg tablet daily at bedtime
  - Children 2 to 5 years of age one 4 mg tablet daily in the evening
- **Zarilukast (Accolate) 20 mg tablet**
  - Adults and children 12 years of age and older two 20 mg tablets daily

**THIRD OPTION** – consider theophylline, severe asthma may require additional treatment with Prednisone. If required to maintain control, refer to the CPS for dosing requirements & refer to medical specialist.

- **Prednisone** – for acute exacerbations of asthma, use the following dosages:
  - For ages 12 and over: 50 mg po daily for 3-10 days
  - For ages under 12: 1mg/kg po daily for 3-10 days (maximum dose: 2 mg/kg po daily)

No Prednisone dose tapering required if less than 2 weeks

### Daily Long Term Inhaled Steroid Agents and Doses

<table>
<thead>
<tr>
<th>Product</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUD Turbuhaler</td>
<td>≤ 400</td>
<td>401 – 800</td>
<td>&gt; 800</td>
</tr>
<tr>
<td>BUD Turbuhaler Budesonide</td>
<td>≤ 250</td>
<td>251 – 500</td>
<td>&gt; 500</td>
</tr>
<tr>
<td>BUD Turbuhaler Fluticasone</td>
<td>≤ 250</td>
<td>251 – 500</td>
<td>&gt; 500</td>
</tr>
<tr>
<td>BDP pMDI (HFA) Beclomethasone</td>
<td>≤ 100</td>
<td>1001- 2000</td>
<td>&gt; 2000</td>
</tr>
</tbody>
</table>

Note: Children will “auto scale” their inhaled medication dose, (take smaller inspiratory volumes which results in less dose reaching the lower airways) the same dose can be used for all asthma medications at all ages.

FP= Fluticasone propionate (GSK Canada Inc)
BUD= Budesonide (AstraZeneca Canada Inc)
BDP= Beclomethasone dipropionate (3M Pharmaceuticals Canada)

### Asthma Continuum of Care Reliever (Rescue) medications
- **Salbutamol (Ventolin) MDI 100 mcg per dose**
  - 1 or 2 inhalations as needed
- **Salbutamol (Ventolin) Diskus 200 mcg per dose**
  - Adults & children 6 and older, 1 inhalation as needed
- **Terbutaline (Bricanyl) Turbuhaler 0.5 mg per dose**
  - Adults & children 6 and older, 1 inhalation as needed
- **Salbutamol (Airomir) MDI 100 mcg per dose**
  - 1 to 2 inhalations as needed

Asthma Severity based on treatment needed to obtain control

<table>
<thead>
<tr>
<th>Asthma Severity</th>
<th>Symptoms</th>
<th>Treatment required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very mild</td>
<td>Mild-infrequent</td>
<td>None, or inhaled short-act B-2 agonist rarely</td>
</tr>
<tr>
<td>Mild</td>
<td>Well-controlled</td>
<td>Short-act B-2 agonist (occasionally) and low dose inhaled steroids</td>
</tr>
<tr>
<td>Moderate</td>
<td>Well-controlled</td>
<td>Short-act B-2 agonist and low to moderate doses of inhaled steroids with or without add on therapy</td>
</tr>
<tr>
<td>Severe</td>
<td>Well-controlled</td>
<td>Short-act B-2 agonist and high doses of inhaled steroids and add on therapy</td>
</tr>
<tr>
<td>Very severe</td>
<td>May be controlled or not well-controlled</td>
<td>Short-act B-2 agonist and high doses of inhaled steroids and add on therapy and oral steroids</td>
</tr>
</tbody>
</table>