3. Chronic Disease Patient Care Flowsheet

Asthma Patient Care Flow Sheet

Patient Name

Comorbid Conditions

PHN

Year of Diagnosis

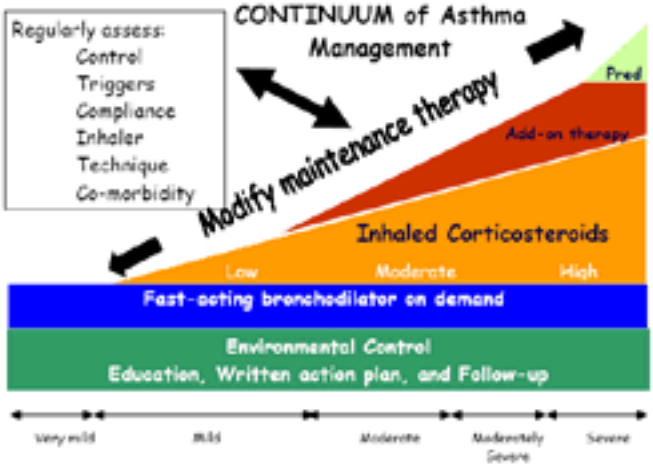
DATE: _____ _____ _____ _____ _____ _____

REVIEW ITEMS

REGULAR OFFICE VISITS FOR ASTHMA	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						
	Trigger Avoidance	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						
	Compliance	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						
		Is controller medication used regularly? Controller medications: Reliever Medications: Economic Concerns (cost of meds): Have patient demonstrate how they use their inhaler device(s) ***Ensure Proper Inhaler Technique**						
	Comorbidities	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						
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 ☐ Pneumoccocal vaccine if > 65 years ☐ Immunizations up to date						

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

Asthma Continuum of Care



Daily Long Term Inhaled Steroid Agents and Doses

Product	Mcg/day (all ages) Low	Medium	High
BUD Turbuhaler *Pulmicort*	≤ 400	401 – 800	> 800
FP pMDI and spacer *Flovent*	≤ 250	251 – 500	> 500
FP Diskus	≤ 250	251 – 500	> 500
BDP pMDI (HFA) *Q-var*	≤ 250	251 – 500	> 500
BUD wet nebulization	≤ 1000	1001- 2000	> 2000

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= Beclomethosone dipropionate (3M Pharmaceuticals Canada)

Asthma Severity based on treatment needed to obtain control

Asthma Severity	*Symptoms*	*Treatment required*
Very mild	Mild-infrequent	None, or inhaled short-acting B-2 agonist rarely
Mild	Well-controlled	Short-acting B-2 agonist (occasionally) and low dose inhaled steroids
Moderate	Well-controlled	Short-acting B-2 agonist and low to moderate doses of inhaled steroids with or without add on therapy
Severe	Well-controlled	Short-acting B-2 agonist and high doses on inhaled steroids and add on therapy
Very severe	May be controlled or not well-controlled	Short-acting B-2 agonist and high doses of inhaled steroids and add on therapy and oral steroids

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

Inhaled Corticosteriods (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 ICSs

- *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) Turbuhaler 100, 200 & 400 mcg per dose*
  - BID dosing most effective
- *Beclomethasone (Q-var) MDI 50 & 100 mcg per dose*
  - BID dosing most effective

Add on Therapy if required

If asthma **is not controlled by low doses of ICSs**, additional therapy should be considered:

FIRST OPTION – Add long-acting beta2 agonist to existing therapy of ICSs and short-acting beta 2 agonists, or replace ICSs 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
- *Formoterol (Oxeze) Turbuhaler 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
- *Advair (Serevent 25 mcg/Flovent 125 & 250 per dose) MDI*
  - 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) Turbuhaler*
  - 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 corticosteriods (ICSs) 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
- *Zarfirlukast (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

Treatment options from the Canadian Asthma Consensus Guidelines update 2003, medications updated as of January 12, 2006