



Patient Education for Asthma  Inpatient  Outpatient

This worksheet is to be used by health care professionals providing Asthma Education

Health Care Advisor: \_\_\_\_\_ Initials: \_\_\_\_\_

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Resources Received			
Child/Parent Information Package <input type="checkbox"/>		Medication Teaching Sheets <input type="checkbox"/>	
		iCAN Pamphlet <input type="checkbox"/> Other <input type="checkbox"/>	
Date	Main Patient/Parent Concern/Question	Comments	Initials
Date	Pathophysiology		Initials
	Chronic, Inflammatory, Bronchospasm, ↑ Mucous production <input type="checkbox"/>		
Date	Action of Medication	Initials	Initials
	Short acting B2 <input type="checkbox"/>		Combination Therapy <input type="checkbox"/>
	Inhaled Corticosteroid <input type="checkbox"/>		Leukotriene Receptor Antagonist <input type="checkbox"/>
	Oral Corticosteroid <input type="checkbox"/>		Anticholinergic <input type="checkbox"/>
Date	Device Technique	Comments	Initials
	MDI/Spacer <input type="checkbox"/>		
	Turbuhaler <input type="checkbox"/>		
	Diskus <input type="checkbox"/>		
	Empty <input type="checkbox"/> Expired <input type="checkbox"/> Missing Valve <input type="checkbox"/>		
Date	Symptoms	Comments	Initials
	Cough <input type="checkbox"/> Wheeze <input type="checkbox"/>		
	SOB <input type="checkbox"/> Tightness of Chest <input type="checkbox"/>		
Date	Good Asthma Control is Defined as:		Initials
	Nighttime < 1X/ week    Daytime < 4X/week    Physical Activity – Normal    No Missed School or Work B2 use < 4X/ week (excluding 1 dose/day with exercise)    Exacerbations: mild/infrequent <input type="checkbox"/>		
Date	Triggers Discussed		Initials
	Smoke    Inflammatory –Non Allergic/Allergic    Symptom    Nasal Allergic/Infectious    Exercise <input type="checkbox"/>		
Date	When and Where to get Help / Signs and Symptoms of Respiratory Distress		Initials
	When to go to the Doctor <input type="checkbox"/> When to go to the Emergency Department <input type="checkbox"/> When to call 911 <input type="checkbox"/> ↑ asthma symptoms    Symptoms of Respiratory Distress    Acute signs of Respiratory Distress		
Health Care Advisor Findings/Comments			
Barriers Identified	Comments	Initial	
Medication side effects <input type="checkbox"/>			
Finances (Medication cost, Work absence) <input type="checkbox"/>			
Pt/Family querying Diagnosis <input type="checkbox"/>			
Compliance/Adherence <input type="checkbox"/>			
Benefit Asthma Education <input type="checkbox"/>			
Language/Cultural <input type="checkbox"/>			
Triggers Identified <input type="checkbox"/>			
Other Comments			
Follow up Arranged with			Initials
Family Doctor/Pediatrician <input type="checkbox"/> Asthma Clinic <input type="checkbox"/> Community Pediatric Asthma Service <input type="checkbox"/> Other <input type="checkbox"/>			



## Medically Accurate and Consistent Information for Family/Child with Asthma

**Pathophysiology:** Chronic, inflammatory lung disease. Reversible airways obstruction. Symptoms often mild, intermittent, and treatable.

### Action of Medications:

**Short acting B<sub>2</sub> (Reliever)**– Onset of action 5 minutes. Temporarily relax the muscles around the airways. Relieves symptoms of Cough, Wheeze, SOB, Tightness of chest. Side effect(not toxic): shakiness, ↑ heart rate, hyperactivity, headache and nervousness, tremors

**Inhaled Corticosteroid (Controller):** Observable effect within 3 days & very significant results within 1-2 weeks. Used daily as prescribed to help heal and prevent swelling in the airways. Local side effects: Hoarse voice, thrush – rinse mouth after using.  
Systemic side effects: Unusual at doses used to treat asthma

**Oral Corticosteroid:** Effective within 4 hours - Powerful anti-inflammatory. Used for acute treatment

**Combination Therapy:** Combines an anti-inflammatory and long acting (12 hour) bronchodilator. Generally use ICS first before going to this modality of treatment. Local side effect: Hoarse voice, thrush – rinse mouth after using.

**Leukotriene Receptor Antagonist:** Pill/chew tablet taken daily. Bronchodilator and mild anti-inflammatory properties. Side effects: Report to Dr.

**Anticholinergic:** Onset of action 5-15 minutes. Bronchodilator. Used as an adjunct to B<sub>2</sub> agonists in emergency department.  
Rarely used outside emergency department.

### Device Technique:

**MDI/Spacer:** 1. Shake MDI X 10 2. Insert into spacer 3. Place mask → face/mouthpiece → mouth 4. Depress MDI X 1  
5. Inhale/exhale X 6 breaths OR 1 deep breath → hold X 10 sec → breathe out 6. Wait 30 seconds between each activation of MDI.

**Turbuhaler:** 1. Remove cap 2. Twist and Click 3. Exhale 4. Place between teeth and lips 5. Deep, fast breath in 6. Remove turbuhaler from mouth 7. Hold X 10 sec 8. Breathe out 9. Replace cap. Do not breathe into the turbuhaler.. Do not shake.

**Diskus:** 1. Push cover open 2. Slide button down 3. Exhale 4. Place between teeth and lips 5. Deep, fast breathe in  
6. Remove Diskus from mouth 7. Hold breath X 10 sec 8. Breathe out 9. Close cover. Do not breathe into the Diskus. Do not shake.

### Empty, Expired, Broken Devices:

**MDI:** Shake metal canister. Do not float in water to test amount of medication in canister.

**Turbuhaler:** Window ½ red → 20 doses left. Window all red → empty. Note: Desiccant will always remain in empty device.

**Diskus:** Counter reads 0

**Expired:** Check expiry dates on medication

**Valves:** Check valves on Spacer/mask and Spacer → not missing/intact

**Symptoms:** Cough, Wheeze, SOB, Tightness of Chest. Daytime, Nighttime, Exercise

**Monitoring Symptoms:** Good asthma control means: Nighttime symptoms < 1 X/week, Daytime symptoms < 4X/week,  
Physical activity – normal, B<sub>2</sub> use (reliever) < 4 X/week (excluding 1 dose/day with exercise/day), No missed school/work,  
Exacerbations → mild/ infrequent.

**Triggers:** Inflammatory Triggers → Allergic and Non- allergic. Symptom Trigger → Irritants.  
Exercise → Evaluate asthma control/B<sub>2</sub> 15 minutes prior to exercise Nasal:Allergic/Infectious → Physician examination/treatment.

### When and Where to Get Help / Signs and Symptoms of Respiratory Distress

Go to Doctor → ↑ asthma symptoms. Go to Emergency → suprasternal indrawing, intercostal indrawing. ↓ Energy. Rescue reliever does not provide relief for 3-4 hours or do not see improvement within 12- 24 hours. Call 911 → Breathing fast/gasping, difficulty speaking, blue-grey lips or fingernails.

### Barriers:

**Medication side effects:** ICS → safe at doses used to treat asthma. Does not affect growth – expected height achieved.

**Finances: (Cost of Medication, Time missed at work):** Make Doctor aware of issue. Involve social work if needed. Medication Cost: Contact community pharmacy for cost or drug insurance concerns, or family doctor to supply medication samples

**Querying Diagnosis:** Doctor diagnosed. Asthma is the presence of airways hyper reactivity in the absence of underlying lung/airway disease

**Lack of Asthma Knowledge:** Providing medically accurate/consistent information in language the child/family understands.  
Consider picture tools

**Language/Cultural:** Translation Services 944-0202 Available 24/7 - 365 days

**Triggers:** Avoidance Strategies → Better asthma control



# iCAN Asthma Diary

Child's Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Doctor/Educator: \_\_\_\_\_

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Symptoms</b>														
Cough														
Wheeze														
Shortness of Breath														
Activity														
Sleep														
Missed School														
<b>Medications</b>														
<b>Peak Flows</b>														
Best of 3														
<b>Daily Activity/Trigger Exposure</b>														

	Symptom Score			
	Cough	Wheeze	Shortness of Breath	Activity
0 None	0 None	0 None	0 Normal	0 Sleep through night
1 Sometimes	1 Mild	1 Some with activity	1 Limited	1 Wheeze or cough while sleeping
2 Often	2 Moderate	2 Often with activity	2 Very Limited	2 Restless; awakens often
3 All the time	3 Severe	3 All the time, even at rest	3 Unable to do daily activities	3 Awake most of night



Asthma Medication Costs Jan 2009

Anti-Inflammatories	ACH cost	# doses	Cost/dose	Available at ACH outpatient pharmacy
Flovent Diskus 50 mcg	26.45	60	0.44	No
Flovent Diskus 100 mcg	35.08	60	0.58	No
Flovent Diskus 250 mcg	53.27	60	0.89	Yes
Flovent Diskus 500 mcg	102.21	60	1.7	No

Flovent HFA MDI 50 mcg	36.06	120	0.3	No
Flovent HFA MDI 125 mcg	53.27	120	0.44	Yes
Flovent HFA MDI 250 mcg	102.21	120	0.85	Yes

Pulmicort Turbuhaler 100 mcg	41.67	200	0.21	No
Pulmicort Turbuhaler 200 mcg	74.83	200	0.37	Yes
Pulmicort Turbuhaler 400 mcg	128.14	200	0.64	No

Alvesco MDI 100 mcg	54.5	120	0.45	Yes
Alvesco MDI 200 mcg	82.75	120	0.69	Yes

Qvar MDI 50 mcg	41.59	200	0.21	Yes
Qvar MDI 100 mcg	72.28	200	0.36	Yes

Relievers Short-Acting				
Ventolin HFA MDI 100 mcg	25.23	200	0.13	No
Ventolin Diskus 200 mcg	24.76	60	0.41	Yes
Bricanyl Turbuhaler .5 mg	26.37	200	0.13	Yes
Airomir MDI 100 mcg	19.06	200	0.1	No
Atrovent MDI 20 mcg	26.67	200	0.13	No

Long Acting Bronchodilators				
Serevent Diskus 50 mcg	65.98	60	1.1	Yes
Oxeze Turbuhaler 6 mcg	43.93	60	0.73	No
Oxeze Turbuhaler 12 mcg	56.66	60	0.94	Yes
Spiriva Handihaler 18 mcg	77.08	30	2.57	No

Combination Medications				
Advair Diskus 100 mcg	97.79	60	1.63	Yes
Advair Diskus 250 mcg	116	60	1.93	Yes
Advair Diskus 500 mcg	157.31	60	2.62	Yes

Advair MDI 125 mcg	116	120	0.97	Yes
Advair MDI 125 mcg	157.31	120	1.31	Yes

Symbicort Turbuhaler 100 mcg	73.93	120	0.62	Yes
Symbicort Turbuhaler 200 mcg	99.43	120	0.83	Yes

Asthma Medication Costs Jan 2009

<b>LTRA</b>	<b>ACH cost</b>	<b># doses</b>	<b>Cost/dose</b>	<b>Available at ACH outpatient pharmacy</b>
Singulair 4 mg granules	\$55.00	30	\$1.83	yes
Singulair 4 mg pill	\$55.00	30	\$1.83	yes
Singulair 5 mg pill		30	\$1.99	yes
Singulair 10 mg pill	\$82.53	30	\$2.75	yes

**Spacing devices**

**Aerochamber**

Neonate	N/A
Pediatric	N/A
mouthpiece	N/A
adult mask	N/A
Aerochamber boyz/girlz	N/A

<b>Optichamber</b>	\$24.17
Neonate mask - small	\$15.47
Pediatric mask - med	\$16.22
Adult mask - Large	N/A

**Nasal Spray**

Nasonex 50 mcg/spray	\$39.87	140	0.28	yes
Flonase 50 mcg/spray	\$41.69	120	0.35	yes
Avamys 27.5/spray	\$36.40	120	0.3	yes
Omnaris 50 mcg/spray	\$23.63	120	0.2	no