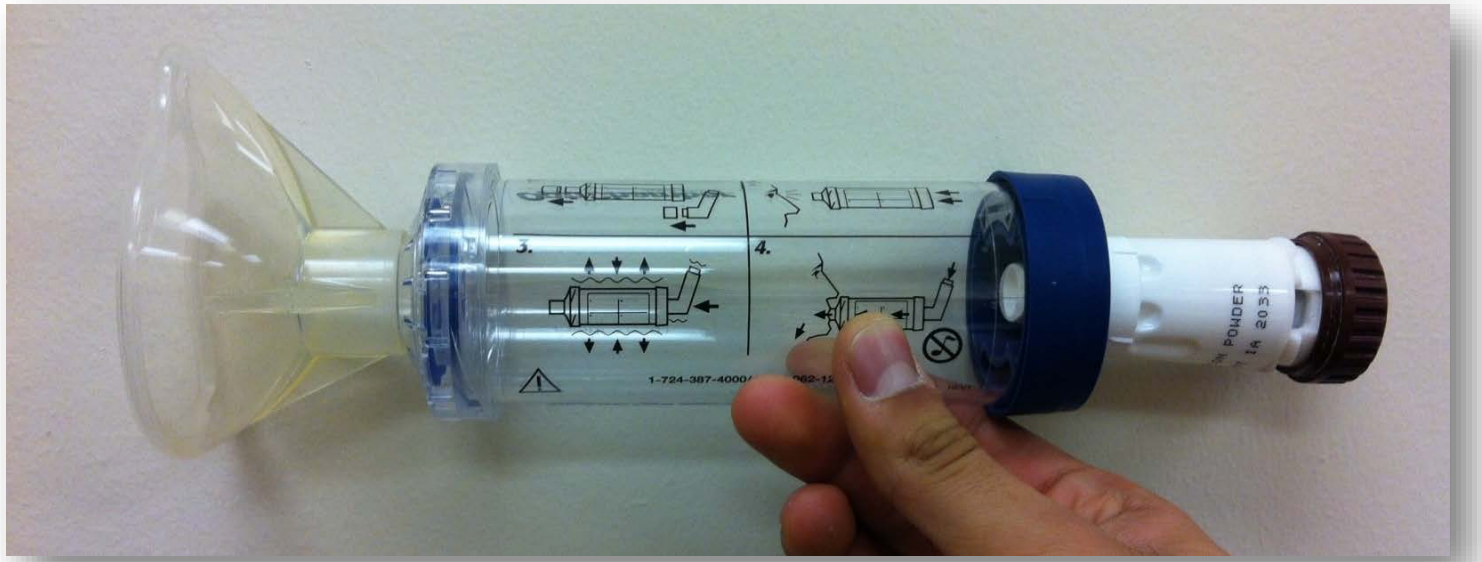


Knowledge is Power

Karla Stoermer Grossman, MSA, BSN, RN, AE-C

Asthma Educator Sharing Day

October 13, 2017

What patients MUST know
15 minute Asthma Education

Click here for daily dosage ranges of inhaled corticosteroids recommended for this age group. | Email Form Developer | Reset Form

University of Michigan Hospitals & Health Centers
Asthma Action Plan for Patients 0 – 4 Years
Additional instructions are available by holding your mouse pointer over each field.

Name:	Rose		
Req #:	1234578910	Date:	3/18/2013
DOB:	1/11/2009	Age:	4 years

GREEN ZONE (Doing Well)
- ✓ Breathing is good (no coughing, wheezing, chest tightness, or shortness of breath during the day or night), *and*
- ✓ Able to do usual activities (work, play, and exercise)

Controller Medications
Give these medication(s) to your child EVERY DAY.

Medication	Directions
Advair HFA 230/21 mcg	2 puffs with chamber and mask twice daily

YELLOW ZONE (Caution)
- ✓ Breathing problems (coughing, wheezing, chest tightness, shortness of breath, or waking up from sleep), *or*
- ✓ Can do some, but not all, usual activities

Call your doctor if you are not sure whether your child's symptoms are due to asthma.

Rescue Medications
Continue giving the controller medication(s) as prescribed.

Give: Albuterol 2 puffs with chamber and mask or 1 nebulizer treatment

Then:
- Wait 20 minutes and see if the treatment(s) helped
- If your child is GETTING WORSE or is NOT IMPROVING after the treatment(s), go to the Red Zone
- If your child is BETTER, continue treatments every 4 hours as needed for 24 hours

Then: If your child still has symptoms after 24 hours, CALL YOUR CHILD'S DOCTOR and if he/she agrees:
- ☐ Start: Call the Asthma Clinic at 734-764-4123
- ☐ Other:

If rescue medication is needed more than 2 times a week, call your child's doctor at 734-764-4123.

RED ZONE (Medical Alert)
- ✓ Breathing is hard and fast (nose opens wide, ribs show), *or*
- ✓ Quick-relief medications have not helped, *or*
- ✓ Cannot do usual activities (including trouble talking or walking)

Emergency Treatment
Give these medication(s) AND seek medical help NOW.

Take: Albuterol 4 puffs with chamber and mask OR 2 nebulizer treatments (one after anot

Then:
- Wait 15 minutes and see if the treatment(s) helped
- If your child is GETTING WORSE or is NOT IMPROVING, go to the hospital or call 9-1-1
- If your child is BETTER, continue treatments every 4 to 6 hours and call your child's doctor – say your child is having an asthma attack and needs to be seen TODAY

Then:
- ☐ If your doctor agrees, start:
- ☐ Other:

Plan Developed in Partnership with Patient's Family by (Doctor's Name): Dr. Good Control Doctor Number: 12345
Signature: Date/Time: 3/18/2013

POD-0341 | REV: 12/09 HIM: 12/09 | Medical Records | Asthma Action Plan Patients 0 – 4 Years

- Symptoms to treat
- What to treat with
- How to use
- How often to use
- How long to treat
- When to call the MD
- When to seek ED care

Karla's Rules of 3

CALL if:

You have used albuterol:

- **3** times in one day
- **3** times in one week
- Albuterol only lasts **3** hours

5 Steps of Proper Inhalation

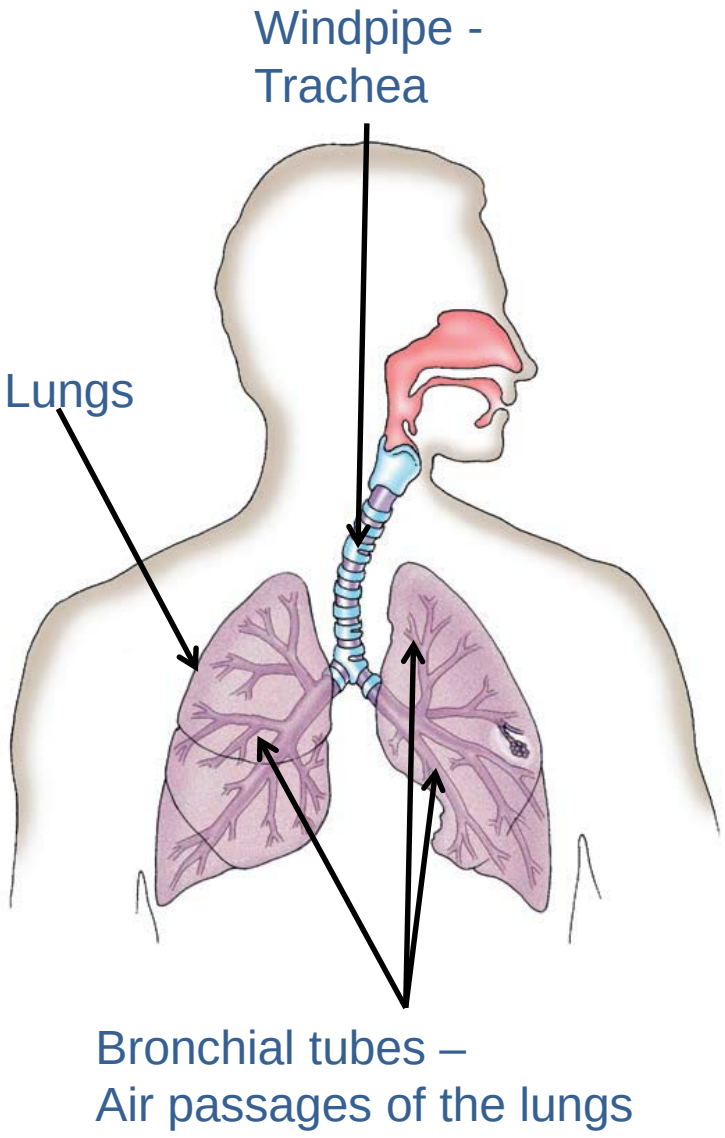
1- Blow all of your air out

2- Place the mouthpiece in your mouth/mask on face

3- Push down on the canister

4- Slowly take a deep breath/10 tidal breaths

5- Hold your breath for 10 seconds



Know Your History: The Medication Progression Sheet

Medication Progression Record

Patient Name:	W.D					Birthdate:	12/X/2006	
MRN:								
Date:		2/18/2016	3/17/2016	6/15/2016	8/18/2016	11/17/2016	12/21/2017	3/16/2017
Visit number	initial	1	2	3	4	5	6	7
Long-term Control Medication								
ICS daily dose	230/21							
Combination	5mg			200/5				
Singulair								
Adherent?		No	Yes	Yes	No	Yes	Yes	Yes
Allergy								
Skin tested					tree, grass			
					weed, mite			
RAST					ragweed			
IgE					cat, dog			
Medications					cockroach		Claritin	
Food Allergies								
Pulmonary Function								
FEV1 % predicted		79	90	47	89	41	83	75
FEV1/FVC		68	75	56	74	62	67	73
FEF 25-75		32	56	13	52	18	39	43
Reversibility		19				13		
Significant Exacerbation								
Night (#/month)								
Oral systemic corticosteroids				6/15/2016 x5		11/6/2016 x5 1/17/2016 x5 & taper		3/16/2017 x5
ED								
PICU	2							
Intubation								
Hospitalizations	13?		6/8/2016					
Bronch/Sleep/CXR								
Steroid Impact on growth								
Height percentile								
Weight percentile								
BMI								
MVN Referral								
Date								
Outcome								
SMOKE	None	None	None	None	None	None	none	
Pt. Ed Assess								
Influenza						11/17/2016		
ACT score		22	NC	16	18	12	22	18
AAP Updated				6/15/2016				3/16/2017
FeNO		Unable	Unable	14	32	32	NC	
Vit. D Level								

Honesty is the best policy
Adherence vs "truth"

Check adherence

- Adherence to controller regimens have consistently been found to be only 30% to 40% in clinical practice settings and only as high as 70% in well monitored clinical trial settings (Sumino & Cabana, 2013).
- Call the pharmacy- fill v pick-up

Importance of truth-telling

- Increasing medications
- Increased risk of exacerbation
- Over-use of oral steroids

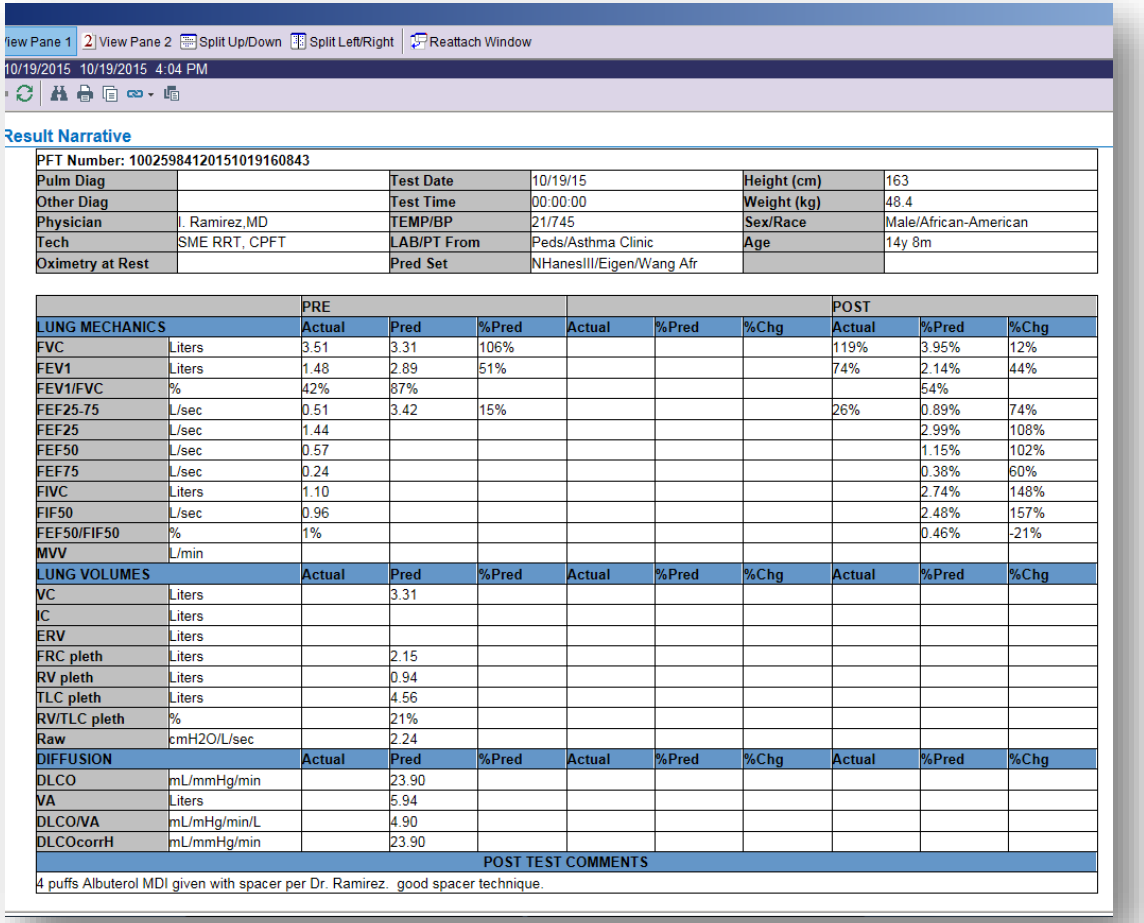
- Sumino. K., & Cabana, M.D. Medication Adherence in Asthma Patients. Current Opinions Pulmonary Medicine. January 2013. Volume 19, Number 1.

Working with *add your emotion here* patients

- Angry parents
- Depressed teens
- Angry teens
- Disengaged teens
- Disengaged parents
- Non-believing ex-husbands
- Divorced parents

Symptom perception– under, over, just right

- Just used to it
- Paradoxical vocal fold motion disorder
- “shortness of breath”
- Parent attribution- face is red
- What else?
  - Anxiety
  - Depression



iew Pane 1 | View Pane 2 | Split Up/Down | Split Left/Right | Reattach Window

10/19/2015 10/19/2015 4:04 PM

Result Narrative

PFT Number: 10025984120151019160843

Pulm Diag		Test Date	10/19/15	Height (cm)	163
Other Diag		Test Time	00:00:00	Weight (kg)	48.4
Physician	I. Ramirez,MD	TEMP/BP	21/745	Sex/Race	Male/African-American
Tech	SME RRT, CPFT	LAB/PT From	Peds/Asthma Clinic	Age	14y 8m
Oximetry at Rest		Pred Set	NHanesIII/Eigen/Wang Afr		

		PRE						POST		
LUNG MECHANICS		Actual	Pred	%Pred	Actual	%Pred	%Chg	Actual	%Pred	%Chg
FVC	Liters	3.51	3.31	106%				119%	3.95%	12%
FEV1	Liters	1.48	2.89	51%				74%	2.14%	44%
FEV1/FVC	%	42%	87%						54%	
FEF25-75	L/sec	0.51	3.42	15%				26%	0.89%	74%
FEF25	L/sec	1.44							2.99%	108%
FEF50	L/sec	0.57							1.15%	102%
FEF75	L/sec	0.24							0.38%	60%
FIVC	Liters	1.10							2.74%	148%
FIF50	L/sec	0.96							2.48%	157%
FEF50/FIF50	%	1%							0.46%	-21%
MVV	L/min									
LUNG VOLUMES		Actual	Pred	%Pred	Actual	%Pred	%Chg	Actual	%Pred	%Chg
VC	Liters		3.31							
IC	Liters									
ERV	Liters									
FRC pleth	Liters		2.15							
RV pleth	Liters		0.94							
TLC pleth	Liters		4.56							
RV/TLC pleth	%		21%							
Raw	cmH2O/L/sec		2.24							
DIFFUSION		Actual	Pred	%Pred	Actual	%Pred	%Chg	Actual	%Pred	%Chg
DLCO	mL/mmHg/min		23.90							
VA	Liters		5.94							
DLCO/VA	mL/mHg/min/L		4.90							
DLCOcorrH	mL/mmHg/min		23.90							

POST TEST COMMENTS

4 puffs Albuterol MDI given with spacer per Dr. Ramirez. good spacer technique.

Obesity-
How do we talk to kids? And parents?

- Diet
- Exercise
- Parent
- Screen time
- Anxiety
- Depression