

Spacer Cleaning and Storage

Clean weekly warm soapy water

- Demonstrate disassembly and reassembly
- Soap residue good for interior chamber

Avoid sealed plastic bags

- Mildew, odor
- Electrostatic charge



Dry Powder Inhalers (DPIs)



Introducing the DPI to patients

- Name of medicine
- Expiration
- Counter

Expiration Dates

FLOVENT	50 mcg Diskus	6 weeks from opening
	100, 250 mcg Diskus	2 months from opening
	HFA MDI	Date on package
ADVAIR	Diskus – all strengths	1 month from opening
	HFA MDI	Date on package



Proper DPI Technique



Key Points DPI Technique

- Stand up
- Open device and load dose
- Hold device flat, don't tip
- Breathe out fully
- Tight seal on mouthpiece
- Take hard, fast, FULL breath in
- Hold breath x 10 seconds
- Close device



DPI Care and Storage

- Clean mouthpiece with cloth
- Don't breathe into mouthpiece
- Don't shake
- Store in dry location



Nebulizers/Compressors



Disinfect me every day

Clean me after every use

Change my cup and filter

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Practical Patient Education

Top 5 Tips

1. Partner with families and set shared goals
2. Teach proper use of meds and devices
3. **Tailor environmental education**
4. Encourage use of Asthma Action Plan and regular follow up
5. Review key messages at each visit

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Quick and Dirty Environmental Education

- Safe Sleep Zone
- Smoke, roaches, mice/rats
- Pets, dust mites, mold
- Resources for help



Safe Sleep Zone



Safe Sleep Zone

- Do not eat or drink in the bedroom.
- Hard wood floors are optimal.
- No stuffies! No curtains!
- Frequent hot water washing of sheets.
- Bed encasings.
- Nothing that burns.
- Nothing that smells.
- Avoid clutter.



Safe Sleep Zone



Smoke (and Strong Odors)

- Avoid *all* forms of smoke
 - Cigars, cigarettes, pipes, blunts, bongos, incense, candles, fireplaces, kerosene heaters
- Assess readiness and encourage to quit smoking
 - Harm reduction: smoke outdoors, smoking jacket
 - Consider freestanding HEPA filter air purifier
- Avoid scented products



Cockroaches

- Control food and trash
 - no food in bedroom
 - sweep/mop daily to control crumbs and spills
 - Clean up spilled and uneaten pet food
- Use poison baits - avoid sprays
 - Keep out of reach of kids
- Keep home free of clutter
- Seal entrance points
 - Caulk and steel wool



Furry Animals

- For mice/rats: integrated pest management (IPM)
 - Fill holes
 - Vacuum and clean
 - Low-toxicity pesticides and traps



- For pets: remove animal from home, *or* keep outside, *or* keep out of bedroom, *or* keep off bed and furniture
 - Cat allergen can persist several months, can be transmitted in classrooms



Dust Mites

- Allergen-impermeable bed encasing
- Wash sheets/blankets weekly in hot water
- No stuffies!
- Keep humidity low (<50%) – no humidifiers!
- Damp wipe/mop surfaces weekly
- Remove carpeting or vacuum with HEPA filter weekly
- Avoid sleeping on couches/upholstered chairs



Mold

- Prevention: keep humidity <50%
 - AC helps
 - No humidifier
 - Vent bathrooms and clothes dryers
 - Repair leaky faucets, pipes
- Intervention
 - Discard moldy items, carpets
 - Small areas – scrub with dilute bleach (1:10)
 - Large areas – professional cleaning or renovation



What if families can't do it all themselves?

- Tobacco Free Families 1-800-QUIT-NOW
- Local and state environmental health or housing departments
- Legal aid services



Practical Patient Education

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2. Teach proper use of meds and devices
3. Tailor environmental education
4. Encourage use of Asthma Action Plan and regular follow up
5. Review key messages at each visit



IMPACT DC Asthma Action Plan

Name: _____ School: _____ DOB: ____/____/____

Health Care Provider: _____ Parent/Responsible Person: _____ Parent's Phone: _____

Personal Emergency Contact: _____ Contact Phone: _____

Asthma Severity (Choose one): Intermittent or Mild Moderate Severe

Asthma Control (Choose one): Well-controlled Needs better control

Asthma Triggers Identified (Things that make your asthma worse):
 Pollen Smoke (tobacco, incense) Perfume Dust Animals
 Strong odors Mold/moisture Pets (rodents, cockroaches)
 Respiration Gastroesophageal reflux Exercise
 Other: _____

Green Zone: GO! - Continue CONTROL (PREVENTION) Medicines EVERY DAY
 You have ALL of these:
 Breathing is easy
 No cough or wheeze
 Can work and play
 Can sleep all night
 Peak flow in this area: _____ (More than 80% of Personal Best)
 Personal best peak flow: _____

Yellow Zone: Caution! - Continue CONTROL Medicines and ADD QUICK-RELIEF Medicines
 You have ANY of these:
 First sign of a cold
 Cough or mild wheeze
 Tight chest
 Problems sleeping, working, or playing
 Peak flow in this area: _____ (50%-80% of Personal Best)

Red Zone: EMERGENCY! - Continue CONTROL & QUICK-RELIEF Medicines and GET HELP!
 You have ANY of these:
 Can't talk, eat, or walk well
 Medicines is not helping
 Breathing hard and fast
 Blue lips and fingernails
 Tired or lethargic
 Ribs show
 Peak flow in this area: _____ (Less than 50% of Personal Best)

REQUIREMENTS:
 Healthcare Provider Signature: _____ Date: _____
 Responsible Person Signature: _____ Date: _____

Follow up with primary doctor in 1 week or: _____ Phone: _____
 Patient/parent has doctor's/clinician number at home

*** Government of the District of Columbia ***
 Vincent C. Gray, Mayor

SCHOOL MEDICATION CONSENT AND PROVIDER ORDER FOR CHILDREN/YOUTH:
 Possible side effects of quick-relief medication (e.g., albuterol) include tachycardia, tremor, and nervousness. Healthcare Provider Initials: _____
 This student is capable and approved to self-administer the medication(s) named above.
 This authorization is valid for one calendar year.
 I, the RESPONSIBLE PERSON: I hereby authorize a trained school employee, if available, to administer medication to the student.
 I hereby authorize the student to possess and self-administer medication.
 I hereby acknowledge that the District and its schools, employees and agents shall be immune from civil liability for acts or omissions under D.C. Law 17-307 except for criminal acts, intentional wrongdoings, gross negligence, or willful misconduct.

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Asthma Action Plan



Practical Patient Education

Top 5 Tips

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3. Tailor environmental education
4. Encourage use of Asthma Action Plan and regular follow up
5. **Review key messages at each visit**



Review Key Messages

- Teach-back method
- Repetition and reinforcement **at each visit**



Asthma Educator Certification

- Implications for practice
 - Designated professional educator
 - No additional reimbursement
- Cost
 - Training course (not required) \$225 -\$300
 - Certification exam \$295 www.naecb.com
- Course options
 - Association of Asthma Educators www.asthmaeducators.org
 - American Lung Association www.lungusa.org
 - American Association of Respiratory Care www.aarc.org
 - Kettering National Seminars www.ketteringseminars.com



General and DC Asthma Resources

- IMPACT DC Asthma Program
www.impact-dc.org
- Allergy and Asthma Network/Mothers of Asthmatics (AANMA)
www.aanma.org
- Allergy and Asthma Foundation of America (AAFA)
www.aafa.org
- American Lung Association
www.lungusa.org
- DC Asthma Partnership
www.dcasthmapartnership.org



Maryland Asthma Resources

- Maryland Asthma Control Program
<http://fha.dhmf.maryland.gov/mch/SitePages/asthma.aspx>
- Baltimore City Health Department
www.baltimorehealth.org/asthma
- Greater Baltimore Asthma Alliance
www.baltimoreasthma.org
- Breathmobile
www.umm.edu/breathmobile



Questions?

