2008 IPAC-RS Conference
“Doing the Right Thing”
…Science, Quality and Patient Focus

Patient Perspective
Alpha-1 Foundation
John W. Walsh

Patient Focus
- Personal perspective
- Challenges and lessons
- Importance of training and education
- Working with patient advocacy orgs
- Impact on compliance, safety, access
Personal Perspective

- What is Alpha-1?
- Personal experience
- Alpha-1 Foundation – AlphaNet
- Involvement in aerosol development
- Experience with other therapies
- Hope of next generation therapy

Device Utilization Challenges
Next Generation
Alpha-1 Augmentation Therapy

Importance of Proper Training

• Train the Trainer
• COPD Educator Program
• Physician & Allied Health CME/CEU curriculums
Importance of Patient Education

- Inform, Educate, Empower and Engage
- Taking Responsibility

Health Management

Basics on Education

- Understand that PI’s are not the answer
- Must be understandable and graphical
- Must demonstrate and assess patients ability to follow correct techniques for MDI, DPI, nebulizers, spacer/holding chambers
- Must include administration of devices including cleaning, priming, replacement/refilling and troubleshooting
Pull off mouthpiece cover from the Aerolizer®. Hold the Aerolizer® with mouthpiece straight up.

Twist mouthpiece open in the direction of the arrow when the mouthpiece is closed.

To remove capsule from blister pack, peel the paper back then push the capsule through the foil. It is important that the capsule stay in the blister pack until you are ready to take your medicine.

Place the capsule in the inhaler base.
Close the mouthpiece. You should hear a Click when the mouthpiece is closed.

Hold the Aerolizer® with mouthpiece straight up. SQUEEZE THE TWO BUTTONS AND LET GO. This releases the medicine.

Breathe out all the way. Make sure you DO NOT BREATHE OUT INTO THE MOUTHPIECE OF THE AEROLIZER®. Tilt your head back slightly.

Place the Aerolizer® between your lips, and form a tight seal. Make sure the buttons are on the sides, not up and down. BREATHE IN FAST AND DEEP. As you breathe in, you will hear the Aerolizer® vibrate.
Remove the Aerolizer from your mouth, and HOLD your breath for as long as you can, up to 10 seconds. To make sure you got all of the medicine, open the mouthpiece of the Aerolizer®, and look at the capsule. Do not touch it. If you still see powder in the capsule, repeat steps 6-8.

Open mouthpiece of Aerolizer®, and dump the capsule directly into a trash can.
Diskus Use (Advair, Flovent, Serevent)

- Once the diskus is cocked it must be maintained in a level position
- Inspiratory flow optimum delivery at 60 L/min
- Exhaling into the device will cause displacement of the powder
- It has a counter

Ref: AARC APC

Hold Diskus® in one hand, and put the thumb of your other hand on thumb grip.

Push your thumb away from you as far as it will go. The mouthpiece will appear and will click into place.
Slide lever away from you as far as it will go. You will hear a click. The medicine is now ready for you to breathe in. DO NOT TIP YOUR DISKUS®. YOU MAY LOSE THE DOSE OF MEDICINE.

Turn your head and breathe out normally. NEVER BREATHE OUT INTO THE DISKUS.

Put mouthpiece between your lips and make a tight seal. BREATHE IN FAST AND DEEP.
The dose window on the top of the Diskus® tells how many doses are left in the Diskus®.

The numbers will turn red when there are only three doses of medicine left in the Diskus®. When the number reads zero, all the medicine is gone.

Handi-Haler

Open dust cap

Close mouthpiece (listen for click)

Insert capsule

Pierce the capsule (press button on side)

Breathe in slowly and deeply (listen for vibration)

Hold breath
DPI Summary

- **Advantages**
  - Breath-actuated, less patient coordination required, no CFCs

- **Limitations**
  - High inspiratory flow rates required, device-specific instructions, susceptible to moisture, not available for all products

- **Important patient instructions**
  - Loading doses
  - Holding mouthpiece correctly
  - Avoiding exhaling into the device
  - Avoiding moisture
  - Assessing the need for refills

Ref: AARC APC

DPI: Common Errors

- Improper positioning – with loss of dose
- Exhaling into device before inhaling – reduced dose
- Use in high humidity environment (bathroom) – reduced dose
- Failure to “cock” or load dose properly
Nebulizer Summary

**Advantages**
- Less coordination required, flexibility in dosing

**Limitations**
- Expensive, increased administration time, less portable, less efficient delivery, increased requirements for care and cleaning, not available for all products

**Important patient instructions**
- Preparation or dilution of medications for use
- Recommended breathing techniques during treatment
- Techniques for improving efficiency of delivery
- Care and cleaning of equipment

Nebulizers: Incorrect Use

- Spilling medication
- Improper assembly
- Underpowered compressors (home)
- Improper cleaning (home)
- Nebulizer not tested/not adequate for drug
Effect of Not Shaking MDI

MDI not shaken between use:
- total dose: 25.5%
- respirable dose: 35.7% (<6.8 µm)


Cleaning MDI

- Change out actuator with new canister
- Clean actuator when crusty residue present
- Rinse in warm water through top for 30 seconds
- Shake off excess
- Let set overnight

J Asthma 2004: If actuator not washed fine particle mass falls 30%
Priming

- Depends on propellant
- Drug being spayed
- How many hours/days of non use
- Number of recommended actuations vary

Dose Counting With A MDI

(82%) considered their pMDI empty when absolutely nothing came out

Manufacturers should include dose counters as a standard feature of every metered-dose inhaler
Reservoir Devices

SPACER: an extension tube, with no valves to hold aerosol plume
HOLDING CHAMBER: a chamber with one-way inspiratory valve, to hold aerosol until inspiration

Written Self-Management and Action Plans

- Developed to improve outcomes and overall control that a patient has over their condition
- Must be individualized for the patient, usual course and comfort
- Use should be monitored (and modified) periodically
In Summary: Objectives of Patient Education

- Understand principles of MDI, nebulizer, DPI
- Know when the DPI and MDI are empty
- Understand proper positioning of devices
- Understand importance of infection control
- Know how to troubleshoot devices
- Know how to make an action plan

In Summary: Collaboration with Patient Advocacy Organizations

- Interact with all stakeholders
- Coordinate user focus groups
- Access infrastructure to support clinical research and outcomes studies
- Develop education materials
- Incorporate training in health management programs
- Advocate on access issues (cfc – hfa)
In Summary: Next Generation Device Development

- Incorporate patient (user) input
- Simplify
- Improve adherence and compliance
- Reduce replacement costs (filters, etc)
- Reduce frequency and shorten time

THANK YOU

- For including the patient perspective in the IPAC-RS Conference
- For your commitment to safety and access
- For your commitment to next generation devices