Use of Aerosolized Inhalers for Asthma

ADVANTAGES OF INHALERS

Inhalers deliver medication directly to the airways of the lungs, which are the sites of the disease. This contact allows for a higher concentration of drug while avoiding or eliminating side effects. Metered-dose inhalers (MDIs) have been used extensively in the past, as they are compact and portable. They have proved to be effective only if used correctly.

DISADVANTAGES OF INHALERS

Currently the propellants in MDIs, chlorofluorocarbons (CFCs), are banned internationally as they deplete the ozone. However, a medical exception has been given for their use in inhalers. Research is ongoing to replace these MDIs with dry-powder inhalers, breath-actuated devices and MDIs with no CFCs. Some inhalers that are CFC-free are available; consult your health care provider for more information.

NOTES:_____

HOW MOST AEROSOLIZED INHALERS ARE USED

Open-mouth technique with MDI:

1. Remove cap and hold inhaler upright
2. Shake inhaler
3. Tilt your head back slightly and breathe out slowly
4. Open your mouth and hold inhaler 1-2 inches away
5. Press down on inhaler to release medication as you start to breathe in slowly
6. Breathe in slowly (3-5 seconds)
7. Hold your breath for 10 seconds to allow medication to reach swollen airways
8. Repeat each puff as directed; waiting 1 minute between puffs may permit the second puff to better penetrate the lungs
9. Clean inhaler daily, or as suggested by manufacturer

Closed-mouth technique with spacer device:

1. Remove cap and hold inhaler upright
2. Shake inhaler
3. Put medication canister into end of spacer
4. Tilt your head back slightly and breathe out slowly
5. Put spacer/holding device in your mouth
6. Press down on inhaler canister to release medication as you start to breathe in slowly
7. Breathe in slowly (3-5 seconds)
8. Hold your breath for 10 seconds to allow medicine to reach deeply into your lungs
9. Repeat each puff as directed; waiting 1 minute between puffs may permit the second puff to penetrate your lungs better
10. Clean inhaler daily, or as suggested by manufacturer

Note: Spacer devices are effective in helping people use MDIs properly and contribute to reducing side effects. They should be used particularly with the corticosteroid inhalers, which have no built-in spacer.

MEDICATION

A physician must prescribe medications after a careful evaluation of your condition. Some people, not realizing the fact that inhalers contain strong medications and are not toys, carelessly share with others or leave them within reach of children. Always follow doctor's instructions, which should be in writing, as use of inhalers requires your understanding to be effective. If after leaving the doctor's office you are confused or it's been a long time since last using your inhaler, call your doctor or nurse for a review of instructions.

Using inhalers is not like taking a pill or an injection, which your body automatically absorbs. Inhaled medications work only if the instructions are followed so that medication is delivered to the airways of the lungs. Always follow instructions packaged with the inhaler after reviewing with your clinician. If you take more than one inhaled medication, be sure to use the quick relief medicine, such as albuterol, first so that the other medicines, such as inhaled corticosteroids, can get deeper into airways to work.

REPLACEMENT INHALERS

Dry powder inhalers have either color-coded or numerical contents to aid in determining how many doses are left. Most inhalers have listed on their labels the number of puffs contained in the canister. To figure out how many days your medication will last you, divide the number of puffs in the canister by the number of puffs used in a day.

EXAMPLE:
CANISTER A
60 PUFFS / 4 PUFFS per DAY = 15 days

The purpose of this patient education handout is to further explain or remind you about a medical condition. This handout is a general guide only. If you have specific questions, be sure to discuss them with your health care provider.

Peggy Wolfgang, RN, CCRC, is research director for Allergy Research Associates, a private practice specializing in asthma, allergy and immunology located at Crozer-Chester Medical Center, Upland, PA.