Guidelines Stress Patient Needs in Device Selection

BY JEFF EVANS Senior Writer

erosol devices that deliver therapy to patients with asthma or chronic obstructive pulmonary disease are similarly effective in a broad range of clinical settings

But such devices must be carefully selected to match the needs of individual patients, according to new evidence-based guidelines issued by the American College

CYMBALTA® (duloxetine hydrochloride) Brid Simmay, Cansell the package insert for complete prescribing information. NOCATORIS AND UAGE: Ornabala is indicated for the treatment of major depressive disorder (MDD). CONTRAINDICATORIS Prepensativity: A convol injectsorability to the product. Monoamine Galase Inhibitors (MOB)—Concombant use with Ornhala is contraindicated (see WARNINGS). Uncontrolled Marrow-Alge Galaccom—- Infold this, dulocate was associated with an increased field diminist, therefore, its use is not recommended in

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of Chest Physicians and the American College of Asthma, Allergy, and Immunology.

Several systemic reviews and metaanalyses have been published on the selection of aerosol delivery devices, but "evidence-based guidelines are still needed," said Myrna B. Dolovich, an engineer at McMaster University, Hamilton, Ont., and her colleagues on the panel that drafted the guidelines.

The guidelines were based on data from

59 randomized, controlled trials that tested the same drug with different devices (Chest 2005;127:335-71). They include a list of questions to keep in mind when selecting the best device for a particular setting. (See box.)

In the emergency department and inpatient hospital settings, the panel found that delivery of short-acting $\eta_2\text{-}agonists$ with nebulizers or metered-dose inhalers (MDIs) with a spacer/holding chamber produces similar improvements in lung function. Not

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treatment of MDD. In the set of under general measures employed in the management of overdose with any drug effective in the DOSAGE AND ADMINISTRATION: Cymbata should be administered at a total dose of 40 mg/day (given as 20 mg BID) to 60 mg/day (given Effer on ce advor as 30 mg BID) without regard to meals. There is no effective that doses greater than 60 mg/day confer any additional benefits. PV 5000 AMP

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Cymbalta® (duloxetine hydrochloride)

enough data were available to recommend the use of dry powder inhalers (DPIs), MDIs without a spacer/holding chamber, or breath-actuated MDIs in emergency department or inpatient settings

Continuous use or frequent intermittent nebulization of η_2 -agonists for severe bronchospasms in the emergency department or ICU have the same safety and effectiveness in improving pulmonary function and asthma symptom scores. Continuous nebulization required significantly less time for staff to administer and maintain than did intermittent therapy.

Nebulizers or MDIs are similarly effective in delivering η_2 agonists to patients on mechanical ventilation.

A careful attention to detail must be used to administer drugs with either device to patients on mechanical ventilation since multiple technical factors can influence the efficiency of aerosol delivery, the guidelines caution.

All of the studies conducted in acute care settings took place in conditions of actual clinical use, rather than under clinical laboratory conditions.

MDIs with or without a spacer/holding chamber or DPIs delivered short-acting n2agonists with equal effectiveness and safety in the outpatient treatment of asthma, the guidelines stated. Equal doses of corticosteroids had the same effectiveness in outpatients with asthma when delivered with either an MDI with a spacer/holder chamber or a DPI.

The panel found that MDIs with or without a spacer/holder chamber, nebulizers, and DPIs have equal effectiveness in delivering $\eta_2\text{-}agonists$ or anticholinergic agents to outpatients with chronic obstructive pulmonary disease.

Outpatient studies performed under laboratory conditions "do not indicate that the device would perform equally well in more adverse, real-world situations," the panel warned.

Considerations in Selecting a Device

- ▶ In what devices is the desired drug available?
- ▶ What device is the patient likely to be able to use properly, given the patient's age and the clinical setting?
- ▶ For which device and drug combination is reimbursement available?
- ▶ Which devices are the least costly?
- Can all types of asthma/COPD drugs that are prescribed for the patient be delivered with the same type of device?
- ▶ Which devices are the most convenient for the patient, family (outpatient use), or medical staff (acute care setting) to use, given the time required for drug administration and device cleaning and the portability of the device?
- ► How durable is the device?
- ▶ Does the patient or clinician have any specific device preferences?