Name of Policy: **Use of aerosols/metered dose inhalers for the delivery of respiratory medications**	THE UNIVERSITY OF TOLEDO **MEDICAL CENTER**
Policy Number: 3364-136-04-02	
Department: Pulmonary Services	
Approving Officer: Senior Hospital Administrator	
Responsible Agent: Director, Pulmonary Services	
Scope: The University of Toledo Medical Center Pulmonary Services Department	**Effective Date: June 1, 2023** Initial Effective Date: 12/1/2004

____	New policy proposal	**x**	Minor/technical revision of existing policy
____	Major revision of existing policy	____	Reaffirmation of existing policy

(A)   Policy Statement

Bronchodilators and steroids to be dispensed via metered dose inhaler (MDI) will be administered by Respiratory Care and Nursing Service. Respiratory Care Practitioners will administer MDIs to patients on mechanical ventilation and those patients with tracheotomies. Nursing Service is responsible for administering the balance. Drugs which can be administered via MDI are listed in RC policy 3364- 136-33-01.

(B)   Purpose of Policy

To assure the safe, effective, and timely use of metered dose inhaled medications.

Indications for nebulizer/aerosol therapy:
1. Bronchospasms
2. Chronic Obstructive Pulmonary Disease
3. Laryngeal edema
4. Secretion retention
5. Antibiotic or Steroid therapy

Goals: to improve respiratory status through the delivery of prescribed medications and to improve the efficiency of coughing.

Contraindications: of nebulizer therapy include tachycardia, adverse drug reactions, and the inability to effectively take the treatment.

Hazards: include nosocomial infections, and bronchospasms.

(C)   Procedure

1. The Respiratory Care Practitioner and Registered Nurse will verify from the physician orders, the type of medication, the dosage, the frequency, and the number of breaths for each metered dose treatment. The MDIs are kept in the Accudose, in a patient specific bin. The patient may self-administer with the appropriate physician order.

2. Prior to the initial MDI treatment, the patient will be instructed for proper use of the MDI. Such instruction will include: proper assembly of the MDI unit to the medication holding chamber (spacer), patient will exhale to FRC. Place the spacer mouthpiece between the teeth and seal the lips. Make sure that the tongue is flat under the mouthpiece and does not block the MDI. Actuate the device as the patient inspires slowly and deeply, holding maximal inspiration for 5-10 seconds. Repeat the procedure according to written physician order.

3. "Common Canister" MDI therapy is used only on patients NOT in isolation. The common canister is retrieved from the Pyxis. Each patient is provided with their own spacer to be used with these shared MDI's. The common canister must be cleaned before and after each patient with a hospital approved cleaning agent and allowed to dry for the listed instructions for use on the cleaner.

4. A Respiratory Care Practitioner, if needed, can review the patient's ability to perform the MDI treatment properly and will provide supplemental instruction as necessary if the nurse requests it.

5. The patient will be evaluated for breath sounds, cough, and secretions before and after each MDI treatment. The results will be recorded on the RT section of the EMR. The Respiratory Care Practitioner or the Nurse will notify the physician if the patient cannot perform the MDI technique. An order for an up-draft nebulizer should be obtained.

7. Aerosol treatments that are changed to MDI treatments will continue to be given until the MDI medication is sent to the floor from pharmacy.

8. MDIs given in line with a mechanical ventilator circuit will be delivered via an MDI adapter connected between the inspiratory limb and the Y-piece.

9. For patients with tracheotomies, the MDI should be administered by a manual resuscitation bag and an aero chamber, specially designed for use with a manual resuscitation bag.

Approved by:		Review/Revision Date:
		09/09/1998
		08/24/1999
/s/ _____	06/22/2023	07/16/2001
Michael Taylor	Date	06/26/2002
Director, Pulmonary Services		03/01/2005
		03/05/2008
		02/11/2011
/s/ _____	08/01/2023	05/01/2013
Shahnaz Rehman, M.D.	Date	05/01/2016
Medical Director		04/08/2019
		06/01/2023
/s/ _____	06/29/2023	
Russell Smith	Date	
Senior Hospital Administrator		
Review/Revision Completed By:		
Director, Pulmonary Services		**Next Review Date: June 1, 2026**
Policies Superseded by This Policy:		

It is the responsibility of the reader to verify with the responsible agent that this is the most current version of the policy.