

CLINICAL INFORMATICS

WEEKLY UPDATE

Title	Multidose Inhalers to Nebulizers - Approved Interchanges																				
Requestor	Physicians, Pharmacy, Nursing																				
Application	Cerner > eMAR																				
Impacted Positions	MD/DOs; NP; PA; Nursing; Pharmacy; Respiratory Therapy																				
PROD Date	11/9/2016																				
Details	Request Goal	Ascension Health's preferred long-acting anticholinergic inhaler is changing from tiotropium to umeclidinium. Additional classes of inhalers will also be switched to nebulizer therapy. Approved by STTC, MECs																			
	SITUATION	Respiratory therapy medication therapeutic interchanges have been approved at St Thomas Health.																			
	BACKGROUND																				
	ASSESSMENT	Ascension Health's preferred long-acting anticholinergic inhaler is changing from tiotropium to umeclidinium. Other therapeutic substitution opportunities with respiratory medications were identified.																			
	RECOMMENDATION	Implement new therapeutic substitutions Nov 8, 2016.																			
	<table border="1"> <thead> <tr> <th colspan="2">Short-acting Beta Agonists</th> </tr> <tr> <th>Drug Ordered</th> <th>Drug Dispensed</th> </tr> </thead> <tbody> <tr> <td colspan="2">Nebulized</td> </tr> <tr> <td>Levalbuterol 0.155 mg ANY frequency</td> <td>Albuterol 0.31 mg SAME frequency</td> </tr> <tr> <td>Levalbuterol 0.31 mg ANY frequency</td> <td>Albuterol 0.63 mg SAME frequency</td> </tr> <tr> <td>Levalbuterol 0.63 mg ANY frequency</td> <td>Albuterol 1.25 mg SAME frequency</td> </tr> <tr> <td>Levalbuterol 1.25 mg ANY frequency</td> <td>Albuterol 2.5 mg SAME frequency</td> </tr> <tr> <td colspan="2">Metered Dose Inhaler (MDI)</td> </tr> <tr> <td>Albuterol (ProAir, Proventil, etc) ANY frequency</td> <td rowspan="2">Albuterol 2.5mg nebulized SAME frequency</td> </tr> <tr> <td>Levalbuterol 45 mcg 1-2 inhalations ANY frequency</td> </tr> </tbody> </table>		Short-acting Beta Agonists		Drug Ordered	Drug Dispensed	Nebulized		Levalbuterol 0.155 mg ANY frequency	Albuterol 0.31 mg SAME frequency	Levalbuterol 0.31 mg ANY frequency	Albuterol 0.63 mg SAME frequency	Levalbuterol 0.63 mg ANY frequency	Albuterol 1.25 mg SAME frequency	Levalbuterol 1.25 mg ANY frequency	Albuterol 2.5 mg SAME frequency	Metered Dose Inhaler (MDI)		Albuterol (ProAir, Proventil, etc) ANY frequency	Albuterol 2.5mg nebulized SAME frequency	Levalbuterol 45 mcg 1-2 inhalations ANY frequency
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Pirbuterol (Maxair) 200 mcg 1-2 inhalations ANY frequency

*If the original order is written for ANY dose and frequency as needed (PRN), the order will be converted to albuterol SAME frequency as needed (PRN).

Long-acting Beta Agonist

Drug Ordered

Drug Dispensed

Arformoterol (Brovana) 15mcg nebulized BID

Formoterol (Perforomist) 20mcg nebulized BID

Formoterol (Foradil Aerolizer) 12mcg inhalation BID

Indacaterol (Arcapta Neohaler) 1 inhalation once daily

Olodaterol (Striverdi Respimat) 2 inhalations once daily

Salmeterol (Serevent Diskus) 1 inhalation BID

Salmeterol DPI
50 mcg/blister
1 inhalation 30 minutes prior to exercise

Albuterol 2.5mg nebulized QID

Albuterol 2.5mg nebulized 15 minutes prior to exercise

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Short-acting Anticholinergic Agents	
Drug Ordered	Drug Dispensed
Ipratropium (Atrovent) ANY frequency	Ipratropium 0.5mg nebulized SAME frequency
*If the original order is written for ANY dose and frequency as needed (PRN), the order will be converted to ipratropium SAME frequency as needed (PRN).	

Long-Acting Anticholinergic Agents	
Drug Ordered	Drug Dispensed
Acclidinium (Tudorza) 1 inhalation twice daily	Ipratropium 0.5mg nebulized QID
Tiotropium (Spiriva Respimat) 2.5mcg/inhalation product 2 inhalations once daily	
Tiotropium (Spiriva HandiHaler) 1 capsule (18mcg) inhalation once daily	
Glycopyrrolate (Seebri Neohaler) 1 inhalation (15.6mcg) once daily	
Umeclidinium (Incruse Ellipta) 1 inhalation (62.5mcg) once daily	

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Short-acting Beta Agonist/Anticholinergic Combination Products

Drug Ordered	Drug Dispensed
Ipratropium/Albuterol (Combivent) ANY frequency	Ipratropium/Albuterol (DuoNeb) 2.5/0.5mg (3mL) nebulized SAME frequency

*If the original order is written for ANY dose and frequency as needed (PRN), the order will be converted to ipratropium/albuterol SAME frequency as needed (PRN).

Long-acting Beta Agonist/Anticholinergic Combination Products

Drug Ordered	Drug Dispensed
Tiotropium/Olodaterol (Stiolto Respimat) 2 inhalations once daily	Ipratropium/Albuterol (DuoNeb) 2.5/0.5mg (3mL) QID
Umeclidinium/Vilanterol (Anoro Ellipta) 1 inhalation once daily	
Indacaterol/Glycopyrrolate (Utibron Neohaler) 1 inhalation twice daily	