

Removal of Maintenance Inhalers from Omnicell

Ridge Meadows Hospital Pharmacy and Medication
Use Evaluation
Sept 2022

Maintenance Inhalers Removed

- High-cost, maintenance inhalers were removed from all Omnicell automated dispensing units in RMH
 - fluticasone-salmeterol inhalers: Nov 15, 2021
 - all other inhalers: January 18, 2022
- Pharmacy dispensary sent patient-specific inhalers
- Rescue inhalers (i.e. ipratropium and salbutamol) remained in Omnicell

Why?

- 17-34% of total amount of inhalers dispensed are wasted in Fraser Health
 - Loss of medication during patient transfers
 - Storage of inhalers in automated dispensing cabinets
- Inhalers removed from automated dispensing cabinets do not have patient-specific labels
- Inhalers are unique compared to other medications
 - Expensive (see next slide)
 - Each device contains 2-4 weeks of medication
 - Losing one inhaler results in substantial loss of useful medication

*J Eval Clin Pract. 2020 Dec;26(6):1699-1702
Can J Hosp Pharm. 2021;74(2):117-21*

Inhalers

Inhaler	Cost
budesonide-formoterol 200 mcg-6 mcg/puff (SYMBICORT)	redacted
fluticasone 50, 125, 250 mcg/puff (FLOVENT MDI)	redacted
fluticasone-salmeterol 250 mcg-25 mcg/puff (ADVAIR MDI)	redacted
fluticasone-salmeterol 250-50, 500-50 mcg/puff (ADVAIR DISKUS, WIXELA INHUB)	redacted
tiotropium 2.5 mcg/puff (SPIRIVA RESPIMAT)	redacted
tiotropium 18 mcg cap (10 caps) (SPIRIVA HANDIHALER)	redacted

Evaluation

- 6 months prior and post removal:
 - May 14 to Nov 14, 2021
 - Jan 18 to Jul 17, 2022
- Outcomes:
 - Change in number of inhalers dispensed
 - Change in number of inhalers dispensed per patient-day
 - Expenditure

Change in Inhalers and Expenditure

Inhaler	No. of Inhaler (%)	Expenditure
budesonide-formoterol 200 mcg-6 mcg/puff	-7 (-5%)	redacted
fluticasone 50 mcg/puff	-14 (-93%)	redacted
fluticasone 125 mcg/puff	-19 (-37%)	redacted
fluticasone 250 mcg/puff	-43 (-36%)	redacted
fluticasone-salmeterol 250 mcg-25 mcg/puff	-9 (-32%)	redacted
fluticasone-salmeterol 250-50 mcg/puff	-15 (-45%)	redacted
fluticasone-salmeterol 500-50 mcg/puff	2 (8%)	redacted
tiotropium 2.5 mcg/puff	-1 (-1%)	redacted
tiotropium 18 mcg cap (10 caps)	-4.3 (-3%)	redacted

Number of Inhalers per Patient-Day

Inhaler	Change in Number of Inhalers per Patient-Day
budesonide-formoterol 200 mcg-6 mcg/puff	-23%
fluticasone 50 mcg/puff	-75%
fluticasone 125 mcg/puff	-24%
fluticasone 250 mcg/puff	10%
fluticasone-salmeterol 250 mcg-25 mcg/puff	-46%
fluticasone-salmeterol 250-50 mcg/puff	-56%
fluticasone-salmeterol 500-50 mcg/puff	-52%
tiotropium 2.5 mcg/puff	1%
tiotropium 18 mcg cap (10 caps)	-11%

Moving Forward

- \$4,218 saved in 6 months at one community hospital site
- Prevented 106 inhalers from being wasted over 6 months at one community hospital site
- Continue with dispensing patient-specific maintenance inhalers

THANK YOU for your contributions!

Questions?