Inventory Management for Automated Dispensing Cabinets

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Conflict of Interest

NO CONFLICTS OF INTEREST TO REPORT

Objectives

Outline the goals of Automated Dispensing Cabinet inventory management

Understand Automated Dispensing Cabinet inventory management terminology

Identify positive and negative practices used to reduce costs

Summarize steps to achieve best practices to reduce costs

Pre-Assessment

A. ADC inventory must be optimized to reach turn goal
B. ADCs only comprise a small portion of pharmacy inventory
C. A high par for fast movers should be set regardless of cost
D. Focusing only on the highest cost medications will control the inventory

Medication Costs

Inventory costs must include ADC costs

ADC Reporting

Stocked Items without Active Medication Orders > 90 days

Meds without Removals

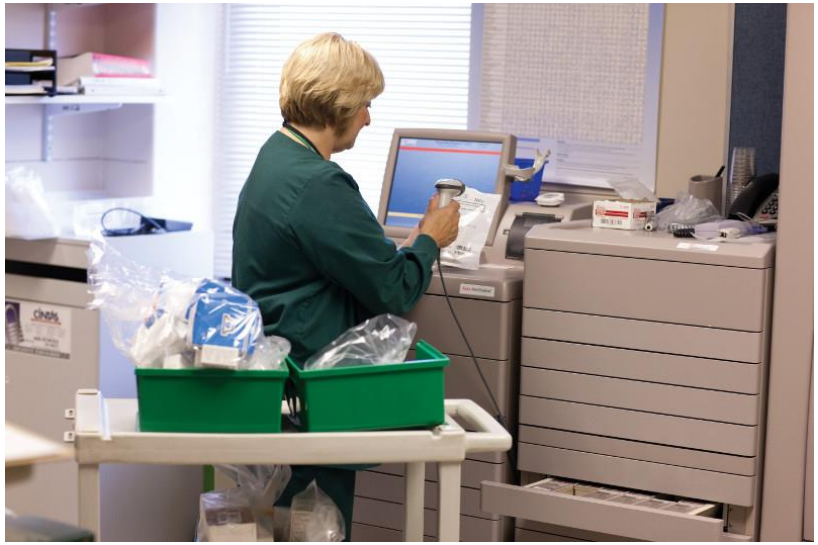
Par vs Usage Report > 90 Days

90 Day Utilization Report

Typical methods of ADC inventory management

Manage stockouts by increasing par levels

Decrease or remove items based on reduced utilization



What more can we do?

TARGET INVENTORY TURN GOAL

Extended Cost

What is it?

Calculating the extended costs in the automated dispensing cabinet inventory will determine the medications with the highest cost to carry

Item cost times total quantity = extended cost

Extended Cost

Why does this work?

The medications with the highest carrying costs are not the most expensive medications

They are usually the most utilized medication on the second tier.

Reduce the amount of inventory for high carrying cost drugs

Extended Cost

Pro

Great if you have someone who can enter all the costs of all medications

Con

Terrible if you don't have someone who can enter all the costs of all medications

PDCA

WHAT I DID

Plan

IDENTIFY HIGH COST MEDICATIONS

80/20 Top drugs by cost

- Rabies Immune Globulin
  - $22,720.92
- Methylprednisolone 40mg
  - $14,074.67

80/20 Utilized medications

- Methylprednisolone 40mg
  - $14,074.67
- Piperacillin/Tazobactam
  - $8,008
- Propofol 100mL
  - $6,313.89
- Tetanus Toxoid
  - $5,479.44
- Albumin 25% 50mL
  - $5,880.40

Do

ADJUST PARS FOR HIGH COST MEDICATIONS

Par vs Usage Report

- Methylprednisolone 40mg
  - 225 to 200
- Piperacillin/Tazobactam
  - 100 to 85
- Propofol 100mL
  - 50 to 40
- Tetanus Toxoid
  - 20 to 5
- Albumin 25% 50mL
  - 30 to 20

- Not below critical low

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Check

IMPACT OF HIGH COST MEDICATIONS

Prechange

- Methylprednisolone 40mg
  - $14,074.67
- Piperacillin/Tazobactam
  - $8,008
- Propofol 100mL
  - $6,313.89
- Tetanus Toxoid
  - $4,044.88
- Albumin 25% 50mL
  - $3,828.24
- Total $36,269.68

Postchange

- Methylprednisolone 40mg
  - $12,728.07
- Piperacillin/Tazobactam
  - $7,619.07
- Propofol 100mL
  - $3,593.94
- Tetanus Toxoid
  - $5,479.44
- Albumin 25% 50mL
  - $5,880.40
- Total $35,300.92

Tracking Savings

Drug	Current Max	New Max	Delta	Cost per dose	Savings
Methylprednisolone	225	200	25	$4.59	$114.75
Piperacillin/Tazobactam	100	85	15	$3.50	$52.50
Propofol	50	40	10	$10.83	$108.30
Tetanus Toxoid	20	5	15	$18.96	$284.40
Albumin	30	20	10	$36.81	$368.10
					$928.05

Act

MOVING FORWARD

- Review 80/20 Utilization in ADC
- Review Par vs Usage reports
- Repeat every 90 days to adjust

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Post-Assessment 1

A. ADC inventory must be optimized to reach turn goal
B. ADCs only comprise a small portion of pharmacy inventory
C. A high par for fast movers should be set regardless of cost
D. Focusing only on the highest cost medications will control the inventory

Post-Assessment 2

Extended cost is

A. Par times usage
B. Item cost times total quantity in stock
C. ADC cost
D. Item cost times usage

Post-Assessment 3

A. Extended cost method will definitely create savings
B. Extended cost method decreases inventory to reach turn goals
C. It is easy to implement extended cost for every item in the pharmacy
D. Medications with the highest carrying costs are always the most expensive medications

Post-Assessment 4

Number of days to assess par vs usage reports

A. 7

B. 28

C. 90

D. 365

Post-Assessment 5

A. Managing stockouts by decreasing the par will decrease spending
B. Automated Dispensing Cabinets can automatically manage the inventory
C. Pharmacy inventory includes ADC inventory
D. Turn goals should not include ADC inventory

References

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