NPPA 2019 BUYER'S CONFERENCE

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INVENTORY MANAGEMENT IN THE ADC & ITS EFFECT ON PHARMACY INVENTORY

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LEARNING OBJECTIVES

Participants will be able to:

1. Identify the importance/effects of patient populations
and service lines on ADC placement

2. Outline the process of selecting medications which may
be stocked in an ADC

3. Describe the retrieval of medication usage data.

4. Discuss data to help maintain proper levels of
inventory in the ADC's and Pharmacy

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NEEDS ASSESSMENT STATEMENT

Patient health and safety is always our number one goal. In order to provide our patients with medications in a safe and timely manner, we must optimally use the technology we have available.

It is the Pharmacy Purchaser's role to ensure medications are purchased on time, on contract (or best priced) and are readily available. There must also be a mechanism to ensure that medications are either rotated/removed before expiring.

NEEDS ASSESSMENT STATEMENT

must also avoid, to the greatest extent possible, excess inventory or stock outs. It is important that they manage both the inventory being kept in the main pharmacy and in the Automated Dispensing Cabinets (ADC's).

This task is not done in a day and requires the furnish Pharmacy

This session will help furnish Pharmacy Purchaser's with additional working knowledge for better inventory management in a facility that uses ADC's.

HOSPITAL WIDE INVENTORY

CORE Only Medications

These medications will be stocked only in the main pharmacy and should not be loaded in ADC's

Chemotherapeutic agents, medications with stability/ packaging concerns, highly concentrated/large volume medications

CORE & ADC Medications

These medications are stocked in both the main pharmacy and loaded in ADC's

Also included would be: COR Carts, Trays and Kits

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LET'S GET STARTED

What factors should be considered when placing ADC's?

1. Size and location of space available

2. Patient population/service line

3. Pharmacy Staffing/hours

4. Number of accessible machines

5. All of the above

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ADC PLACEMENT

All of the above

1. Size and location of space available

Med room (sm/lrg), corridor, hallway-

safe removal, handling, room for manipulations etc.

Configuration-

Main, Aux, Tower, Refrigerator

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ADC PLACEMENT *(CONTINUED)*

2. Patient Population/Service Line(s)

ER

PACU/OR (ADC/AS)

Procedural Area (ADC/AS)

General Floor

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ADC PLACEMENT *(CONTINUED)*

3. Pharmacy staffing/hours

How often can/will machines be filled

Is the pharmacy open 24 hours

Offsite machines

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ADC PLACEMENT *(CONTINUED)*

4. Number of accessible machines

Can nursing get to other machines in the same area

Can nursing access machines in other areas near by

Will the needed medications be available elsewhere

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MEDICATIONS

Decisions, decisions…..

Patient population/service line(s)

Safety recommendations[1,2]

Coverage area

Size, type and number of ADC/AS being used

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20% OF PRACTITIONERS SURVEYED REPORTED THAT ADVERSE PATIENT OUTCOMES OCCURRED BECAUSE OF A LACK OF INVENTORY MANAGEMENT AND MONITORING OF SUPPLY LEVELS.[3]

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REFERENCES

1. American Society of Health-System Pharmacists.

ASHP guidelines on the safe use of automated dispensing devices.
Am J Health-Syst Pharm. 2010; 67:483–90.

• 2. BD CareFusion Knowledge Portal

• 3. Lindsay O'Brien, Improving Supply Chain Efficiencies in the Safety Net: An Inventory Management Pilot Program for Free and Charitable Clinics, http://www.safetynetcenter.org/sites/default/files/images/Vecna%20Cares%20Overview%203%2015.pdf

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SO HOW MUCH?

1. NUMBER OF WEEKLY DELIVERIES	2. WHATEVER IT TAKES TO KEEP NURSING HAPPY	3. PHARMACY STAFFING	4. BOTH #1 & #3	5. SOMETHING ELSE

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DETERMINING STOCKING LEVELS

Part of a Consolidated Service Center (CSC)

Number of wholesaler deliveries

Specialty/Direct order deliveries

Number and size of ADC's

Pharmacy staffing/hours of operation

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GATHERING DATA

Sources:

1. Wholesaler: purchase history – may be of limited use in ADC's
   Drug velocity and utilization comparisons reports

2. Automation Vendor: limited use for CORE inventory
   Stock-outs should be less than 5% per 1,000 transactions[2]
   (Reference #2 from: BD CareFusion Knowledge Portal)

3. Pharmacy Information Systems: too many data points?

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INVENTORY MANAGEMENT: PURCHASE HISTORY

Wholesalers: Typically have some type of inventory management software built in to the ordering platform or available for an extra fee for customer use to assist with determining turns.

Calculating turns can be complex and many factors must be considered.

- Product category (A, B, C…)
- Carrying costs (19-40%)
- Lead Time (1-7 days)

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INVENTORY MANAGEMENT: PURCHASE HISTORY (CON'T)

Item Category/% of Purchase Dollars/% of Inventory Units

- "A" Products: 70%. Largest expenditure and highest turnover rate.

- "B" Products: 20%. Average expenditure and inventory space.

- "C" Products: 10%. Lowest turnover rate; infrequent number of purchases.

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INVENTORY MANAGEMENT: ADC USAGE

Automation Vendor: Depending on the vendor and products purchased, the inventory program may only be helpful for calculating MIN/MAX for each machine based on what is loaded.

Levels of Reporting:
- Machine (Limited number of reports, difficult to print)
- Server (More reports, easier to print, limited access)
- Separate customer portal (Large data base, lots of reports, access dependent)

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INVENTORY MANAGEMENT: PHARMACY SYSTEMS

Pharmacy Systems:

1. Order entry – may have reporting capabilities

2. Wholesaler – more reporting

3. Third party vendors – interface/HIPPA issues

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YOU HAVE THE DATA, NOW WHAT?

What do you do with all of this information?

- How do you know which data to use?
  (Purchase vs. Usage)

- How do you know the data is accurate? (Seasonal)

- Is there data for both CORE and ADU inventory?

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IT TAKES A VILLAGE PHARMACY

Pharmacy Director/Pyxis Administrator/Clinical Pharmacist/IT

Pharmacy Purchaser

Technicians/Pharmacists

Pyxis Technician

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WRAPPING IT UP

Placement

Medication selection

Data mining

Data usage

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