From Observation to Action: Perioperative Inventory as a Jumpstart to Supply Chain Performance Improvement

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AGENDA

- Why Perform a Physical Inventory?
- Observations
- Opportunities for Improvement
- Benefits
- Conclusion

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WHY PERFORM A PHYSICAL INVENTORY?

- First, consensus on <u>what is inventory</u>?
  - Inventory refers primarily to goods and other tangible items that a business holds ultimately for sale (in healthcare this is "sold" to the patient).
  - As a verb, inventory means to count or list units of a resource on hand.
  - Also an inventory refers to a listing for a specific purpose such as an inventory list of medical equipment and supplies needed to be on hand in an operating room.

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WHY PERFORM A PHYSICAL INVENTORY?

- Inventory can be treated in two ways:
  - Perpetual – "Official" Inventory, showing on the balance sheet as an asset. Not expensed as a cost until used. Book value usually determined via the ERP system.
  - Periodic – "Unofficial" – Expense is taken at the time of receipt, regardless of when the products are used. Goods may be treated as a balance sheet asset, but via a manual process only.

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WHY PERFORM A PHYSICAL INVENTORY?

- Why Perform a Peri-Operative Inventory?
  - "Because Finance Says So"
    - Really because a large part of the organization's capital are tied up inventory assets
  - "Running out of Real Estate"
    - Do not have enough space to store all of the supplies
  - "Anticipate Demand"
    - For example due to seasonal population variation
  - "Insurance Claims"
    - If the organization suffers losses due to hurricane damage, knowing inventory levels/values particularly from independent third party helpful in submitting claims.

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WHY PERFORM A PHYSICAL INVENTORY?

- What do we count?
  - Official Inventory Only
  - Non Stock
  - Consigned Stock

Other types of inventories frequently conducted in the Peri-Operative space are Medical Equipment and Instruments

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WHAT TO COUNT?

NON STOCK

PROS	CONS
Know what we actually have and the value.	Items are already expensed.
Identification brings about an opportunity for appropriate decision making.	Unofficial locations can make it difficult to locate all items easily.
Can create visibility into procurement practices outside of normal processes.	Additional work will be required to assign a value to products.
Opportunities to manage items the right way.	Territorial issues can undermine the process.

CONSIGNED STOCK

PROS	CONS
Organizations should know the value of potential liability.	Labor expended for product that is not owned.
Opportunity to reconcile back to consignment agreements.	Consignment reconciliation should be vendor responsibility.
Reset accountability back to the vendor.	Difficult to manage inventory in some ERP systems.
Assess if consignment is appropriate.	

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INVENTORY DECISION POINTS

- Does when the inventory is performed matter?
  - Is there any benefit to:
    - The time of day the inventory is taken?
    - Day of the week?
    - Who conducts the inventory?
    - Who participates in the inventory process?
    - What data will be used to value the inventory?

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WHAT WAS OBSERVED DURING THE INVENTORY?

- Observations:
  - Clinical staff leaving the OR's during procedures to obtain suture and surgeon's gloves;
    - There are suture trees but finding suture everywhere;
  - PAR locations being overstocked, levels far exceeded documented PAR levels;
    - Are the material technicians overstocking so they do not have to go back to the area routinely or are clinicians hoarding supplies and returned them to their "normal" storage location prior to inventory so they are not "found" in secondary hoarding locations?

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WHAT WAS OBSERVED DURING THE INVENTORY?

- Observations:
  - Stock not being rotated as evidence by high volume of expired product collected during the inventory count itself as well as observed by inventory staff in the count process;
    - Expired product tracking not happening
  - Consignment items not clearly marked as consignment;
    - Consignment not being tracked effectively in order to reconcile with vendor records
  - Is the supply chain automation (if any) in the OR appropriately supporting that operation?

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OBSERVATIONS

- Inventory Observations
  - Clinical Staff repeatedly coming out of the OR Suites to the CORE to obtain supplies – the question is WHY?
  - Are they consistently the same supplies?
  - Where are supplies located?
  - How are the supplies organized?
  - Value Stream Mapping – Using the 5 Why Technique

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OPPORTUNITIES FOR IMPROVEMENT

- Inventory Observations Resulted In The Following Opportunities For Improvement To Be Considered:
  - Suture/Endomechanical Management Program (*may be internal or 3rd party*)
  - Assessment of the Physical Layout of the OR
  - Distribution Model Review Specific to Case Picking
  - Preference Card Management
  - Par Level Automation Workflow Review
  - The Consignment Conundrum

"My financial strategy? Hope for the best, but plan for the worst."

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BENEFITS FROM THE OPPORTUNITIES FOR IMPROVEMENT

- The ROI or Benefits from addressing the observations from the Physical Inventory were the following:
  - Suture/Endomechanical Management Program
    - Implementing Suture Kits and no longer picking suture as part of the case pick process.
  - Assessment of the Physical Layout of the OR
    - Reviewed product placement and implemented high volume items on carts right outside the ORs.
  - Distribution Model Review Specific to Case Picking
    - Determining the rationale and how it impacts supply issues and workflow

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INVENTORY REPORTS AS AN ANALYTICAL TOOL

- So I have the inventory valuation results, now what?
  - Year Over Year Trend Analysis
  - Items Not Matching to Item Master
  - Item Description Inconsistency
  - Identification of Redundant Storage Locations as well as Redundant Product Types
  - Discovery of Obsolete/Expired Inventory
  - Verification of Consigned Product
  - Overstock Analysis through Count Consolidation Review
  - Manufacturer Spend Analysis

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OTHER POINTS TO CONSIDER

- How can a cycle count process impact OR Inventory workflow and processes?
- Par Level Management is not a one-time process. Managing velocity, throughput and replenishment requires a systematic approach.
- During an inventory process, identifying what you *do not* know is as important as what you *do*.
- What are the positive ways we can engage the OR staff and leadership with the reports and analytics for long term improvements?

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WHERE CAN WE GO FROM HERE?

- Vendor managed inventory programs in the OR.
- Creating linkage between inventory reports and analytics to process improvement:
  - Does utilization = purchase volume = on hand value
  - Transitioning away from “Just in Case”
  - Managing product and supplies within the physician movement environment
- The basis for OR Supply Chain education for clinicians and physicians.

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QUESTIONS

Do you have any questions?

Thank you for your attention and participation!

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