February 18, 2019

M E M O R A N D U M

TO: Ryan Roux
Vice President of Pharmacy, ad interim
Director of Pharmacy Operations, Division of Pharmacy

FROM: Sherri Magnus Sherri Magnus
Vice President & Chief Audit Officer

SUBJECT: Pharmacy Inventory
Audit Control Number 2019-117

Internal Audit performed a limited inventory assessment following a 21% increase (from $37 to $45 million) in pharmacy inventory as of August 31, 2018. As part of this assessment, we reviewed the activities surrounding par levels and expired non-controlled drugs.

At the time of our assessment, management had determined and communicated the following reasons for the variance to executive leadership:

- $2.1 million was the result of delayed shipments at the time of Hurricane Harvey that were not received until FY2018.
- $1.7 million in manual invoices were not posted until FY18 due to Hurricane Harvey.
- $2 million in additional inventory for oral chemotherapy medication.

Management has revealed that the delayed posting of invoices and shipments artificially lowered FY17 inventory value, impacting the FY17 to FY18 percentage increase. Additionally, management stated that the addition of expensive therapies to standard of care in recent years would cause an expected annual increase in inventory value.

In addition, we identified opportunities for improvement as noted in the observations below.

Observation 1:
Enhance Monitoring of Inventory Management System ***RANKING: Moderate***

The Division maintains approximately 90% of inventory in automated inventory management systems. This is intended to provide management with reasonable assurance that drug inventories are properly safeguarded, monitored, and accounted for appropriately. According to institutional policy, inventories should be regularly monitored to ensure efficiency and effectiveness in operations and to support management's decision-making.

While we recognize the benefits of such systems, some risks still exist that require management's attention:

- These systems do not always provide the ability to track or monitor par level changes through audit trails. Because most individuals with access to these systems have the ability to change par levels as part of their daily job responsibilities, the risks are increased that unnecessary changes may occur and overall inventory costs may be impacted.

- Par level formulas have not been reexamined since an extensive improvement process was undertaken in 2012. Pharmacy management recognizes that some par levels may be higher than warranted. When par level formulas are not evaluated on a regular basis, par levels may not align with current needs or expectations, and overall inventory costs may increase.

Recommendation
Management should develop a plan to monitor par levels, including a periodic assessment of the par level formula, for the "Top 50 drugs", which account for 75% of the drug costs.

Management's Action Plan:
Responsible Executive: Ryan Roux
Owner: Brian Miller, Tom Prudhomme
Due Date: May 2019

There are greater than 30,000 line items in Pyxis (automated dispensing cabinets on nursing units) and greater than 3,500 line items in Phacts (inventory carousels in pharmacy locations). Par levels are reviewed on a quarterly basis for all Pyxis and Phacts medications. Only significant quantity changes are made from the recommendations from the report. As an additional measure, Pharmacy will begin reviewing the inventory par levels for the Top 50 line items by total drug spend on a monthly basis.

Pharmacy will work with the vendor to determine if access to adjusting par levels can be further restricted without compromising workflow. In addition, Pharmacy will resubmit an enhancement request to the vendor for an audit trail of employees that change par levels.

Observation 2:
Strengthen Controls over Expired Non-controlled Drug ***RANKING: Low***

Pharmacy places expired non-controlled substances in open centralized locations in each pharmacy to await pickup by a reverse distributor. A reconciliation is not performed to ensure that the actual inventory retrieved by the distributor agrees to the inventory records. As a result, the risks are increased that these drugs may be diverted or misplaced without the knowledge of management.

According to institutional policy, management has a responsibility to establish appropriate internal controls to protect inventories such as drugs.

Recommendation
Management should strengthen the safeguarding of expired non-controlled drugs once they are removed from inventory and pending retrieval. This could include, but not be limited to:

- Securely store drugs in locations separate from individuals tasked with either removing the drugs from stock or obtaining replacement/credits.
- Reconcile the expired drug inventory picked up by the reverse distributor, at the time of retrieval, with the record of expired drugs removed from inventory.

Management's Action Plan:
Responsible Executive: Ryan Roux
Owner: Brian Miller, Tom Prudhomme
Due Date: May 2019

Pharmacy will explore options to electronically track expired medications placed in quarantine areas. Pharmacy will develop a Standard Operating Procedure to include the outdate slip with the expired medications removed from Pyxis. Pharmacy will attach a report of all expired medications removed from the carousels. All manually controlled areas will document expired medications on a Miscellaneous Drug Issue Form and attach to the bag of expired medications. Pharmacy will further explore options with the reverse distributor to electronically track the quarantine of expired medications.

We also discussed prior audit results and conclusions with management, in order to provide them with a historical perspective on potential risks and control weaknesses that they should continue to monitor. Additionally, risks related to monitoring of inventory discrepancies continue to be addressed by other internal committees. The courtesy and cooperation extended by the Division of Pharmacy was sincerely appreciated.

cc: Brian Miller
Tom Prudhomme