



The University of Texas Medical Branch
Audit Services

Audit Report

Angleton Danbury Campus Omnicell Review

Engagement Number 2016-022

March 2016

The University of Texas Medical Branch
Audit Services
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Angleton Danbury Campus (ADC) Omnicell Review Engagement Number: 2016-022

Background

The University of Texas Medical Branch (UTMB Health) utilizes a clinical supply dispensing system manufactured by Omnicell, Incorporated to help streamline inventory management and automate capture of supply charges for billing purposes. The institution defines a “chargeable supply” as an item valued at \$5.01 and above.

In September 2015, the Angleton Danbury Campus (ADC) transitioned to the Omnicell system with the installation of machines in the Medical/Surgical, Intensive Care, Labor and Delivery, and Pre and Post-Operative units. Successful implementation of the Omnicell system required a collaborative effort between ADC and Supply Chain/Logistics personnel from the initial planning stages through post implementation monitoring and support.

Audit Objective, Scope of Work and Methodology

The primary audit objective was to assess the achievement of the implementation project goals and objectives and the effectiveness post implementation of the Omnicell supply system at the Angleton Danbury Campus. The audit scope focused on the current operations, and our methodology included a review of the implementation process and plan including an assessment of user requirements, effectiveness of internal controls, training, go-live and post implementation support. In addition to interviewing key personnel, Audit Services also performed limited testing and analysis of applicable data.

The audit was conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing* as promulgated by the Institute of Internal Auditors.

Audit Results

Pre-Implementation

A detailed plan for the actual “go-live” event should be developed at the earliest opportunity. Many of the “go-live” tasks involve preparation lead time and carefully coordinated activities which merge seamlessly for a successful implementation. Audit Services interviews and review of related documentation indicated there was a sufficient process established prior to the Omnicell machine implementation for communicating, supporting, and resolving any installation and go-live issues. Additionally, the documented implementation plan was developed based on the ADC clinical area needs in terms of machine placement and selection of supplies and par levels.

Training

User training is generally required to cover essential work-related skills, techniques, and knowledge, particularly when a significant change to workflow occurs. Audit Services review of the Omnicell training materials indicated they were readily available and appeared to provide an adequate reference guide for users.

Additionally, Audit Services sampled 25 ADC users to determine if training was received timely and attendance documented. No exceptions were noted as all employees sampled completed training prior to the implementation as supported by appropriate sign in lists.

Angleton Danbury Campus (ADC) Omnicell Review Engagement Number: 2016-022

Internal Controls

Policies and Procedures

Detailed policies and procedures are an effective control activity providing guidance to staff; providing reasonable assurance a department is in compliance with applicable laws and regulations; and, helping ensure management directives are followed. Although processes are established for routine operation of the Omnicell units, these processes are not documented. Additionally, documented guidance for accessing and charging supplies during a system outage was unavailable.

Recommendation 2016-022-01-P-M:

The Vice President and Administrator, ADC Campus, working with Supply Chain and Logistics leadership, should document policies and procedures, including any down time procedures, to ensure continued access to supplies housed in the Omnicell units.

Management's Response: UTMB Supply Chain Logistics has developed and documented down time procedures for the Omnicell (OptiFlex) units which will be shared with Healthcare leadership at all campuses where OptiFlex has been installed.

Implementation Date: Immediately

Access Controls

The Office of Information Security Practice Standard 1.2: Account Management requires "rules for the creation, monitoring, control, and removal of user, generic (service, email, etc.), and escrow accounts" be established. To satisfy these requirements, all accounts with access to UTMB Health information resources, including Omnicell, must be disabled after defined periods of inactivity, permanently deleted after a defined period of revocation, and periodically reviewed according to a formal process to ensure their continued appropriateness. Although we noted established procedures for account creation, training of approved users, and account deactivation via Active Directory, multiple user accounts were found active within Omnicell that do not comply with established practice standards. To ensure the accuracy of user information, the consistent application of least privilege, and the continued appropriateness of user accounts, these accounts must be subject to periodic review, which is now a quarterly requirement resulting from recent revisions to University of Texas System (UTS) Policy 165.

Recommendation 2016-022-02-P-M:

ADC Materials Management, as the information systems custodian, should create and complete a formal process to review all Omnicell user accounts for continued appropriateness. Access to Omnicell should be access restricted as appropriate.

Management's Response: : To help maintain system security and ensure that the appropriate access to the OptiFlex system is granted to department end-users, UTMB Supply Chain Logistics will, on a quarterly basis, have the system administrator use the report function on the OmniCenter to generate a list of users for each unit. The user list for each unit should be reviewed and updated by the department manager and sent back to the system administrator for input into the system.

Angleton Danbury Campus (ADC) Omnicell Review Engagement Number: 2016-022

Implementation Date: Q3FY16

Inventory Management

Based on our walkthroughs, information reviewed, and interviews with the ADC Nurse Managers, Audit Services noted that the supply inventory management process appears to be working as intended. Additionally, we noted if any necessary adjustments are identified, corrected, and communicated timely.

Post Installation Assessment

A key activity in the implementation of a new process or system is to perform a post go-live assessment to identify lessons learned and potential enhancements that could benefit future implementations. Audit Services interviews with Supply Chain and ADC personnel indicated a formal post installation assessment was slated to occur in the March to May 2016 timeframe, six to eight months after the September 2015 go-live. However, after the significant supply par level adjustments made in February 2016, it was determined it would be more appropriate to allow for sufficient time for the integration of the process changes before the post-implementation assessment. The assessment is anticipated to be completed in the next several months.

Post Installation Support

ADC has technicians available on-site to provide immediate support of the Omnicell machines. Additionally, a full time Omnicell employee, located at UTMB main campus, is available to provide assistance to users, conduct training, and support any needs of the machines beyond the capabilities of the on-site ADC technicians. ADC Nurse Managers interviewed reported the support they have received thus far has been adequate and timely, and they have been using the Omnicell machines without any issues.

Charge Capture

Audit Services tested 25 ADC patient supply charges from November 2015, noting it appears that all of the supplies charged to the patients for billing purpose were appropriately traceable to the correct patients.

Oversight and Monitoring

ADC Materials Management provides bi-weekly Omnicell utilization reports to the ADC Nurse Managers for review and additional action as needed. Through discussions with the ADC Nurse Managers, Audit Services confirmed they are appropriately monitoring through their review of the utilization reports.

Conclusion

Audit Services review of the Omnicell system installation at the UTMB Angleton Danbury Campus indicates it appears well-organized and appropriately documented. There was a high level of communication and collaboration between Supply Chain and the end users at ADC. Additionally, ongoing monitoring and support activities are established to ensure Omnicell supplies are readily available for patient care with associated charges flowing through to billing and claims.

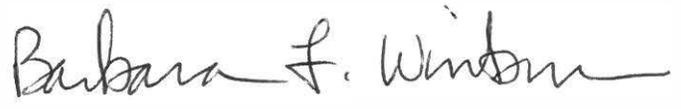
**Angleton Danbury Campus (ADC) Omnicell Review
Engagement Number: 2016-022**

Opportunities to enhance current operations were noted related to documentation of processes and access control.

We greatly appreciate the assistance provided by ADC Campus and Supply Chain personnel, and hope that the information presented in our report is beneficial.



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