

King's Brook Jewish Medical Center *Siemens & Integration Practice Case Study*

KJMC engaged Vitalize Consulting Solutions, Inc. (VCS) to assist with a syngo[®] Workflow upgrade, and a Powerscribe[®] voice recognition system implementation. KJMC decided to move to the digital era despite limited resources and other common economic struggles. They improved their workflow processes by adopting technology to achieve efficiency throughout the organization.

Powerscribe[®] 4.7, Voice Recognition Implementation (net new)

KJMC implemented Powerscribe 4.7 in order to provide a future framework for data capture. This allowed the organization to capture teaching and special flags within special fields of the dictations that would then be transmitted to syngo Workflow via an OpenLink interface. The fields were mapped to populate in specific teaching cases and special flag fields, for later data mining needs from the radiologists.

Today, KJMC data mines syngo Workflow for those data components to quantify and analyze “teaching cases.” The special flags are used for different variables. For example: one special flag is used to capture “critical cases”, which are quantified and analyzed after they’ve been put into report format. The system was designed for future growth. Performance improvement programs and policies rely on this type of information to provide clinical and performance statistics. One benefit of these measures is results turnaround has greatly improved since the go live. There is greater data integrity and efficiency transferred among the Powerscribe and syngo systems. Reports are easily viewable in both systems, providing alternatives for results distribution.

syngo Workflow V27.2 upgrade from V26.2

KJMC engaged VCS to assist with an implementation from Novius Radiology V26 to syngo Workflow 27.2. While the platforms are similar, there are several differences in database structures. These are primarily in: Mammography, User Defined Reports (UDR’s), Modality Worklisting (MWL), Modality Perform Procedure Step (MPPS), and other areas of the Siemens Radiology application. Because of these differences what initially started as an expedited upgrade, quickly evolved into a complicated project.

KJMC did not go live as schedule due to various factors, including scope creep. The lessons learned were documented, and included a turnover in the Siemens Project Management resource, and many technical factors. Ultimately, the go live was truly successful and there were no technical issues. Documented concerns



Kingsbrook Jewish Medical Center (KJMC), located in Central Brooklyn, is an 864-bed medical training institution

were due primarily to education about adoption of the syngo Mammography module and were quickly resolved.

Following the go live, additional features and functions were enabled: Interactive Documents, document scanning/imaging, MWL, MPPS, updates to Mammography, and many other post support and additional tasks. The overall deliverables included:

- syngo Workflow 27.2 upgrade, and internal project management through go-live event
 - All master file reviews
 - Data conversion validations
 - Software acceptance testing
 - Unit acceptance testing
 - Interface acceptance testing, scripts development, and scripts execute
 - Future state design, implement
 - Result distribution automation
- Autofaxing
- syngo Mammography
- MWL
- MPPS (currently not 100% utilized for workflow process reasons)
- syngo imaging integration
- syngo to Powerscribe interfaces
- Interactive Documents (IDOCs)
- Document scanning
- User Defined Reports (UDRs)
- syngo workflow internal support
- syngo workflow knowledge transfer and ongoing support
- syngo Workflow analysis and business process analysis and adaptation performance improvement tools)
- syngo Workflow 27.2 High Availability infrastructure setup(H.A.), internal Co-project management

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syngo Workflow V27.2, implementation - Project Management

During the upgrade, KJMC had an internal Project Manager for Siemens applications. However, syngo Workflow's specialized process for medical imaging required additional expertise. This led to a collaboration with VCS which inspired critical questions that moved the project forward and allowed for additional features and functions to be developed in preparation for future process flow changes, developments, and improvements. This preparation ensured KJMC will be suitably designed to fit and easily adopt future changes.

syngo Workflow V27.2, post-live support

Post-live support included the fine tuning of MWL, MPPS, and the adoption of multiple IDOCS. It also included syngo Workflow support during the syngo Imaging (PACS) implementation and go live.

VCS consultants assisted in the knowledge transfer of syngo support to a newly appointed RIS Analyst. During this time, VCS had the opportunity to provide first-hand knowledge, including basic system support requirements and daily system checks. The overall goal with post-live support was to transfer knowledge and assist KJMC in becoming self-sufficient. Today, KJMC requires less assistance from VCS with syngo Workflow, as their knowledge base continues to expand. Such practices provide the customer with system support efficiencies, which are easily translated into dollars saved.

syngo Imaging integration, to syngo Suite

syngo Imaging (Siemens PACS), integrated into syngo Workflow, in its entirety, is called syngo Suite. During the syngo Workflow endeavors at KJMC, the customer had already predetermined a PACS vendor. syngo Imaging (Siemens PACS) was selected to "integrate" with syngo Workflow. This was a seamless, yet challenging task. VCS facilitated the install while working with the Siemens PACS team. VCS created a system setup to make all the systems work together. The KJMC staff, VCS staff, as well as Siemens Consultants participated collaboratively with the install and carefully coordinated the Siemens RIS, Siemens PACS, and Powerscribe voice recognition systems. This was setup, as a RIS-centric architecture, meaning, Read Exam worklists for radiologists were triggered on the RIS side, which launched PACS images related to studies selected on the worklists. This also triggered Powerscribe to receive the current accession_itn and identify the appropriate

orders associated with the worklist selection. Once syngo Imaging went live the normal round of issues manifested. The primary concerns revolved around end-user education and some minor desktop issues. It wasn't long before all the issues were resolved.

syngo Suite Subsets:

Modality Worklisting (MWL):

During the PACS install process, MWL was launched and syngo Workflow was the service class provider of the MWL. Such worklists provide order data relevant to each accession_itn, which is unique to each exam ordered. Orders can be queried at the equipment level (modality) for an optimal paperless environment. KJMC has continuously phased in additional modalities to use this process of MWL. It requires build efforts on the syngo Workflow side, as well as the modality side. This does not affect PACS other than it receives accurate information that is not manually keyed into modalities. Further, MWL provides a greater flexibility with cancel and change orders, because it requires less manual intervention.

Modality Perform Procedure Step (MPPS)

While there is an existing architecture to provide MPPS, it is not fully utilized. This was primarily a managerial decision, in order to keep end-users focused on syngo Workflow for additional data capture/entry. That is, interactive documents, reactions tracking, and supplies tracking are all necessary for management reporting and data capture. MPPS can improve workflow in medical imaging by providing inbound interface to syngo from the modalities, that allows the tracking step updates necessary to complete a study and move it to the next level. Generally, End Procedure is the MPPS step that can be automated from MPPS. This will then trigger status updates to PACS, and even Powerscribe to allow the radiologist worklist entries. It's all real-time.

While MPPS is an efficient feature to offer end-users at the modality level, it is important to continue data captures necessary to patient care.

These achievements took KJMC further along in the goal of creating a paperless environment, improved workflow process, increased system uptime and stability improvement, improved data integrity and change management implementations.

If you would like to learn more about the Siemens solutions offered at VCS please contact us at (610) 444-1233 or e-mail vcs@getvitalized.com

Experience VCS. IT's what differentiates us.

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