

Revitalize Your Medical Records Department – With Workflow Automation Technology

Medical Records

Medical records are permanent and legal documents that must accurately define and record the history of a patient's visit. The data within a medical record must justify the treatments ordered for the patient, satisfy legal requirements, maintain sufficient provider documentation and authentication, as well as allow statistical reporting and improve patient care. In many hospitals, data for inclusion in a medical record are collected from many sources, such as various MEDITECH modules, third party software, physician offices, insurance companies, etc. Many different health care professionals and many different software systems have their "hands in the medical record pot."

Information Gathering

The process of gathering information that is created during a patient visit is an enormous task. Ensuring that the medical record is complete and precise is another challenge. The required data for a complete medical record varies by patient type, nature of the visit and treatments/procedures ordered, etc. Documents are generated from every person or department that a patient visits, regardless of how short or long the patient stay is. As patient information is collected, the patient's chart is built. During this process, there is a high probability of lost and/or damaged paper documents. After discharge, the analysis clerks review and verify the charts for completion. They track down missing information and complete the chart. There is a significant amount of manual labor involved in their workday. These clerks often have to listen to physician dictation to track whether an H&P or a discharge summary, etc. has been dictated.



They also have to contact departments and clinicians to secure missing chart information.

Power of Workflow Automation Technology

In other industries, workflow-centered solutions are proven to streamline processes, reduce redundant tasks, and cut overall costs. According to David Essex in an article titled, "The Many Layers of Workflow Automation," published in the June 2000 issue of Healthcare Informatics, workflow technology also saves several people from doing the same work that others have already done, or postponing their own tasks while others finish theirs.

If the same concept of workflow automation is applied in the medical records area, patient information from different HIS and vendor applications can be collected electronically in a systematic manner and incorporated into the medical record. Consequently, all patient-related information can be accessible online for all hospital users in one system, regardless of whether the information is created in MEDITECH or another system. This information can then be analyzed electronically for completion, resulting in an accurate and complete EMR.

Document Imaging Technology

The following paragraphs discuss in detail two workflow-centered IT solutions as part of the foundation for a complete electronic medical record (EMR). First up for discussion is document imaging technology.

Document imaging technology can digitize paper documents and make these available instantly to all users across a healthcare enterprise.

By capturing paper documents as electronic images, hospitals have the power of database, e-mail, fax, print and electronic storage. Hospitals can replace

the old manual processes of copying/filing documents, which are highly labor and cost intensive, with **Point-of-Service Scanning**. This system with distributed scanning digitizes paper documents as these are collected or generated, at the point-of-service. There is no longer a need to chase down documents across different departments. Paper handling, sorting and filing pressures are also reduced. Patient is happier too as he/she is not repeatedly asked for the same information by staff of different departments. A second imaging workflow option exists in the form of **Batch Scanning** to scan a large number of documents at the same time, for example EOBs for batch posting. Regardless of the workflow option, once the information is scanned, it is simultaneously available to all users across the continuum of care.

It is important to point out that Information access needs to be limited to ensure that the HIPAA privacy and confidentiality requirements for patient information are met. For this purpose, hospital-defined access groups can be set up in the system to allow access to selected patient information. Hospitals can also set up audit trails to track which user accessed what information.

Requirements of a Successful Imaging Solution

A successful workflow centered imaging system must integrate seamlessly with MEDITECH and other HIS to receive patient information and data.



The system must be versatile and flexible to handle various departments, such as medical records, business office, materials management, human resources, etc. The system must also integrate at a session level with MEDITECH via same logon, and have the ability to be secured by user to only show documents based on user authorization. The system must also have the ability to adapt hospital business logic and prompt users for necessary and required documents to collect during admissions and other areas. This ensures that vital information is collected in a timely manner.

Finally, it must have advance security features and audit-trail ability to provide a mechanism for complying with the information security requirements of HIPAA. Process automation in the document imaging area ultimately leads to reduced paper, storage, filing and copying costs, immediate availability of patient documents/reports online, and prevention of lost or damaged documents. By modeling best practices, a workflow centric imaging solution can drive each user to achieve a stated objective in the most customer-focused and cost effective manner and streamline processes.

Automation of Chart Deficiency Tracking

Besides document imaging technology, the second workflow-centered IT solution as part of the foundation for a complete electronic medical record (EMR) is a chart deficiency tracking system. In the chart deficiency tracking process, the clerk or analysis clerk has to track down patient documents/information from all departments, check the chart into the HIM department, put the medical record together in the proper order, analyze it for deficiencies, put stickers at the appropriate spots requiring information, remember what information is required for a complete medical record for all scenarios, and re-analyze the chart after clinicians/departments fill-in the missing pieces. Needless to say, there is much room for automation and efficiency in the overall process.

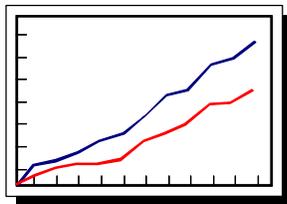
Two Systems Working Cohesively

HIM professionals must remember numerous legal and hospital standards when ensuring that correct analysis is done on the medical record. With the help of an automated chart deficiency tracking system, the entire manual process related to chart deficiencies could be reengineered. All information can be made available online and deficiencies can be automatically flagged. Once the provider updates flagged information, the chart can be automatically re-analyzed, removing the deficiencies. This is where it is important for the chart deficiency tracking system to be integrated with the enterprise-wide document imaging system. This integration means

two workflow-centered solutions working cohesively to enhance operational success for a complete and precise EMR. Sounds revolutionary, but what does it mean to HIM professionals searching for the elusive EMR? What it means is that there is no restriction on how the document appears for the chart deficiency tracking system to work. It can be a scanned handwritten note, paper document, or information collected electronically. What it means is that the imaging system can find missing documents and feed data to the chart deficiency tracking system so deficiencies can be flagged for completion from both MEDITECH and other vendor systems. Without workflow technology, the chart/analysis clerk must look at each patient chart manually, and decide whether the information is all there. Integrated with the imaging system, the deficiency tracking system can identify/mark the correct status of the document electronically in one system.

Chart Deficiency Tracking – How The Automated System Works

Following is a detailed picture of how the automation works for chart deficiency tracking. Initially,



intelligent rules need to be set up in the system to define which documents are needed to complete a chart. Rules also need to be set up to identify/mark the

correct status of documents and to identify the source for retrieving missing information for flagged documents. Hospitals can define rules for completing a patient chart based on patient type, nature of the visit, and treatment/procedures. For instance, hospitals can make a list of specific documents necessary for a patient's medical chart based on whether the patient is an inpatient, SDC, ER patient, etc. or use other criteria. By matching the image/document with ADT and orders and storing in a relational database, the system can auto-compile a list of data missing from a medical record using the set up rules, and electronically get charts marked for completion.

The output is an online tracking system that identifies the documents included in the patient chart and the

missing documents. The analysis clerk then only has to handle exceptions as needed. The clerk still has the ability to mark deficiencies manually for documents that were never entered into the online system. With the power of workflow automation technology, HIM staff no longer needs to chase after charts to manually update what the healthcare provider has completed; this process is automated. The chance of human error is also reduced, along with a significant decrease in the workload and stress of an analysis clerk. Taking it a step further, the automated system can be coupled with reporting tools based on SQL relational database, which can instantaneously show statistics, identify patterns of physician delay, and track turn-around time for documents needing review from healthcare providers. These reports can be printed, faxed, e-mailed or taken to committee meetings.

HIM professionals who used to spend time manually tagging deficiencies, can now scan patient documents and match scanned documents to patient account numbers. This procedure, in turn, updates the chart deficiency tracking system. With all patient information tracked online to complete a medical chart, it paves the way for a complete and accurate electronic medical record (EMR).

End Product – Electronic Medical Record

With an electronic medical record, staff can have instant access to patient data in one system, regardless of the data source. Hospitals can also allow various departments to do research on a patient simultaneously. In the medical records department, coding can take place electronically. If you are a hospital administrator, this means no more coder shortage to add to your stress load. With all records maintained electronically and accessible in one system, doctors, coders, analysis clerks and HIM staff, etc. no longer have to wait on each other, and work can be done remotely as well. Coupled with electronic signature automation, documents can be signed online by multiple users with the tracking system reflecting the correct status after a document is e-signed.

As many physicians and healthcare staff will vouch, there is no longer an option of paper versus

computerized charts. With the power of workflow automation technology, it is possible to reduce redundant steps and errors, have more efficient processes, and increased productivity in the medical records department. There is incredible power and strategic leverage in having an electronic medical record accessible to all users in one system. The question is are you ready for this revolution!

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