Queuing up for Quality: Boosting Quality with Electronic Work Queues

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*by **Susan Denny,** RHIA*

Electronic work queues capture incomplete records, enabling quality improvement initiatives to do more, more easily.

More than two years ago Jupiter Medical Center went live with an electronic record and retrieval system. The system allows users to scan and view records after discharge, assign deficiencies, and store records electronically.

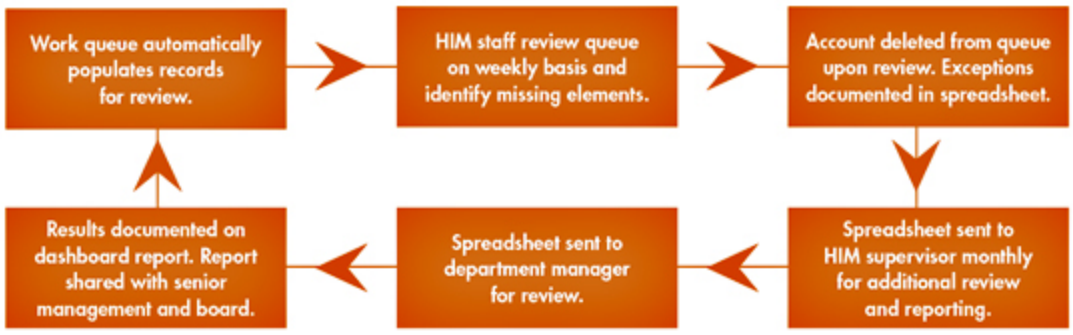
Going electronic has enabled a leap in documentation quality and medical record completeness. The HIM department has capitalized on the system to perform more quality initiatives and see better outcomes in quality than in the paper environment.

Previous record-processing functions in the paper system were limited and normally done with a small sample size. Time and access constraints made it difficult to complete quality reviews in areas such as analysis, Joint Commission requirements, record content, and chart completion.

In the new system, however, quality improvement processes are easier with electronic tools called work queues, which capture incomplete records based on predetermined criteria while leaving the record accessible to others. Queues ensure that all charts have the core documents of a complete medical record, based on patient type. For example, a nursing admission history is core content for all inpatient records.

The HIM department uses the queues to monitor for chart completeness, meet Joint Commission requirements for the IM standards, and review nursing documentation for quality assurance. The queues help improve quality of care, mitigate risk in legal litigation, improve coding, build credibility with physicians, and reduce cost for off-site storage.

Jupiter's Work Queue Process



The process begins at the top of the diagram, when records are automatically populated to the queue and HIM staff review for missing core content. Exceptions are documented and reported up to the department manager and eventually noted in the medical record dashboard report, which is shared with senior management and the board.

How Queues Work

Work queues are automated programs that check patient records for missing documentation. Their design begins in the clinical departments, which determine the elements of a complete record by patient type (e.g., inpatient and emergency room). As many core elements as needed can be identified for a particular patient type. The queue is built by an IT programmer, who designs the queue, tests it, and provides user access. Once activated, the HIM department monitors the queues for missing record components.

The facility decides whether all patient encounters go into the queue or just the exceptions that fail to meet the predetermined criteria. Users can review an entire medical record or just its core documents.

Once a record enters the queue, it remains there until it is reviewed and completed. The queue does not prevent records from being accessible to others if needed.

For instance, with the chart completion queue HIM staff are able to identify the percentage of incomplete charts, keep a list of account numbers, and track the missing elements. The data captured by the queue also help the department develop a threshold for acceptable levels of compliance for record retention and destruction.

HIM staff are set up to work queues regularly and report results monthly. A dashboard report tracks the quality reviews and outcomes.

The workflow of monitoring and reporting is illustrated in the work queue process diagram above; a sample dashboard report is shown on the following page.

The Seven Queues of Jupiter

Jupiter Medical Center is a 156-bed acute care facility located in southeastern Florida. The facility has an electronic record for archiving and retrieval for all records throughout the facility, excluding radiation oncology. The facility does a high volume of outpatient testing. For inpatient charts nursing and ancillary departments document currently through an online electronic record.

Jupiter Medical Center’s hybrid record features a combination of scanned paper documents and electronically COLD-fed documents. There are different levels of paper and electronic documentation. The mix of paper and electronic depends on the patient type and whether the patient was assigned a bed.

The clinical departments use a computerized documentation system concurrently for any patient assigned to a bed for nursing and ancillary departments (excluding the emergency room and labor and delivery). This includes case management; nutrition services; physical, occupational, and speech therapies; and respiratory.

Outpatient ancillary departments use paper documentation. If the patient is converted from an outpatient to an assigned bed, the staff stop documenting on paper and begin documenting in a computerized system. The only paper documentation on a patient assigned to a bed are physician orders, physician progress notes, medication administration records, outside records, history and physicals, records from other facilities pertaining to the visit, and miscellaneous documents.

Medical Record Dashboard										
Compliance Rates	0	0	0	0	0	0	10	97%	5	100%
	Missing Consent for Treatment (no./%)	Missing Lab COLD Feed Documents	Missing Radiology COLD-Feed Documents	Failed HED Documents through COLD Feed (Retransmitted)	Missing Face-sheet COLD Feed	Summary of Missing COLD Feeds	No. Permanent Charts Missing Docs (Core Elements)	% of Permanent Charts Complete	No. Opera-tive Reports > 24 hrs	% of OP Com-pliance
2007										
January	20/.001%	0	4	1	58	0.016872	128	97%	*	*
February	5/.001%	0	3	4	87	0.027231	71	98%	*	*
March	21/.001%	200	2	6	38	0.060427	174	96%	85	93%
April	13/.001%	0	2	12	41	0.014962	156	96%	88	92%
May	46/.04%	0	3	6	46	0.015661	218	94%	83	92%
June	41/1%	0	2	8	45	0.017725	401	87%	72	92%

The medical record dashboard is used to report monthly results of quality improvement processes. It is shared with other departments to help trend performance and identify opportunities for process improvements. Shown here are results for the first six months of 2007.

*January and February were not reported because Jupiter Medical Center changed how it reviewed the data.

HIM staff determine the documents that are to be shredded or scanned under the direction of the management team in the department. Samples of Jupiter's hybrid record are shown in the chart [below].

The facility has developed seven chart completion work queues, by patient type, to monitor record completion. The patient types include inpatient, outpatient cardiology, emergency room, GI lab, same-day surgery, observation, and special procedures. The criteria were developed based on patient type and the core documents that should always be present in the record. Four of the queues are described below.

Admission History

For every discharged inpatient, the admission history queue searches for inpatient core elements and populates those accounts in the inpatient work queue. The clerical staff then review the queue to identify missing elements, which are documented on a spreadsheet and reported monthly to the supervisor.

One area of noncompliance was nursing documenting admission history forms on same-day surgery patients. Same-day surgery is a complex area because of the combination of paper and online nursing documentation in this area. (See sample of hybrid records, opposite.)

Using the spreadsheet and the chart completion queue, the staff and supervisor were able to identify the specific documents missing from patient accounts. Without the queue and the quality assurance process in place these documents would not have been identified as missing and no initiative to correct the issue would have been implemented.

COLD-fed Documents

Another queue monitors the transmission of COLD-fed documents. These include lab, radiology, transcription, and nursing documentation. The queue catches documents that do not make it through the interface because of system malfunctions, mismatched demographic information, or system downtime.

In the event that the queue identifies a missing COLD-fed document, HIM staff go back to the host system, print the information, and scan it into the record. Areas such as lab do not normally have paper results to scan unless there was a glitch in the systems and the time period in which results can be retransmitted has elapsed.

If no paper results are available, the information is documented on the spreadsheet as unavailable and the record is considered incomplete.

The medical center does a high volume of outpatient testing, so the HIM department focused its efforts to ensure that all necessary documents went into the record. HIM also wanted to ensure availability of the results within a timely fashion for physicians who review results online.

Electronic transfer of information through COLD feeds offers great benefits in time savings, but they require monitoring to ensure they are functioning 100 percent of the time, and issues do crop up from time to time that the department may not be aware of or able to control.

Patient Consents

Consents for treatment at the medical center are scanned upon registration. On discharge, a queue looks for treatment consents, which are identified by a unique document type. The queue reviews all patients seen at the center, and if it finds a missing consent, it notes the exceptions.

A clerk monitors the exceptions weekly and determines the circumstances for the missing consent. The clerk documents the reason on a spreadsheet and reports the results to the supervisor monthly, who then documents the information on a dashboard report. Each month the missing consents report is given to the director of registration for review and process improvement. The registration staff reported a dramatic improvement in the missing consents from .3 percent in October 2006 to .001 percent in April 2007.

The information captured by the queue provides the registration department with a tool to identify specific scanning and user issues and improve the Joint Commission compliance rate. Additionally, the HIM department monitors special consents such as those of anesthesia and surgery as part of its inpatient and same-day surgery completion criteria.

Making of a Hybrid Record

Jupiter's hybrid record features a combination of paper, scanned, and COLD-fed documents. The mix of paper and electronic depends on the patient type and whether the patient was assigned a bed. Shown here are the different types of hybrid documents that would normally be in the medical record when prepping and scanning the chart.

Same Day Surgery (if discharged from recovery room)

Paper Documents
Physician orders
Progress notes
Anesthesia record
Procedure consent
Medication reconciliation
Admission form
Nursing history
Assessment

COLD Documents
Lab
Radiology
Pathology

Scanned by Registration
Consents for treatment
Advance directive

Ancillary Record (Radiology Test)

Paper Documents
Contrast form
Nursing documentation (if patient sedated)
Patient education

COLD Documents
Radiology and lab results

Scanned by Registration
Consents

Inpatient Record

Paper Documents
Physician orders
Progress notes
Medication administration record
Admission medication reconciliation
Patient education sheet
EKG
Outside records
Miscellaneous records

COLD Documents
Nursing documentation-admission history
Nurses notes
Graphic sheets
I&O forms
PT/OT/Speech
Respiratory
Nutrition services
Case management
Radiology
Lab
Pathology
Transcribed reports
Face sheet

Scanned by Registration
Living will, advance directive questionnaire, consents

Operative Reports

The ability to view records electronically enables staff to daily monitor the OR schedule for missing operative reports. Assigning the deficiency the day after surgery notifies the physician sooner and increases accuracy for Joint Commission reporting.

Clerical staff can easily select the operative report, review the dictation's completion date, and compare this with the end time of the surgery on the OR schedule. These processes on paper were time consuming, inaccurate, and difficult to track. Staff use a spreadsheet to track noncompliant physicians and the overall compliance percentage monthly. The queue is not completely functional yet, but the department currently has the tools and data to bring the information to the physician committees and administration.

As a result of the data review, the surgical evaluation committee approved the enforcement of suspension for operative reports after 72 hours. Although this is not the Joint Commission standard, it has improved our compliance. The 72-hour criteria were developed to allow the clerical staff time to not only review the electronic record but to research the transcription system and notify the physician of the pending suspension. The compliance rate has increased from 91 to 94 percent.

Dashboard Benefits

The medical record dashboard report has been helpful in monitoring documentation, identifying trends, and serving as a quick reference for identifying process improvement. The initiative has also developed and fostered relationships with other departments. They know that HIM's goal is to help them with quality assurance and provide them with data and results in an effort to improve the quality of care.

The dashboard also ensures that ongoing quality improvements are performed on a monthly basis. This has helped the HIM department focus on areas of noncompliance and benchmark quality improvements. Other benefits include identifying documents that may be lost, system and process issues and changes, and improving completeness of patient electronic medical records.

The day-to-day processes in the HIM department have taken on new challenges and its role in quality improvement has become more widely recognized. Managers from other departments have contacted the department to inquire how the work queues can streamline work and capture missing data.

HIM staff are also interacting more with departments. There is a lot of discussion on what, when, and where they are documenting, document and bar code types, and how HIM can improve processes to capture data electronically. The queues help address the constraints of productivity staffing levels, increased job duties, and competing priorities that sometimes causes quality assurance processes to suffer.

HIM staff have learned to be flexible, diverse, and perform nontraditional functions in the department. By using the technology and being creative with the innovative techniques and tools, the department is able to move into new areas of quality assurance and record completion, which it has never been able to do in the past.

The biggest accomplishment has been seeing various departments' process improvements resulting from use of the data collected and reported in the medical record dashboard report. The report is now being sent to senior management and the board. With the tools developed and strategies planned Jupiter's HIM department is reaching higher standards for quality and medical record completion.

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