Aligning Electronic Health Record Use With Quality Improvement Goals

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The concept of quality improvement (QI) is discussed frequently among members of the healthcare community. We generally understand that to improve patient outcomes, we must improve the delivery of care.

Yet, when juggling implementation of new evidence-based practices, adoption of new technologies, and healthcare reform, it is easy for "quality improvement" to become just a phrase rather than a daily conscious focus for healthcare providers.

To keep QI in focus, having a well-defined process in place is essential. The process should involve identifying opportunities for improvement, designing and conducting an audit, implementing a corrective action plan, and evaluating for continued progress.

Electronic health record (EHR) systems can serve as valuable tool in the QI process because of the wealth of data they collect. However, the challenge is understanding how to aggregate and analyze the data, evaluate the results, and then develop strategies and initiatives to improve care delivery and generate better patient outcomes.

The following sections of this article discuss some specific ways that your healthcare practice can meet this challenge and use its EHR system to facilitate QI initiatives.

High-Risk Situations

Identifying situations that create high risk for your healthcare practice should be the starting point when considering how EHR data can help you develop QI goals. A few common high-risk situations in healthcare practices include test result tracking, drug interaction and allergy alerts, and canceled/missed appointments.

Test Result Tracking

Failure to address all test results is a frequent underlying cause of diagnosis-related medical malpractice allegations, which account for a large portion of all malpractice cases. Having a well-articulated procedure for tracking patients' lab, radiology, and other test results can help mitigate this risk.

Many EHR systems can assist in automating test tracking, improving both timeliness and completeness of the function. For example, evaluate your EHR system to make sure you can generate data showing:

Helpful Tip

Make sure providers and staff members in your practice are consistently using the EHR system to track test results. The automated functions built into the system should not be circumvented. For example, do not use a paper tickler system as a workaround.

- All tests that healthcare providers have ordered

- All test results that the practice has received

- All test results that ordering healthcare providers have reviewed

- All test results that have been communicated to patients

You also may find it helpful to have your system generate a daily task list that flags certain situations that could lead to risk exposure. Circumstances that the system should flag include (a) tests ordered but no results received, (b) test results received but the ordering provider has not reviewed, and (c) test results that the ordering provider has reviewed but not communicated to the patient.

Routinely running reports to identify overlooked test results is critical, even if test results are included on your daily task list. These reports can assist in your practice's efforts to ensure no test results go missing or unnoticed.

Drug Interaction and Allergy Alerts

Many EHR systems are capable of alerting providers about potentially dangerous drug interactions and allergies. These alerts can sometimes be overwhelming; however, when implemented as part of a well-designed system, they can protect patients and help prevent

prescribing errors. Work with your EHR vendor to ensure your practice is realizing the full potential of the system's alert functions and to tailor the alerts to meet the specific needs of your practice and patient population.

Also, realizing that drug and allergy alerts work only if current and accurate data are available for the system to analyze is imperative. Thus, remind the providers in your practice to review patients' allergies at each office visit and update the system during each patient encounter.

Canceled/Missed Appointments

For both patient safety and liability reasons, healthcare practices need thorough processes for identifying, addressing, documenting, and following up on canceled/missed appointments — especially in regard to nonadherent or difficult patients.

Although patients share in the responsibility for their care — and ultimately need to make the effort to keep appointments — a well-documented follow-up call or letter from the practice can (a) remind and encourage patients to make a visit, which may ultimately affect their outcomes, and (b) establish the practice's commitment to ensuring patients receive necessary care.

Your practice can use its EHR system to document canceled/missed appointments and better manage these patients. For example, your practice might use its system to generate a daily report showing all appointments for the previous day that were canceled/missed. This information will help pinpoint and streamline follow-up communication and tracking.

Further, with thorough data input, the system can generate reports showing whether follow-up has occurred, how quickly it occurred, and the outcome of the follow-up. This information provides evidence of the practice's efforts on behalf of the patient.

Audits

The situations described previously — test tracking, drug interactions and allergies, and canceled/missed appointments — are examples of common risk areas you may want to consider including in your practice's QI efforts.

Once you have selected specific areas for improvement, you will need to design and conduct an audit. An audit is a way of measuring outcomes (performance metrics) against expectations that have been defined in office policies, procedures, standards, or guidelines.

When selecting measures to include in your audit, make sure that your office staff has a working knowledge of the data elements and definitions associated with your EHR system. Providing the team with a list of these elements and definitions when discussing possible measures is helpful.

Information regarding evidence-based standards specific to the patient population you serve and your practice's involvement in mandatory and/or voluntary quality data reporting initiatives also is relevant to the audit that you design. At minimum, the audit process that you implement should include the following for each measure selected:

- **Definition:** Create a clear statement of the metric that you will measure. For example — "Communication of all tests results to patients."

- **Goal:** Develop a broad statement describing the intended result. For example — "This office will communicate the results of all tests to patients within an appropriate timeframe based on the results and the patient's condition."

- **Target:** Establish a target outcome so the practice can determine the significance of the results. Consider best practices, benchmarking data, and evidence-based treatment when setting targets. For example — "We will communicate 90 percent of all test results to patients within an appropriate timeframe set by office policy, and we will communicate 100 percent of all critical test results to patients within a timeframe established by applicable professional guidelines. Providers will document communication of results in each patient's chart with a revised treatment plan, if appropriate."

- **Methodology:** Describe the method you will use to obtain data. For example — "Run EHR system reports to identify all test results that have been received but are still pending follow-up with patients."

- **Frequency:** Explain how often you will measure the metric. For metrics that have an immediate impact on patient safety, consider more frequent measurements, such as daily or weekly.

- **Corrective actions:** Describe what you will do to improve the results if your target is not met. Will you implement a new workflow process, reallocate resources, or take another action?

- **Monitoring:** Describe how you will monitor any changes over time. Will you continue to measure the metric for a year or longer? How often will you perform spot checks to ensure continued improvement or consistent results?

MedPro's guideline *Using an EHR System for Quality Improvement* and checklist *Using an Electronic Health Record System to Support Quality Improvement* contain additional details and guidance about the audit process and a list of questions that you can use to evaluate and strengthen your practice's processes.

In Summary

Delivery of healthcare in a safe and efficient manner is the goal of all healthcare providers. Being mindful of opportunities for improvement and willing to invest time and energy to address those opportunities can be a challenge. However, a well-designed EHR system is an excellent tool for risk mitigation, quality checking, and long-term QI monitoring.

The activities of aggregating and analyzing data, as well as taking action based on the findings, are critical to delivering quality patient care, preventing errors, and minimizing risk within your healthcare practice. In the long run, efforts to identify and address gaps in quality and develop corrective plans can help improve patient outcomes, increase patient satisfaction, and potentially reduce your liability exposure.