



Why Auditing Your EMR Is Essential

White Paper



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Is your EMR losing clinical transactions or dropping financial charges? Are system issues actually impairing physicians' access to clinical data necessary to treat patients? Is slow performance of your system impacting business operations? How would you even know if it were? As the saying goes, "You don't know what you don't know." Yet knowing what's going on within your application environment could make the difference between world-class healthcare or simply marginal patient care, safety and business practices.

Access to accurate data and proper analysis of that data is vital to system performance, availability and stability. It should be an ongoing, proactive part of your organization's activities and not just engaged after service levels have come into question, end-users inconvenienced or patient safety compromised.

When patients are admitted to your hospital, they count on reliable, competent care:

- Caregivers who are board certified
- Care delivery that has passed the standard of the Joint Commission
- Lab procedures certified for quality by the College of American Pathologists
- Certified dietitians who oversee patients' dietary needs
- Ethical business and financial practices

In each of these areas, facilities and individuals submit to regular, independent evaluation to make sure their practices follow generally accepted industry standards and, when necessary, implement changes to bring them back into compliance.

One area overlooked in these evaluations is the operation of the EMR system itself. More and more is continually demanded from these systems:

- Hospitals are requiring electronic ordering by their physicians along with connectivity with outside facilities.
- The government is rewarding facilities for electronic advancements.
- Patients themselves are demanding visibility into their health records.

Vendors are eager to keep pace with these demands. They deploy upgrades as often as possible and ask hospital IT departments to devote thousands of staff hours to ensure success when the upgrades go live. No matter how trusted the vendor and skilled the IT staff, there are countless opportunities for failure points, including lost patient information or charges. Yet no independent evaluation program is required to ensure that the EMR is performing as expected. And if it's not, the consequences could be devastating for patients, caregivers and the facility itself.

Best practices: Audit and adjust

The quality assurance team at your hospital manages processes and addresses issues as they arise, but it still must submit documentation on a regular basis to the Joint Commission. An independent analysis of care delivery can reveal issues that those in the trenches don't readily see. So too regular, unbiased auditing of your EMR production environment would show you things your team would never discover on its own. It would accurately reveal system performance in the areas that most impact care delivery and an organization's financial health, including:

1. Clinical and financial delivery errors
2. System responsiveness to users
3. System responsiveness to other systems
4. Issues with configuration and application settings

It's not enough for a system to be working. It needs to work well. This type of audit looks beyond the measure of system uptime percentages to reveal more accurate indicators of system performance. Results can then be used to educate the IT staff and drive system adjustments that, in the end, will lead to a sustainable EMR that accurately records charges, satisfies clinicians and, ultimately, helps improve patient care. This objective standard for EMR operations should be the fundamental element of best practice in today's clinical, economic and regulatory environments.

Unique issues for remote-hosted organizations

If your EMR system is hosted outside your own organization, you might think independent auditing doesn't apply. After all, one of the primary reasons you sought out a knowledgeable vendor was to oversee system performance. You wanted the assurance that comes from having competent partners hosting your system. Yet how do you know that the hosting partner is catching all the performance problems that arise? Because so many performance and stability issues arise from errors with application settings rather than from technical infrastructure, who is really responsible?

Service level agreements (SLA) with hosting vendors by necessity often focus on metrics such as percentages of system uptime or utilization of physical resources. But today's healthcare providers are demanding more than that. You want robust data delivery throughout your entire facility – from the boardroom to the bedside. Independent auditing gives your organization visibility into your system. When you see issues that compromise delivery but don't qualify as a failure point under the SLA, the knowledge you gain from auditing allows you to work closely with your vendor to correct the problem. If measurements are pinpointing lost transactions and system slowdowns, together you are able to correct the issues and decrease your clinical and financial risks. Rather than a finger-pointing contractual issue, you now have a data-driven basis for collaboration.

Your hospital IT staff knows when performance problems develop – they deal with the complaints. With greater visibility, they can more confidently partner with your service provider to not only address system issues but also set higher standards for performance and quality of patient care.

Handling system flexibility

As mentioned earlier, with demands for more and more EMR functionality, systems are becoming more and more complex. Not only are facilities customizing systems for their own unique uses, but vendors are supplying a steady stream of system updates and upgrades. Despite a vendor's best efforts at documenting the steps necessary for upgrades and code changes, it's not always clear what areas will be impacted or how. A technology upgrade can create myriad downstream impacts on how the EMR will behave.

Every time you add a new layer, a new process, a new handoff point, you increase the likelihood of delivery failure. The system that you could always rely on to interface with the various EMR components and deliver transactions to their expected destinations might experience failure points. Each failure poses the risk of losing patient information or financial data or extending wait times for clinicians trying to input or access that information.

The IT team has the huge task of ensuring proper system design, of making sure that they don't introduce code and settings errors with each upgrade or custom configuration. It takes a knowledgeable and skilled team to diagnose and fix unexpected failures. Teams spend thousands of hours – and hundreds of thousands of dollars – testing their EMRs, yet still encounter problems when they go live. Chris Lanaman, a former IT departmental team lead at a large healthcare organization in the Southwest United States, remembers his team of 25 analysts committing 40 percent of their workweek for 10 months preparing for an upgrade. They meticulously tested 1,100 documented changes, yet still had four significant issues at go-live that they could not have anticipated.

Every single change to your production environment can create issues somewhere down the line. System auditing can help teams in the midst of a build or upgrade see where problems have surfaced and what those problems are.

On track to optimal patient care

Your process for choosing and deploying your EMR system was long and rigorous. It only makes sense that the same rigors you used to select and implement your EMR need to be applied to the day-to-day functioning of the system itself. As healthcare focuses more and more on evidence-based medicine, the IT delivery vehicle for that medicine should be evaluated in the same way: using real data from your own system, gathered by an organization independent from the vendor or your own organization, and clearly presented so that you can understand where you are and what adjustments need to be done to accomplish your goal of optimal healthcare.

Softek OnTrack™ is leading the way in providing that objective, third-party analysis for one of the world's top EMR solutions: Cerner Millennium®. OnTrack auditing provides both self- and remote-hosted organizations a quality diagnostic of what's happening with your system right now. OnTrack's analysts gather key data from your production environment and report their results in an easy-to-follow, actionable format.

The OnTrack audit adds a necessary level of documentation to ensure that your healthcare mission is moving forward. It documents the frequency and to some degree the severity of issues in four areas, addressing both quality and user satisfaction issues. It examines the necessary areas of clinical and financial errors, system responsiveness to users, system responsiveness to other systems, and configuration and settings issues.

What can you learn?

In the area of clinical quality, for example, the audit uncovers and marks as very important any orders that were lost. With hundreds of orders and tasks done for every patient every day, the loss of one might seem fairly insignificant – unless it's clinical information that would have triggered a sentinel event. The problem of information failing to get updated to the clinical record must be corrected.

Frequency can also be an issue. The audit might show a handful of lost charges, say six out of 50,000. Again, that number might seem insignificant, but what if you're losing six charges every day? All of a sudden, it's very significant. Clients have discovered – and addressed – problems that led to the recovery of many thousands of dollars in lost charges.

System responsiveness directly impacts end-user satisfaction. At one site, for example, clinicians didn't always know how long their waits would be while charting, possibly 10 seconds in the morning, 20 seconds later in the day. While the wait was irritating, the variability from hour to hour was maddening. The audit showed where the variability was and how to both decrease response times (and the waiting they caused) as well as make response times consistent throughout the day. The audit helped the client reduce wait times across the organization by hundreds of hours a month.

Third-party auditing gives ongoing visibility into your EMR and evidence-based actionable intelligence to help IT drive healthcare delivery as you originally intended – whether you own all the resources yourselves or are remote-hosted. It provides both the medium and the standard for judging how system operations actually impact clinicians at the point-of-care. Whether you're adding new applications and functionality, upgrading technical infrastructure, applying programming code updates and fixes, or even just transitioning and training staff, you'll be able to increase the speed and reliability of your EMR system. In the process, you'll be reminded anew of why it was your hospital's choice for healthcare delivery as you head into an unpredictable, ever-changing future.