Clinicians' Top 4 EMR Complaints

and How to Resolve Them

Softek ONTRACK®

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The Cerner Millennium® environment is the most configurable EMR system available, giving healthcare organizations the power to design and grow an IT infrastructure to fit their specific objectives and workflow needs. This customization holds the potential for hospitals to develop innovations in care delivery; the complexities also carry the risk of introducing failure points whenever new processes are added.

When our OnTrack analysts began auditing the production environment of Millennium systems with our Discovery Audit™ process four years ago, we imagined each hospital's production issues would be as unique as the system they were using. Surprisingly, they weren't.

After performing hundreds of Discovery Audits to expose the root cause of chronic system issues, our analysts have found a number of issues that degrade performance at every hospital we've audited. These aren't minor glitches but system issues that impede clinicians' ability to deliver the highest quality of patient care and put hospitals at greater clinical and financial risk.

Your clinicians aren't crazy

Each issue correlates to a common clinician complaint. In essence, our audits show the CIO, IT department and hosting vendors that user complaints are based in reality – the data backs them up. More important, these audits pinpoint the exact cause of system issues and recommend specific actions that will ensure robust system performance at the point-of-care.

Here are the Top 4 clinician complaints and the corresponding system problems that we have seen at every organization we've audited.

1. "The system is so slow."

When the system slows down, the IT team or hosting vendor is apt to check to ensure the system has enough CPUs, the proper hardware configuration and database availability. If these areas check out, which they most often do, the issue is not one of capacity but of throughput. The system slows down because too many requests are being asked of servers with too few instances. Transaction queues in the application nodes indicate which servers are backing up.

Every Discovery Audit has shown significant amounts of queuing resulting in hundreds of hours of unnecessary clinician wait times per week.

Opening additional instances will alleviate the bottleneck in the short run; alleviating chronic system slowdowns requires configuration changes in the affected servers.

! *The Discovery Audit includes tuning recommendations, and hospitals that implement these changes typically cut wait times in half.*

2. “One computer at our station works fine, but the other is too slow.”

When clinicians place an order or add to a patient’s chart, the information is processed by an application node. If your organization has more than one node, the system decides which node receives the request. For consistent throughput, all Millennium server processes should be configured the same and several key processes should be set at specific levels to ensure optimal throughput. If they’re configured differently, one will be faster than the other, but users won’t have any control over when their transaction goes to the fast server and when it goes to the slow one. The next user might find the slow computer has become the fast one.

Every Discovery Audit has revealed unequal configurations across application nodes, resulting in inconsistent performance from one workstation to the next or one data entry session to the next.

Applications can get out of sync over time as different people modify the environment. With more than 1,000 processes on each application node, comparing the processes by hand would take weeks.

The Discovery Audit automatically identifies the differences across application nodes and encourages proper change control practices to ensure proper levels are set and maintained.

3. “When I typed in my order, the screen went blank.”

When an application crashes, clinicians have to reboot their computer or their executable and sign in again. They might be instructed to resubmit their order, but not always. Transactions can be lost, and nobody knows about it.

Every Discovery Audit has shown software executables crashing without warning, costing clinicians time and possibly compromising patient care through lost transactions.

The top reason for these crashes is forced suicide – a transaction takes too long, and the system protects the database with a timeout. Other lesser causes are a process using up its memory or a coding error. Message logs identify the source of these crashes, but it would take weeks to sort through the logs manually.

The Discovery Audit pinpoints the errors causing your applications to crash and recommends proper tuning to prevent them from recurring.

4. "I know I typed in the order, but now it's not there" or "I know I charted the information, but now it's gone."

Missing information can drive clinicians crazy. Even worse, it can compromise patient safety. Unlike system slowdowns, where users see the hourglass or stopwatch on the screen and know the information has yet to be processed, there are times when it looks like the data entry went through but it really didn't. Nobody knows about the failure unless someone is waiting for the order or happens to check for it.

Every Discovery Audit has revealed unseen failed clinical data transactions, putting patients and hospitals at risk.

Transactions that don't make it to their destination are recorded in the system's message logs, which we've noted would take weeks to sort through manually.

The Discovery Audit pinpoints failed clinical transactions, so organizations have the data they need to investigate whether the cause was a build issue or user error and then can make corrections or conduct training.

The data tells your story

No two Millennium systems are alike, but every one we have analyzed with the OnTrack Discovery Audit has shared the common problems of excessive queuing, differences across application nodes, crashed processes and failed transactions – problems that represent the prime complaints clinicians have with their EMR system.

The OnTrack Discovery Audit pinpoints the source of these issues, so you can have data-driven conversations with your staff, your hosting vendor or consultants you engage. Together you can make corrections to stabilize your system and help it reliably serve the needs of your clinicians and business staff as they deliver quality healthcare to your community.

If you'd like to learn more about what we've found in our audits of Millennium systems or if you would like to speak to someone about auditing your sysem, please contact us.

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