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Upper Chesapeake Health Migrates Successfully to a New EHR with Testing by iatricSystems™ Professional Services

OBJECTIVE: Upper Chesapeake Health needed to test their new MEDITECH EHR thoroughly and methodically before going live. However, testing the new system, with its extensive integration and functionality, would be much more complex and time consuming than the routine updates they were used to.

SITUATION: Upper Chesapeake Health, part of the University of Maryland Medical System, includes two acute care hospitals (Upper Chesapeake Medical Center and Hartford Memorial Hospital), a cancer center and other facilities. In March 2017, they upgraded to MEDITECH 6.15 from an earlier version implemented five years prior. They knew that effective testing was essential, but with overstretched resources and limited migration experience, they recognized that they needed outside assistance.

SOLUTION: Upper Chesapeake engaged iatricSystems™ Professional Services to manage two of the most important phases of their migration testing: integration testing and parallel testing. The Professional Services team planned, organized and facilitated testing events; augmented internal staff with senior resources; applied specialized testing knowledge and insights to build comprehensive testing scenarios; and used Array Software Inc.'s StreamTask, an automated testing tool, to ensure testing was done according to best practices and fully documented.

RESULTS: With testing managed externally, Upper Chesapeake Health experienced benefits that otherwise would have been very difficult to achieve: an objective measure of their readiness and identification of problems so they could be fixed before going live. It also enabled them to observe end users interacting with the system, and issues that would need to be addressed during training. Meanwhile, hospital IT staff were able to focus on the migration without a complex distraction.

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When Upper Chesapeake Health upgraded to MEDITECH 6.15, they knew the importance of thoroughly testing their new EHR that would be at the center of patient care. However, they also knew that testing would be a major investment of time and effort, and hospital staff would already be extremely busy with the migration. Having gone through their last significant upgrade five years earlier, the Upper Chesapeake team realized the project would require some specialized skills not available internally. "Although we had experience from past implementations, we knew this was going to be big, and we wanted to ensure the type of focus that could only come from a team who handles projects like this all of the time, and could make it their top priority," explains Stephen Prouse, Director of Applications at Upper Chesapeake Health.

A Weight off Their Shoulders
Upper Chesapeake contracted iatricSystems Professional Services to manage two of the most critical testing phases in their migration – integration testing, to ensure subsystems are sharing data correctly, and parallel testing, to verify that information generated using the old EHR can be replicated in the new system. iatricSystems used their EHR testing expertise, a best practice approach and Array Software Inc.'s StreamTask automated testing tool to manage testing so Upper Chesapeake wouldn't have to. "iatricSystems took a huge weight off our shoulders," Stephen says. "They quickly applied their project management expertise for our integration and parallel testing, built the test scenarios and coordinated resources to execute the entire testing phase. They basically proctored the whole process for us."

Phase 1: Integration Testing. iatricSystems validated that modules, routines, and applications were communicating properly, working with Upper Chesapeake IT analysts to test various integration scenarios. Does the pharmacist see that medication order? Are labels and bar codes printing? And, so on, for all the data sharing that needs to take place around a healthcare event so any issues could be addressed before moving on to parallel testing.

Phase 2. Parallel Testing. This phase involved creating representative scenarios from patient encounters in the old system, which end users would then try to replicate in the new system to ensure the outcomes were the same. "We realized that reviewing the charts and building the test scenarios would be a massive effort, so we asked iatricSystems to do it for us," Stephen adds. iatricSystems gathered information, working with stakeholders from different departments to define the scenarios and conducted review meetings to ensure they were an accurate reflection of patient encounters. Then they created scripts from the scenarios and entered them into StreamTask, an easy-to-use web tool for performing testing and documenting results.

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When preparation was complete, iatricSystems brought together end users from across the hospital for one intense week of testing. The Professional Services team managed and coordinated all the activities required to make the event work, from preparing the testing room to installing equipment, coordinating schedules and assisting users. But they also understood (from long experience) the human factors required for rigorous testing, with mandatory breaks, plenty of nourishment, even games and jokes baked into the process. As Stephen relates, "They set the tone and expectations for the testing week: it's going to be demanding, but we'll do our best to make it fun – and they did."

Avoiding Burnout – Testing with Confidence
When testing was complete, Stephen and his colleagues were able to summarize their findings for the Upgrade Steering Committee and obtain approval to move to the next phase: implementation. He has some final words of advice for other hospitals planning an EHR migration. "Don't burn out your team on testing because you're going to need their energy for the implementation! iatricSystems had ideas that never would have occurred to us. Thanks to them, our testing sessions were a success."