HEALTH IT EXECUTIVE FORUM
Interactive resources for decision-makers in health IT.
October 2015

Three ways one N.Y. hospital saw its workflows reprogrammed—and improved—with new software

—EVAN GODT

imagingBiz.com/Portals/Health-IT

Evan Kaminer, MD, Head Radiologist, Nyack Hospital, Rockland County, N.Y.
Source: Shay Frey

Here's a riddle: If every imaging interpretation is labeled stat, are any of them truly stat?

That is, a hospital may try its best to have staff make the call on which cases need to be read more urgently, but when cases are coming in from both the ED and the ICU, and everything is being classified as a "wet read" to be seen immediately, then a worklist really has no prioritization at all.

Evan Kaminer, MD, head radiologist from Nyack Hospital in Rockland County, N.Y., says this has been the biggest challenge faced by the hospital in recent years, with every ER case—all 50,000 per year—coming in labeled as a stat case.

In the past, the facility would try to effectively prioritize cases, but it was a manual process with a technologist escalating cases that were more than just a common stat read. However, having manual steps in a fast-paced interpretation environment could mean gaps. If a study wasn't properly labeled—or if it's fighting against other studies all labeled as wet reads—cases could linger on the worklist.

Nyack found a solution in the Conserus Workflow Intelligence system. Developed by McKesson, the system goes beyond typical filter-based workflows with a sophisticated rules engine that can ensure radiologists are always tackling the highest priority interpretation.

"We've taken most of [our workflow prioritization] and made it programmatic," says Kaminer. "We've taken that human error out of the system".

Nyack Hospital's intelligent workflow includes numerous inputs in order to assess study priority. Going beyond STAT, the system integrates many data points including patient location (ICU, floor, ED, outpatient), time since exam performed and service level agreements on exam turnaround time (stroke, trauma, rule out pulmonary embolism) to determine study priority. An exam's priority may be change over time as new inputs are received. "Most importantly," according to Kaminer, "the rules engine needs to evolve over time as the institution's needs change in the dynamic environment of state regulations, JACHO accreditation and competition."

This granularity helps keep workflows organized and makes it more efficient for radiologists to read cases in an order that most benefits patient care and the operations of a hospital or practice.

Communication is key as well. Workflow systems must be able to notify staff, including administrators, of problems as they happen and through a variety of means, including pop-up alerts at a workstation, emails and SMS.

Another feature of workflow intelligence, in Kaminer's view, is the ability to organize cases by work group, subspecialty or location. Cases need to be read in a timely fashion, but they also need to be seen by the right set of eyes. Being able to assign certain types of cases—say, nuclear medicine studies—to specific groups or subspecialists and have those tasks pushed

SPONSORED BY: McKESSON Empowering Healthcare

to the top of the relevant viewer's worklist is a valuable ability to have.

Examples from the field

Since Nyack began using a beta version of Conserus Workflow Intelligence earlier this year, they've been constantly evolving their workflows to make them more efficient. Kaminer offers three examples:

Stroke cases: CT scans for potential stroke patients must be read in 30 minutes at Nyack. Kaminer says they've programed the rules engine to not only prioritize these cases, but also trigger a series of steadily escalating alerts if a stroke CT is lingering on the worklist.

Source: Shay Frey

After 15 minutes, one of the radiologists will receive a pop-up message notifying her or him that a case is in danger of falling outside of the benchmark turnaround time. If another five minutes passes with no interpretation, the number of radiologists receiving the alert will grow. Once the stroke case hits the 25 minute mark, administrators start receiving text messages.

"It's actively dealing with cases that are falling out, rather than a week later sitting in a committee meeting trying to figure out why we didn't meet our requirement for getting a stroke read done in 30 minutes," says Kaminer.

Cardiologist communication: Nuclear medicine studies slated to be read by a cardiologist had previously been a bit of stumbling block at Nyack. Compliance with turnaround times wasn't consistent, and the process to notify cardiologists they had a study waiting to be read involved a staff member calling them.

Realizing it is not efficient use of staff time to be calling cardiologists with numerous reminders, Nyack leveraged the workflow intelligence software to automatically email cardiologists if they were not reading a case assigned to them. Kaminer says this process was easy to manage and adaptable to staff preferences through the rules engine, even when cardiologists requested an extension to the amount of they had before receiving a reminder notification.

File room rerouting: Another workflow fix made easy by the customizable rules engine happened in the file room, explains Kaminer. Under the old system, technologists would first send cases to the file room's worklist, where staff would check offsite storage for prior studies that would need to be imported.

But radiologists felt like the file room step was a speed bump slowing down workflow, even if it only took a matter of minutes to retrieve priors and forward cases along. In response to the ever-evolving needs of the hospital, Kaminer says they tweaked the workflow so that studies would first go to the radiologist who decided whether the file room needed to be looped in.

Importantly, these changes—whether it involves the workflow of radiologists, cardiologists, file room staff or anybody else—can be made on the fly and "accommodate the dynamic nature of our environment," says Kaminer. There's no need to retrain staff or make sure that upwards of 100 people saw an email about a change in process. It's simply a matter of editing the rules engine. Nyack now can restructure workflows within a day, and even those who read cases at the hospital infrequently because they are also working at other sites or in a private office can show up and immediately know what their focus should be.

"By centralizing [workflow] you provide a better quality of service to the hospital," says Kaminer.

Reprinted with permission from imagingbiz.com.
Copyright ©2015 TriMed Media Group. All rights reserved.