



## **Increasing Patient Satisfaction & Referring Physician Goodwill**

### **Optimizing Radiology Workflow**

By Randall Swearingen

At the simplest level, radiology departments can be viewed as black boxes. The input to the box is the patient. The output is the patient and their accompanying result(s). The patient's happiness with their experience is largely influenced by how quickly they can get in and out of the box. The key to the referring physician's satisfaction is how quickly he/she can get the patient's result(s).

How quickly the patient gets through the box has a lot to do with their satisfaction and even more importantly, how likely they are to return to your facility at a future date. Since the referring physician is waiting on the result in order to begin patient care, the time it takes to receive that result is extremely important to them. The longer it takes to get the result, the longer it is before patient care can begin and the more frustrated the referring physician and their patient become. Referring physician goodwill, and thus repeat referrals, is greatly influenced by the turnaround time they receive from your facility.

Thus, the challenge for every radiology department is to minimize patient wait times and result turnaround times. This requires tracking the patient (and their result) through the department from start to finish and being aware of any bottlenecks along the way.

Radiology Information Systems (RIS) are responsible for helping manage a radiology department but many of them do not contain a radiology workflow engine. In an article by Mike Millard, Editor at Healthcare IT News, he states, "A workflow engine, simply defined, is an application that manages process – it sets the parameters of rules governing decisions around that process, and routes data accordingly. The tool offers much more functionality than a database."

Without a radiology workflow engine, it's up to the radiology staff to notice if a patient is being delayed or overlooked. Since people are not computers, human error comes into play resulting in potentially excessive patient wait times and result turnaround times. Millard quotes Bradley J Erickson MD, associate chair for research at Mayo Clinic's radiology department who said, "In healthcare we're very risk averse; we don't want to have patients drop off our radar."

Thus, in order to optimize radiology workflow, Swearingen Software's RISynergy™ RIS contains a powerful workflow engine that utilizes a set of powerful and flexible worklists to follow the patient through the following 10 steps:

1. Patient's scheduled arrival time
2. Actual patient arrival
3. Technologist beginning the exam
4. Modality beginning the exam
5. Modality finishing the exam
6. Technologist finishing the exam
7. Radiologist reading the exam
8. Transcriptionist (or VR) typing the exam
9. Radiologist approving the exam
10. Result delivery (via fax, email or both)

In Swearingen's workflow engine, the end user defines rules regarding excessive wait time between steps. The data is automatically routed through the worklists as different steps are completed along the process. Once the patient arrives, the patient is routed from the front desk worklist to the technologist worklist. When the tech completes the exam, the patient falls off the tech worklist and routes to the radiologist (to be read) worklist. Once read, the record falls off the radiologist worklist and now appears on the transcriptionist worklist. Finally, after the result is typed, the record is cleared from the transcriptionist worklist and appears on the radiologist (to be approved) worklist until it is approved. When the acceptable time limit for any given step has elapsed, RISynergy highlights that patient's record in the appropriate worklist and thus notifying the proper personnel so that corrective actions can be taken.

Lastly, there is an administrative worklist that will show all of the elapsed time exceptions. A radiology manager can, at a glance, see if there are currently any bottlenecks in his/her department and take appropriate action to correct the bottlenecks. Thus, through the use of RISynergy's worklists, all radiology personnel are constantly updated on delays in the workflow.

RISynergy also contains a management report that allows showing all the elapsed times between any two of the ten points and also calculating the average elapsed time between such points. Any start date and end date can be specified so it can create daily, weekly, monthly, quarterly or annual reports in addition to any other time periods desired.

Millard also stated in his article, "While workflow engines are common in other industries, healthcare has so far made limited use of them. A changing medical landscape may soon see them finding favor – in radiology departments and beyond."

Swearingen Software, is once again, leading the way in innovation with its suite of worklists that comprise its workflow engine. For more information about RISynergy and our workflow engine, please contact Randall Swearingen at (800) 992-1767.

*Randall Swearingen, M.B.A. is the President and CEO of Swearingen Software, a developer of Radiology Information Systems since 1984. He's authored numerous articles in radiology publications. Medical Imaging Magazine once labeled him as "A Thought Leader in the field of RIS".*