# iCenter Case Study – Inland Imaging

GE Healthcare

**An online application helps a major imaging provider keep close tabs on diagnostic device maintenance and utilization, evaluate performance, and plan for the future.**

Keeping track of performance on 14 MR imaging systems in 11 locations has become a much simpler task for Jennifer Brown, RT (R) (MR), coordinator of MRI services with Inland Imaging in Spokane, WA.

In mid-2010, Inland Imaging began using the iCenter Web-based application from GE Healthcare to track planned maintenance and utilization on its MR, CT, and other diagnostic imaging devices. Now, with a few computer keystrokes, Brown can generate reports that tell her:

- The status of planned maintenance and the service and maintenance history for any system.
- How effectively each system in each imaging center location is being utilized.
- How Inland Imaging compares with other outpatient imaging providers in MR scanner utilization.
- The age of each system and which systems are approaching end of life.
- Patterns and trends in referrals from specific physicians and medical practices.

The data helps Brown and Inland Imaging management improve operating efficiency, reduce costs, and make sound decisions when contemplating equipment moves and upgrades and making capital investments.
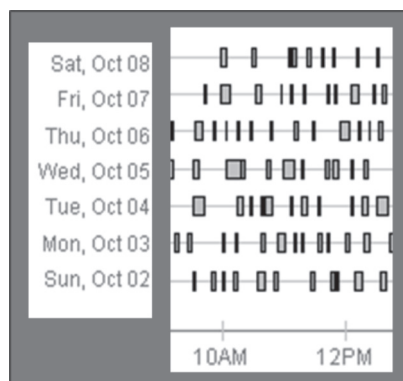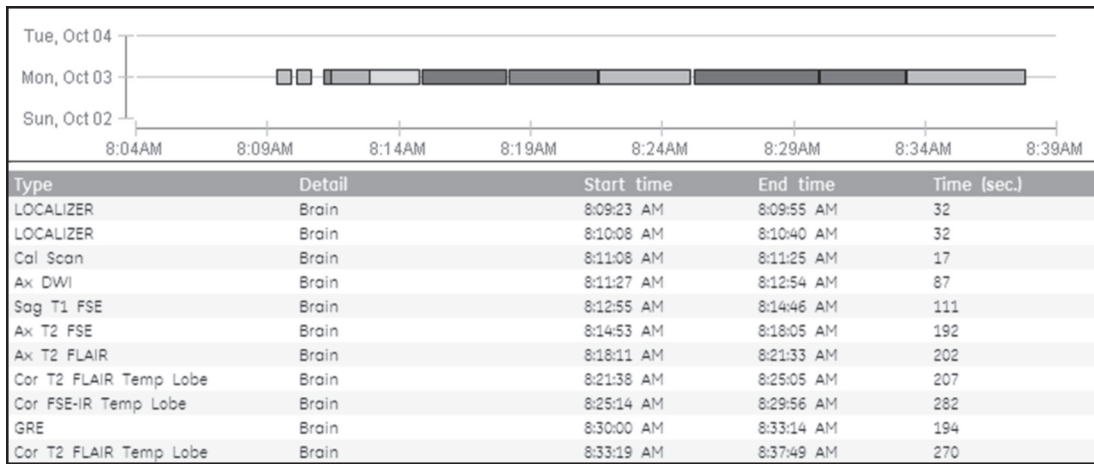


Exams Distribution Detail

## Online access

Access to the iCenter application comes as part of a service agreement with GE Healthcare covering all of Inland's imaging systems, including those not manufactured by GE. Data from the application supports Brown as she oversees MR imaging at eight imaging centers and at Sacred Heart Medical Center and Holy Family Hospital, both subsidiaries of Providence Health Care in Spokane.

At these locations, Inland Imaging performs approximately 3,000 MR exams per month. Brown directly supervises six team leaders and oversees a staff of 45 FTE consisting of registered technologists and assistants. The imaging centers generally operate from 6 a.m. to 9:00 p.m. Monday through Friday and from 7 a.m. to 5 p.m. on weekends.

To sustain uptime during those long hours in the face of heavy patient volume, Inland Imaging relies on its multi-vendor service agreement with GE. "In our opinion, the service is absolutely impeccable," says Brown, whose 27-year MR career includes previous positions at the University of Washington Medical Center in Seattle and the Mayo Clinic.

"We very rarely have downtime here at Inland Imaging. An outstanding feature of GE service is their engineers' availability, no matter what time of day, and their flexibility in being able to service our equipment. We only have a window of six to eight hours where we're closed on a typical weekday. If we are experiencing issues with our equipment, they try toresolve them during those times when we are not actually caring for patients."

| Type | Detail | Start time | End time | Time (sec.) |
|------|--------|-----------|----------|-------------|
| LOCALIZER | Brain | 8:09:23 AM | 8:09:55 AM | 32 |
| LOCALIZER | Brain | 8:10:08 AM | 8:10:40 AM | 32 |
| Cal Scan | Brain | 8:11:08 AM | 8:11:25 AM | 17 |
| Ax DWI | Brain | 8:11:27 AM | 8:12:54 AM | 87 |
| Sag T1 FSE | Brain | 8:12:55 AM | 8:14:46 AM | 111 |
| Ax T2 FSE | Brain | 8:14:53 AM | 8:18:05 AM | 192 |
| Ax T2 FLAIR | Brain | 8:18:11 AM | 8:21:33 AM | 202 |
| Cor T2 FLAIR Temp Lobe | Brain | 8:21:38 AM | 8:25:05 AM | 207 |
| Cor FSE-IR Temp Lobe | Brain | 8:25:14 AM | 8:29:56 AM | 282 |
| GRE | Brain | 8:30:00 AM | 8:33:14 AM | 194 |
| Cor T2 FLAIR Temp Lobe | Brain | 8:33:19 AM | 8:37:49 AM | 270 |

MR Within Exam Details

## Ground floor

Brown finds that iCenter greatly simplifies the oversight of MR services.

Besides Brown, the primary iCenter users at Inland Imaging are the CT and ultrasound managers. "We often present information from the tool to our administrative staff to give them a snapshot of what's going on with the equipment from a service and asset utilization perspective." says Brown. The Inland Imaging team found the system easy to use and understand.

Brown typically reviews iCenter reports weekly and finds that she can generate reports in minutes. Before iCenter, if she wanted similar reports, she had to work with the organization's IT department. "Our IT team is extraordinary and could generate the reports in 24 to 48 hours – much less time than it would take in most organizations" says Brown. "But now we can create the reports quickly without diverting IT from its main priorities. It saves the imaging centers money and is simply more efficient."

## Strategic value

A variety of reports help Brown oversee MR services effectively. "One thing we have found very valuable is the ability to keep apprised of when planned maintenance has been performed without having to call GE," she says. "In addition, if we are having issues with a piece of equipment, the system can tell us in real time how long that device has been down and what GE has been doing to resolve the issues."

"Another feature we find very helpful is the reporting on device utilization. iCenter gives me an accurate picture of how many exams are performed per day on each particular scanner." That information can help guide operational and staffing decisions. It came into play when Inland Imaging opened a new center in the Liberty Lake region west of Spokane, just five miles from the nearest Inland location at Spokane Valley.

"We wanted to know the impact the imaging volume in Liberty Lake was having on the Spokane Valley center," says Brown. "We were able to determine from the iCenter utilization data that we could cut back our hours of operation at the Spokane Valley center due to opening Liberty Lake. We now schedule Spokane Valley from 6 a.m. to 8:00 p.m. each day, instead of 6 a.m. to 9 p.m.  It wasn't a guess – the iCenter application allowed us to make that decision on the basis of hard and fast data." This real savings of time each day results in slightly less than a 12 percent savings in labor cost each week.

A benchmarking feature in the iCenter application allows Inland Imaging to measure its device utilization performance against other imaging centers. "Based on the benchmarks, we can tell whether we are doing a good job of using our equipment to the fullest," says Brown. "The iCenter data confirms our belief that we are very efficient in our device utilization."

| Category | Last Quarter* (Q3 2011) | Last Month** (Sep 2011) | Last Week*** (Oct 03–Oct 09) |
|----------|-------------------------|--------------------------|-------------------------------|
| Patient-Exams | 1363 | 1363 | 380 |
| Benchmark Patient-Exams | 2358 | 769 | 179 |
| Exams | 1534 | 1534 | 425 |

Volume Compared to Benchmark

| Category | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|
| Patient-Exams | 63 | 54 | 51 | 56 | 59 | 58 | 39 |

Patients Per Day

## Capital decisions

While it is too soon for Inland to have used iCenter data extensively in capital planning, Brown sees that happening in the future. "We can generate a report that shows how old each piece of equipment is and when the anticipated end of life is," she observes. "We will be able to use this to plan actions for budgetary purposes, essentially for the next five to 10 years. We are just starting to delve into that in our budgeting for 2012."

Finally, iCenter generates reports that help Brown and her CT counterparts track physician referral patterns. Inland staff now can see at a glance if, for example, patient referrals from a given physician or medical practice have declined sharply. In that event, a member of the team can call to inquire about the reason for the change and address any service issues.

## About Inland Imaging

Inland Imaging operates eight all-modality outpatient imaging centers in and around Spokane, Wash., while also managing MRI services at two local hospitals. The practice, providing radiology services since 1930, installed its first CT scanner in 1977 and installed Spokane's first MR scanner in 1984.

Inland Imaging was the result of a merger of three imaging center companies and three professional radiology groups in 1998. Today, the practice includes more than 65 radiologists, and nearly 500 staff members. All Inland Imaging radiologists are board-certified and specially trained in interpretation of imaging studies or performance of image-guided procedures. Many of the radiologists have concluded subspecialty fellowships.

The imaging centers offer patients a friendly, comfortable, clean and safe environment. Inland Imaging uses groundbreaking technology and regularly reviews the standards of each piece of equipment. Upgrades and remodels are in constant cycle to keep pace with the changing needs of patients and the medical community. Each imaging center has the capability to send information and medical images electronically, and referring physicians have secure online access to patient results.

GE Healthcare
3000 North Grandview Blvd
Waukesha, WI 53188
U.S.A.

www.gehealthcare.com


imagination at work