

Impact of Point-of-Care Creatinine Testing on Same Day Cancellations in MRI

The Problem

Recent FDA warnings linking gadolinium based contrast media to nephrogenic systemic fibrosis (NSF) in patients with severely impaired renal function requires accurate and timely assessment of a patient's renal function prior to administration of gadolinium based contrast. In response to this warning, Radiology approved a policy requiring high risk patients to have a creatinine test with a calculated glomerular filtration rate within 30 days of an exam. This created numerous operational challenges, including delayed/re-scheduling of appointments and work flow inefficiencies in MRI and CT.

Aim/Goal

Implement point-of-care (POC) creatinine testing in MRI and CT to:

- Decrease cancellations and delays
- Improve staff efficiency
- Improve patient and staff satisfaction

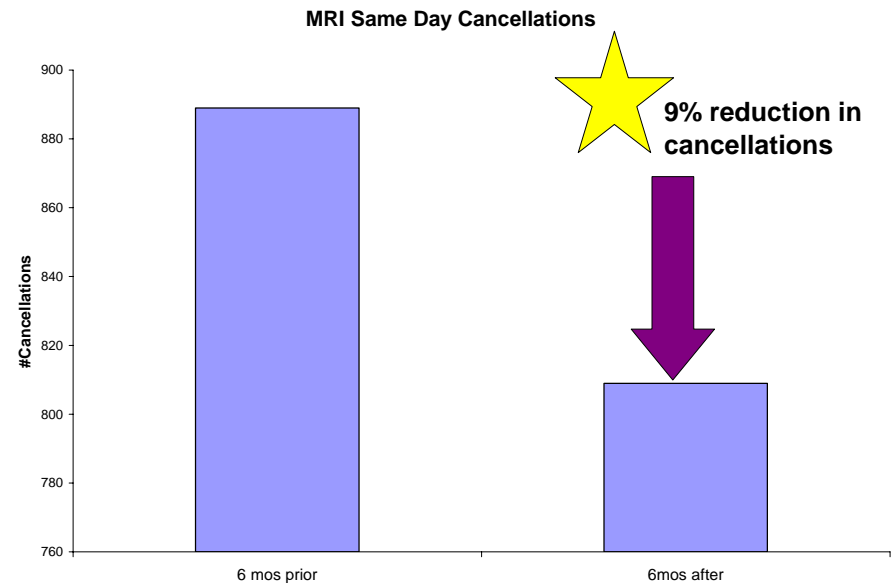
The Team

- Usama Abraham, Radiology
- Matt Boyle, Radiology
- Cheryl Bunting, Radiology
- Steve Flaherty, Radiology
- Donna Hallett, Radiology
- Tim Parritt, Radiology
- Bernice Reznick, Radiology
- Susan Chin, Pathology
- Evelyn Holdsworth, Pathology
- Avril Jean-Noel, Pathology
- Bernadine Williams, Pathology
- Gina McCormack, Lab Medicine
- Sandra Goodman, IS

The Interventions

- Core Clinical Services Committee approval for POC test (Feb 2008)
- POC test validated on i-STAT analyzer (March 2008)
- Programming to enter results into CCC completed (June 2008)
- MRI and CT staff trained on POC test procedure and CCC entry (June 2008)

The Results/Progress to Date



Lessons Learned

Multi-departmental collaborative efforts are needed to successfully assess, plan and implement POC testing in MRI and CT. In addition to the decrease in the number of MRI cancellations:

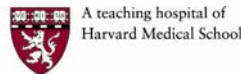
- Rapid test results (≤ 5 -minutes) has resulted in fewer patient complaints
- Staff no longer have to spend time looking up lab results or arranging for lab draws
- POC testing has engaged staff members in processes to resolve their own complaints

Next Steps/What Should Happen Next

Current process is to manually enter POC results into CCC. With the pending new lab information system, the plan is to automate POC test results into the new system.



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