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Project #67: Pre-Scheduling Protocol

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Project #67 Pre-Scheduling Protocol (HFH - Radiology)

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Pre-Schedule Protocols: Standardizing Patient Care Across the Radiology Service Line

Team Members: **Josie Palazzolo**, Senior Management Engineer – Radiology, **Lucille Bower, IT**
Senior Application System Analyst – Radiology, **Dan Myers, M.D.**, Vice Chair – Radiology

AIM

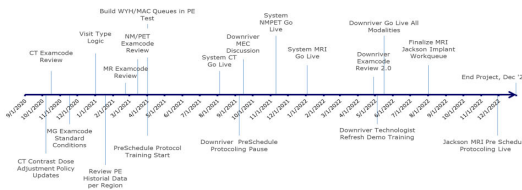
Problem: Nonuniform processes result in patients receiving different experiences across the Radiology product line. We observed continuous rescheduled patients over Henry Ford Health Radiology's history due to incorrect scheduling/scanning of a patient's high tech modality order. In 2019, 2 of 5 business units had implemented a process to review orders prior to scheduling, however this was only done by medical group radiologists.

Goals: To establish high reliability and increase patient quality & safety by adopting a system standard to pre-schedule protocol applicable orders.

- Require all 5 business units to protocol CT, MRI, Nuclear Medicine & PET exams with the help of technologist and radiologist staff.
- Reduce the number of exam codes that need to be protocolled by a radiologist by 15%.
- Reduce the number of patients rescheduled due to incorrect protocol by ensuring 100% of the time the patient receives the correct scan, length and time, location and equipment.
- Provide each patient the same scheduling experience regardless of imaging location.

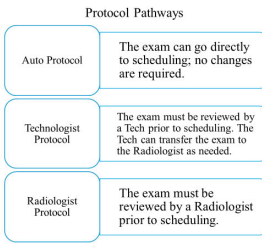
PLAN: CURRENT STATE

Phase	Who	What	When
Internal Benchmarking	Team	Identify best practices across Radiology product line and understand baseline	Q4 2020
Process Building	Team	Enhance workflows for the radiologists & technologists	Q1-Q2 2021
System Build/Edits	RIS/Helius	Develop user systems & update preexisting build	Q2 2021
System Test	Team	Test system, perform PDCA cycles	Q2-Q3 2021
Approval	Engineer & Vice Chair	MEC Approval	Q4 2021
Implement	Team	Implement across different locations based on build	Q3 2021-Q4 2022



DO: CORRECTIVE ACTIONS / INTERVENTIONS

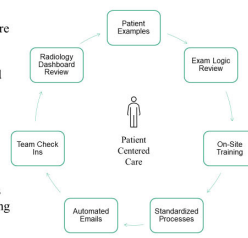
The development of our Protocol Entry application allows for order review of patients needing the following imaging: CT, MRI, Nuclear Medicine and/or PET. Within the application, logic was developed by reviewing all applicable imaging orders and assigning a "protocol pathway" for review. Radiologists and Technologists were trained to review patient medical history and key factors indicated in the patient's chart against their active order. The proper scanning protocol is then selected, and the order is changed automatically if needed. The patient is scheduled according to the new approved order.



CHECK (EVALUATION OF CHANGES)

Using our Protocol Entry applications, we can export data to track the number of exams protocolled and audit the protocol that was completed. With pivot tables and Power BI dashboards, we can trend and track metrics in detail. As some business units within the product line were already using this process, we not only expanded to all business units but improved the process overall using criteria exam logic. In doing so, we also monitored the overall number of exams that require protocol.

This process was reexplored every time there was a new patient scenario that caused application error. The team would use that example to re-standardize our approach and move forward. This is an ongoing process.

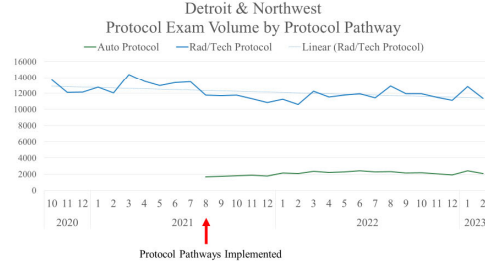
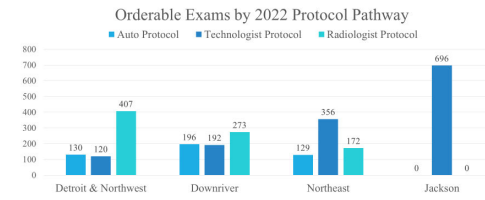


We are still working towards an optimized overall process. Barriers external to this project we continue to work on include:

- Non-Standard Equipment
- Varying Epic Applications between sites
- Internal vs External Radiology scheduling staff

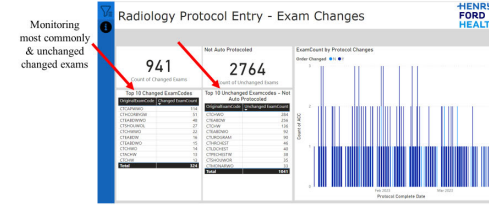
MEASURES

Changes have allowed Radiologists & Technologists to work at Top of License



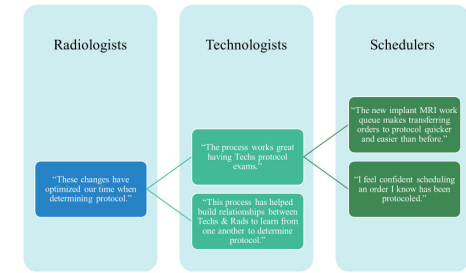
ACT: SUSTAIN AND SPREAD

- Expansion from Detroit & Northwest Business Units to all others based on best practices & working with local leadership & technical staff
- Data tracking using Power BI dashboard includes:
 - Overall volume of exams protocolled sliced by protocol role & modality
 - Average turn around time to protocol
 - Volume of exams changed and unchanged



- Incorporated into radiologist/technologist onboarding process
- Communication back to referring offices to improve ordering up stream

STAFF FEEDBACK



KEYS TO SUCCESS / LESSONS LEARNED

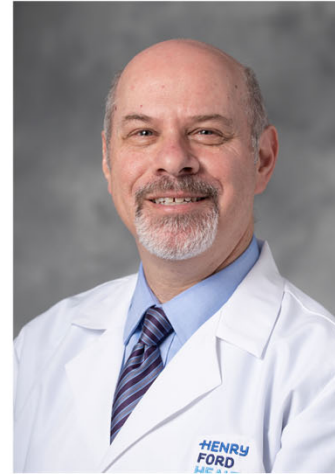
- Best practice is to always ensure safety of the patient while upholding quality of imaging
- Encourage Radiology staff ownership over the orders we schedule
- Boost communication between Radiology staff and referring offices
- Improved communication between Radiologist & Technologist staff
- Increasing Radiologist productivity by involving the technologist has reduced the non-utilized talent and extra-processing waste
- Different pieces of equipment must have different criteria for the same exam
- Use our internal resources to develop our tools to work for us



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Senior Management
Engineer - Radiology



Lucille Bower
IT Senior Application
System Analyst -
Radiology



Dan Myers, M.D.
Vice Chair - Radiology

This project scored high in:

- Engagement
- Customer Experience
- Cost Efficiency/Value

Project Owner: Josie Palazzolo

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