



RLI Power Hour

Spreading and Scaling Change Across Institutions

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Presentation Date



Learning Objectives

- Leading change across large multi-site institutions.
- Recognizing when to scale down in order to make small tests of change.
- How to scale back up once the small tests of change are proven to work.

About AdventHealth



Leading change thru congestion



- Go see the process
- Talk to front-line staff
- Ask what they think is causing the problem
- Collect data
- Decide how to scale the project

CT Quality Assurance: CT Missing Images

Problem Statement

Missing Images represents the top CT quality (QA) feedback and is the top-quality opportunity. 0.75% of all post-processed exams in the 3D lab have images missing.

Background

CT studies submitted with missing images from 72 scanners delays interpretation, causes rework, and delays patient care. Missing images is the most frequent quality issue in our entire process. 700 out of 3000 QA's are due to missing images. Audits from the 3D lab will be used to measure performance.

Target State: SMART Goal

Reduce percentage of studies with missing images from 0.75% to 0.30% for studies processed by the 3D lab by 12/31/2020. This would result in a 60% improvement.

SMART Goal



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Root Causes & Key Drivers

Root Causes

- Auto-send not consistently turned on
- Splitting exams with multiple orders
- PACS workflow not clearly defined

Key Drivers

Image send automation

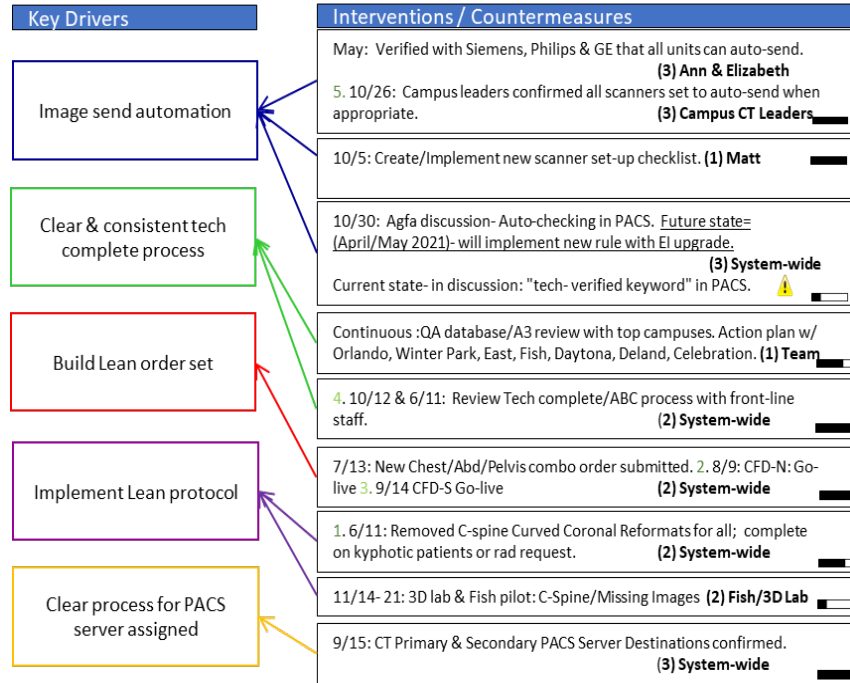
Clear & consistent tech
complete process

Build Lean order set

Implement Lean protocol

Clear process for PACS
server assigned

Interventions



Most Impactful Interventions

1. Automation
2. Create combination order
3. Remove Cervical spine curved coronal reformats

Interventions

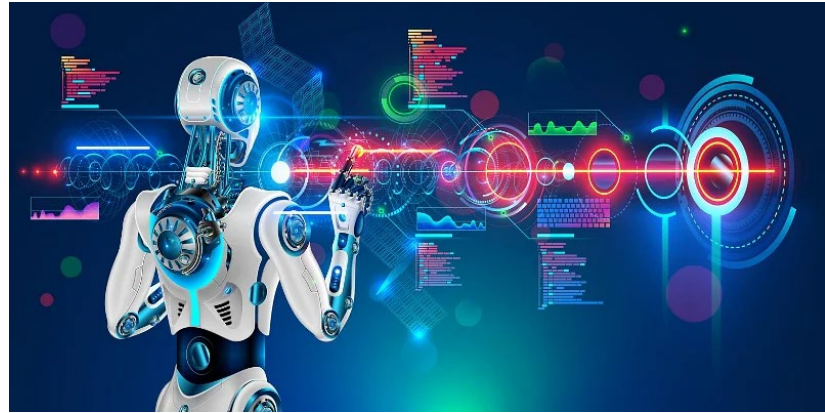
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Interventions

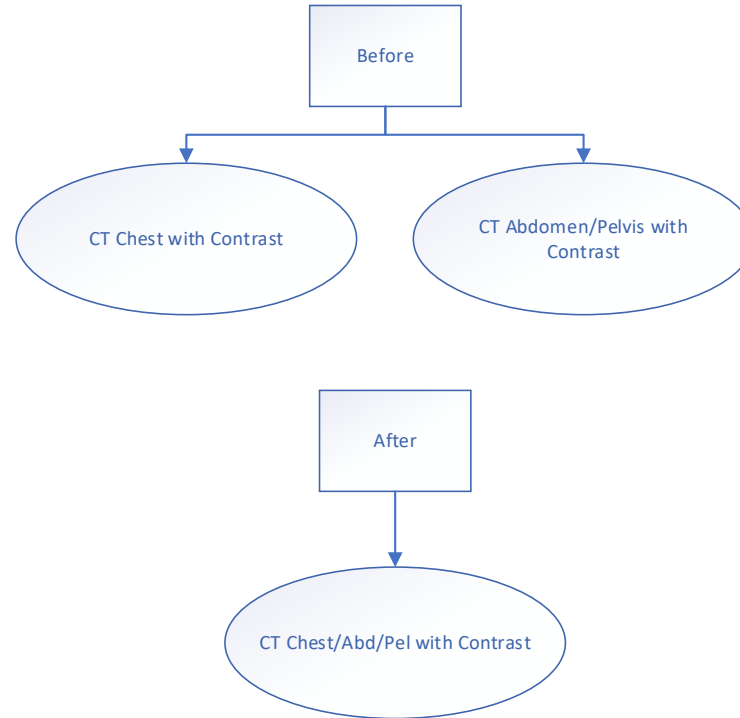
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Interventions

Image send automation

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Before:



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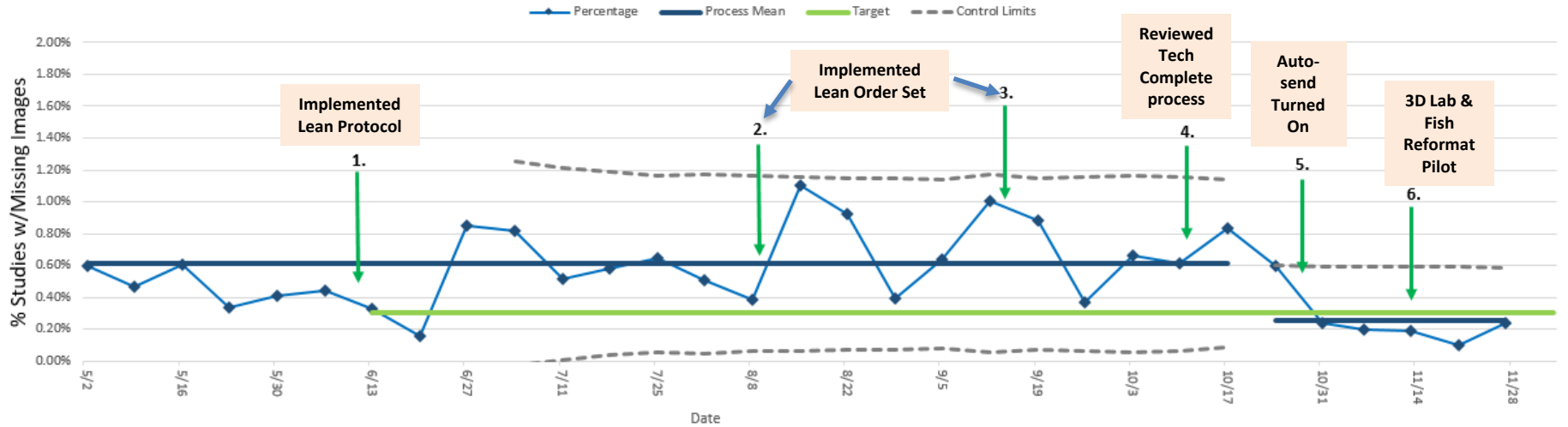
After:



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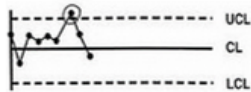
CT Missing Images- from 3D Lab



SPECIAL CAUSE VARIATION

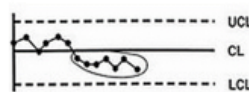
POINT OUTSIDE OF THE LIMIT:

Any point on or outside the limit is considered abnormal and requires investigation.



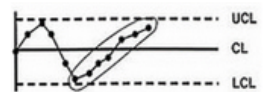
SHIFT (RUN):

A shift is indicated when 7 consecutive points lie continually on one side of the center line.



TRENDS:

Seven consecutive points in an upward or downward direction could indicate special cause.



Improving Prostate MR Image Quality

Problem Statement

Non-diagnostic MR prostate diffusion exams can lead to deficient quality images and repeat studies.

Global Aim

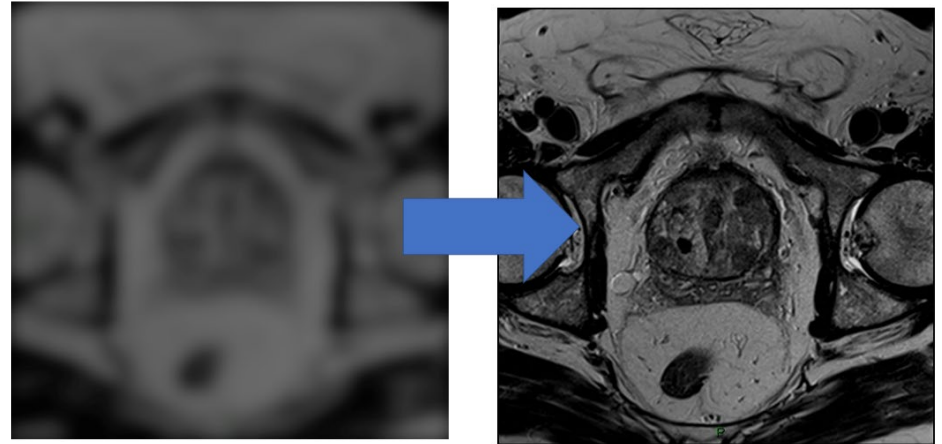
To improve clinically significant prostate cancer detection and localization.

Target State: SMART Goal

To improve the percentage of MR prostate exams that meet criteria from 89% to 94% by November 2022.

SMART Goal

To improve the percentage of MR prostate exams that meet PI-QUAL 4 or 5 criteria from 89% to 94% by November 2022.



Key Drivers

Root Causes

1. There is not clarity around what constitutes “good” image quality
2. Need for a bowel prep
3. DWI parameters are not standardized across the system
4. Protocols are not optimized on the scanners

Key Drivers

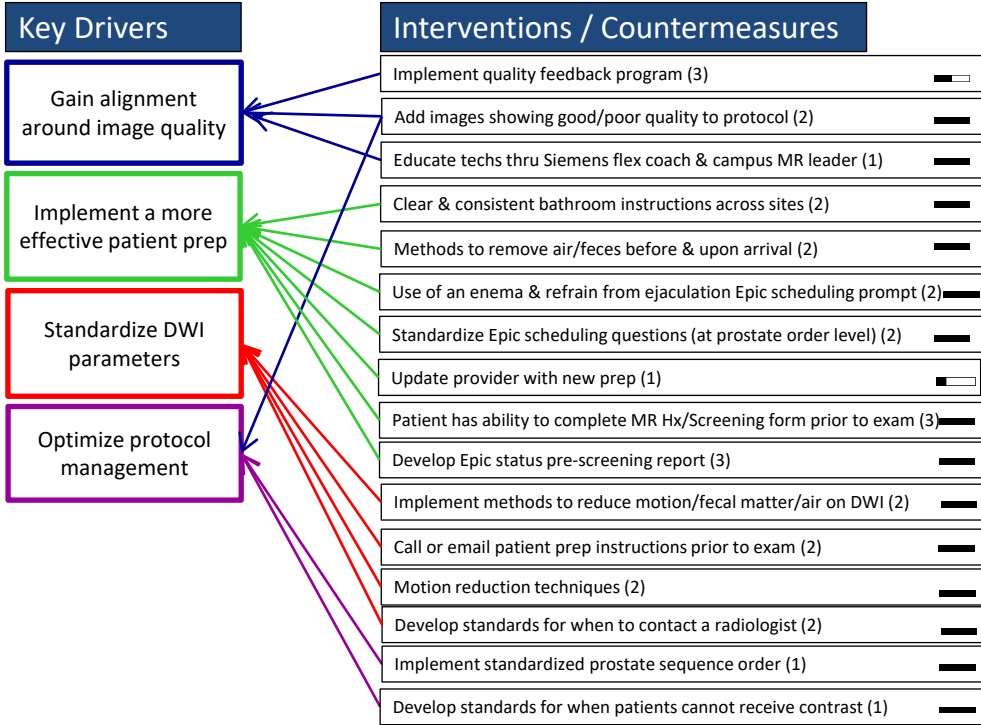
Gain alignment around image quality

Implement a more effective patient prep

Standardize DWI parameters

Optimize protocol management

Interventions



Most impactful interventions

1. Adding references images to the protocol
2. Implementing bowel prep
3. Standardizing scheduling questions/prep
4. Calling the patient 2-3 days prior to exam
5. Motion reduction techniques
6. Standardizing protocol & sequence order

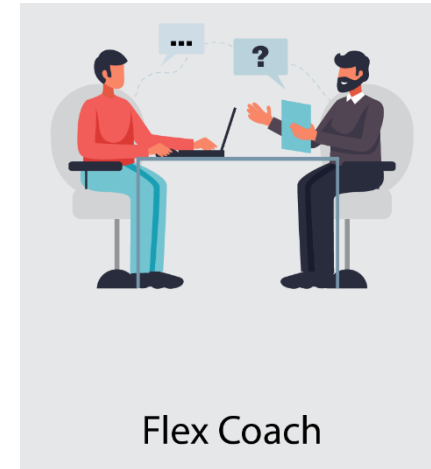
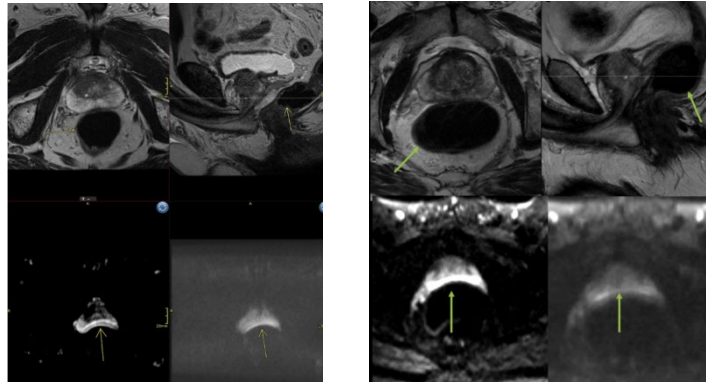
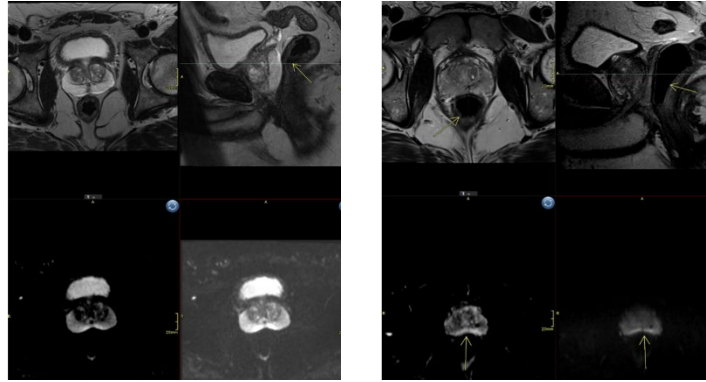
Interventions

Gain alignment around image quality

Implement a more effective patient prep

Standardize Diffusion-weighted (DWI) parameters

Optimize protocol management



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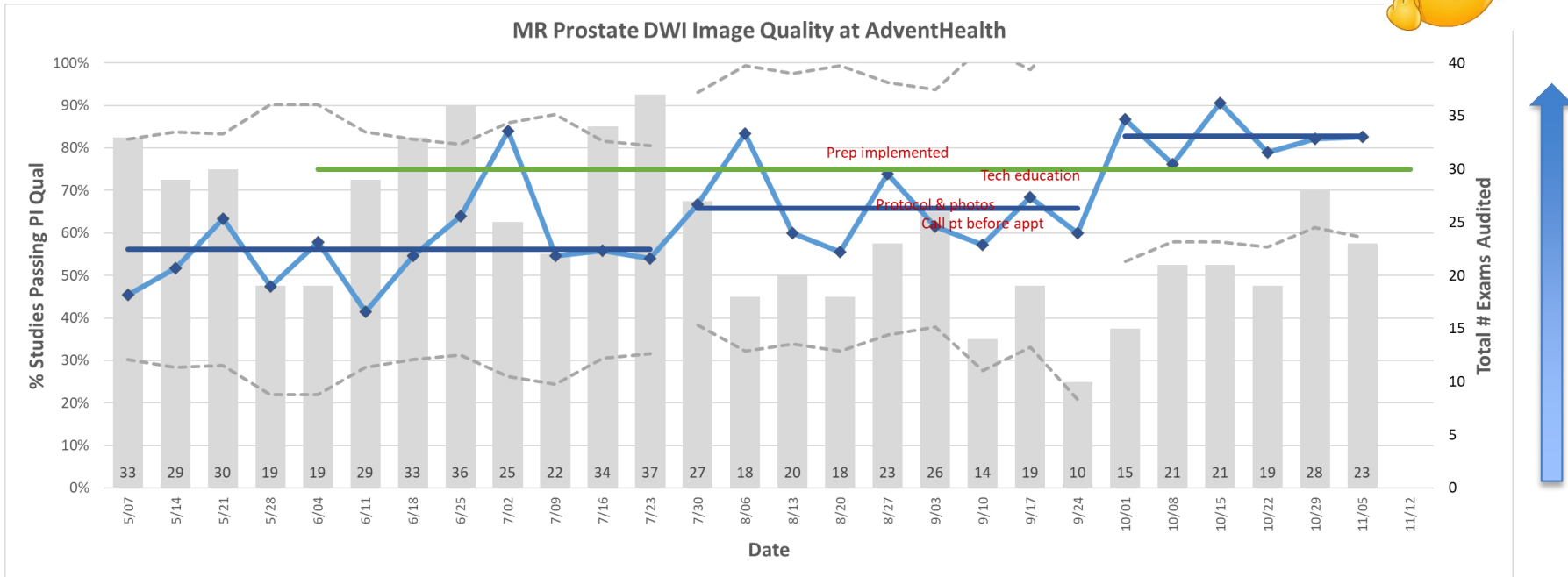
Standardize Diffusion-weighted (DWI) parameters

Optimize protocol management



Results- DWI Score

- By the end of the project, we far exceeded our goal of 75% & have been at 82%



Key Learning Points

- I. “Don’t be afraid to fail: Fail Fast, Fail Small, Fail Friendly!”
- II. Resist the urge to solve the problem upfront and let the process work.
- III. Narrow your project scope to start small and intervene sooner.