

Implementation of Prostate MRI without Contrast: Opportunity to Improve Access and Experience for Patients with Prostate Cancer

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Introduction:

Magnetic Resonance Imaging (MRI) is included in guideline-directed care for prostate cancer screening, diagnosis, and treatment. Contrast is traditionally included in prostate MRI, however recent literature has demonstrated similar diagnostic quality between MRI with and without contrast. Performing prostate MRI without contrast can shorten the duration of imaging, decrease wait times for scheduling, eliminate the potential risks of contrast administration, and may lower out-of-pocket costs for patients with prostate cancer. We implemented a quality improvement project to increase the adoption of non-contrast prostate MRIs for patients with prostate cancer on active surveillance.

Methods:

All men with previously obtained high-quality prostate MRI with contrast and prostate biopsy who are on active surveillance were eligible to undergo a bpMRI for their next surveillance scan. The electronic health record order set was modified to include a new button for non-contrast MRIs. Ordering providers were educated about the potential benefits of non-contrast MRIs for patients on active surveillance. Outcome measures include: 1) percent of active surveillance eligible patients who received non-contrast MRI, 2) percent of non-contrast MRIs that required repeat imaging due to inadequate study, 3) percent of non-contrast MRIs that were graded PIRADS 3 or 4, and 4) patient reported experience about non-contrast MRI.

Results:

This quality improvement project was initiated in Fall 2023 and is the product of interdisciplinary collaboration between the Department of Radiology and Urology at the University of Michigan. Interim results will be available in time for the MUSIC Quality Improvement Collaborative.

Conclusions:

Despite the potential benefits of non-contrast prostate MRIs, adoption remains low for patients on active surveillance. This quality improvement project at the University of Michigan intends to demonstrate feasibility and efficacy of implementing a protocol to include non-contrast MRIs. Performing MRI without contrast may reduce financial toxicity, improve patient experience, and broaden access for patients with prostate cancer. Results of this project could have potential broader implications for the MUSIC collaborative and other prostate cancer centers of excellence across the country seeking to improve the patient experience with active surveillance.

Figure 1: Inclusion criteria for patients eligible for non-contrast MRI

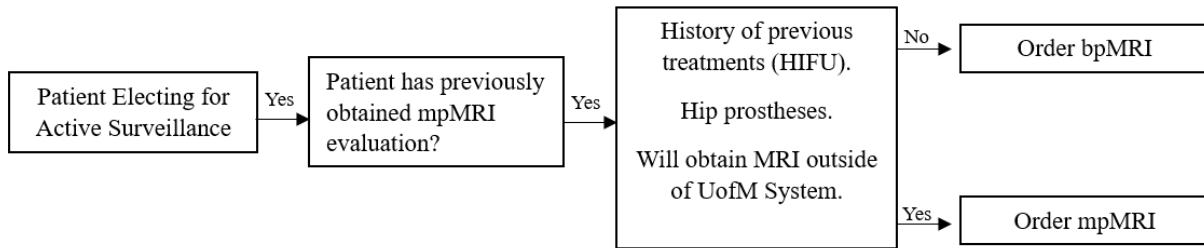


Figure 2: Updated active surveillance order in electronic health record.

MR Prostate

Status:

Expected Date:

! Clinical indication (free text):

IV contrast options:

! Sedation Requirement:

Special Protocol: