CDI QUALITY INSTITUTE

CLINICAL GUIDELINES

RE: Prostate MRI

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Attached please find the ACR's PI-Rads, Version 2, which remains the recommended guideline of the CDI Quality Institute. PI-Rads 2 is already included in the Institute's guidelines notebooks which many partnering radiologists have in their reading rooms.

Interpretation of MRI prostate has been the most challenging application we have seen in the 15 year history of CDI's peer review program. Dozens of patients have been recalled for additional imaging and many reports have had to be addended, sometimes completely reversing the findings of the original interpretation. We therefore have 3 recommendations for those radiologists providing interpretations of prostate MRI:

1. High quality images are critical to prostate cancer imaging, and high signal-to-noise is fundamental to high quality images. High signal-to-noise is needed to obtain high spatial resolution on the T2 FSE imaging, high temporal resolution for the perfusion imaging and diagnostic images on the inherently low-signal-intensity diffusion images.

   For these reasons, 3T imaging is recommended for prostate cancer imaging. While prostate imaging at both 1.5T and 3.0T has been validated in the literature, members of the ACR PI-RADS steering committee prefer, use and recommend 3T imaging (see ACR citation at end). The Prostate Cancer Research Institute, and the Medical College of Wisconsin use and advocate prostate cancer imaging using a 3.0T system.

   Prostate cancer imaging at 1.5T may also be feasible. With some contemporary 1.5T systems, high quality-imaging, high signal-to-noise imaging may be feasible as these systems employ a relatively high number or external phased array coil elements and RF channels. Prostate cancer imaging using older 1.5T systems may also be achieved using an endorectal coil, although new coil designs such as the pelvic "diaper" coil may also suffice.

2. Whether a 3.0T or 1.5T system is used, it is critical to set imaging protocols to achieve optimum images. The CDI Quality Institute has and will continue to assist CDI/Insight technologists and radiologists, and is available to review your image quality. We seek assistance from an experienced technologist to help review these images.

3. There is a learning curve for interpreting prostate MRI images, as explained in the presentation Dr. Mark Hohenwalter gave to the CDI Council of Medical Directors in January, 2017. We certainly have witnessed this within our RQM® peer review program. For radiologists new to prostate interpretations who have obtained 3.0T images, the Medical College of Wisconsin is providing peer review for the first 10 cases. This has been an excellent mentoring program because of the extensive effort for thorough review by two or more experienced radiologists. The RQM® program also has a small group of radiologists willing to provide peer mentoring for prostate cases done with an anterior-posterior multichannel phased array coil and/or using a pelvic "diaper" coil. We are struggling to find experienced radiologists willing to peer review cases done on a 1.5T MRI without a coil. Medicare and most commercial payers require an active peer review program.

We are aware of efforts by commercial payers, concerned with growing utilization of prostate MRI, to set prior authorization programs and there are patient advocacy groups organizing for restrictions under Medicare. **It is in our best interests and that of our patients if we can promote our "right test, right time, *done right*" to these payers, which will certainly also be of benefit to our patients.**

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