

## **The Development and Implementation of the Prostate Cancer Imaging Stewardship (PCIS) Intervention**

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**Background:** Nearly half of men with localized prostate cancer undergo inappropriate, wasteful imaging as part of their staging workup. The American Urological Association (AUA) and the American Society of Clinical Oncology (ASCO) promote stewardship of healthcare resources by encouraging guideline-concordant care through persistent attempts to reduce inappropriate prostate cancer imaging through campaigns such as "Choosing Wisely". Our goal was to develop and implement a widely-translatable method to inform clinicians, policymakers, and patients interested in selectively using imaging to guide initial treatment decisions for men with newly diagnosed low-risk prostate cancer.

**Methods:** We conceptualized preliminary results using the Theoretical Domains Framework (TDF) and the Behavior Change Wheel (BCW), frameworks used concurrently to investigate physicians' behaviors and intervention design in various clinical settings. Through these frameworks, we designed a theory-based, physician-focused intervention to efficiently encourage guideline-concordant prostate cancer imaging, Prostate Cancer Imaging Stewardship (PCIS). PCIS consists of intervention components (clinical order check, academic detailing, and audit and feedback) implemented at the individual, facility, and system level to enact provider behavior change by enabling facilitators and appealing to physician motivation. We plan to implement PCIS at 10 geographically diverse VA medical centers in a stepped wedge randomized clinical trial.

### **Results:**

PCIS is currently live at six out of the 10 VA study sites. To date, 36 providers have enrolled to receive quarterly audit and feedback reports. Providers have taken an interest in learning more about their personal guideline-discordant imaging rates and have expressed a desire to improve. So far, 90% (27/30) of participating providers report that they agree with having skills required to implement the intervention. Additionally, 94% (29/31) agree that PCIS will be effective in achieving targeted outcomes. Moreover, 97% (30/31) of providers report agreement that PCIS is in the best interest of their patients.

**Conclusions:** A behavioral intervention is well suited to optimize appropriate imaging, grounded in conceptual framework for intervention design. The combined understanding of our exploratory investigation through the TDF and BCW has allowed us to develop a comprehensive, theory-based intervention strategy to target behavior by enabling facilitators and mitigating barriers for behavior change specific to urologic providers. We will analyze pre and post PCIS implementation rates for the 10 VA study sites and will continue to collect qualitative data to fully understand how the intervention is improving guideline-concordant imaging rates.

**Conflicts of Interest:** The authors report no conflicts of interest.

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