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Introduction to a Seminar on implementation and de-implementation to improve urologic cancer care

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Abstract

This *Seminar* highlights real-world efforts to improve urologic oncology practice through implementation science and its methods. The essays are crafted by former fellows of the Mentored Training for Dissemination and Implementation Research in Cancer (MT-DIRC) Program sponsored by the National Cancer Institute (1 R25 CA171994–01A1), its Cancer Research Network, and the Veterans Administration. The two-year fellowship program focused on capacity-building in dissemination and implementation (D&I) research to enable fellows to: 1) conduct high-quality D&I research, 2) speed up the translation of cancer prevention and control knowledge into practice and policy, and 3) lead efforts to train the next generation of D&I researchers. The program coupled international D&I experts and fellows with an innovative curriculum to accomplish these goals. Fortunately for our field, several urologists have completed this pioneering fellowship and share their science and insights in this *Seminar*.

Keywords

implementation; dissemination; oncology; knowledge translation; quality improvement

Why is this work important? As highlighted in a prior *Seminar* essay serving as an overview of implementation science and its relevance to urologic cancer care,[1] as well as in the essays in this *Seminar*, there are continued gaps between recommended urologic cancer care and real-world practice. We have become proficient at articulating gaps in recommended and received urologic cancer care through health services and clinical research. Furthermore, we continue to invest in guideline development with the hope that these tools will translate into practice change, filling quality of care gaps. Yet, complex barriers to provider guideline adherence remain at the patient, provider, and organizational levels, often in the face of long-standing guideline recommendations. For example, one landmark study examined nearly 300 barriers to physician guideline adherence across 76 articles and discovered the following obstacles: 1) lack of awareness, 2) lack of familiarity (i.e., more in-depth understanding than

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awareness), 3) lack of agreement, 4) lack of self-efficacy to perform the behavior, 5) lack of outcome expectancy (i.e., belief that behavior will not change outcome), 6) inertia of previous practice, and 7) external barriers (e.g., time limitations, lack of reminders).[2]

With introspection, most providers could recall times when each of these barriers impacted their guideline adherence. Moreover, given the range of barriers and real-world practice contexts, 'one size fits all' solutions are not likely to work and may distract resources from the development and implementation of more effective, tailored solutions.[3] What if there were scientific theory-based implementation strategies to help providers better understand and effectively overcome barriers to evidence-based and guideline-concordant care? That is where this *Seminar* is focused; using implementation science methods to systematically address barriers and issues of underuse, misuse, and overuse in urologic cancer care.

The essays in this *Seminar* are ordered to progressively walk the reader through robust examples of implementation strategy development, followed by a real-world and conceptual exploration of overuse and misuse of urologic cancer services. As the reader will notice, each essay emphasizes the importance of using implementation theories, models, and frameworks to guide their investigations.[4] Using these systematic approaches not only provides structure to their efforts, it also supports implementation success and generalizability of their findings thereby advancing implementation science.

The first essay seeks to improve bladder cancer surveillance care through a systematic exploration of determinants of optimal surveillance, followed by tailored implementation strategy development to promote risk-aligned care. The second essay takes it one step further by designing a behavioral theory-based, multi-level implementation strategy to promote guideline-concordant prostate cancer imaging. The third essay rounds out the *Seminar* by exploring "knowing-doing" gaps in urologic oncology and the theoretical underpinnings of overuse and misuse to consider as we seek to de-implement low-value, ineffective, and even harmful urologic oncology practices. Through their use of state-of-the-art implementation science theories, models, and frameworks, the authors are advancing both implementation science and urologic cancer care. Those interested in learning more about implementation research and practice in cancer should visit the National Cancer Institute's dedicated website at: https://cancercontrol.cancer.gov/IS. [5]

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Abbreviations

(D&I)	Dissemination and implementation
(MT-DIRC)	Mentored Training in Dissemination and Implementation Research in Cancer Fellowship

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