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Differences in barriers and facilitators to first-line treatment intensification in metastatic castration-sensitive prostate cancer between urologists and oncologists: A sub-analysis of the IMPLEMENT study

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Disclosures and acknowledgements

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- **Disclosures:** Christopher Bland is an employee of Pfizer. Laura de Ruiter, Nader El-Chaar, Janet Kim and Jessica Mack are employees of Astellas Pharma. Judith Dyson reports consulting work for Astellas Pharma. Neeraj Agarwal reports conducting scientific studies for Astellas, Astra Zeneca, Bayer, Bristol Myers Squibb, Eli Lilly, Exelixis, Foundation Medicine, Genentech, Gilead, Janssen, Merck, Nektar, Novartis, Pfizer, and Seattle Genetics. Stacy Loeb reports consulting with Astellas Pharma. Sarah Rich-Zendel reports consulting for Astellas Pharma and Lilly. Jin Su Joo reports consulting for Astellas Pharma and Horizon.

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Introduction

- First-line treatment intensification (i.e., androgen-deprivation therapy [ADT] with chemotherapy, novel hormonal therapies, or both) in metastatic castration-sensitive prostate cancer (mCSPC):
  - Is recommended as a treatment option in AUA guidelines[1] and NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)[2]
  - Improves overall survival, without affecting quality of life compared to ADT alone or combined with nonsteroidal antiandrogens[3]
  - Is used in only 13% and 37% of patients treated by urologists and oncologists, respectively[4]

Objective: To examine differences in barriers and facilitators to mCSPC treatment intensification between urologists and oncologists using an implementation science approach

1 Lowrance W, Dreicer R, Jarrard DF, et al. Updates to advanced prostate cancer: AUA/SUO guideline (2023). J Urol. 2023;209(6):1082-1090; **2** Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Prostate Cancer V.3.2024. © National Comprehensive Cancer Network, Inc. 2024. All rights reserved. Accessed 11 April, 2024. To view the most recent and complete version of the guideline, go online to NCCN.org. **3** Wala J, et al. *J Clin Oncol.* 2023;41(20):3584–90; **4** Swami U, et al. *J Urol.* 2023;209(6):1120–31.

Study Design – Implementation Science Approach

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Population:
- US-based urologists (n = 18) and oncologists (n = 18)
- Primary treater for ≥1 patient with mCSPC in the past 6 months
- ≥50% of time in direct patient care

Virtual double-blind, semi-structured interviews using a Theoretical Domain Framework (TDF)-based discussion guide1

Transcribe audio interviews

Code quotes into 11 TDF domains (interrater agreement $\kappa = 0.77$)

Generate themes within the domains

Evaluate themes and domains to identify key barriers and facilitators

Analysis by specialty: Differences of ≥20% between urologists and oncologists were considered notable[2]

1. Michie S, et al. *Appl Psychol Int Rev.* 2008;57(4):660–80; **2.** Sullivan, L. Boston University School of Public Health. 2017. https://sphweb.bumc.bu.edu/otlt/MPH-Modules/BS/BS704_Confidence_Intervals/

Sample Characteristics

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	Urologists (n = 18) 	Oncologists (n = 18) 
Years in practice, average (range)	21 (9-34)	16 (5-30)
Male, n (%)	18 (100)	15 (83)
Female, n (%)	0 (0)	3 (17)
High intensifier (intensify >50% of patients), n (%)	6 (33)	10 (56)
Low intensifier (intensify ≤50% of patients), n (%)	12 (67)	8 (44)
Academic setting, n (%)	5 (28)	9 (50)
Non-academic setting, n (%)	13 (72)	9 (50)
Urban/suburban location, n (%)	14 (78)	17 (94)
Rural location, n (%)	4 (22)	1 (6)
Northeast region, n (%)	6 (33)	8 (44)
South region, n (%)	5 (28)	3 (17)
Midwest region, n (%)	1 (6)	5 (28)
West region n (%)	6 (33)	2 (11)

Key barriers identified in both specialties

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	Barrier	Theoretical Domain	Participants reporting the barriers and facilitators
	Lack of knowledge regarding treatment intensification outcomes	*Knowledge*	n = 11 61% n = 11 61%
	Belief that there is insufficient treatment intensification data		n = 7 39% n = 4 22%
	Waiting to intensify treatment second line	*Decision Processes*	n = 9 50% n = 7 39%
	Using first-line treatment intensification only for severe disease		n = 4 22% n = 5 28%

Urologists Oncologists

Peripheral facilitators identified in both specialties

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	Facilitator	Theoretical Domain	Participants reporting the barriers and facilitators
👍	Confidence in first-line treatment intensification	*Beliefs about Capabilities*	n = 6 **33%** n = 9 **50%**
👍	Comfort with managing treatment intensification	*Skills*	n = 7 **39%** n = 4 **22%**

Urologists Oncologists

Notable differences in key barriers and facilitators between specialties

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	Barrier/Facilitator	Theoretical Domain	Participants reporting the barriers and facilitators
👍	Good interdisciplinary collaboration	*Social/Professional Role and Identity*	n = 11 61% n = 7 39%
👍	Referring patients to an oncologist when intensification is not possible at practice		n = 9 50% 0%
👍	Belief that urologists should be able to intensify treatment		n = 10 56% n = 3 17%
🚧	Urologists waiting too long to refer patients to oncologists		n = 1 6% n = 5 28%

Urologists Oncologists

Notable differences in key barriers and facilitators between specialties

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	Barrier/Facilitator	Theoretical Domain	Participants reporting the barriers and facilitators
	Not limiting intensification based solely on age or performance status	*Decision Processes*	n = 13 72% n = 17 94%
	Habit of not intensifying treatment first line		n = 9 50% n = 3 17%
	Sufficient clinical support	*Environmental Context*	n = 7 39% n = 11 61%
	Insufficient clinical support		n = 9 50% 0%

Urologists Oncologists

Notable differences in key and peripheral barriers and facilitators between specialties

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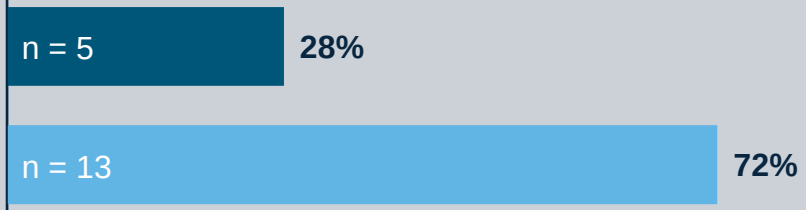
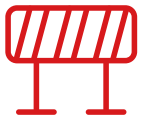
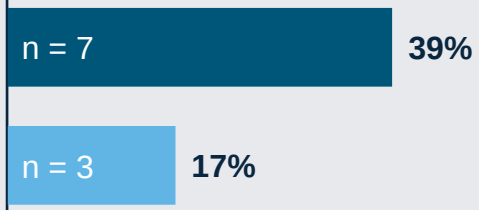
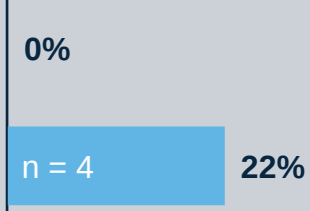
	Barrier/Facilitator	Theoretical Domain	Participants reporting the barriers and facilitators
	Anticipated regret about losing the best chance at improving survival	*Beliefs about Consequences**	
	Low-intensifier peer environment	*Social Influences*†	
	Clinical pathways	*Action Planning*†	

*Key domain †Peripheral domain

Urologists Oncologists

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Conclusion: Barriers and facilitators encountered by specialty

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Urologist

Both specialties

- Knowledge gaps
- Tendency to intensify second-line and use first-line intensification only for severe disease
- Confidence in and comfort with first-line treatment intensification

Oncologist

- Habit of starting patients on ADT or first-generation anti-androgens
- Insufficient clinical support
- Good collaboration with oncologists; referring patients when unable to intensify
- Belief in urologist role in treatment intensification

- Urologists hanging on to patients for too long
- Good clinical support
- Tendency not to limit intensification solely based on age or performance
- Anticipated regret about losing the best chance at improving survival