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KEY TAKEAWAY

To help patients navigate factors impacting TDM and limit risk of DR, a shared
 consensual TDM approach between patients, caregivers, and healthcare professionals is needed

DR, decision regret; TDM, treatment decision-making.

Prostate Cancer



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CONCLUSIONS



In patients with LPC/LAPC, TDM was impacted by patient demographics, physician recommendation, and treatment characteristics, whereas DR was primarily influenced by treatment side effects

Patients who reported active involvement in TDM experienced significantly lower levels of DR than those who had a passive role



This study highlights the wide range of factors that physicians may need to consider when guiding TDM discussions with patients with LPC/LAPC

LPC/LAPC, localized or locally advanced prostate cancer.

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BACKGROUND

- Prostate cancer is the second most common cancer diagnosed in men, with more than 1.4 million new cases diagnosed worldwide in 2020 alone^{1,2}
- Approximately 90% of patients with newly diagnosed prostate cancer have localized or locally advanced prostate cancer (LPC/LAPC)³
- While patients with high-risk LPC/LAPC have a 10-year survival rate of up to 87% with treatment,⁴ treatment decision-making (TDM) can be challenging because of the lack of consensus on optimal management of the disease and the various available treatment options^{3,5-7}
- Primary treatment options are considered equivalent according to oncological outcomes⁸; however, all treatments are associated with long-term adverse effects, which can cause decision regret (DR) post treatment^{9,10}
- Overall, the factors driving TDM or predicting DR remain unknown

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OBJECTIVE

• Two systematic literature reviews (SLRs) were conducted simultaneously to identify and summarize the available evidence on factors driving TDM and DR in patients with LPC/LAPC

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METHODS (1 of 2)

- SLRs were conducted according to established methods. Eligible studies met patient, intervention, comparator, and outcome (PICO) criteria
- Search strategies were designed and databases (Ovid MEDLINE, Ovid Embase, Cochrane Library), select congress proceedings, and gray literature were searched (12 Sept 2022)
- Eligible publications on TDM and DR in LPC/LAPC were identified and prioritized for SLR inclusion based on the following criteria: 2012 onward, ≥100 patients, journal article, and quantitative data (Table 1)
- Influential factors were those with p<0.05; for TDM, factors described as "a decision driver," "associated," "influential," or "significant" were also included
- Key factors were determined after consideration of the number of studies, consistency of evidence, and study quality

SLR, systematic literature review.

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METHODS (2 of 2)

TABLE 1: Prioritization criteria sequentially applied to eligible publications

Criteria	Number of TDM publications	Number of DR publications
Published from 2012 onward	153	74
Publication type (journal article)	114	62
Type of data (quantitative)	92	59
Study population size (≥100 patients)	75	49
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RESULTS (1 of 8)

Studies Included in the Reviews

 Of 225 TDM and 106 DR publications, 75 (corresponding to 68 studies) and 49 publications, respectively, met the prioritization criteria and were fully data extracted (Table 1 and Figure 1)

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NAVIGATION RESULTS (2 of 8) FIGURE 1: PRISMA flow diagram of the TDM and DR study selection processes **KEY TAKEAWAY Records identified** Duplicate records removed TDM DR TDM DR n=12.070 n=8680 n=3760 n=2188 CONCLUSIONS **Records screened** Records excluded BACKGROUND TDM DR TDM DR n=8310 n=6492 n=7866 n=6155 OBJECTIVE Reports sought for retrieval **Reports not retrieved** METHODS TDM DR DR TDM n=444 n=337 n=7 n=2 TABLE 1 Publication prioritization criteria **Reports assessed for eligibility Reports excluded** TDM DR TDM DR RESULTS n=444 n=337 n=253 n=250 FIGURE 1 Studies (publications) included Records from other methods^a PRISMA flow diagram TDM DR TDM DR n=103 (106) TABLE 2 n=201 (225) n=34 n=19 Patient and treatment characteristics FIGURE 2 Publications included and extracted Key factors impacting TDM TDM DR FIGURE 3 n=75 n=49 Key factors impacting DR ^aOther methods included conference websites and citation searching (TDM, n=141; DR, n=140), reports sought for retrieval (TDM, n=141; DR, n=140), reports assessed for eligibility (TDM, n=141; APPENDIX

DR, n=140), and reports excluded (TDM, n=107; DR, n=121).

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RESULTS (3 of 8)

Patient and Treatment Characteristics

- 52 of 75 TDM publications and all 49 publications on DR included data on patient demographics (Table 2)
- The use of decision aids (DAs) was also explored in relation to TDM and DR. Overall, patients with LPC/LAPC who used DAs to make treatment decisions had significantly less regret at 3-, 6-, 12-, and 24-month follow-up than those who received standard care (p<0.05)¹¹⁻¹³
- Patients who used DAs strongly agreed that they felt more active in the treatment decision, and had discussed different treatment options in detail, compared with those receiving standard care¹⁴

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RESULTS (4 of 8)

TABLE 2: Patient and treatment characteristics of extracted studies

Patient characteristic	TDM publications	DR publications
Mean age, range (yrs)	49.9-70.0	42.9-76.4
White majority (≥70% patients)	n=35	n=23
Cancer stage	T1a to T3b	T1a to T3b
Treatment types	RP (n=64) RT (n=64) AS (n=50) ADT/hormonal therapy (n=18) Combination therapy (n=11)	RP (n=32) RT (n=29) AS (n=22) ADT/hormonal therapy (n=12)

ADT, androgen deprivation therapy; AS, active surveillance; RP, radical prostatectomy; RT, radiotherapy.

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RESULTS (5 of 8)

Factors Driving TDM

- More than 80 factors were associated with TDM. Of 39 influential TDM factors, external factors (physician recommendation was most common), age, treatment side effects, race/ethnicity, and treatment characteristics were key (Figure 2)
- Age, race/ethnicity, and marital status were the demographic factors most frequently related to TDM in 30, 18, and 14 publications, respectively (Figure 2)
- Clinical factors, including risk category, comorbidity, cancer stage, and prostate-specific antigen level, were associated with TDM in 17, 10, 9, and 8 publications, respectively (Figure 2 and Supplementary Figure 1)

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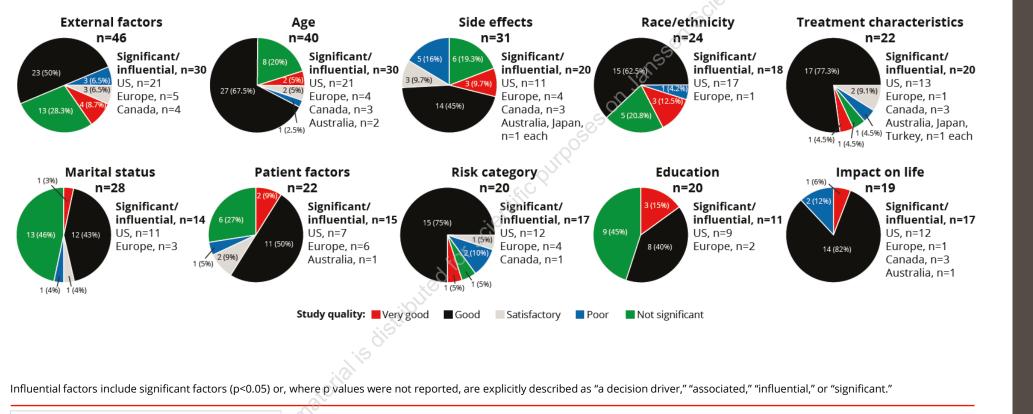
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FIGURE 2: Key factors impacting TDM in publications grouped by significance and study quality



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Factors Driving DR

- DR was reported in 23 studies; 18 reported treatment-specific DR. Of 42 significant DR factors, side effects (sexual, urinary, and bowel dysfunction), treatment type, and patient role in TDM were key (Figure 3)
- Sexual, urinary, and bowel dysfunction were strongly associated with DR in 14, 11, and 8 publications, respectively (Figure 3)
- Demographic and clinical factors were also significantly associated with DR across studies (Figure 3 and Supplementary Figure 2)
- DR was measured by a variety of tools across studies, including the Decision Regret Scale (n=21), Clark's Prostate Cancer-related Quality of Life Questionnaire (n=10), Regret Subscale of the Memorial Anxiety Scale for Prostate Cancer (n=1), and other novel scales (n=9)

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Bowel dysfunction Sexual dysfunction Urinary dysfunction Treatment type Patient role n=23 n=22 n=20 n=15 n=11 1 (5%) 1 (6.7%) 2 (9,1%) 1 (4.5%) Significant, n=14 Significant, n=11 Significant, n=8 Significant, n=11 Significant, n=7 (9%) US. n=8 US. n=8 US. n=7 US. n=5 US. n=2 9 (45%) 9 (45%) 7 (46.7%) 7 (46.7%) 9 (41%) Europe, n=3 Europe, n=3 Europe, n=4 Europe, n=5 Europe, n=4 1 (9%) 2 (9%) 10 (43%) Canada, n=1 Canada, n=1 5 (46%) Turkey, n=1 1 (5%) 1 (5%) Race/ethnicity Education Marital status Decision aids and Age information sources n=18 1 (7%) **n=14** n=14 n=12 n=11 Significant, n=3 Significant, n=6 4 (22%) Significant, n=4 Significant, n=3 Significant, n=5 US, n=2 1 (7%) US, n=2 1 (8% US, n=2 US, n=5 US, n=2 5 (36%) 5 (45%) 9 (75%) Europe, n=2 Europe, n=1 1 (7%) Europe, n=1 Europe, n=1 10 (71%) Europe, n=1 12 (67%) 2 (17%) Canada, n=1 Turkey, n=1 Study quality: Very good Good Satisfactory Poor Not significant Influential factors only include those that are significant (p<0.05).

FIGURE 3: Key factors impacting DR in publications grouped by significance and study quality

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