Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell,[1] Angaja Phalguni,[2] Paulina Bajko,[2] Suneel D. Mundle,[3] Sharon A. McCarthy,[4] Sabine D. Brookman-May,[5,6] Francesco De Solda,[7] Ruhee Jain,[7] Wellam Yu Ko,[8] Guillaume Ploussard,[9] Boris Hadaschik[10]

[1]Departments of Oncology and Urology, Montefi ore Einstein Cancer Center, Bronx, NY; [2]Evidence Synthesis, Genesis Research Group, Newcastle upon Tyne, UK; [3]Global Medical Aff airs, Janssen Research & Development, Raritan, NJ; [4]Clinical Research Oncology, Janssen Research & Development, Raritan, NJ; [5]Clinical Research Oncology, Janssen Research & Development, Spring House, PA; [6]Ludwig-Maximilians-University, Munich, Germany, [7]Global Commercial Strategy Organization, Janssen Global Services, Raritan, NJ; [8]University of British Columbia Men's Health Research Program, Vancouver, BC, Canada; [9]Department of Urology, La Croix du Sud Hospital, Quint-Fonsegrives, France; [10]Department of Urology, University of Duisburg-Essen and German Cancer Consortium (DKTK)–University Hospital Essen, Essen, Germany

Click anywhere to view this interactive poster

https://www.congresshub.com/Oncology/GU2024/Apalutamide/Gartrell

Presented by B.A. Gartrell at ASCO Genitourinary Cancers Symposium; January 25-27, 2024; San Francisco, CA, USA, and online.

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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

Presented by B.A. Gartrell at ASCO Genitourinary Cancers Symposium; January 25-27, 2024; San Francisco, CA, USA, and online.

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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.

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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 outcomes[8]; 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

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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.

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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)

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

FIGURE 1: PRISMA flow diagram of the TDM and DR study selection processes
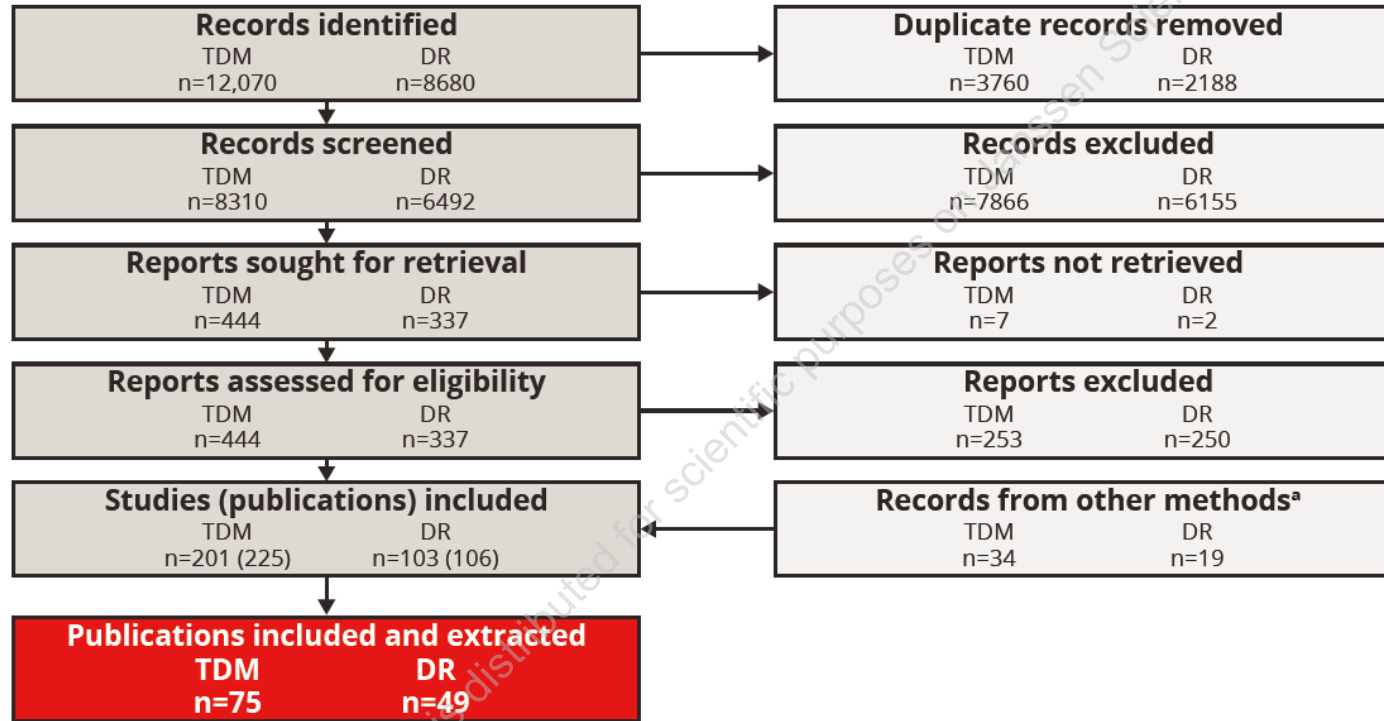
aOther methods included conference websites and citation searching (TDM, n=141; DR, n=140), reports sought for retrieval (TDM, n=141; DR, n=140), reports assessed for eligibility (TDM, n=141; DR, n=140), and reports excluded (TDM, n=107; DR, n=121).

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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 care[14]

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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.

NAVIGATION

KEY TAKEAWAY

CONCLUSIONS

BACKGROUND

OBJECTIVE

METHODS

TABLE 1
Publication prioritization criteria

RESULTS

FIGURE 1
PRISMA flow diagram

TABLE 2
Patient and treatment characteristics

FIGURE 2
Key factors impacting TDM

FIGURE 3
Key factors impacting DR
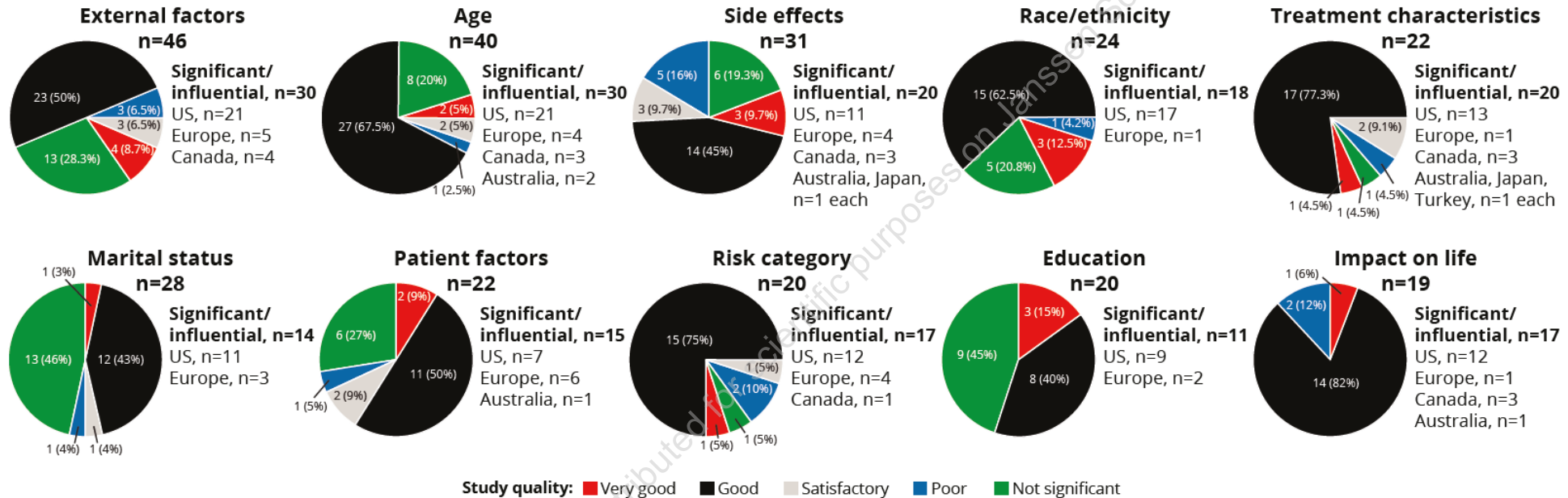
APPENDIX

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

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)

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

RESULTS (6 of 8)

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

Influential factors include significant factors (p<0.05) or, where p values were not reported, are explicitly described as "a decision driver," "associated," "influential," or "significant."

NAVIGATION

KEY TAKEAWAY

CONCLUSIONS

BACKGROUND

OBJECTIVE

METHODS

TABLE 1
Publication prioritization criteria

RESULTS

FIGURE 1
PRISMA flow diagram

TABLE 2
Patient and treatment characteristics

FIGURE 2
Key factors impacting TDM

FIGURE 3
Key factors impacting DR
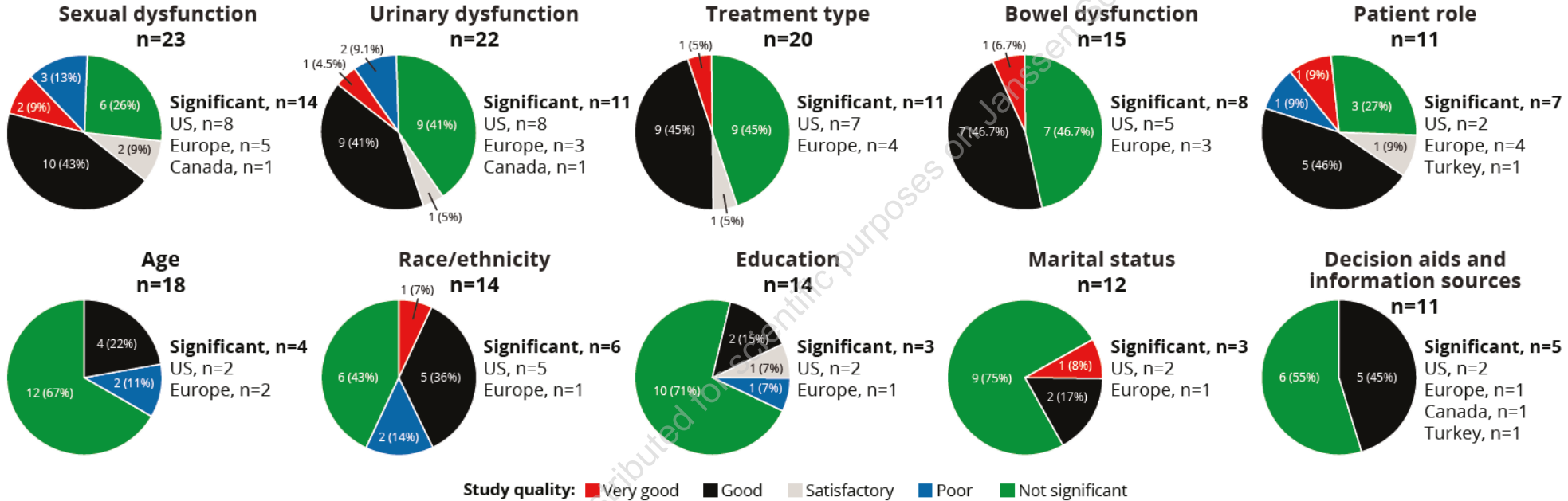
APPENDIX

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

RESULTS (7 of 8)

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)

Prostate Cancer

Presented by B.A. Gartrell at ASCO Genitourinary Cancers Symposium; January 25-27, 2024; San Francisco, CA, USA, and online.

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

RESULTS (8 of 8)

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

Influential factors only include those that are significant (p<0.05).

Prostate Cancer

Influential Factors Impacting Treatment Decision-Making and Decision Regret in Patients With Localized or Locally Advanced Prostate Cancer

Benjamin A. Gartrell, Angaja Phalguni, Paulina Bajko, Suneel D. Mundle, Sharon A. McCarthy, Sabine D. Brookman-May, Francesco De Solda, Ruhee Jain, Wellam Yu Ko, Guillaume Ploussard, Boris Hadaschik

APPENDIX

REFERENCES:

1. IARC. 2023. Available from: https://gco.iarc.fr/today/home. 2. Culp MB, et al. *Eur Urol*. 2020;77(1):38-52. 3. Sun F, et al. Rockville (MD): *Agency for Healthcare Research and Quality (US)*. 2014. 4. Ladjevardi S, et al. *BJU Int*. 2013;111(3):381-388. 5. Kandasamy S, et al. *Ont Health Technol Assess Ser*. 2017;17(7):1-32. 6. Orom H, et al. *Med Decis Making*. 2016;36(6):714-725. 7. Parker C, et al. *Ann Oncol*. 2020;31(9):1119-1134. 8. Hamdy FC, et al. *N Engl J Med*. 2016;375:1415-1424. 9. Berry DL, et al. *Urol Oncol*. 2021;39:493.e9-.e15. 10. Albkri A, et al. *Urol Int*. 2018;100:50-56. 11. Jayadevappa R, et al. *J Clin Oncol*. 2019;37(12):964-973. 12. Feldman-Stewart D, et al. *Med Decis Making*. 2012;32(4):616-626. 13. Hacking B, et al. *Psychooncology*. 2013;22(5):1017-1024. 14. Johnson DC, et al. *J Urol*. 2016;196(6):1640-1644.

DISCLOSURES:

ACKNOWLEDGMENTS:

Prostate Cancer