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Review

Supportive Survivorship After Focal Ablation for Localized Prostate Cancer: A Narrative Review and Transition-Triggered Nursing Framework

Xiuqun Yuan [1], Yanqing Wang [2], Yanyan Zhang [1], Fan Xu [2], Baijun Dong [2,*] and Min Chen [1,*]

[1] Department of Nursing, Ren Ji Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200127, China; yuanxiuqun@renji.com (X.Y.)
[2] Department of Urology, Ren Ji Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200127, China; wangyanqing@renji.com (Y.W.)
* Correspondence: dongbaijun@renji.com (B.D.); chenmin3270@renji.com (M.C.)

Highlights

What are the main findings?

- Focal-ablation studies identify recovery, symptom, and decisional concerns relevant to supportive survivorship care.
- The nursing framework links six care domains and five recurring phases through separate assessment of oncological concern and supportive need.

What are the implications of the main findings?

- Surveillance transitions provide opportunities to review understanding, symptoms, and unresolved concerns.
- A longitudinal record, named responsibilities, and referral tracking provide concrete components for prospective evaluation.

Abstract

Background/Objectives: Survivorship after focal ablation combines functional recovery with continuing surveillance and possible further treatment. This narrative review synthesizes evidence on patient experience and proposes a nursing framework linking supportive care to surveillance and treatment transitions. **Methods:** Targeted searches and supplementary retrieval through April 2026 were followed by a Europe PMC update on 13 September 2026 and a supplementary PubMed search in October 2026, alongside guideline checks and citation tracing. Evidence specific to focal ablation and literature from broader survivorship care informed the conceptual mapping of nursing care components and priorities for future evaluation. **Results:** Focal-ablation studies describe early recovery, persistent symptoms, and variation in decisional experience. Broader survivorship and nursing literature informs assessment, communication, and coordination. The proposed, unvalidated framework combines supportive review triggered by surveillance transitions, interpretive continuity, and separate assessment of current oncological concern and supportive need. Six care domains recur across five phases, from pretreatment preparation to further treatment and handover. Transition-triggered review complements scheduled and needs-based contacts; the proposed triage rules require testing. Key components include longitudinal documentation of function, patient goals, surveillance results, and the provided explanations, together with defined responsibility for follow-up and referral tracking. Four hypotheses address expectation alignment, transition review, communication continuity, and referral appropriateness. **Conclusions:** The proposed framework connects surveillance interpretation, functional recovery, and further-treatment decisions through coordinated supportive nursing care.

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Patient and partner co-design, feasibility testing, and prospective comparative evaluation are needed to assess its clinical value and implementation burden.

Keywords: prostate cancer; focal ablation; survivorship; oncology nursing; patient-reported outcomes; uncertainty; continuity of care

1. Introduction

Focal ablation aims to treat localized prostate cancer while preserving uninvolved tissue and genitourinary function. The 2026 European Association of Urology (EAU) guideline places focal high-intensity focused ultrasound (HIFU) and cryotherapy within prospective registries and other ablative modalities within well-designed prospective trials [1]. Systematic reviews report favorable functional outcomes and short- to intermediate-term cancer control in selected men, alongside heterogeneous outcome definitions and limited long-term comparative evidence [2–4]. For patients undergoing this approach, organ preservation is accompanied by continuing surveillance and the possibility of further treatment.

Surveillance after focal ablation requires interpretation of findings over time. Residual prostate tissue continues to produce prostate-specific antigen (PSA), while post-treatment changes can complicate multiparametric magnetic resonance imaging (mpMRI). Follow-up therefore combines PSA, imaging, biopsy, and functional assessment [5,6]. Clinicians need to explain each result in the context of previous findings, recovery, and planned next steps, while nurses can check patients' understanding and help clarify remaining questions. New or discordant findings may also reopen concerns about cancer control and the original treatment decision.

Patient-reported studies show why supportive follow-up matters alongside cancer monitoring. Surveys after focal HIFU or cryoablation identify associations between treatment regret, urinary or sexual difficulties, and cancer detected during follow-up [7,8]. Broader prostate cancer research describes fear of recurrence, PSA-related anxiety, and long-term unmet needs [9–11]. Qualitative work further shows that uncertainty extends into relationships and everyday life after active treatment [12]. These findings make individual function, understanding, and decisional experience relevant outcomes of survivorship care.

Existing prostate cancer and general cancer survivorship frameworks address treatment effects, psychosocial well-being, health promotion, and coordinated, risk-stratified care [13–16]. Specialist nursing models translate these principles into assessment, education, and care planning [17,18]. Focal-treatment consensus guidance also includes functional assessment [5]. The practical question is how to connect these activities with recurring surveillance: when to review supportive needs, how to explain changing findings consistently, and who follows unresolved concerns through referral or a change in treatment.

This review examines how established survivorship and specialist nursing approaches can inform supportive care after focal ablation for localized prostate cancer. It focuses on three interconnected tasks: supporting patients' understanding of serial PSA, mpMRI, and biopsy findings; assessing urinary, sexual, and decisional concerns alongside oncological surveillance; and maintaining continuity of care when further focal or radical treatment is considered. Building on this evidence, we propose a nursing framework that integrates surveillance-transition-triggered review, continuity in the explanation of results, and separate assessment of current oncological concern and supportive need. We describe its care domains, phases, and practical components, and identify hypotheses for future evaluation.

2. Methods

2.1. Evidence Sources and Targeted Update

We conducted a narrative review of literature on focal-ablation surveillance, patient-reported outcomes (PROs), psychosocial and relational experiences, decision-making, nursing care, and implementation, using purposive literature selection, narrative synthesis, and author-led conceptual mapping. The findings informed the development of a proposed supportive nursing care framework for patients undergoing focal ablation for localized prostate cancer.

Initial targeted searches of PubMed, Embase, and CINAHL Complete covered publications through April 2025. These were supplemented by literature retrieval on supportive follow-up, patient experience, and nursing implementation through April 2026, including citation tracing.

A targeted Europe PMC update conducted on 13 September 2026 covered first publication dates from 1 May to 13 September 2026. The two queries returned 32 and 172 records before deduplication, respectively. Embase and CINAHL Complete were not rerun for this update. During revision in October 2026, an additional PubMed search was conducted for publications dated 1 May 2025 to 30 April 2026. Two searches addressing focal-ablation follow-up and patient experience and prostate cancer nursing and supportive survivorship retrieved 97 and 661 records, respectively, with 754 unique records after PMID-based deduplication. These are retrieval counts, not numbers of studies screened or included in the synthesis. Complete study-selection records were not available across the searches for retrospective reconstruction of a systematic screening flow. Literature was selected purposively for its relevance to framework development rather than through a systematic review process. Appendix A provides the search strategies, chronology, and available retrieval records.

Titles and abstracts were reviewed for relevance, with accessible full texts examined as appropriate. Studies on focal ablation were selected for their relevance to surveillance, patient experience, functional recovery, decision-making, and further treatment. Broader prostate cancer, nursing, and implementation literature was included to inform supportive care processes not adequately addressed in focal-ablation studies. Technical reports were included when relevant to surveillance or treatment transitions. Relevance concerned the clinical situation or supportive need addressed; conceptual contribution concerned whether a publication informed an assessment domain, review occasion, care process, or evaluation approach. Direct focal-ablation evidence anchors the clinical context, while broader literature supplies transferable care principles. Selection and interpretation were not independently duplicated; formal risk-of-bias assessment and quantitative synthesis were not undertaken.

2.2. Evidence Classification and Interpretation

Evidence was organized into five streams (Table 1). Direct focal-ablation studies and guidance defined the clinical context, broader prostate cancer literature informed supportive care processes, and implementation research informed delivery and evaluation. Interpretation considered study design, population, follow-up, and applicability. Two European Urology editorials on radiotherapy and prostatectomy contributed cross-modality expert perspectives [19,20]. Appendix B summarizes methodological considerations for selected empirical studies, with observed findings distinguished from their proposed implications for nursing care. For framework interpretation, we distinguish direct focal-ablation findings, principles transferred from broader survivorship or nursing literature, and author-proposed arrangements of care. Evidence that a need exists does not establish the effectiveness of the

proposed response. Null or differing findings are retained in the synthesis and constrain anticipated benefits, as illustrated in Section 3.1.

Table 1. Evidence informing the framework and its applicability.

Evidence Stream	Evidence Informing the Synthesis	Proposed Pathway Component	Applicability Considerations
Focal ablation and surveillance	Guidance and reviews require multimodal follow-up; recent cohorts describe psychological recovery and further treatment [1,5,6,21,22].	Transition review; serial function assessment; handover when management changes.	Direct focal-ablation evidence; heterogeneous cohorts and follow-up protocols. Transition-triggered supportive review remains untested.
Prostate cancer survivorship	Guidelines and care frameworks address physical, psychosocial, and coordination needs [13–16].	Six recurring care domains and separate assessment of current oncological concern and supportive need.	Transferred survivorship principles; the six-domain structure and dual-axis triage are author-proposed.
PROs, expectations, and decisions	Direct focal surveys identify variation in satisfaction; broader studies associate expectation mismatch with regret [7,8,23,24].	Baseline PROMs and patient goals; expectation review and re-decision support.	Direct focal-ablation associations and broader prostate cancer evidence; intervention effects remain uncertain.
Uncertainty, relationships, and cross-modality care	Studies describe anxiety, uncertainty, and partner needs; editorials address outcomes after radiotherapy and prostatectomy [9,12,19,20,25,26].	Interpretive continuity; optional partner involvement; cross-modality transfer of goals and open issues.	Qualitative findings and expert perspectives across treatment settings; proposed applications require evaluation.
Nursing and implementation	Nursing models, observational follow-up, a recent dyadic trial, and implementation research inform delivery [17,18,27–30].	Named roles; action tracking; human review of PROMs; fidelity, workload, and equity evaluation.	Transferred nursing principles; heterogeneous populations and mixed intervention outcomes limit generalizability.

PRO, patient-reported outcome; PROM, patient-reported outcome measure. Direct evidence supports the relevance of needs or transitions, not the effectiveness of the corresponding pathway component. The care arrangements in column 3 are proposals for testing; transferred principles and remaining uncertainties are identified in column 4.

2.3. Framework Development

Framework development followed four conceptual mapping steps. First, focal-ablation evidence identified the clinical conditions of survivorship: residual tissue, detectable PSA, repeated imaging and biopsy, functional recovery, and possible further treatment [5–8,21,22]. Second, broader evidence identified supportive needs and care processes, including psychological and relational support, expectation assessment, communication, and coordination [9–18,23–28,31]. Third, these findings were organized around preparation, recurring transitions, continuity of explanation, and separate assessment of oncological concern and supportive need. Fourth, this structure was translated into six care domains, five phases, operational components, and four comparative hypotheses. Transition-triggered review and dual-axis triage are author-proposed components requiring empirical evaluation. Supple-

mentary Figure S1 illustrates how the evidence streams and supporting principles informed the proposed framework components.

The six domains and five recurring phases were developed progressively from the literature. Domains organize what to assess, whereas phases identify when supportive needs may require reassessment. The domains represent distinct assessment focuses rather than mutually exclusive patient categories; for example, oncological surveillance support concerns monitoring and coordination, whereas informational sense-making concerns patients' understanding of results. The five phases are decision and preparation; early recovery; surveillance and uncertainty; long-term adaptation; and risk escalation, re-decision, and cross-modality handover. Domains and phases may overlap or recur as patients' needs change, with related concerns addressed within the same encounter where appropriate and linked through shared documentation and named responsibility. This six-domain, five-phase organization is an author-developed proposal.

3. Narrative Synthesis and Proposed Framework

3.1. Evidence-to-Component Synthesis

The evidence synthesis informed three priorities for supportive follow-up after focal ablation: explaining surveillance results over time, assessing supportive needs alongside oncological findings, and ensuring continuity of follow-up and care coordination. Table 1 summarizes how the evidence informed the proposed framework components.

In a prospective multicenter cohort of 54 men undergoing HIFU hemiablation, Franz et al. assessed quality of life and psychological distress through 12 months using the EORTC QLQ-C30 and Hospital Anxiety and Depression Scale [21]. Quality of life declined at one month and recovered from three months onward. Anxiety remained stable, and transient increases in depression scores remained below clinical thresholds. This recovery pattern supports repeated assessment that captures improvement as well as persistent difficulty. Stable anxiety and sub-threshold depression scores also caution against assuming that all patients require intensive psychological intervention.

Longer-term surveys add a decisional perspective. Ghoreifi et al. obtained responses from 143 of 236 men treated with HIFU or cryoablation; 19.6% reported regret at a median follow-up of 43 months [7]. Cancer on follow-up biopsy, urinary symptom burden, and new impotence were associated with regret. Westhoff et al. found regret in 10 of 48 respondents after focal HIFU at a median of 38 months, with recurrence and general health worry associated with regret [8]. Although the studies used different regret measures, both suggest that decisional experiences are associated with subsequent clinical and functional outcomes, supporting repeated assessment of symptoms and decisional concerns.

A focal-therapy registry report described biopsy-defined pathological failure followed by repeat focal treatment, prostatectomy, radiotherapy, or other management [22]. The reported transitions illustrate why supportive follow-up needs to extend into renewed treatment decisions and transfer between teams.

Broader localized prostate cancer studies inform expectation assessment. At one year after prostatectomy or radiotherapy, 210 of 296 respondents in Wollersheim et al. reported at least one outcome as worse than expected; unmet expectations were associated with regret [23]. Fanshawe et al. estimated significant regret in 20% of patients across 14 studies (95% confidence interval, 16–23%) [24]. These findings support documenting pretreatment expectations and revisiting them during follow-up.

Specialist nursing models emphasize explanation, coordination, and individualized support [17,18]. In a Swedish observational study of 1137 men surveyed seven years after a low-risk diagnosis, satisfaction did not differ significantly between nurse-led, urologist-led, and combined follow-up [27]. A randomized trial of 280 patient–partner dyads found no

between-group improvement in overall quality of life with a tailored web intervention incorporating nurse support, although exploratory symptom benefits were reported [28]. These findings highlight the importance of evaluating patient satisfaction, symptom outcomes, and overall quality of life separately when assessing supportive nursing interventions, without assuming that additional nursing support necessarily improves all outcomes.

Psychosocial and relational evidence broadens the assessment beyond symptoms. Studies of PSA-related anxiety, unmet needs, and uncertainty identify emotional and informational concerns [9–12]. A qualitative synthesis of active-surveillance experiences describes recurring uncertainty and the importance of regaining agency [25]. Partner research identifies needs relating to intimacy, emotional support, daily life, and access to services [26]. In the proposed focal-ablation pathway, surveillance-related anxiety, intimacy concerns, and access to support are reassessed when surveillance findings are discussed or further treatment is considered.

3.2. Four Comparative Hypotheses

Four hypotheses outline the anticipated effects of the proposed nursing framework and provide a basis for future comparative evaluation.

3.2.1. Baseline Assessment and Expectation Alignment

Focal-ablation decisions involve trade-offs among cancer control, function, surveillance, and further treatment [3,23,24,32]. Baseline function, personal priorities, information preferences, and expectations provide a reference for later outcomes. Nursing preparation uses goal elicitation, explanation of follow-up, teach-back, and documentation of unresolved questions.

Hypothesis 1. *Compared with usual pretreatment preparation, baseline PROM and goal assessment combined with expectation counseling is hypothesized to improve patients' understanding of surveillance and alignment of expectations with the planned follow -up strategy, with potential reductions in subsequent expectation mismatch and decisional regret.*

3.2.2. Review Triggered by Surveillance Transitions

The first post-treatment PSA result, imaging, biopsy, delayed or discordant findings, and consideration of further treatment are candidate triggers for supportive review [5,6]. At these transitions, a brief review assesses patients' understanding, symptoms, distress, and planned next steps. Transition-triggered review complements scheduled supportive assessment and needs-based contact between surveillance events. Persistent concerns are followed up as planned, while new concerns can prompt additional contact without waiting for the next surveillance visit.

Hypothesis 2. *Compared with calendar-based supportive contacts accompanying the same oncological surveillance, transition-triggered nursing review is hypothesized to improve patients' understanding of surveillance results and reduce unresolved informational needs and persistent distress. Future comparisons should maintain the same required surveillance and access to needs-based support while matching planned nursing contact frequency and duration where feasible. Actual contact time and additional contacts should be recorded in both groups.*

3.2.3. Interpretive Continuity and Closed-Loop Follow-Up

Interpretive continuity connects each new surveillance finding with previous results, treatment extent, functional recovery, patient goals, and the planned next steps. Nurses communicate the clinical team's interpretation, check patients' understanding, and ensure

that unresolved questions are directed to the appropriate clinician and followed through to a response [5,6,17,18,31].

Hypothesis 3. *Compared with unstructured communication of surveillance results, longitudinal explanation and documentation of planned actions, responsibilities, deadlines, and completion is hypothesized to reduce unresolved questions and missed or delayed surveillance. Evaluation should distinguish follow -up failures from informed refusal, appropriate deferral, and agreed changes to the care plan.*

3.2.4. Dual-Axis Triage

Current oncological concern and supportive need may differ. Reassuring surveillance findings may coexist with urinary or sexual difficulties, fear, relationship concerns, or regret [7,9,11,26]. Conversely, increasing oncological concern may require prompt clinical review despite little reported distress. Separate assessment of these dimensions applies risk-stratified survivorship principles to this clinical setting [16,33].

Hypothesis 4. *Compared with triage based on current oncological concern alone, separate assessment of current oncological concern and supportive need is hypothesized to improve the appropriateness of referral decisions, shorten time to an appropriate response, and reduce unresolved supportive needs without a disproportionate increase in unnecessary referrals or nursing workload. Evaluation should distinguish referral decisions, delivery of indicated support, and subsequent patient outcomes.*

3.3. Framework Architecture

The framework combines six care domains with five overlapping, recurring phases (Figure 1 and Table 2). Current oncological concern refers to the current need for clinical evaluation based on surveillance findings and symptoms, rather than the original prostate cancer risk classification. The clinical team determines oncological interpretation, investigation, and treatment; nursing processes connect that plan with supportive assessment, explanation, and coordination.

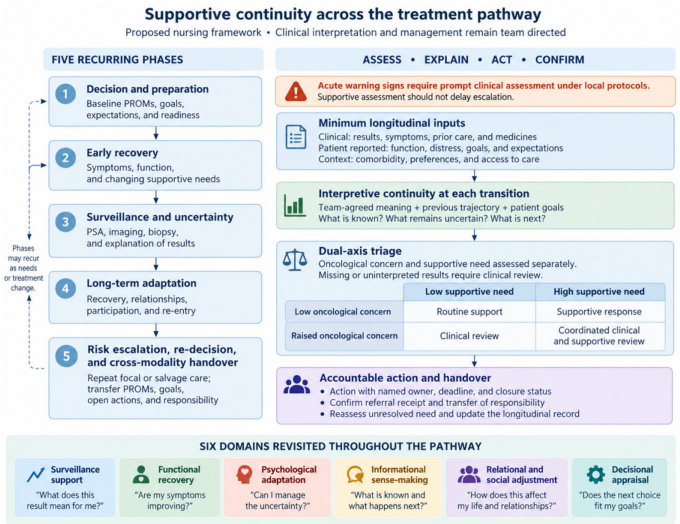

Figure 1. Proposed transition-triggered nursing framework for supportive survivorship after focal ablation. Phases recur as findings and needs change. Clinical urgency takes precedence over routine triage. PROMs, patient-reported outcome measures. The two axes guide proposed care responses rather than validated risk scores. Uncertain or insufficient information requires further assessment rather than automatic assignment to a low category. Scheduled and needs-based contacts remain available between transitions.

Table 2. Minimum domain assessment and proposed response pathways.

Domain and Patient Question	Signals to Review	Action and Responsible Team	Trigger and Completion Rule
Oncological surveillance support: "What does this result mean for me?" Direct focal-ablation context [5,6].	Planned versus completed tests; clinical team interpretation; delayed, missing, or discordant findings.	After treating-team interpretation, the nurse checks surveillance completion, communicates the agreed plan, confirms patient understanding, and directs unresolved clinical questions to urology/MDT.	Each major result or deviation from the surveillance plan. Clinical concerns follow local escalation protocols; document the response and updated plan.
Functional recovery: "Are my symptoms improving?" Direct focal-ablation findings [7,8,21].	Serial EPIC-26 or locally validated PROM; urinary and sexual function, pain, and impact on patient goals.	Nurse assesses functional changes and coordinates clinical evaluation of reversible causes, such as infection or obstruction, and rehabilitation when indicated.	New, worsening, persistent, or goal-limiting symptoms, including between surveillance visits. Urgent symptoms require prompt clinical assessment; document review and patient-reported response.
Psychological adaptation: "Can I manage the uncertainty?" Direct and transferred findings [9–12,21].	Distress or fear-of-recurrence screening; persistent worry, avoidance, sleep, daily functioning, and patient preferences.	Nurse provides brief psychological support, helps patients understand surveillance-related uncertainty, and coordinates referral to psychological services when indicated.	Persistent or clinically significant distress, functional impairment, or patient request. Urgent concerns follow local protocols; document referral and follow-up.
Informational sense-making: "What is known and what happens next?" Focal context and transferred communication principles [5,6,17,18,31].	Understanding of PSA, mpMRI, and biopsy explanations; conflicting information; unanswered questions; language and health-literacy needs.	Nurse uses the clinical team's agreed explanation, plain-language communication, and teach-back to confirm understanding; unresolved clinical questions are referred to the responsible clinician.	Each significant result or change in the care plan. Record unresolved questions, responsible personnel, planned actions, and confirmation of understanding.
Relational and social adjustment: "How does this affect my life and relationships?" Transferred evidence [12,26].	Intimacy, partner concerns, practical barriers, work, finances, and access to care.	Nurse offers private discussion and optional partner involvement; coordinates referral to sexual health, social work, or navigation services according to identified needs and patient preferences.	Concerns identified, barriers to care, or patient request. Document consent, referral arrangements, and subsequent follow-up.
Decisional appraisal: "Does the next choice fit my goals?" Direct and transferred findings [7,8,23,24].	Original treatment goals, expectation–outcome mismatch, decisional regret, treatment alternatives, and readiness for further treatment discussions.	Nurse explores patient priorities and decisional concerns; treating clinicians/MDT assess treatment options and support shared decision-making.	Persistent mismatch, decisional concerns, or changes in oncological status. Transfer patient goals, PROMs, unresolved issues, and follow-up responsibilities when treatment changes.

EPIC-26, 26-item Expanded Prostate Cancer Index Composite; MDT, multidisciplinary team; PROM, patient-reported outcome measure. Brief assessment covers the listed domains, with further assessment guided by identified concerns.

3.3.1. Six Recurring Care Domains

The domains are oncological surveillance support, functional recovery, psychological adaptation, informational sense-making, relational and social adjustment, and decisional appraisal. Needs across several domains may arise during a single encounter: an equivocal imaging result may prompt clinical questions, fear, partner concerns, and uncertainty about

the need for further treatment. Table 2 links each domain to a patient question, assessment signals, and a corresponding nursing action.

3.3.2. Five Phases and Cross-Modality Continuity

The five phases are decision and preparation; early recovery; surveillance and uncertainty; long-term adaptation; and risk escalation, re-decision, and cross-modality handover. Patients can return to earlier phases as findings and needs change. The final phase includes preparation for repeat focal treatment, prostatectomy, radiotherapy, or other indicated treatment [22,34].

At a treatment change, a new pretreatment assessment is recorded alongside the original baseline. Retaining both allows cumulative functional changes, patient priorities, and unresolved concerns to remain visible across teams.

3.3.3. Applying the Framework

Figure 1 brings together clinical results and symptoms; patient-reported function, distress, and goals; and contextual factors such as comorbidity, preferences, and access. Low oncological concern with high supportive need prompts a supportive response. Higher oncological concern prioritizes clinical review regardless of supportive need, while elevated concern and supportive need call for coordinated clinical and supportive responses. Supportive assessment should cover symptoms and functional changes, distress and impact on daily life, understanding of results and care plans, relational or practical concerns, and preferences for support. Brief questions can guide the use of domain-specific PROMs or further assessment without requiring a complete questionnaire battery at every contact.

Actions range from routine support and education to rehabilitation, psychological or sexual health support, multidisciplinary review, and preparation for further treatment. The longitudinal record links each action to a responsible person and completion status.

4. Discussion

Established survivorship frameworks provide the physical, psychosocial, and coordination domains and principles of risk-stratified care [13–16], while specialist nursing models inform assessment, education, and care planning [17,18]. The proposed increment is their integration for focal-ablation follow-up: supportive review at PSA, mpMRI, biopsy, and treatment transitions; continuity of result explanations; separate assessment of current oncological concern and supportive need; and tracking of unresolved actions across encounters and teams. For example, after an equivocal mpMRI, the proposed pathway connects the urologist's interpretation with a nursing check of understanding, assessment of distress or functional problems, and a recorded plan for unresolved questions. The added value of this integrated approach remains to be evaluated.

4.1. Establish a Minimum Longitudinal Dataset

Before ablation, the minimum record includes urinary and sexual function, distress or fear of recurrence, patient goals, treatment and surveillance expectations, prior prostate procedures, medications, and relevant comorbidities. EPIC-26 is a validated measure of prostate cancer-related health status [35]; other validated measures may be used where appropriate. The instrument, language version, administration mode, and assessment date are recorded to support comparison over time.

Core measures are repeated at agreed assessment points, with brief targeted questions at major surveillance transitions. New symptoms, goals, medications, and comorbidities are documented as they arise. Follow-up records capture the provided explanation, the

patient's understanding, planned actions, responsible personnel, due dates, and status (open, completed, deferred, or declined with a reason).

Pretreatment education addresses residual prostate tissue and detectable PSA, the need for surveillance despite feeling well, equivocal findings, and the possibility of further treatment. Teach-back is used to check understanding, while goals recorded in the patient's own words provide a reference when recovery or the clinical plan changes.

4.2. Deliver a Transition-Triggered Encounter Bundle

In the proposed pathway, surveillance results at the transitions specified in Section 3.2.2 are reviewed first by the treating team; abnormal or uncertain findings require urologist interpretation before the nurse communicates the agreed explanation. The encounter connects new findings with previous results and patient goals, reviews symptoms and supportive needs, and confirms understanding and planned next steps. The nurse asks patients to explain in their own words what the result means and the next step, clarifying misunderstandings.

Three complementary routes provide access to supportive care. Scheduled assessments accompany preparation, early recovery, and agreed follow-up points. Event-triggered assessments address major surveillance results, discordant findings, and treatment changes. Needs-based contacts respond to new or persistent symptoms, distress, relational or decisional concerns, unresolved questions, or patient requests between these events. Patients can contact the named coordinator between visits, and persistent concerns have an agreed review date independent of the next surveillance test.

Referral follow-up includes confirmation that the receiving service has accepted the referral and communicated the next step. Unresolved concerns remain under review until the outcome or an alternative plan is documented. If services are unavailable or delayed, or a patient declines or does not attend, the named coordinator records the reason, retains follow-up responsibility, and documents interim support and a reassessment date until resolution or an agreed alternative plan. Electronic PROM systems can support data collection and alerts when linked to human review and an actionable workflow [36–38]. Telephone, paper-based, interpreter-supported, and in-person options remain available for patients unable to use digital systems.

4.3. Specify Assessment and Referral Rules

Urinary symptoms after focal ablation require assessment for infection, obstruction, and other treatment-related complications [39]. Fever, urinary retention, worsening bleeding, uncontrolled pain, and other acute warning signs require prompt clinical assessment under local protocols. Clinical urgency takes precedence over routine supportive triage.

The following scenarios illustrate the proposed pathway. For a routine negative biopsy, the nurse reinforces the agreed surveillance plan and checks ongoing symptoms. An equivocal mpMRI prompts explanation of uncertainty and confirmation of the urologist's next step. Rising PSA with discordant imaging is referred to the treating team for interpretation and a documented plan. Persistent functional difficulty despite reassuring surveillance prompts assessment of its impact and supportive referral where indicated. Urgent concerns are escalated immediately; missing or uncertain results, or delayed reviews, are assigned a responsible clinician and a locally agreed review deadline.

For piloting, lower supportive need refers to concerns adequately addressed by routine explanation or brief support, without persistent impact on daily life or patient goals. Higher supportive need refers to concerns requiring further assessment or support because of persistence, deterioration, functional impact, unresolved misunderstanding, or patient request. Meaningful PROM deterioration or an unresolved concern at its agreed review

date may also prompt escalation. A concern in one domain may justify a response; scores across domains should not be combined into an unvalidated total. Missing or discordant information requires clarification and reassessment rather than automatic classification as low need. The nurse records the concern, agreed action, responsible professional, and planned follow-up. The treating team determines oncological interpretation and clinical priority, with urgent concerns taking precedence. Local services should establish response criteria, timelines, and responsibilities before piloting. Screening scores inform assessment rather than determining diagnosis or referral on their own.

Relational assessment offers private discussion, with optional partner involvement based on patient consent and preferences [26]. Decisional support revisits patient goals and expectations, explores regret without blame, and supports informed discussions about further treatment when clinically indicated. Regret alone is not an indication for further treatment. These activities build on the explanatory and coordination roles of specialist prostate cancer nurses [17,18].

4.4. Make Cross-Modality Handover Accountable

A named nurse or designated clinician coordinates handover when treatment or the responsible team changes. The transfer summary draws on the longitudinal record, including treatment and surveillance history, baseline and current PROMs, patient goals, unresolved concerns, relevant medications and comorbidities, and pending actions with their responsible persons and due dates. When further treatment is planned, the patient's functional status is reassessed and documented alongside the original pre-ablation baseline. The summary also records the receiving team's acceptance and the patient's updated contact information.

The sending team tracks unresolved issues until the receiving team accepts responsibility or an alternative arrangement is documented. Handover therefore involves the transfer of both information and responsibility, maintaining continuity of the patient's functional recovery, goals, and supportive care needs.

4.5. Implement and Evaluate the Pathway

Before piloting, the service specifies who reviews surveillance results, when nursing contact is offered, and who follows unresolved questions or referrals. Teams agree on the dataset, assessment triggers, training, referral criteria, response intervals, and responsibilities [29]. PROM and care-process data can be embedded within an existing focal-treatment registry, consistent with the EAU emphasis on structured prospective data collection [1]. Where no specialist nurse is available, a designated trained nurse or clinician assumes these coordination tasks. At minimum, the pathway requires a named coordinator, brief assessment, access to clinical interpretation, documentation and follow-up of unresolved actions, and clear escalation and referral arrangements. These functions can be supported by basic records and telephone contact, while electronic PROM platforms, automated alerts, and colocated specialist services are optional enhancements. Where specialist services are limited or external, referral arrangements, interim support, and review dates should be agreed locally.

Evaluation covers feasibility, implementation fidelity, patient outcomes, safety, workload, and equity. Table 3 outlines candidate patient and process measures. Denominators distinguish eligible patients, surveillance transitions, and indicated referrals, while reasons for missing PROMs, deferred care, and nonparticipation are recorded. Referral appropriateness is assessed against prespecified indications, and surveillance outcomes distinguish missed follow-up from agreed changes in care. Evaluation should distinguish process completion from patient understanding and resolution of supportive needs; a documented

explanation or referral does not necessarily demonstrate either. Referral evaluation should include patients who were not referred to identify missed indications as well as unnecessary referrals. Reasons for noncompletion, including patient refusal or service unavailability, should be recorded separately.

For future evaluation, candidate instruments include the Decision Regret Scale [40], Distress Thermometer [41], Fear of Cancer Recurrence Inventory-Short Form [42], and Supportive Care Needs Survey-Short Form 34 (SCNS-SF34) [43]. The Nijmegen Continuity Questionnaire is an option for perceived continuity [44]. EPIC-26 changes can be interpreted against published domain-specific minimally important differences [45]. Result comprehension, expectation concordance, and referral appropriateness use the study-specific definitions in Table 3.

Safety monitoring includes delayed escalation, missed or unreviewed results, false reassurance, unnecessary referrals, and missed planned surveillance. Implementation measures include nursing contact time, overall workload, alert burden, access barriers, and variation in participation by age, language, disability, and digital access [30]. Functional and patient-reported outcomes are interpreted in relation to baseline status, treatment extent, comorbidities, and subsequent treatment. Future comparative studies should also account for differences in nursing contact frequency and duration between groups.

Table 3. Proposed intervention components, mechanisms, measures, and assessment times.

Intervention Component	Hypothesized Mechanism	Priority and Other Measures	Candidate Assessment Times
H1. Baseline PROM and goal assessment with expectation counseling	A shared baseline and realistic expectations may improve preparation and interpretation of subsequent outcomes.	Process: Baseline assessment and teach-back completion. Priority outcome: Surveillance knowledge before ablation, assessed using study-specific items on the agreed PSA/mpMRI/biopsy plan. Other outcomes: Expectation concordance, subsequent expectation mismatch, and decisional regret.	Before counseling and before ablation; reassess expectation mismatch and regret at 6 and 12 months and before further treatment.
H2. Brief nursing review at defined surveillance transitions	Timely support may improve understanding and address informational or emotional needs arising from new findings.	Process: Completed reviews per eligible transition; nursing contact frequency and duration. Priority outcome: Patient-reported unmet information needs at 4–6 weeks (SCNS-SF34 health system and information domain). Other outcomes: Result comprehension, persistent distress, and fear of recurrence.	Within 1–2 weeks after explanation of major surveillance results; reassess unresolved concerns at 4–6 weeks.
H3. Longitudinal explanation and documentation of actions and responsibilities	Consistent explanations and accountable follow-up may reduce fragmentation and unattended tasks.	Process: Explanation and action documentation completeness; unresolved actions past due. Priority outcome: Missed or delayed planned surveillance at 12 months, excluding agreed deferral, refusal, or plan changes. Other outcomes: Unresolved patient questions and perceived continuity.	At major results or changes in care plans; review actions against agreed deadlines and summarize at 6 and 12 months.

Table 3. *Cont.*

Intervention Component	Hypothesized Mechanism	Priority and Other Measures	Candidate Assessment Times
H4. Separate assessment of oncological concern and supportive need with coordinated referral	Assessing both dimensions may identify overlooked supportive needs and improve the appropriateness of clinical and supportive referrals.	Process: Referral and handover completion. Priority outcome: Appropriateness of referral decisions against prespecified indications, including missed indications and unnecessary referrals. Other outcomes: Time to appropriate response, patient-reported unresolved supportive needs, nursing workload, and access differences.	At each assessment or care transition; review responses against agreed timelines and reassess unresolved needs after action.

Assessment times are candidate research windows to be refined during feasibility work. Comparators are specified in Section 3.2 and retain the same required oncological surveillance. PROM, patient-reported outcome measure. Priority outcomes are candidates for prospective testing; other outcomes are secondary or exploratory. For H1 and H2, study-specific knowledge and comprehension responses are scored against the treating team's documented interpretation and plan. H1 expectation concordance concerns the follow-up plan, whereas expectation–outcome mismatch compares recorded recovery expectations with subsequent experience. H2 unmet information needs are patient-reported rather than inferred from documented explanations. For H4, a clinical reviewer, masked to group where feasible, assesses referral appropriateness against locally prespecified indications, considering documented findings, supportive needs, available expertise, and patient preferences. All assessed cases are reviewed to identify appropriate referrals and nonreferrals, missed indicated referrals, and unnecessary referrals. Informed refusal, justified deferral, and agreed alternatives are considered separately, while service unavailability and delivery delays are recorded as access or delivery outcomes rather than referral-decision errors. Study-specific items and scoring rules require patient input and piloting and should not be treated as validated instruments. Further measurement specifications are provided in Supplementary Table S5.

Initial evaluation would assess the whole pathway, with component delivery recorded as process measures. Before recruitment, a pilot should specify progression criteria for coverage of eligible transitions, PROM completion, action completion by agreed deadlines, contact time, and missed results or failed escalation. Targets should reflect local service capacity. Any benefit associated with baseline PROM assessment could reflect additional counseling time. Apparent effects of interpretive continuity could also reflect staffing, electronic-record integration, and access to care. A future comparison could allocate clinics or teams to limit contamination from shared staff, while matching planned contact intensity and recording additional contacts, baseline service capacity, and concurrent protocol changes. Pilot assessment should also record questionnaire burden and administration mode and examine whether missing responses differ by group. Whole-pathway effects cannot establish the independent contribution of individual components without comparisons designed to distinguish their effects. Feasibility reporting should document staffing, referral capacity, and access to minimum pathway functions across settings.

4.6. Limitations and Staged Validation

The targeted search and purposive selection may have omitted relevant evidence and introduced selection or interpretation bias. The September 2026 update was restricted to Europe PMC. Formal study-level risk-of-bias assessment was not undertaken. The proposed framework has not undergone patient or partner co-design, multidisciplinary consensus, or prospective testing.

Direct evidence on psychological, relational, and decisional outcomes after focal ablation remains limited. Broader prostate cancer studies inform supportive care processes, but their findings may not fully apply to this population. Variation in ablation modality,

treatment extent, outcome definitions, and surveillance practice also affects applicability [3,4,46]. The proposed triage approach, clinical benefits, and implementation burden therefore require evaluation in focal-ablation populations. The proposed assessment rules are not validated thresholds, and the six domains and five phases may require refinement through patient, partner, and multidisciplinary input.

Future development should involve patients and partners in refining care priorities, assessment triggers, and communication and handover processes. Multidisciplinary consensus may further refine the framework and clarify responsibilities using transparent Delphi reporting [47]. Feasibility testing should assess recruitment, data completeness, implementation fidelity, workload, safety, and access to care. If feasible, prospective comparative studies could then evaluate the framework's clinical and implementation outcomes [48].

5. Conclusions

Supportive survivorship care after focal ablation requires continuity between oncological surveillance, functional recovery, patient goals, and treatment decisions. The proposed, unvalidated nursing framework organizes established supportive activities around surveillance transitions, continuity of result explanation, and separate assessment of oncological concern and supportive need. Transition-triggered reviews complement scheduled assessments and needs-based contacts. Longitudinal documentation and defined responsibilities for follow-up and handover are intended to support coordination across care transitions.

Patient and partner co-design, feasibility testing, and prospective comparative evaluation are needed to assess the framework's effects on patient understanding, surveillance completion, and referral appropriateness, alongside its implementation burden.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/healthcare14234088/s1, Figure S1. Author-developed mapping of evidence streams, supporting principles, and proposed framework components. Source studies and limitations are detailed in main Table 1 and Appendix B; Table S1: Reported search stages and limits of the selection record; Table S2: Established approaches and their relationship to the proposed framework; Table S3: Illustrative scenarios, responsibilities, and contact targets; Table S4: Proposed responsibility matrix; Table S5: Candidate instruments, operational measures, and assessment burden; Table S6: Candidate feasibility indicators and progression rules for local agreement.

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Data Availability Statement: No original patient data were generated or analyzed. The targeted search strategies and update queries are reported in Appendix A; the discussed evidence is available in the cited publications.

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Abbreviations

EAU	European Association of Urology
HIFU	High-intensity focused ultrasound
PSA	Prostate-specific antigen
mpMRI	Multiparametric magnetic resonance imaging
PROMs	Patient-reported outcome measures
EPIC-26	26-item Expanded Prostate Cancer Index Composite
MDT	Multidisciplinary team
PROs	Patient-reported outcomes
SCNS-SF34	Supportive Care Needs Survey-Short Form 34

Appendix A. Targeted Search Strategies and Update Record

Appendix A.1. Scope and Search Chronology

The original targeted searches used PubMed, Embase, and CINAHL Complete and covered publications through April 2025. Supplementary literature retrieval through April 2026 addressed broader supportive follow-up and implementation, supported by citation tracing and checks of relevant guidelines and cited publications.

A targeted Europe PMC update on 13 September 2026 covered first publication dates from 1 May to 13 September 2026. During revision in October 2026, an additional PubMed search covering publications from 1 May 2025 to 30 April 2026 was conducted to supplement the retrieval of literature on focal-ablation follow-up, patient experience, nursing care, and supportive survivorship. The two searches retrieved 97 and 661 records, respectively, with 754 unique records after PMID-based deduplication. These figures represent retrieval counts rather than numbers of studies screened or included in the synthesis. The available October record documents the query topics, date limits, and exported-record counts but not the complete query syntax.

Sources informing the proposed framework were selected purposively for their relevance to framework development. Detailed screening records from the original searches and September Europe PMC update were not available for retrospective verification. Retrieval counts therefore cannot be used to reconstruct a screening flow or inclusion proportion. Section 2 describes the literature selection and interpretation process.

Appendix A.2. Original Targeted Database Strategies

The original search strategies are retained below. In each database, set 5 is a subset of set 6, so the final union (set 7) is equivalent to set 6. The follow-up/survivorship block (set 3) therefore did not independently restrict retrieval. As the original strategy still required an ablation-related concept, broader survivorship, nursing, and implementation literature was identified through supplementary searching and citation tracing.

PubMed

#1 “Prostatic Neoplasms”[Mesh] OR prostate cancer[tiab] OR prostate carcinoma[tiab] OR prostatic neoplasm*[tiab]

#2 “Ablation Techniques”[Mesh] OR “Electroporation”[Mesh] OR “High-Intensity Focused Ultrasound Ablation”[Mesh] OR “Cryosurgery”[Mesh] OR focal therap*[tiab] OR focal ablation[tiab] OR partial gland[tiab] OR partial-gland[tiab] OR irreversible electroporation[tiab] OR IRE[tiab] OR HIFU[tiab] OR high-intensity focused ultrasound[tiab] OR cryoablation[tiab] OR cryotherapy[tiab] OR vascular-targeted photodynamic[tiab]

#3 “Survivorship”[Mesh] OR “Aftercare”[Mesh] OR “Watchful Waiting”[Mesh] OR survivorship[tiab] OR follow-up[tiab] OR follow up[tiab] OR surveillance[tiab] OR aftercare[tiab] OR “supportive care”[tiab] OR “quality of life”[tiab]

#4 "Patient Reported Outcome Measures"[Mesh] OR "Patient Outcome Assessment"[Mesh] OR "Anxiety"[Mesh] OR "Decision Making, Shared"[Mesh] OR "Oncology Nursing"[Mesh] OR "Nurse's Role"[Mesh] OR patient-reported outcome*[tiab] OR PRO[tiab] OR "fear of recurrence"[tiab] OR "fear of cancer recurrence"[tiab] OR decisional regret[tiab] OR "decision regret"[tiab] OR treatment regret[tiab] OR psychosocial[tiab] OR distress[tiab] OR uncertainty[tiab] OR nurse-led[tiab] OR "nurse led"[tiab] OR oncology nursing[tiab] OR specialist nurse*[tiab]

#5 #1 AND #2 AND #3 AND #4

#6 #1 AND #2 AND #4

#7 #5 OR #6

Embase

#1 'prostate cancer'/exp OR 'prostate tumor'/exp OR (prostat* NEAR/2 (cancer* OR carcinoma* OR neoplasm*)):ab,ti

#2 'ablation therapy'/exp OR 'electroporation'/exp OR 'high intensity focused ultrasound'/exp OR 'cryotherapy'/exp OR (focal NEAR/2 (therap* OR ablation)):ab,ti OR 'partial gland':ab,ti OR 'irreversible electroporation':ab,ti OR IRE:ab,ti OR HIFU:ab,ti OR cryoablation:ab,ti OR cryotherapy:ab,ti

#3 'cancer survivor'/exp OR 'follow up'/exp OR 'aftercare'/exp OR 'cancer surveillance'/exp OR survivorship:ab,ti OR 'follow up':ab,ti OR surveillance:ab,ti OR 'supportive care':ab,ti OR 'quality of life':ab,ti

#4 'patient-reported outcome'/exp OR 'anxiety'/exp OR 'shared decision making'/exp OR 'oncology nursing'/exp OR 'patient reported outcome*':ab,ti OR 'fear of recurrence':ab,ti OR 'decisional regret':ab,ti OR 'decision regret':ab,ti OR psychosocial:ab,ti OR distress:ab,ti OR uncertainty:ab,ti OR 'nurse led':ab,ti OR 'specialist nurse*':ab,ti

#5 #1 AND #2 AND #3 AND #4

#6 #1 AND #2 AND #4

#7 #5 OR #6

CINAHL Complete

S1 (MH "Prostatic Neoplasms+") OR TI(prostate cancer OR prostate carcinoma) OR AB(prostate cancer OR prostate carcinoma)

S2 (MH "Catheter Ablation+") OR (MH "Cryosurgery") OR (MH "High-Intensity Focused Ultrasound Ablation") OR TI(focal therap* OR focal ablation OR "partial gland" OR "irreversible electroporation" OR IRE OR HIFU OR cryoablation OR cryotherapy) OR AB(focal therap* OR focal ablation OR "partial gland" OR "irreversible electroporation" OR IRE OR HIFU OR cryoablation OR cryotherapy)

S3 (MH "Cancer Survivors") OR (MH "Survivorship") OR (MH "Aftercare") OR (MH "Watchful Waiting") OR TI(survivorship OR "follow up" OR surveillance OR "supportive care" OR "quality of life") OR AB(survivorship OR "follow up" OR surveillance OR "supportive care" OR "quality of life")

S4 (MH "Patient Reported Outcome Measures") OR (MH "Fear") OR (MH "Decision Making, Patient") OR (MH "Oncologic Nursing") OR (MH "Nurse-Led Clinics") OR TI("patient reported outcome*" OR "fear of recurrence" OR "decisional regret" OR psychosocial OR distress OR uncertainty OR "nurse led" OR "specialist nurse*") OR AB("patient reported outcome*" OR "fear of recurrence" OR "decisional regret" OR psychosocial OR distress OR uncertainty OR "nurse led" OR "specialist nurse*")

S5 S1 AND S2 AND S3 AND S4

S6 S1 AND S2 AND S4

S7 S5 OR S6

Appendix A.3. Targeted Europe PMC Update

Source: Europe PMC REST search service, core records. Search date: 13 September 2026. Date field: FIRST_PDATE, 1 May–13 September 2026. The two queries returned 32 and 172 records before deduplication, with possible overlap.

Query 1: focal treatment and follow-up (32 records)

(TITLE_ABS:"prostate cancer") AND (TITLE_ABS:"focal therapy" OR TITLE_ABS:"focal ablation" OR TITLE_ABS:"partial gland") AND (TITLE_ABS:surveillance OR TITLE_ABS:"patient reported" OR TITLE_ABS:"quality of life" OR TITLE_ABS:regret OR TITLE_ABS:survivorship OR TITLE_ABS:salvage) AND FIRST_PDATE:[2026-05-01 TO 2026-09-13]

Query 2: nursing and supportive survivorship (172 records)

(TITLE_ABS:"prostate cancer") AND (TITLE_ABS:nursing OR TITLE_ABS:"nurse led" OR TITLE_ABS:survivorship OR TITLE_ABS:"supportive care" OR TITLE_ABS:"patient reported" OR TITLE_ABS:uncertainty) AND FIRST_PDATE:[2026-05-01 TO 2026-09-13]

Titles were inspected for relevance, with abstracts and accessible reports examined when relevant to surveillance, patient experience, supportive care, or pathway delivery. Guidelines and cited publication records were checked separately. Reference metadata and EAU guideline wording were rechecked during revision on 26 September 2026.

The original export and detailed screening records from the 13 September 2026 update were not available for retrospective verification. Therefore, the reported retrieval counts represent the original query results before deduplication; the number of unique records screened and the number of publications subsequently used in the synthesis could not be reliably reconstructed.

Appendix B. Selected Empirical Evidence Informing the Framework

Table A1 summarizes selected empirical studies relevant to the proposed framework, distinguishing evidence from focal-ablation populations and other prostate cancer populations, with attention to study design, key findings, and methodological limitations.

Table A1. Design, findings, and applicability of selected empirical studies.

Study and Applicability	Design, Sample, and Follow-Up	Findings and Proposed Framework Implications	Design Considerations
Ghoreifi et al., 2023 [7]; direct focal-treatment evidence	Multicenter survey after HIFU or cryoablation; 143/236 respondents; median follow-up 43 months.	Decision regret in 19.6%; associated with cancer on follow-up biopsy, urinary symptoms, and new impotence. Proposed link: review regret alongside biopsy findings and function.	Selected cohort, nonresponse, and observational associations.
Westhoff et al., 2021 [8]; direct focal-treatment evidence	Survey of focal-HIFU participants from two prospective trials; 48/52 respondents; median follow-up of 38 months.	Regret in 10/48 respondents; recurrence and general health worry were associated with regret. Proposed link: revisit cancer worries and decisional experience during follow-up.	Small selected sample, imprecise associations, and a different regret measure from [7].

Table A1. *Cont.*

Study and Applicability	Design, Sample, and Follow-Up	Findings and Proposed Framework Implications	Design Considerations
Franz et al., 2026 [21]; direct focal-treatment evidence	Secondary analysis of prospective multicenter HEMI data; 54 men undergoing HIFU hemiablation; assessments through 12 months.	Early quality-of-life decline recovered from three months onward; anxiety remained stable, while temporary increases in depression scores remained below clinical thresholds. Proposed link: repeat functional and psychological assessment beyond early recovery.	Selected cohort eligible for active surveillance; no treatment comparator.
Wollersheim et al., 2020 [23]; evidence from radical treatment	Prospective study after prostatectomy or radiotherapy; 296 respondents at one year.	At least one outcome was worse than expected in 210/296 men; unmet expectations were associated with regret. Transfer to focal care: document expectations and revisit mismatch.	Observational associations in patients undergoing different treatment modalities.
Bergengren et al., 2022 [27]; evidence from broader follow-up	Swedish population-based observational study; 1137 respondents; survey seven years after low-risk diagnosis.	Satisfaction did not differ significantly between nurse-led, urologist-led, and combined follow-up. Transfer to focal care: evaluate outcomes beyond satisfaction when testing nursing follow-up.	Retrospective reporting and nonrandom allocation; satisfaction was the main outcome.
Song et al., 2026 [28]; evidence from post-treatment couples	Randomized trial; 280 patient–partner dyads; tailored web intervention with nurse support versus access to an information website.	No significant between-group improvement in the primary overall quality-of-life outcome; symptom findings were exploratory. Transfer to focal care: assess symptom outcomes separately from overall quality of life.	Multicomponent intervention in a mixed-treatment population during the pandemic.

HIFU, high-intensity focused ultrasound. Bracketed numbers refer to the main reference list.

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