

Advanced Nurse Practitioner–Led Local Anaesthetic Transperineal Prostate Biopsy: A Service Evaluation and Patient-Reported Outcomes Audit



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Background

The histological diagnosis of prostate cancer generates a substantial workload for Rapid Access Prostate Cancer (RAPC). Local anaesthetic transperineal (LATP) prostate biopsy is the preferred diagnostic modality due to lower sepsis risk and improved detection of anterior tumours compared to TRUS biopsy¹. In alignment with the HSE National Cancer Strategy² and Nursing and Midwifery Board of Ireland (NMBI)³ Advanced Practice Framework, University Hospital Waterford established an ANP led LATP Surgical Minors Operations (SMO) unit to support service delivery.

Post-procedure care is supported by the Discharge Lounge, which provides structured post LATP assessment prior to discharge.

Aims

1. To describe the implementation and governance of an ANP-led LATP biopsy service.
2. Quality assure an ANP-led LATP service and evaluate patient-reported outcome measures (PROMS).

Methods

Design: Audit and Service Evaluation

Governance: HSE Quality Improvement Framework	Sample: n=200 100 ANP and 100 Consultant	Outcomes: Pain, Anxiety, Education & Communication, Recommendation Likelihood
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Analysis: Descriptive statistics

Limitations:

- Single centre
- Non-randomised
- Patient reported outcomes only
- This project was conducted as a service evaluation in accordance with the HSE Framework for Improving Quality

Governance and Training

- Structured competency-based training supported by BXTA¹⁰ (Precision Point system)
- Competency was achieved through direct consultant supervision, logbook completion and formal sign-off, supporting safe transition to independent ANP-led practice^{5,6}.
- Dedicated LATP Surgical Minor Ops Unit with post procedure care via Discharge Lounge
- MDT based education including MRI interpretation and prostate cancer pathways

Structured ANP Training



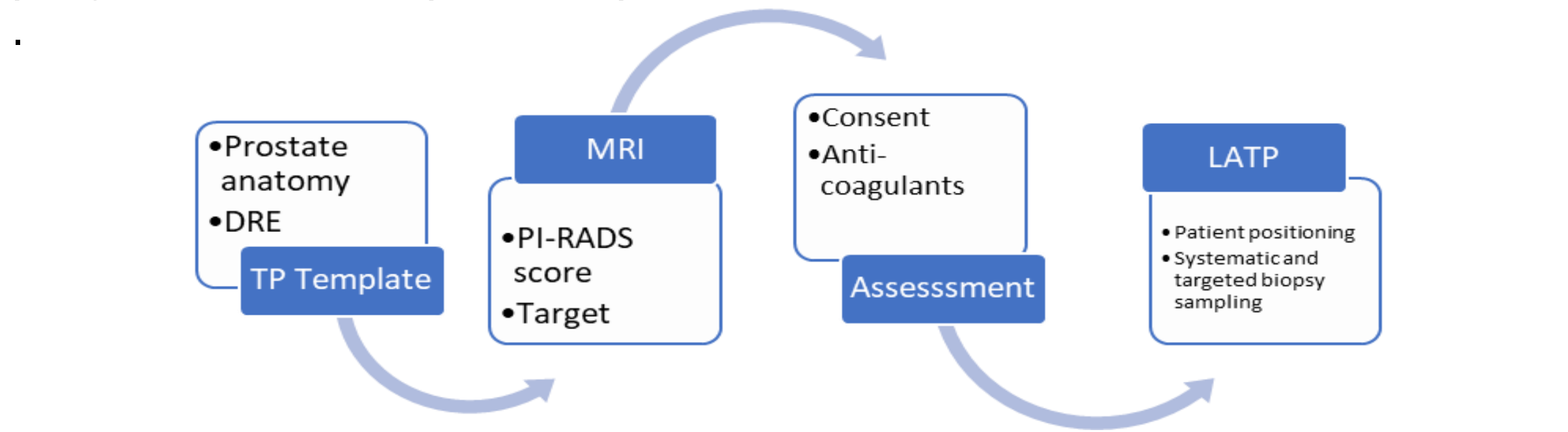
- HSeLand: the HSE's online learning and development portal
- BXTA: BXTA is one of the leading partners to hospitals and clinics worldwide in providing the Precision Point Transperineal Access system for prostate cancer diagnostics.

ANP Transperineal Biopsy Training Framework

(Background) 09/2022-2024

(Adapted from BAUN guidance; RM Partners, 2022 – used with permission)

The Advanced Nurse Practitioner (ANP) training pathway for local anaesthetic transperineal (LATP) prostate biopsy was adapted from UK BAUN⁴ competency-based guidance and aligned with NMBI advanced practice standards. Training comprised modular, supervised progression to independent practice



RAPC Demand → ANP Training → LATP Biopsy → PROMs → Service Sustainability

Summary LATP	Logbook
Case Type	
Consultant supervised cases	50
BXTA supported training cases	20
Independent ANP performed cases (SMO unit)	221
Total logbook cases	521

(University Hospital Waterford [UHW], 2024)

MRI Interpretation Training

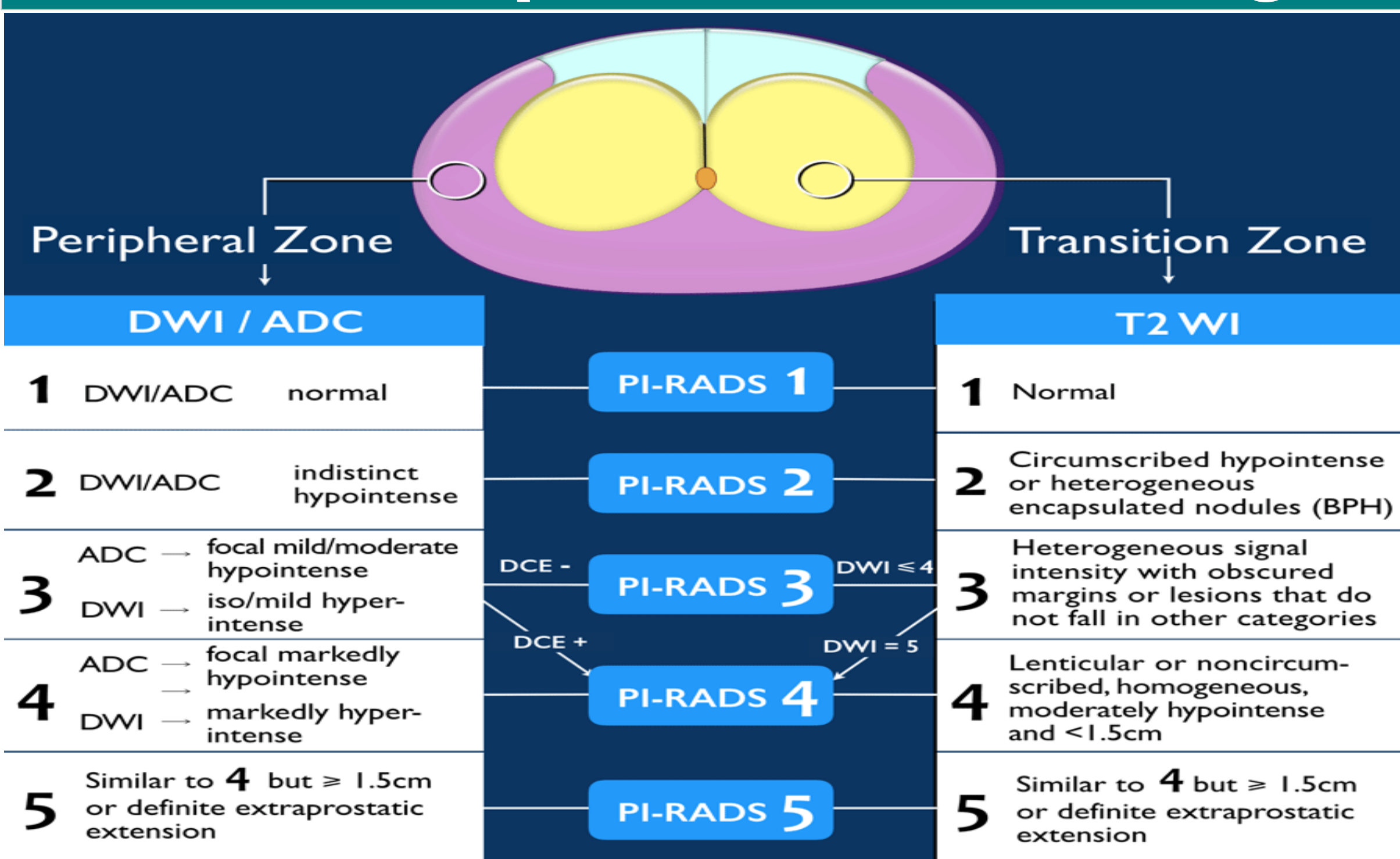
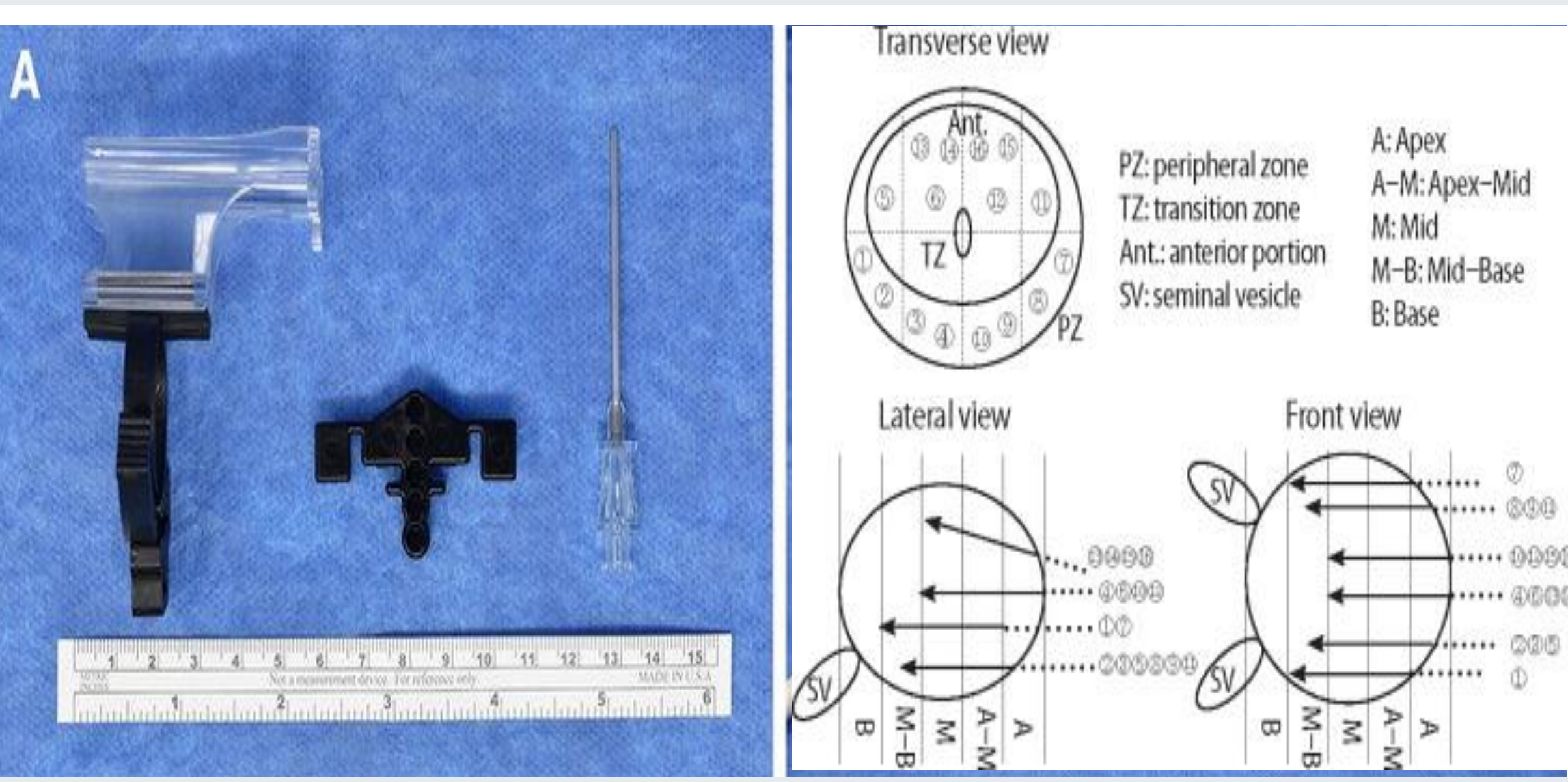


Image references: 10, 11, 12, 13 and 15



Results

Professional Satisfaction: ANP satisfaction across pain management, patient education, communication, clinical assessment, and professionalism was on par with that for consultant led procedures.

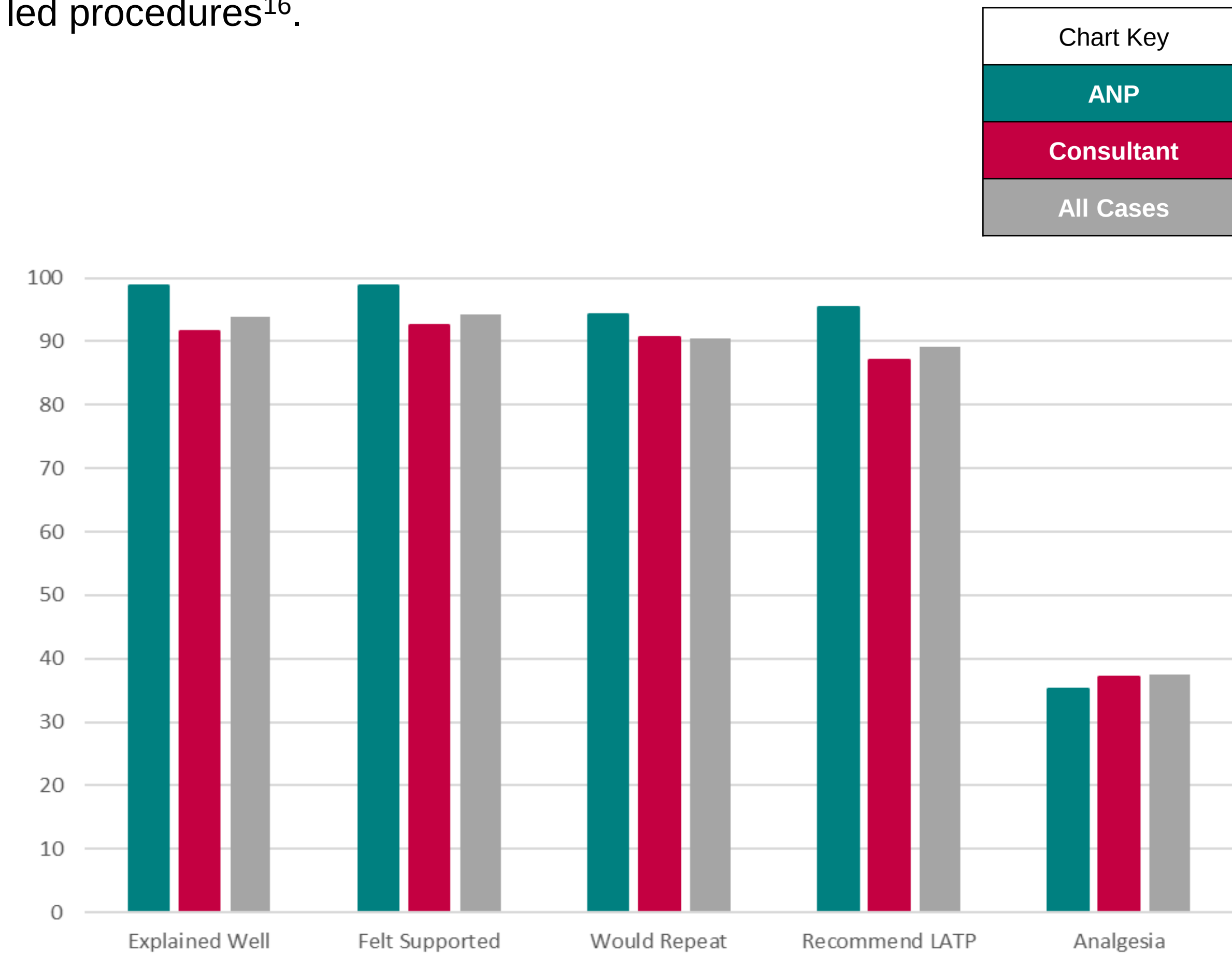
Pain Outcomes: Patients reported lower intra and post procedural pain following the ANP cohort, particularly during pre procedure counselling and post-biopsy care.

Recommendation Rate: Patients indicated they would recommend a transperineal biopsy to a friend if clinically indicated.

Results:

- Equivalent or superior patient reported outcomes in ANP led cohort.
- Lower reported procedural pain in ANP led group
- High patient recommendation rates
- No increase in complications

These findings demonstrate equivalence and, in some domains, superior patient-reported outcomes for ANP led LATP biopsy when compared with consultant led procedures. A total of 200 patients undergoing local anaesthetic transperineal (LATP) prostate biopsy were included in this service evaluation, comparing ANP led and consultant led procedures¹⁶.

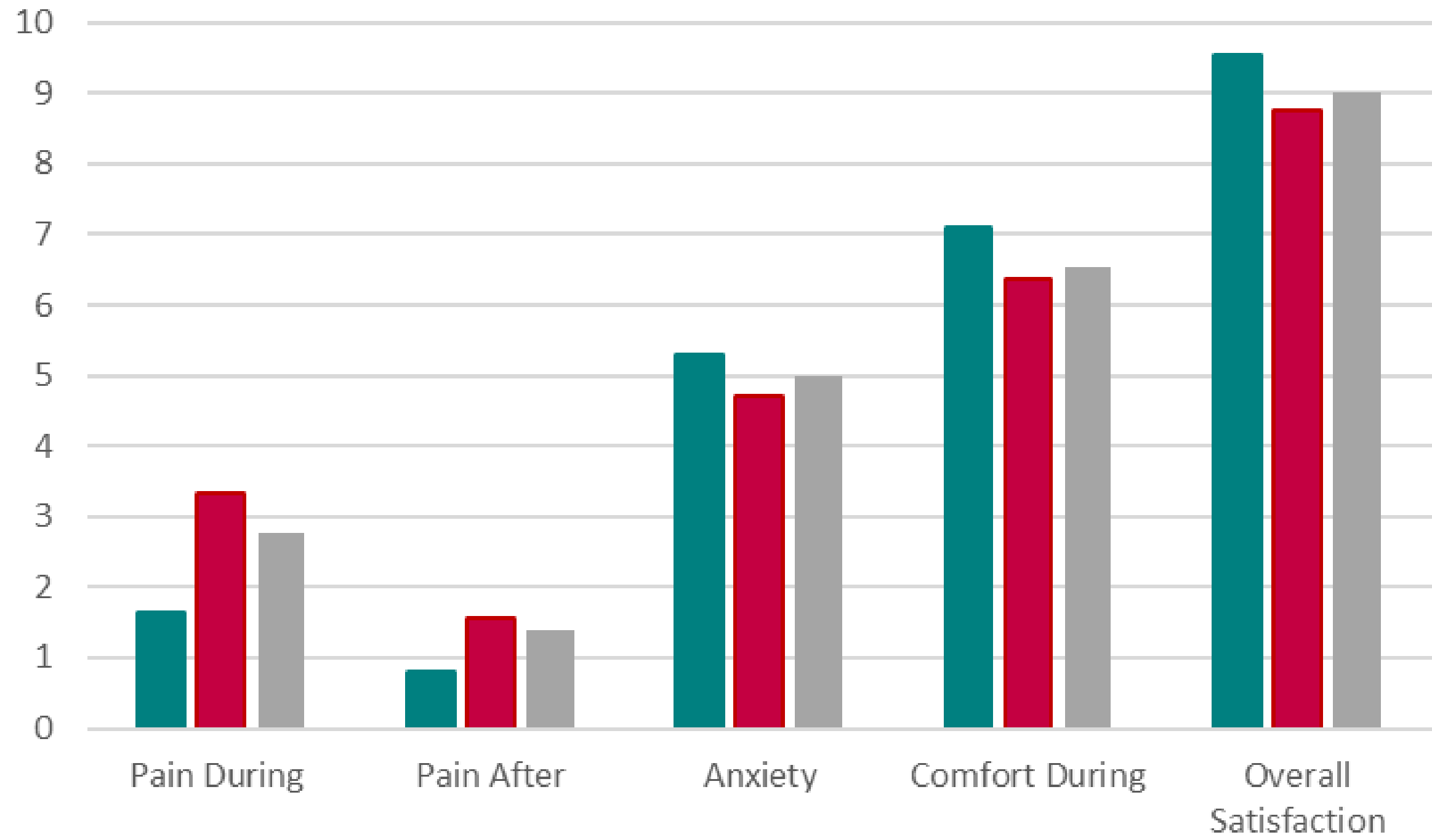


- ANP can safely lead complex diagnostic procedures supporting timely cancer diagnoses and service sustainability
- ANP led LATP biopsy achieves equivalent PROMS¹⁷ with reduced pain and no increase in complications (UHW, 2025)

Audit: University Hospital Waterford (UHW) (2025) Audit of transperineal prostate biopsy outcomes in the Rapid Access Prostate Clinic SMO unit. Unpublished audit data.

PROMs: University Hospital Waterford (UHW) (2025): Patient reported outcome measures following transperineal prostate biopsy under local anaesthetic. Unpublished service evaluation data.

The audit and PROMs data presented form part of an ongoing service evaluation and are being prepared for submission to a peer-reviewed academic journal by RAPC urology SpR Registrars and Advanced nurse practitioners.



Discussion

This audit represents the first documented ANP-led local anaesthetic transperineal prostate biopsy service in the Republic of Ireland. Patient-reported outcomes demonstrate that ANP-led LATP biopsy is not only safe and acceptable, but achieves high levels of patient satisfaction, low procedural pain scores and excellent communication outcomes.

The structured competency-based training pathway, aligned with the Nursing and Midwifery Board of Ireland (NMBI) Advanced Practice Framework and supported by the National Cancer Control Programme (NCCP) and HSE clinical governance principles, was fundamental to successful implementation. International benchmarking through training at St. Guy's Hospital and industry-supported BXTA education, strengthened procedural and MRI interpretation competence.

These findings support the role of Advanced Nurse Practitioners as key contributors to service sustainability, timely prostate cancer diagnostics and enhanced patient experience within Irish urology services

Future Directions

A second ANP has completed LATP training and is awaiting formal sign off, with an additional LATP list planned to further expand service capacity.

Conclusions

ANP-led local anaesthetic transperineal prostate biopsy is a safe, effective and patient centred model of care. The first ANP-led LATP service in the Republic of Ireland aligns with national advanced practice standards, NCCP cancer care priorities supporting sustainable diagnostic capacity and high-quality patient outcomes.

References

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Scan the QR Code for reference list:



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