Centre for Healthcare & Community Research

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RESEARCH BRIEF

Nurse-led model for suspected prostate cancer: Implications for practice from an evaluation of process and outcomes

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Summary

NHS Fife implemented a nurse-led diagnostic service in 2023 to address delays in prostate cancer diagnosis and treatment, with advanced clinical nurse specialists managing rapid-access clinics for urgent referrals. Our mixed-methods evaluation found that the pathway delivered high quality, patient-centred care, with improved communication and rapport. Economic analysis showed cost savings compared to consultant-led clinics, and patients were largely satisfied with their experiences. The model did not significantly reduce delays or improve efficiency across the diagnostic pathway, largely due to high and rising demand and capacity in other dependent parts of the pathway. One challenge was deciding on, and consistently implementing, the referral criteria for the nurse-led clinics. Future implementation of nurse-led diagnostic services will require investment in advanced nursing roles and careful consideration of how nurse-led pathways sit alongside consultant-led pathways to sustain quality and meet growing demand.

Introduction

Faster cancer diagnosis for suspected cancer is a policy target across the UK. The standard of care for prostate cancer diagnosis focuses on early detection while minimising unnecessary interventions. The diagnostic process typically involves an initial risk assessment conducted in general practice. Men with suspicious markers or symptoms of concern are referred to urology specialists as suspected cancer. Specialist urology teams then make a diagnosis based on further assessments, including diagnostic imaging and biopsies.

The NHS Scotland cancer pathway has a 62-day standard, whereby 95% of eligible patients should wait no longer than 62 days from urgent suspicion of cancer referral to first cancer treatment. To date, this standard is not met by any Health Board. Boards highlight staffing issues combined with high numbers of referrals.

The improvement project

The project was designed to shift key tasks and responsibilities in the prostate cancer diagnostic pathway from Urology Consultants to Advanced Clinical Nurse Specialists (ACNS), supported by patient Pathway Navigators.

Following implementation, urgent suspected prostate cancer referrals meeting certain criteria (under 76 years old, and without multi-morbidities) were seen in nurse-led diagnostic clinics. The ACNS and Pathway Navigators saw and communicated with these patients throughout their diagnostic journey.

Project implementation

Staff from the urology clinic, working with a project manager and supported by a consultant mentor, planned the new clinic. As part of the design process, the team:

- Developed a process and new clinic criteria for vetting the GP referrals.
- Planned and implemented new outpatient clinics (Rapid Access Diagnostic Clinics) across two hospital sites in NHS Fife, run by ACNS and supported by patient navigators.
- Identified relevant training needs for ACNS and patient navigators and delivered training and consultant mentoring as required throughout the implementation.

What supported successful implementation?

A strategic need to do something about persistent and lengthy waiting lists meant that senior managerial and clinical staff were keen to support this innovation.

In general, both clinical staff and patients had experience of and felt comfortable with skill-mixing in healthcare. The context for introducing nurse-led diagnostic clinics was, therefore, receptive.

The improvement project was led by the ACNS who herself would be delivering the nurse-led clinics. She was instrumental in driving the project forward, was very committed to taking on diagnostic clinics, had lots of experience (including an MSc in advanced practice cancer nursing and prior experience of setting up and running nurse-led clinics), and was confident in her ability to take patients through the diagnostic process.

Patient navigators were willing and able to learn and further develop new clinical skills to support the implementation of the new pathway.

The nurse-led clinics ran in addition to consultant-led clinics. Consultants trained, mentored and supported staff involved in the nurse-led clinics as they established their new roles.

Aspects of the nurse-led clinic were adaptable, depending on changes in circumstances. For example, criteria for the nurse-led clinics could be adapted to suit the experience and confidence of the staff involved. The number of clinics being run were adapted in response to workforce changes.

"There's enough pressure on consultants at the moment, so therefore anything that alleviates the pressure from the NHS to allow patients to be assessed appropriately is a good idea" (Patient 8)

91% of patient survey respondents felt they had enough information about their referral and what to expect at their diagnostic clinic appointment.

"[Consultants] are more aware of what my role is and then that means that they're able to identify when they feel that I would be helpful to see a patient as well" (ACNS).

What outcomes did we measure and how?

We took a theory-informed approach to the evaluation, guided by the anticipated outcomes in our theory of change. We were interested in the implications for:

- The healthcare system - in terms of reduced costs.
- Urology clinic setting - in terms of appropriateness of nurse-led clinics, feasibility, fidelity and sustainability.
- Clinical outcomes – shorter time to diagnosis and the decision to treat.
- Patient experience – in terms of their experience of the diagnostic process, their levels of anxiety and acceptability of nurse-led clinics.

To measure these outcomes, we used the following data:

Data	Details	Analysis	N =
Routine quantitative data	3 time periods: • Pre-Covid (consultant-led, 3 months) • Pre-implementation (consultant-led, 3 months) • Implementation (nurse-led, 9 months from August 2023)	Descriptive and inferential analysis and health economic analysis (modified cost consequence analysis).	523
Patient surveys	All consenting patients referred to the nurse-led urology diagnostic clinic during a 12-month period. Short online anonymous questionnaire.	Descriptive quantitative analysis and thematic qualitative analysis.	162
Patient interviews	Semi-structured telephone interview between March and June 2024.	Reflexive thematic analysis.	10
Staff interviews	Purposive sample of staff involved in implementing the intervention.	Reflexive thematic analysis.	12
Project documents and field notes	Meeting notes, action plans, discussions, audits and other observations gathered through close working with all stakeholders.	Used for sense-checking, verification, and to support over-arching analysis across datasets.	N/A

Ethical research considerations

Ethics approval for this study was granted by NHS Research Ethics Committee (South Central – Oxford A Research Ethics Committee (23/SC/0252).

Patient and public involvement

Four public contributors with lived experience of a cancer diagnosis were recruited to support this study from start to finish. Additional patient and public involvement was sought through small group discussions with patient volunteers with lived experience of prostate cancer.

What did we find?

Efficiencies were created

- The nurse-led pathway was associated with fewer costs than the consultant-led pathway. However, not all referred patients were eligible for the nurse-led pathway, using the vetting criteria written for the implementation.
- The nurse-led pathway streamlined the number of people communicating with the patient throughout the diagnostic journey, essentially led by one ACNS. This facilitated trusting relationships and a good rapport between the ACNS and patients.
- Diverting some patients to the nurse-led pathway could prioritise the consultant clinics for more complex patients and give them a greater focus on treatment decisions. It could also release consultant capacity elsewhere, for example for bladder or kidney cancer patients.

Clinical outcomes

- There was no reduction in time to be seen or time to be diagnosed for patients on the nurse-led pathway, when compared to pre-implementation patients. Because of low pre-implementation numbers after matching patient cohorts, and a lack of parallel consultant-led pathway data, this finding should be treated with caution.
- Patients who participated in the evaluation found the nurse-led diagnostic pathway to be surprisingly rapid, with shorter waits than anticipated.

Patients were positive about their experience

- Patient interviewees highlighted the importance of feeling confident in and reassured by diagnostic conclusions and subsequent decisions made by clinicians. Patient comments in the questionnaire and in interviews highlighted numerous examples of person-centred care, and patients reported feeling like they were 'in good hands.'
- Patients reported positive experiences of the nurse-led diagnostic clinic and frequently described the staff involved in their care as being professional, knowledgeable, experienced and capable of answering any questions.

"They were treating me like a person, not an object." (Patient 1)

85% of survey responders were very satisfied with their care from referral to diagnosis

"I was satisfied in the knowledge of the people that were delivering the messages were sufficiently knowledgeable to answer any questions." (Patient 3)

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