

# Evaluation of the Clinical Effectiveness of the PSA Tracker - The Bath Experience

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## Introduction

The PSA Tracker (PSAT) was developed in our department in 2003 in response to help manage the increasing number of follow-up appointments needed for men with prostate cancer. Clinical reviews were often late and the service was inefficient for both patients and hospital resources. The hypothesis was that most men with stable prostate cancer can be safely managed remotely by regular Prostate Specific Antigen (PSA) blood tests alone, as usually a rising PSA will identify signs of disease recurrence before any clinical symptoms. Remote follow-up avoids the need for a face to face clinical review but the patients still have direct access back into the multi – disciplinary team (MDT) if needed. This was an early survivorship initiative which helped to improve the patient pathway and redesign services in our hospital. The Uro-oncology Clinical Nurse Specialist team (CNS) spends one clinical session a week managing the system. The system has been shared with many other organisations. With over 1100 patients enrolled on the system the clinical effectiveness of the PSAT was evaluated as we wanted to know if patients had been recalled to clinic appropriately, had been missed to follow up or had died unexpectedly from prostate cancer.

## What is the PSA Tracker?

The original PSAT was a stand-alone computer database. Once the patient has a stable condition and has given verbal consent their demographic, diagnosis and clinical history details are manually entered by the CNS. In 2012 the system was updated and integrated with hospital systems into a web based programme which automatically pulls the patients details and PSA levels through.

At the start of each month, the PSAT system highlights which patients are due for review and have had their PSA taken. The CNS then looks at the patient summary and up-to-date PSA levels. If all is well, the date of the next PSA test is entered into the system, which generates all necessary letters to the patient and GP. The letters explain what late effects of treatment the patient should look out for and to contact the CNS should they be concerned, and also informs them of their next PSA test due date. The patient is expected to have their PSA taken at the GP practice within two weeks of the requested date. If there is concern about the PSA level, the CNS will recall the patient to clinic. Should a patient forget to have their PSA taken a reminder letter is sent.

## Who is it suitable for?

Those patients with stable or treated disease with no ongoing clinical problems, such as:

- Post radical treatment
- Hormonal therapy
- Those on surveillance programmes

## What do patients think?

In 2007, a patient satisfaction audit of 127 patients with a response rate of 76% showed that 97% of patients were either satisfied or very satisfied with how the system works.

## PSAT Safety Clinic

The first 200 patients enrolled on the PSAT were recalled to clinic in 2008, 4 patients had a change in their clinical stage, but need no change to their treatment plan. 4 patients were discharged as no longer needed follow up.

## What are the benefits for the patients?

- Timely assessment of PSA value
- Direct access back into the MDT via the CNS
- Not having to travel to the hospital
- Not experiencing parking problems or cost
- Blood samples taken locally when convenient for them
- Not having to wait in a busy outpatient department
- Patients need less time away from work

## Data and methods

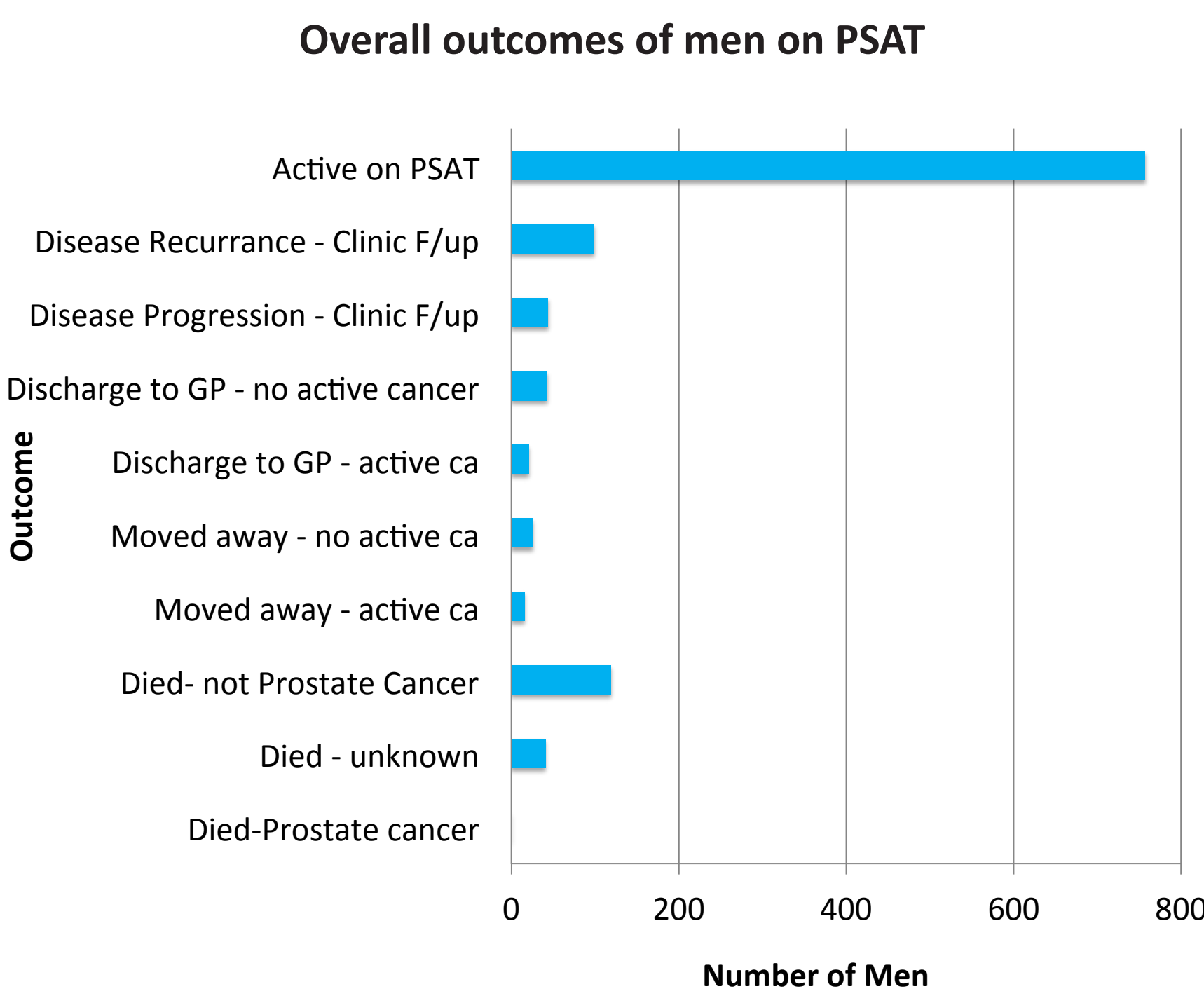
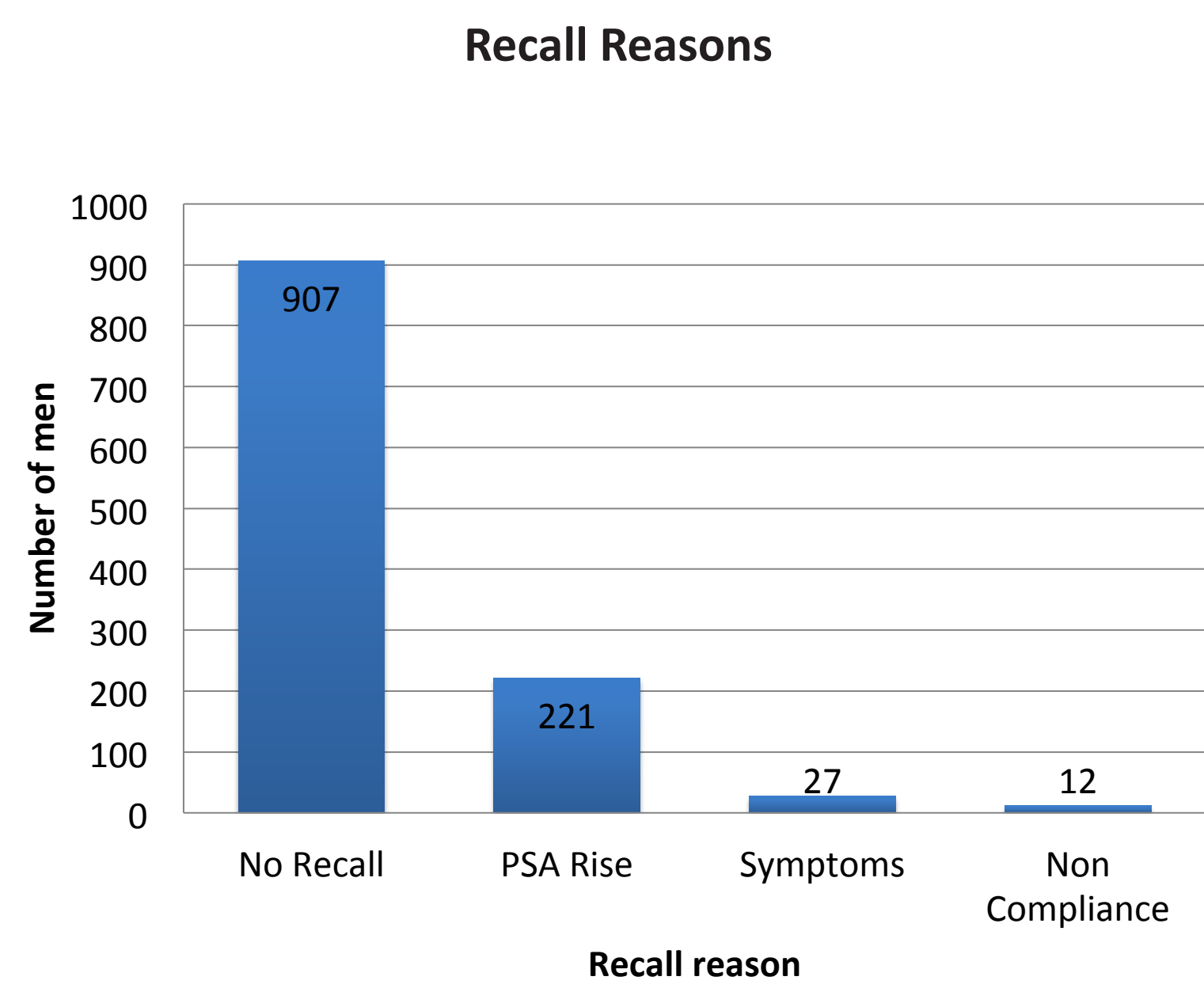
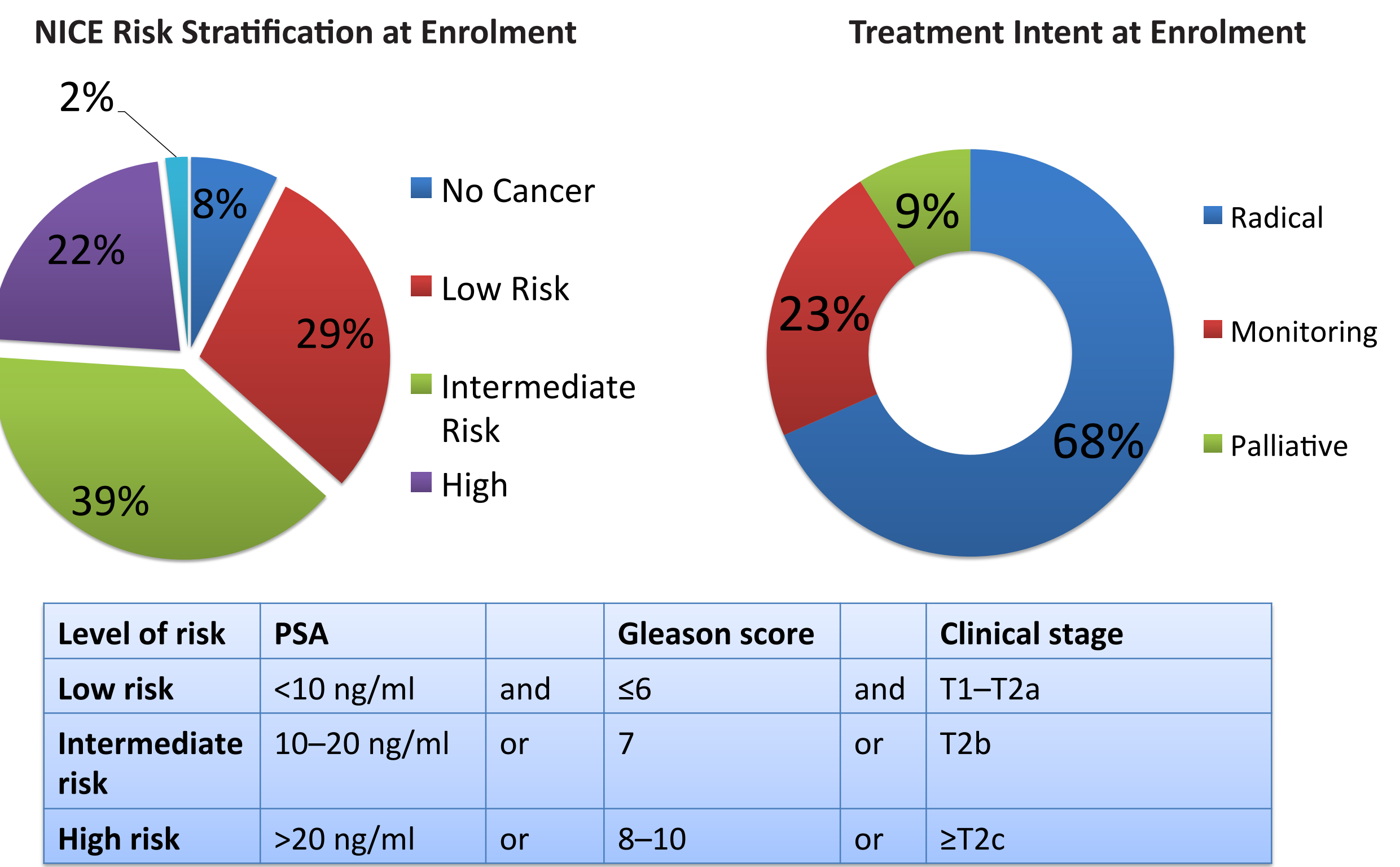
Patient data was collected retrospectively for all patients enrolled on the PSAT systems from 1/7/04 until 31/3/15. Also included are the first 2 test patients added in 2003. A Microsoft excel spreadsheet was developed to record and analyse the results. Data was obtained and checked from the PSAT, electronic and paper patient records, pathology and biochemistry systems and entered by the CNS. GP surgeries were contacted for cause of death.

## Results

1167 men are enrolled, with the average age at enrolment 70 years (minimum 48 years- maximum 98 years). The mean length of time on the PSAT is 4 years, 3 months 1 week and 3 days, minimum 0 days and maximum 12 years and 1 month. 22.3% of patients have been recalled. No patients have died unexpected from prostate cancer and no patients have been lost to follow up.

## Cost savings

The local tariff agreed with commissioners is £23 per PSA reviewed and is charged as non face to face activity. Based on the average of 75 checks per month and including the market factor force of 1.0876 the annual income - or cost to the Clinical Commissioning Group (CCG) is £22,513 with Band 7 nursing costs of £4,684. If these patients were still seen in clinic, the face to face tariff is currently £83.66 per follow up and the cost to the CCG would be £81,889 with higher nursing and outpatient costs.



## Alternative Follow-up Method00

Goodall and Walton (2014) identified 496 men with stable prostate cancer and discharged them to GP follow up on an agreed protocol. GPs were expected to check PSA levels on a 6 monthly basis and refer back to secondary care if PSA exceed specified threshold. Compliance with the pathways was audited prospectively in patients discharged over a year. The follow-up period ranged from 6 months to 18 months depending on the time of discharge. They found that 17.3% of PSA checks were not performed, and 40.9% of men with PSA above the threshold were not referred back into secondary care. They concluded that greater education and communication is needed regarding PSA thresholds and access back into secondary care if prostate cancer follow up is to be safely performed in primary care.

## Conclusion

The PSAT has provided safe and effective follow up care for those with stable prostate cancer. It is popular with patients and provides a timely and responsive service at low cost to the NHS. The PSAT provides an alternative to clinic or telephone follow up. The principles of the system can be applied to other tumour sites, such as breast and colorectal. It also provides a different way of working for the CNS. The concept has been expanded and is now part of the True NTH Supported Self-Management programme Prostate Cancer UK, 2015.

## References

Goodall, PP Walton,TJ (2014) Stable prostate cancer discharge – a locally enhanced service. Poster presentation British Association of Urological Surgeons, 24th June 2014, Liverpool, England.

National Institute for Health Care Excellence (2014) Prostate Cancer: diagnosis and treatment. NICE clinical guideline 175 available from: <https://www.nice.org.uk/guidance/cg175> [accessed 20 September 2015]

ProstateCancerUK(2015)TrueNTHavailablefromhttp://prostatecanceruk.org/for-health-professionals/our-projects/truenth#truenth-supported-self-management {accessed 20 Sept 2015}

## Key findings

- Remote monitoring is safe and effective
- No patients have died unexpectedly from prostate cancer
- No patients have been lost to follow up
- The system could be replicated in other tumour sites

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