Executive Summary
The Royal College of Surgeons of England (RCS) is an independent professional body committed to enabling surgeons to achieve and maintain the highest standards of surgical practice and patient care. As part of this it supports Audit and the evaluation of clinical effectiveness for surgery.

The NPCA is based at the The Clinical Effectiveness Unit (CEU). The CEU is an academic collaboration between The Royal College of Surgeons of England and the London School of Hygiene and Tropical Medicine, and undertakes national clinical audits and research. Since its inception in 1998, the CEU has become a national centre of expertise in methods, organisation, and logistics of large-scale studies of the quality of surgical care. The CEU managed the publication of the NPCA Annual Report, 2015.

In partnership with:

The British Association of Urological Surgeons (BAUS) was founded in 1945 and exists to promote the highest standards of practice in urology, for the benefit of patients, by fostering education, research and clinical excellence. BAUS is a registered charity and qualified medical practitioners practising in the field of urological surgery are eligible to apply for membership. It is intended that this website will be a resource for urologists, their patients, other members of the healthcare team and the wider public.

The British Uro-oncology Group (BUG) was formed in 2004 to meet the needs of clinical and medical oncologists specialising in the field of urology. As the only dedicated professional association for uro-oncologists, its overriding aim is to provide a networking and support forum for discussion and exchange of research and policy ideas.

Commissioned by:

The Healthcare Quality Improvement Partnership (HQIP) is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact that clinical audit has on healthcare quality in England and Wales. HQIP holds the contract to manage and develop the National Clinical Audit Programme, comprising more than 30 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual audits, also funded by the Health Department of the Scottish Government, DHSSPS Northern Ireland and the Channel Islands.

National Prostate Cancer Audit
Fifth Year Annual Report – Results of the NPCA Prospective Audit in England and Wales for men diagnosed 1 April 2016 – March 2017

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The National Prostate Cancer Audit (NPCA) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and funded by NHS England and the Welsh Government to support improvement in the quality and outcomes of care for men with prostate cancer in England and Wales.

The NPCA is a collaboration between the Clinical Effectiveness Unit (CEU) at the Royal College of Surgeons of England, the British Association of Urological Surgeons (BAUS) and the British Uro-Oncology Group (BUG). The National Cancer Registration and Analysis Service (NCRAS), Public Health England, and the Wales Cancer Network (WCN), Public Health Wales, act as the Audit’s data collection partners.

The aim of the NPCA is to assess the process of care and its outcomes in men diagnosed with prostate cancer in England and Wales. The NPCA determines whether the care received by men diagnosed with prostate cancer in England and Wales is consistent with current recommended practice, such as those outlined in the National Institute for Care Excellence (NICE) Guidelines and Quality Standards and provides information to support healthcare providers, commissioners and regulators in helping improve care for patients (see box).

This is the first national audit which is able to report on process and outcome measures from all aspects of the care pathway for men with prostate cancer.

**Data collection and analysis**

This report presents results from the prospective audit for men diagnosed with prostate cancer between 1st April 2016 and 31st March 2017 in England and Wales. The basis of the audit is the bespoke NPCA dataset which is combined with other data sources. In England these are Cancer Registry data, which also includes the Cancer Outcomes and Services Dataset (COSD), Hospital Episode Statistics (HES), the Office for National Statistics (ONS) death data and the National Radiotherapy Data Set (RTDS). In Wales these are Cancer Network Information System Cymru (CaNISC) data, the Patient Episode Database for Wales (PEDW) and ONS death data.

We report on specific diagnostic, staging and treatment information as well as core performance indicators in order to compare diagnostic specialist MDTs or treatment centres. This is the first report which combines English and Welsh data as well as using patient-reported experience (PREMs) and outcome measures (PROMs) as performance indicators. The survey for the PROMs/PREMs used the National Cancer Patient Experience Survey (NCPES), the Expanded Prostate Cancer Index Composite 26-item version (EPIC-26) and the EuroQol. We used surveys collected at least 18 months after diagnosis for men diagnosed between 1st April 2015 and 30th September 2016.

In total we report on 14 performance indicators:

1. Proportion of men presenting with metastatic disease at diagnosis.
2. Proportion of men with low-risk localised prostate cancer undergoing radical prostate cancer therapy.
3. Proportion of men with locally advanced disease receiving radical prostate cancer therapy.
4. Proportion of patients who had an emergency readmission within 90 days of radical prostatectomy.
5. Proportion of patients experiencing at least one severe genitourinary (GU) complication within 2 years of radical prostatectomy.
6. Proportion of patients experiencing at least one severe gastrointestinal (GI) complication within 2 years of radical external beam radiotherapy.
7. Proportion of patients who were given the ‘right amount’ of information about their condition and treatment.
8. Proportion of patients who were involved as much as they wanted to be in decisions about their treatment and care.
9. Proportion of patients who were given the name of a clinical nurse specialist.
10. Proportion of patients rating their overall care as at least 8 out of 10.
11. Mean urinary incontinence score after radical prostatectomy.
12. Mean sexual function score after radical prostatectomy.
13. Mean bowel function score after radical external beam radiotherapy.
14. Mean sexual function score after radical external beam radiotherapy.

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1 NICE, 2014: [https://www.nice.org.uk/guidance/cg175](https://www.nice.org.uk/guidance/cg175)
2 NICE, 2015: [https://www.nice.org.uk/guidance/qs91](https://www.nice.org.uk/guidance/qs91)

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NICE Quality Standards, 2015

1. **QS 1:** men with prostate cancer have a discussion about treatment options and adverse effect with a named nurse specialist.

2. **QS2:** men with low-risk prostate cancer for whom radical treatment is suitable are also offered the option of active surveillance.

3. **QS3:** men with intermediate- or high-risk localised prostate cancer who are offered non-surgical radical treatment are offered radical radiotherapy and androgen deprivation therapy in combination.

4. **QS4:** men with adverse effects of prostate cancer treatment are referred to specialist services.

5. **QS5:** men with hormone-relapsed metastatic prostate cancer have their treatment options discussed by the urological cancer MDT.

Although the NPCA started prior to the publication of the NICE Quality Standards, the Audit provides results that can be used to evaluate to what extent prostate cancer care providers meet most of these standards.

The NPCA patient survey asks about how men were informed about their treatment options, how treatment decisions were made and to what extent they had access to a named clinical nurse specialist (CNS) (QS1).

We also present results for indicators of possible over-treatment in men with low-risk disease and under-treatment in men with locally advanced disease (QS2 and QS3).

In our organisational survey, originally performed in 2014 and updated each year (see NPCA website), we describe whether providers of cancer services have specialist services on-site (QS4).

Prostate cancer has a protracted natural course and with further follow-up of patients in later years, the NPCA will assess to what extent the treatment options of men with hormone-relapsed metastatic cancer have been discussed at an MDT (QS5). This will be included in the update of the organisational survey (first quarter of 2019) and reported in next year’s Annual Report.

In addition to the results directly linked to the NICE Quality Standards, the NPCA reports on aspects of care that capture ongoing developments in the way men with prostate cancer are being assessed and treated. The Audit also provides evidence on the adoption of newer technologies (use of multiparametric MRI scanning before the prostate biopsy and the type of biopsy used) and treatments (robotic-assisted prostatectomy and intensity-modulated radiotherapy) as well as the impact on patient outcomes.
Key Messages

1. Data completeness in England is still not comparable with that of Wales but it is possible to stage a high proportion of men in both countries (94% and 98%, respectively).

2. The proportion of men presenting with metastatic disease at diagnosis is stable.

3. The use of multiparametric MRI is increasing (58% in England; 59% in Wales), with also an increase in its use prior to biopsy, which is preferable, but the majority of MRI scans are still being performed after initial biopsy in Wales.

4. The use of transperineal biopsies has remained static with last year, despite its more precise diagnosis, but its use in England is higher than that of Wales.

5. Slightly more men are being diagnosed with locally advanced disease in England compared to last year, with a reduction in the proportion of men with both low- and intermediate-risk disease. Further analysis will explore reasons for this finding.

6. Performance indicators now apply to all Trusts in England and all Health Boards in Wales as, given the NPCA started a year later in Wales, we now have appropriately mature data.

7. The potential “over-treatment” of men with low-risk disease is continuing to decline.

8. The potential “under-treatment” of men with locally advanced disease has increased slightly despite an increase in the proportion of men diagnosed with locally advanced disease.

9. The majority of patients are given the amount of information that they feel is appropriate. They also feel they are involved with their care, are given the name of a CNS and are happy with their overall care.

10. Genitourinary complications following radical prostatectomy are generally stable and consistent with last year. One in ten men experience at least one severe genitourinary complication within two years of their prostatectomy.

11. The rate of bowel dysfunction following radical radiotherapy is stable and consistent with that reported last year. One in ten men experience a severe gastrointestinal complication within two years of their radiotherapy.

12. Sexual function scores following radical radiotherapy were generally poor at 17 on a scale of 0-100.

13. Sexual function scores following radical prostatectomy were generally poor at 23 on a scale of 0-100.

14. For all but one of the performance indicators there was significant variation between specialist MDTs or treatment centres with potential outlying performance. The specific measures reporting outcomes for the surgical and radiotherapy centres are involved in the full outlier process.

Recommendations

For prostate cancer teams (local and specialist MDTs) within NHS Trusts/Health Boards

1. Increase the use of pre-biopsy multiparametric MRI and avoid its use post biopsy.

2. Increase the use of transperineal prostate biopsy where necessary to reduce the risk of post-biopsy sepsis and to maximise diagnostic accuracy and risk stratification.

3. Advocate active surveillance in the first instance for men with low risk prostate cancer.

4. Investigate why men with locally advanced disease are not considered for radical local treatment.

5. Use data on side effect prevalence from this report to ensure appropriate counselling and management for all patients.

6. When outlying performance is confirmed, engage with partners, including the NPCA, to review practice urgently and instigate quality improvement measures.

7. Engage with the NPCA Quality Improvement initiatives planned for 2019 (see Future Plans).

8. Review and improve data completeness focussing particularly on performance status, use of multiparametric MRI and biopsy route.
For patients

1. Seek medical advice if you are experiencing any urinary symptoms, erectile problems, blood in your urine, unexplained back pain or have a family history of prostate cancer or breast cancer so that any potential prostate cancer related problems can be picked up early.

2. Patients having treatment for prostate cancer should be aware of the significant side effects that they may experience. These include problems getting or keeping erections, loss of ejaculatory function, urinary incontinence and/or bowel side effects.

3. It is important that patients are appropriately counselled prior to treatment regarding the likelihood of a deterioration in their sexual function.

4. Patients should be aware of all the support services that are available for men experiencing physical or psychological side effects during or following treatment. These services are available straight away and at any point after treatment, including being provided with a named CNS, in keeping with national recommendations.5

5. Patients and carers should be aware of the many sources of further information and support available. These are accessible via GP services and from prostate cancer charities including Prostate Cancer UK (www.prostatecanceruk.org) and Tackle Prostate Cancer (www.tackleprostate.org). Both of these charities operate nationwide support networks.

For commissioners and health care regulators

1. Review the performance indicators for your region to identify shortfalls in resources, service provision and to identify areas where improvements can be made.

2. Work with local NHS providers to develop strategies to reduce variation in the care provided.

3. Enact plans and make resources available for the development and implementation of standardised diagnostic pathways. These should aim to shorten diagnostic timings and improve the diagnostic accuracy and disease risk stratification of prostate cancer with use of pre-biopsy multiparametric MRI and transperineal biopsies.

Future Plans for the NPCA

The contract period for the NPCA has been renewed by HQIP for work to continue at the Royal College of Surgeons of England for a further three years. Our plans are to continue to report on all of our performance indicators, which will hopefully include PROMs and PREMs from further patient surveys in 2020. The NPCA will continue to develop new and important performance indicators. We will also initiate a programme to develop methods to measure disease progression, recurrence and its treatment. Also, as the data matures we will be able to report on mortality which will require at least 5 years of follow-up.

We shall continue to publish data as part of the Clinical Outcomes Programme (COP) and the National Clinical Audit Benchmarking (NCAB) to enable dissemination of our findings to clinicians, stakeholders, patients and the wider public. We will also update and improve our NPCA cross-sectional data on provision of services by conducting annual organisational surveys. This will enable accurate reporting of the current structure and services of providers of prostate cancer care in England and Wales and compare this with our previous data of service provision.

The success of the NPCA relies solely on the quality of the data received from Trusts and Health Boards across England and Wales. Our data collection partners (NCRAS and WCN) will continue to work directly with individual care providers to help improve data quality. This will ensure the reliability of all the results we present and the reporting of outliers. The NPCA will continue to use our outlier policy to notify outlying providers and specialist MDTs for each performance indicator. This will enable the data to be checked and changes implemented to improve patient outcomes.

1 NICE, 2015. Prostate Cancer: NICE Quality Standard 91. Quality statement 4: “Men with adverse effects of prostate cancer treatment are referred to specialist services”
**DIAGNOSIS AND STAGING**

42,975 men were diagnosed with prostate cancer in England and Wales between 1st April 2016 and 31st March 2017

- **England**: 80% of men had a pre-biopsy multiparametric MRI
- **Wales**: 41% of men had a transperineal biopsy

- **55%** of men were 70 years or older
- **16%** of men presented with metastatic disease – no change from 15/16

**TREATMENT ALLOCATION**

- **England**: 4% of men were 70 years or older
- **Wales**: 8% of men had a transperineal biopsy

- **2016–17**
  - Fewer men with low-risk, localised disease had radical treatments and were potentially ‘over-treated’
- **2015–16**
  - Slightly more men with locally-advanced disease did not have radical treatments and were potentially ‘under-treated’

**TREATMENT OUTCOMES**

- **13%** of men were readmitted within 3 months following surgery

  - Within 2 years of treatment, 1 in 10 men experienced a severe genitourinary complication after surgery or a severe gastrointestinal complication after external beam radiation

  - After surgery, men reported their sexual function to be 23 and urinary continence to be 71 on a scale of 1 to 100

  - After external beam radiation, men reported their sexual function to be 17 and bowel function to be 85 on a scale of 1 to 100

**PATIENT EXPERIENCE OF CARE**

- **90%** of men said they were given the ‘right amount’ of information
- **83%** of men said they were ‘given the name of a clinical nurse specialist’

- **72%** of men said they were involved as much as they wanted to be in treatment decision making
- **89%** of men rated their care as 8/10

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