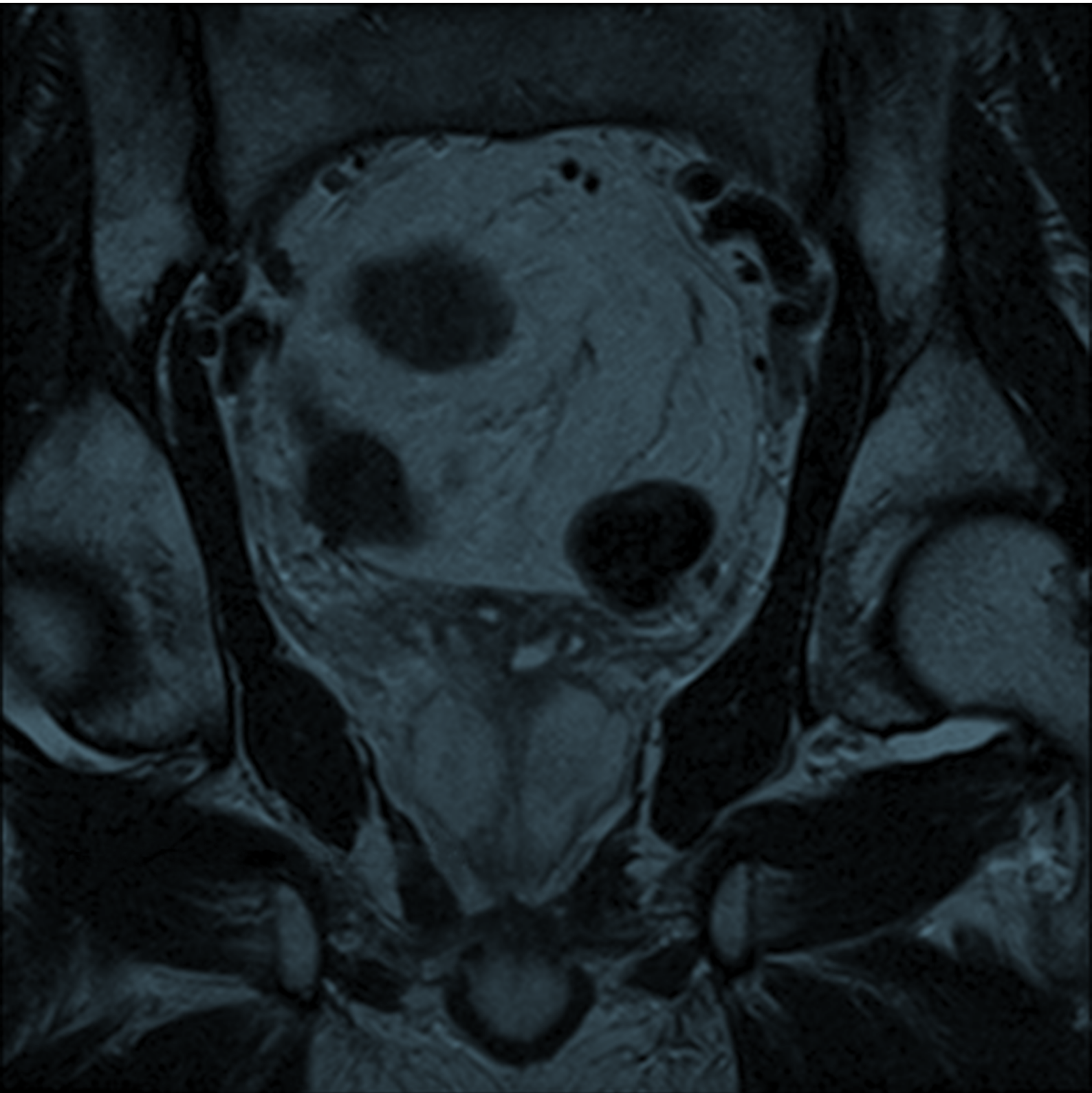

**Second Year Annual Report – Further analysis
of existing clinical data and preliminary results
from the NPCA Prospective Audit
2015**



National Prostate Cancer Audit

Executive Summary

Second Year Annual Report – Further analysis of existing clinical data and preliminary results from the NPCA Prospective Audit

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Public Health
England

The National Cancer Registration Service (NCRS), Public Health England collects patient-level data from all NHS acute providers and from a range of national data feeds. Data sources are collated using a single data processing system ('Encore') and the management structure is delivered through eight regional offices across England.

The NCRS is the data collection partner for the NPCA.

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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.

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We would like to thank the Information Specialists in the Wales Cancer Networks for the development and implementation of the NPCA Prospective Audit dataset and for urological and uro-oncological colleagues and their teams in the Welsh Health Boards who started data collection from the 1st April 2015.

The collection and submission of high quality data underpins the ability of the NPCA to determine whether the care that men with prostate cancer receive is in keeping with recommended practice and to identify areas where improvements are needed. **Keep sending in your data!**

The Project Team would like to acknowledge the contribution of the NPCA Clinical Reference Group (CRG) for helping to guide the development of the NPCA patient questionnaire and for reviewing this report. Membership of the NPCA CRG can be found on our website.¹ We would like to thank the British Association of Urological Surgeons (BAUS) and the British Uro-Oncology Group (BUG) for their continued professional guidance and for raising awareness amongst urological and uro-oncological colleagues.

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¹ <http://www.npca.org.uk/team/clinical-reference-group/>

Executive Summary

This is the second Annual Report (2015) of the National Prostate Cancer Audit (NPCA). The Audit was commissioned by the Healthcare Quality Improvement Partnership (HQIP)¹ as part of the National Clinical Audit Programme with the aim of assessing the process of care and its outcomes in men diagnosed with prostate cancer in England and Wales.

The NPCA started on 1 April 2013 and will continue for at least five years. The audit is based at the Clinical Effectiveness Unit (CEU) at the Royal College of Surgeons of England and is managed in partnership with the British Association of Urological Surgeons (BAUS), the British Uro-Oncology Group (BUG) and the National Cancer Registration Service (NCRS).

The NPCA consists of four key components:

1. An organisational audit of service delivery and prostate cancer care in England and Wales
2. An analysis of existing datasets to provide comparative baseline data for the prospective audit
3. A prospective audit of all men newly diagnosed with prostate cancer in England from 1 April 2014 and Wales from 2015
4. An audit using patient-reported outcome measures (PROMs) and experience measures (PREMs) 18 months after diagnosis for all patients with localised prostate cancer who underwent, or who are candidates for, radical treatment

The key results presented in the first annual report in 2014 included a national level analysis of data from the organisational audit in England and Wales and an analysis of available existing data sets including patients with prostate cancer in England (diagnosed between 2006 and 2008). The report can be downloaded from our website.²

This second Annual Report covers the work undertaken since April 2014. It includes an analysis of the most recently available existing data sets for patients diagnosed with prostate cancer between 2010 and 2013 in England, a report of NHS Trust participation in the NPCA Prospective Audit in England, analyses of data submitted (case ascertainment, data completeness and preliminary results), and the description of the design of the NPCA PROMs and PREMs survey.

Analysis of existing data on patients newly diagnosed with prostate cancer between 2010 and 2013 in England

In the first Annual Report (2014), we presented analyses of Cancer Registry data for patients diagnosed between 2006 and 2008 linked to Hospital Episode Statistics (HES) and a later extract of unlinked Cancer Registry data for patients diagnosed in 2012.

In this second Annual Report, we present the results of the analyses of more recent Cancer Registry data linked to HES, including patients newly diagnosed with prostate cancer between 2010 and 2013.

These analyses were based on an updated risk stratification algorithm to enable the inclusion of men with limited information on metastatic and/or nodal disease resulting in the creation of a 'mixed group' including men with either locally advanced or advanced disease. We also report key findings based on six performance indicators developed for the first Annual Report.

Trends over time

Compared with men diagnosed between 2006 and 2008 (results presented in the first Annual Report), the current analysis of men diagnosed between 2010 and 2013 demonstrated that there was a substantial improvement in the proportion of men who had sufficient information to determine disease status (an increase from 43% to 65%).

Fewer men were diagnosed with locally advanced or advanced disease between 2010 and 2013 (57%) than between 2006 and 2008 (67%).

The percentage of men with low-risk disease who underwent radical treatment (radical prostatectomy or radical radiotherapy including external beam radiation therapy (EBRT), brachytherapy, cryotherapy or HIFU) within 12 months of their diagnosis went down from 28% between 2006 and 2008 to 13% between 2010 and 2013.

The percentage of men with locally advanced disease who have radical treatment went up from 27% between 2006 and 2008 to 47% between 2010 and 2013.

There is a considerable reduction in the length of stay after radical prostatectomy from 53% staying longer than 3 days in hospital after a radical prostatectomy between 2006 and 2008 to 22% between 2010 and 2013.

¹ 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 produce 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. www.hqip.org.uk

² NPCA First Year Annual Report – Organisation of Services and Analysis of Existing Clinical Data, 2014. <http://www.npca.org.uk/reports/>

Variation between Cancer Networks

The completeness of information to determine disease status varied markedly between the 28 English Cancer Networks, the major regional organisational structure that was in place until April 2013. For men diagnosed between 2010 and 2013, the level of completeness ranged from 44% to 92%. As the overall completeness of information on disease status is improving year on year (from 40% in 2010, 53% in 2011, 77% in 2012 to 87% in 2013), the regional differences should rapidly become a negligible issue.

There were differences in the percentage of men with low-risk localised prostate cancer ranging from 4% to 25%, locally advanced disease ranging from 18% to 49% and advanced disease ranging from 6% to 26% between Cancer Networks for men diagnosed between 2010 and 2013. These differences may reflect regional differences in the use of PSA testing. However, they may also reflect differences in how patients with advanced disease were diagnosed and staged.

There was considerable regional variation across Cancer Networks in the percentage of men receiving different modalities of radical treatment, especially among those with locally advanced disease (ranging from 19% to 65%). This variation may reflect regional differences in the patients' fitness for treatment as well as in the availability of and clinical preference for treatment modalities.

The diagnosis and staging of prostate cancer and planning of initial treatments in England: preliminary results from the NPCA Prospective Audit

In this second Annual Report, we also present the first analysis of the NPCA Prospective Audit for 12,305 men diagnosed during the first four months of the Audit (between 1 April and 31 July 2014).

Trust participation, case-ascertainment and data quality

96% of 142 NHS Trusts in England that provide prostate cancer services submitted an NPCA record but only 88% of Trusts were considered to be participating (defined on the basis of submitting at least one staging data item for 5 or more patients).

The overall case-ascertainment rate was 56% which varied by Trust and specialist MDT. There was a significant level of missing data which varied by Trust and specialist MDT. Prostate cancer disease status could only be defined for 69% of men. ASA and performance status, data items crucial for risk-adjusted comparisons among Trusts, were especially poorly recorded.

Preliminary results

About half of newly diagnosed men were over 70 years of age and about two thirds were in good health. Most men were of white ethnic origin (94%) and men living in more socioeconomically deprived areas were underrepresented with only 13% from areas within the most deprived quintile.

45% of men with available data had a PSA level less than 10 and 32% had a PSA level higher than 20. Prostate cancer disease status could be determined for 59% of included men, 9% of whom had advanced (metastatic) disease, 31% locally advanced disease, 19% either locally advanced or advanced disease (insufficient information to determine their metastatic status), 34% intermediate-risk disease, and 7% low-risk disease.

Transrectal ultrasound was the predominant biopsy technique performed before treatment for 85% of men. Multiparametric MRI was recorded in only 21% of men with about half of these performed before biopsy.

Just over half of patients (53%) with newly diagnosed prostate cancer had at least one treatment recorded as agreed at MDT. This included radical prostatectomy in 20% of cases (50% of which were recorded as robotic-assisted laparoscopic procedures) and radical radiotherapy (EBRT/ brachytherapy), cryotherapy or HIFU in 29% of cases.

Welsh data

The NPCA has not received existing data sets for patients diagnosed in Wales. Also, the NPCA Prospective Audit started in Wales one year later than in England and includes patients who were diagnosed with prostate cancer after 1 April 2015. We expect therefore that we will be able to present the first results for Welsh patients in the NPCA's third Annual Report (2016).

Patient-reported outcome and experiences measures

From October 2015, the NPCA will start a PROMs and PREMs survey of all patients with localised prostate cancer 18 months after diagnosis (from 1st April 2014) who receive, or are candidates for, radical treatment in England. The survey will determine patients' views of their experience of care following diagnosis and their outcomes. Patients will be asked questions related to quality of life, adverse events, sexual, urinary and bowel complications, information received about their prostate cancer diagnosis and treatment, treatment options offered, and initial treatment decision making.

The NPCA questionnaire follows, as much as possible, other UK and International PROMs and PREMs initiatives. The results from the NPCA survey will be linked to patient level data from the prospective audit and to other databases such as HES to provide information about the quality of care and services that patients with prostate cancer receive and to enable Trust and specialist MDT level comparisons. The first results will be published in the NPCA's third Annual Report, which will be published in the Autumn 2016.

As the time period for the NPCA Prospective Audit in Wales runs one year behind England, the first surveys for Welsh patients will be circulated in October 2016 and the first results reported in the fourth Annual Report, 2017.

NPCA Prospective Audit results presented by MDT in England

In addition to national results for England, we present participation in the NPCA Prospective Audit, case ascertainment and completeness of key data items by local Trust MDT in **Appendix 2**. The results of selected data items by specialist MDT are presented in **Appendix 3**.

Implications for practice

- The initial results of the NPCA Prospective Audit demonstrates its potential to evaluate practice and outcomes of prostate cancer services. However, there is a **need for further improvements in Trust participation, case ascertainment and data completeness**
- The collection of complete and accurate staging data is a key priority. **More complete collection of data on nodal and metastatic disease** will help to better distinguish between men with locally advanced and advanced (metastatic) disease
- **Clinical practice is gradually falling in line with current recommendations** which advocate that patients with low-risk disease are offered active surveillance – in order to avoid over-treatment – and those with locally advanced disease are offered radical treatment – in order to avoid under-treatment
- **Length of stay after radical prostatectomy is reducing** and only 22% of patients diagnosed between 2010 and 2013 stayed longer than three days in hospital
- There was **considerable regional variation in the treatment of men with locally advanced disease** diagnosed between 2010 and 2013. This variation may partly reflect problems in identifying men who had radical treatments and partly differences in actual treatment
- Results presented in **Appendix 2 and 3** will help staff in Trusts and specialist MDTs to identify **local priorities for NPCA data collection** as well as to consider **preliminary results that may demonstrate if local services for patients with prostate cancer can be further improved.**