LCA Best Practice Prostate Pathway

December 2013 (updated December 2014)
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1 Purpose of the document

This document outlines the LCA Best Practice Prostate Pathway as identified and mandated by the LCA Urology Pathway Group. The document is not intended to be a comprehensive set of clinical guidelines but details the necessary sequencing and timeliness of the various elements of the prostate cancer pathway to ensure it is delivered within the 62 day target.

2 Background

The key aim of the work programme of the London Cancer Alliance (LCA) Urology Pathway Group, formed in June 2013, is to reduce variation in urological cancer care across the LCA provider organisations. As part of this work, the group reviewed referral-to-treatment times for all five of the urology cancers. The review identified wide variation between providers’ performance against the national 62 day waiting times target, in particular for prostate cancer. The need for standardisation was therefore evident and, from this, the group mapped a best practice pathway to be implemented throughout the provider organisations.

3 Case for change

In the reporting year 2012/13, 62 day first treatments for prostate cancer totalled 1,138, equivalent to 14% of the total 62 day treatments in the LCA. The LCA is failing to meet the 62 day standard for prostate cancer, reporting 78.6% compliance against the 85% national waiting times target. Just three of the 12 providers for prostate cancer were compliant, with seven trusts reporting lower than 80%. The variation amongst providers is extensive, with Imperial reporting 38% against the target compared with Mount Vernon reporting 96%. The below table outlines provider performance based on the hospital the patient had their first 2 week wait (2ww) appointment.

<table>
<thead>
<tr>
<th>Site code</th>
<th>Site</th>
<th>Number of cases</th>
<th>Median Wait</th>
<th>Number of breaches 62 standard</th>
<th>% in target (62 day standard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RYJ01</td>
<td>St Mary’s Hospital - Imperial</td>
<td>29</td>
<td>81</td>
<td>18</td>
<td>37.9%</td>
</tr>
<tr>
<td>RYJ02</td>
<td>Charing Cross Hospital - Imperial</td>
<td>39</td>
<td>75</td>
<td>24</td>
<td>38.5%</td>
</tr>
<tr>
<td>RJ611</td>
<td>Croydon University Hospital</td>
<td>96</td>
<td>58</td>
<td>32</td>
<td>66.7%</td>
</tr>
<tr>
<td>RQM01</td>
<td>Chelsea and Westminster Hospital</td>
<td>13</td>
<td>58</td>
<td>5</td>
<td>61.5%</td>
</tr>
<tr>
<td>RFW01</td>
<td>West Middlesex University Hospital</td>
<td>55</td>
<td>55</td>
<td>14</td>
<td>74.5%</td>
</tr>
<tr>
<td>RV831</td>
<td>Central Middlesex Hospital – The North West London Hospitals NHS Trust</td>
<td>13</td>
<td>50</td>
<td>1</td>
<td>92.3%</td>
</tr>
<tr>
<td>RYQ50</td>
<td>Queen Elizabeth Woolwich - SLHT</td>
<td>129</td>
<td>48</td>
<td>27</td>
<td>79.1%</td>
</tr>
<tr>
<td>RJ7</td>
<td>St George’s Healthcare NHS Trust</td>
<td>84</td>
<td>46.5</td>
<td>19</td>
<td>77.4%</td>
</tr>
<tr>
<td>RV820</td>
<td>Northwick Park Hospital – The North West London Hospitals NHS Trust</td>
<td>88</td>
<td>45</td>
<td>2</td>
<td>97.7%</td>
</tr>
<tr>
<td>RVR05</td>
<td>St Helier Hospital</td>
<td>55</td>
<td>45</td>
<td>14</td>
<td>74.5%</td>
</tr>
<tr>
<td>RAS01</td>
<td>Hillingdon Hospital</td>
<td>12</td>
<td>44</td>
<td>2</td>
<td>83.3%</td>
</tr>
<tr>
<td>RYQ30</td>
<td>Princess Royal University Hospital - SLHT</td>
<td>99</td>
<td>43</td>
<td>27</td>
<td>72.7%</td>
</tr>
<tr>
<td>RJ100</td>
<td>Guy’s and St Thomas’ NHS Foundation Trust</td>
<td>211</td>
<td>42</td>
<td>33</td>
<td>84.4%</td>
</tr>
<tr>
<td>RVR50</td>
<td>Epsom Hospital</td>
<td>71</td>
<td>42</td>
<td>13</td>
<td>81.7%</td>
</tr>
<tr>
<td>RAS02</td>
<td>Mount Vernon Cancer Centre – East and North Hertfordshire NHS Trust</td>
<td>50</td>
<td>39.5</td>
<td>2</td>
<td>96.0%</td>
</tr>
<tr>
<td>RJZ01</td>
<td>King’s College Hospital</td>
<td>88</td>
<td>39.5</td>
<td>8</td>
<td>90.9%</td>
</tr>
<tr>
<td>London Cancer Alliance Overall</td>
<td>1138</td>
<td>48</td>
<td>243</td>
<td>78.6%</td>
<td></td>
</tr>
</tbody>
</table>
4 The King’s and Guy’s and St Thomas’ prostate pathway

4.1 Characteristics of the pathway

King’s College Hospital NHS Foundation Trust (King’s) and Guy’s and St Thomas’ NHS Foundation Trust (GSTT) were identified as two of the best performing trusts in the LCA. Both trusts have adopted a similar pathway. Therefore, the LCA Urology Pathway Group mapped the two trusts’ prostate pathways (Appendix 1), from referral to treatment, to be put forward as the best practice pathway.

The efficiency of the proposed pathway hinged on the point at which patients are given an MRI in relation to their biopsy. Conventional prostate pathways indicate that a biopsy is performed prior to an MRI. However, as MRI can be compromised up to 8 weeks following a biopsy, this has a significant impact on the timeliness to treatment. Therefore, the King’s and GSTT pathways reverse the order based on the risk classification of the patient (Appendix 2) following their first 2ww appointment.

Whilst the sequencing of diagnostics is the most pivotal factor in improving the efficiency of the pathway, other factors are also essential:

- Ensuring two week wait referrals are triaged daily by the urology team
- Establishing a prostate-focused clinic for patient’s first 2ww appointment to be accommodated
- Regularly available slots for MRI and biopsy to ensure there is no delay in the diagnostic process
- MDT coordinator to be active in tracking the patients against the pathway. Notably they will need to receive the outcomes after the initial nurse-led clinic to ensure patients are booked into earliest available MRI slots.

4.2 Key factors to ensuring implementation

Both King’s and GSTT have reviewed their experiences of implementing the pathways at their trusts and have compiled the following list of factors which enabled them to implement the pathway successfully:

- Clear responsibility for the problem – designated individual/s
- Focusing the patients in one/two clinics allows the cancer tracker and clinical team to focus on the problem
- Changing mind-set to book patients for pre-biopsy MRI
- MRI slots need to be available daily for the high risk patients to be booked into. Patients will then go on to have a TRUS biopsy which will require two days a week of available slots. This required significant engagement from radiology to make these available.
- Complex diagnostics and symptom management best delivered in an OSC so the 2ww problem is managed as well as the clinical problem.
- Personnel who understand the relevance of diagnosing significant cancer in the right population
- Recognising this is not a protocol – it is a multi-factorial problem solving situation
- The people who have a day-to-day feel for it are the people who are best placed to triage patients between diagnostics and watchful waiting/PSA surveillance with their primary care physician.
4.3 Impact of the pathway
Audits undertaken by both GSTT (Appendix 4) and King’s (Appendix 5) have shown a positive impact since the introduction of the new pathway. The key points to note are that, not only are patients being seen for their 2ww appointment and being treated within the 62 day target, trust resources are also utilised effectively as the risk stratification reduces the need for inappropriate diagnostics. This reduces the burden and cost on the pathway and improves the patient experience.

5 Implementation and monitoring compliance

5.1 Dissemination
The LCA Urology Pathway Group presented the best practice prostate pathway at the inaugural Urology Clinical Forum on 8 November 2013. The forum was attended by representatives from most urology MDTs from across the LCA provider organisations. The pathway has been reviewed and approved by the LCA Clinical Director, Dr Shelley Dolan, on behalf of the LCA Clinical Board.

5.2 Timeline for implementation
It is expected that trusts will begin to implement the pathway from 1 January 2014 with full implementation being anticipated from 1 July 2014. The key deliverables expected to be implemented by the 1 July 2014 are:

- Prostate focused clinic for initial 2 week wait referral consultation
- First 2ww appointment to be offered within 7 days
- MRI to be indicated pre-biopsy for high risk prostate patients
- Patients to be given their Decision to Treat (DTT) by day 42
- Patients treated by day 62 of their pathway
- Robust data capture processes for recording the data items listed in section 5.4

5.3 Monitoring compliance
The pathway group will be monitoring compliance via regular reporting cycles which will form part of the quality metrics that underline the LCA Quality Assurance Framework. Provider trusts that do not comply with the timeline outlined above will be monitored via the pathway group’s exception report and may be asked to provide an action plan ensuring implementation.

The LCA Urology Pathway Group can assist providers by supporting implementation where necessary and can escalate to the Clinical Board and Members’ Board to gain traction if there are barriers which are prohibiting implementation.

5.4 Pathway metrics and focus for data collection
The LCA recognises the need to utilise existing data sources when monitoring compliance against best practice pathways. Therefore, the developed metrics are based solely on the Cancer Waiting Times (CWT)
and Cancer Outcomes Services Dataset (COSD) data items. The pathway group encourages providers to capture the following data items to ensure completeness:

Cancer Waiting Times Data Items
- Cancer referral-to-treatment period start date
- Date first seen
- Cancer treatment period start date
- Treatment start date
- Cancer treatment modality
- Primary diagnosis (C61.0 patients only)

Cancer Outcomes Services Dataset
- (Data item no. CR0310) SITE CODE (OF IMAGING)
- (Data item no. CR0320) PROCEDURE DATE (CANCER IMAGING)
- (Data item no. CR0330) CANCER IMAGING MODALITY
- (Data item no. CR1010) SAMPLE COLLECTION DATE

Using the above data items, the metrics (Appendix 3) have been developed and the points of the pathway to which they relate have also been mapped (Appendix 1). The pathway group will analyse the metrics in more detail to determine targets – the details of these will be released in due course.

5.5 LCA support for implementation

The LCA recognises the challenges that trusts will face when implementing the pathway and can offer support via the pathway group and via the Clinical Board and Members’ Board. Line of communication for escalating implementation issues will be through the LCA Urology Pathway Group project manager.
Appendix 1 – LCA Best Practice Prostate Pathway Flow Diagram and Anticipated Timescale

GP referral under 2WW with raised PSA

Triage by urology team daily and booked into assessment clinic

Patient review and risk of prostate cancer assessed inc. Bloods, FR, DRE, IPSS and SHIM

No Risk
Remove from pathway

Low risk

High risk

MRI

Biopsy results and further staging investigations discussed at MDM. Start hormones as appropriate (Potential DTT and Tx)

Further investigations, if required, and potentially discuss treatment options with patient.

Staging discussed at MDM, clinic review, treatment options discussed (DTT)

If AS remove from pathway (Tx)

First definitive treatment

Day 1

Day 7

Day 14

Day 21

Day 42

Day 62

Key
DRE – Digital Rectal Examination
IPSS – International Prostate Symptom Score
FR – Flow Rate
SHIM – Sexual Health Inventory for Men
DTT – Decision to Treat
Tx - Treatment

Metric LCAPP5

Metric LCAPP1

Metric LCAPP6+7

Metric LCAPP2+4

Metric LCAPP3+2+4

See appendix 2
Appendix 2 - Guidelines for Prostate MRI for Management of Localised Prostate Cancer

There are four situations in which an MRI of the prostate is required:

1. If there is a palpable abnormality on digital rectal exam
2. If the PSA is >10ug/l
3. If there is high clinical suspicion of prostate cancer and the patient is potentially fit for radical treatment if diagnosis proven
4. To guide biopsy strategy where uncertainty exists, e.g. large gland with suspected BPH where MRI might avoid a biopsy

The third situation essentially incorporates one and two and allows for atypical cases/clinical acumen.

If indicated, an MRI should always be done prior to transperineal prostate biopsies as MRI imaging is compromised up to 8 weeks following this type of biopsy.

If an MRI is needed after TRUS biopsy – 4 weeks should be left prior to imaging. Although in the vast majority of cases a clinical decision can be made without imaging and the imaging can be safely delayed to the point that is needed to guide the chosen treatment.

Those that shouldn’t have an MRI include:

1. Patients with obvious metastatic disease unless mandated by trials
2. Patients who are not suitable for radical local treatment
# Appendix 3 – Prostate Pathway Metrics

<table>
<thead>
<tr>
<th>Metric No.</th>
<th>Metric</th>
<th>What are we measuring?</th>
<th>Data Item (s)</th>
<th>Source</th>
<th>Availability</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCAPP1</td>
<td>First 2ww appointment for prostate cancer patients</td>
<td>Date from referral to first appointment is to be &lt; 8 days</td>
<td>2ww appointment date – 2ww referral date</td>
<td>Cancer Waiting Times</td>
<td>Now</td>
<td>93%</td>
</tr>
<tr>
<td>LCAPP2</td>
<td>62 day first treatment</td>
<td>Date from referral to first treatment &lt;63 days</td>
<td>First treatment date – 2ww referral date</td>
<td>Cancer Waiting Times</td>
<td>Now</td>
<td>85%</td>
</tr>
<tr>
<td>LCAPP3</td>
<td>Decision to treat</td>
<td>Date from referral to decision to treat &lt; 31 days</td>
<td>Decision to treat date – 2ww referral date</td>
<td>Cancer Waiting Times</td>
<td>Now</td>
<td>Not yet set by the PG</td>
</tr>
<tr>
<td>LCAPP4</td>
<td>First 62 day treatment modality</td>
<td>% of patients receiving active monitoring as their first treatment</td>
<td>First treatment type</td>
<td>Cancer Waiting Times</td>
<td>Now</td>
<td>LCA comparison for outliers</td>
</tr>
<tr>
<td>LCAPP5</td>
<td>Biopsy</td>
<td>Date from referral to biopsy &lt; 20 days</td>
<td>Sample collection date – 2ww referral date</td>
<td>COSD Core Data Item</td>
<td>2014</td>
<td>Not yet set by the PG</td>
</tr>
<tr>
<td>LCAPP6</td>
<td>MRI</td>
<td>Date from referral to MRI &lt; 10 days</td>
<td>Procedure date (if imaging modality = MRI scan) – 2ww referral date</td>
<td>COSD Core Data Item</td>
<td>2014</td>
<td>Not yet set by the PG</td>
</tr>
<tr>
<td>LCAPP7</td>
<td>Pre Biopsy MRI</td>
<td>Date of MRI to be before date of biopsy</td>
<td>Sample collection date – Procedure date (if imaging modality = MRI scan)</td>
<td>COSD Core Data Item</td>
<td>2014</td>
<td>Not yet set by the PG</td>
</tr>
<tr>
<td>LCAPP8</td>
<td>% complete for all COSD items</td>
<td>To assess the validity of the data received as the COSD dataset is likely to be incomplete</td>
<td>Sample collection date; Procedure date</td>
<td>COSD Core Data Item</td>
<td>2014</td>
<td>Not yet set by the PG</td>
</tr>
</tbody>
</table>
Appendix 4 - GSTT 2ww GP Referral Prostate Cancer Pathway Problems - Audit

All patients seen between 1/5/13 and 21/6/13 were seen by DC, RP or BC + NK within the capacity of the OSC. Patient numbers per clinic ranged between 10 and 3.

<table>
<thead>
<tr>
<th></th>
<th>Reference period</th>
<th>Trial period</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>TRUSBx</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>TPBx</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>TPBx and TURP</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MRI</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Breaches</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Cancer Dx</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>% + biopsies</td>
<td>46%</td>
<td>73%</td>
</tr>
<tr>
<td>Inappropriate TRUS booked</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Inappropriate TPBx booked</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

01/5/13 – 21/6/13 – Trial period
65 patients seen

Breach breakdown
2ww GP prostate refs – 2 patients breached (Both on first visit, patients requested later OPA date- unbelievable but truly breeched for this reason)

01/3/13 – 30/4/13 - Reference period
70 patients seen

Breach breakdown
2ww GP prostate referrals – 14 patients breached

1. Delay in diagnostics. TURP re-scheduled x3 (patient request and no capacity)
2. Delay to first OPA (15 days). Delay in diagnostics - patient on Abs due to UTI
3. Letter written incorrectly. Patient not put on AS post TRUS Bx
4. Delay in TURP (diagnostics). Patient choice then no capacity
5. Letter written incorrectly. Patient not put on AS post TRUS Bx
6. Administrative error with booking OPA with a prisoner
7. Delay in diagnostics. Capacity problem with TP Bx
8. Delay in diagnostics. Capacity problem with TP Bx
9. MRI booked not as 2ww. Delay for 6/52 before Bx
10. Patient not fit for TP biopsy, then delay in histology as incorrect information written on path form
11. Patient not fit for Bx as on clopidogrel
12. TRUS Bx changed to TURP + TP Bx. Capacity problem with TURP + TP
13. Patient away for 6/52. Left on pathway – not able to book first OPA
14. Delay in diagnostics. Capacity problem with TP Bx

Discussion
The 2ww management pilot has reduced burden on resources and delivered fewer breaches.

Achievements
We have successfully reduced on-the-day cancellations for inappropriate referrals for biopsy. This is critical for service improvement as well as cost efficiency.

Keys to implementation
- Clear responsibility for the problem - individuals
- Focusing the patients in one clinic allows the cancer tracker and clinical team to focus on the problem.
- Complex diagnostics and symptom management best delivered in the OSC so the 2ww problem is managed as well as the clinical problem.
- Same day TRUS is liked by the patients and has not pressured the OSC.
- It is key to reducing pressure on the diagnostic pathway.

The key is in personnel who understand the relevance of diagnosing significant cancer in the right population. This cannot be put down in a protocol as it is a multi-factorial problem solving situation. The people who have a day-to-day feel for it are the people who are best placed to triage patients between diagnostics and watchful waiting/PSA surveillance with their primary care physician.

Conclusion
We will continue to concentrate the 2ww prostate cancer referrals in rotated OSC (Weds am and Thurs pm) supported by a specialist nurse capable of carrying out patient assessment and prostate biopsy (with appropriate training).
Appendix 5 – Nurse-led approach for direct GP referrals for suspected prostate cancer at King’s College Hospital

Lawrence Drudge-Coates and Vitra Khati, Urology Clinical Nurse Specialists

Introduction
In today’s NHS practice, all urology departments are under considerable pressure to comply with the 2 week wait rule. Studies to date have focused on the appropriateness of the guidelines, compliance of referrals, and the poor yield of those urgent referrals, but very few have suggested specific benefits of a nurse-led approach. The objective of this audit was therefore to examine the initial outcomes of a urology nurse specialist developed approach to the assessment and management of suspected prostate cancer referrals.

Method
From May 2012 – December 2012 all GP 2 week wait referrals were vetted by the urology nurse specialist and allocated to specific nurse-led clinics. In all 123 suspected prostate cancer patients were seen. Using a protocol driven approach, a nurse-led assessment tool developed in conjunction with our consultant colleagues was agreed. All patients underwent initial lower urinary tract symptom and sexual health assessment, bloods and digital rectal examination, with subsequent diagnostic and staging investigations requested according to clinical findings and protocol. A patient questionnaire to evaluate the service was sent to the first 100 patients seen.

Protocol

Timeline

By day 1

By day 2-5

By day 7-10

By day 14-22

By day 38-42 (28 delay from biopsy to MRI)

By day 62

GP referrals under 2ww with raised PSA

Triage by urology nurse specialists and booked into next available nurse-led clinic

Prostate cancer risk assessed inc. Bloods, DRE, IPSS, FR, SHIM

Low or intermediate risk (PSA <10, non palpable disease)

TRUS prostate biopsy

Biopsy discussed at MDM with pm clinic review, CNS review and staging investigations as appropriate arranged, start hormones as appropriate (DDT)

Staging discussed at SMDM, clinic review, treatment options discussed (DDT)

First definitive treatment (surgery, focal therapy or hormones)

High risk (PSA >10 +/- palpable disease)

MRI prior to biopsy

No cancer

Staging previously performed or not required, treatment options discussed (DDT) and SMDM review

If AS remove from pathway and book template biopsy (DDT)

Key:
DRE – digital rectal examination
IPSS – International prostate symptom score.
FR – Flow rate
SHIM – Sexual Health Inventory for Men

Timeline

By day 1

By day 2-5

By day 7-10

By day 14-22

By day 38-42 (28 delay from biopsy to MRI)

By day 62

No risk

Remove from pathway

If AS remove from pathway and book template biopsy (DDT)
Initial results

In comparing the previous equivalent 6 months in 2011 (June – December) v 2012 (June – December) (Figure 1): the waiting time to 1st appointment fell from 7.6 days to 4.5 days, resulting in a reduction of 59% due to the increased level of flexibility afforded by the nurse-led clinics. In respect of 14 day breaches, this fell from 7 in 2011 to 1 in 2012 (patient admitted with pneumonia following GP referral). The patient questionnaire survey showed extremely positive results, with 86% of the patients very satisfied with the nurse-led service and 90% of patients happy with seeing a urology nurse specialist at their first appointment.

Figure 1. Average total days from GP referral – 1st appointment

Comments

Although initial findings, the data show a positive trend towards the benefits of a nurse-led approach in reducing waiting times from GP referral to 1st patient appointment for suspected prostate cancer patients. The flexibility afforded by the nurse-led clinics throughout the week plays a significant role in reducing this time, allowing patients to be allocated to any potential nurse clinic. In the context of patients removed from the suspected prostate cancer pathway but with outstanding lower urinary tract symptoms, treatments are either being initiated in this clinic time or GPs are being informed of the required treatment to be commenced, again another clinical benefit to this approach.

The vetting of all suspected urology cancer referrals is done on a daily basis by the urology nurse specialists, and appears to have provided a quicker appointment allocation. The validity of the referrals and clinical information are also scrutinised and where inappropriate referrals are made, this information is relayed and patients are removed from the 2ww pathway. Initial work is now being carried out by the nurse in the clinic using prostate ultrasound to determine prostate size, and where relevant the requirement for template prostate biopsies so as not to refer for standard 12 cores biopsies. The potential for a one stop clinic in which prostate biopsies could be performed is also a potential.