Pan Birmingham NHS
Cancer Network

Guidelines for Management of Penile Cancer

Date Approved by Network Governance	July 2012

Date for Review	July 2015

Changes Between Versions 2 and 3

Sections 3, 5, 6 and 16 updated.

1. Scope of the guideline

1.1 This Guidance has been produced to support the following:

- the management of patients presenting with symptoms suspicious of penile cancer.
- the management of patients found to have penile cancer.

1.2 This guideline has been produced on behalf of Pan Birmingham Cancer Network and Greater Midlands Cancer Network for referring populations.

2. Guideline background

2.1 These guidelines are based on the referral guidelines for suspected cancer[1] (www.dh.gov.uk), Improving Outcomes for Urological Cancer – Manual[2] (www.nice.org.uk) and the European Association of Urology (EAU) Clinical Guidelines[3] (www.uroweb.org). They have been written by the Pan Birmingham Urology Network Site Specific Group (NSSG) which consists of local urology teams based at University Hospital Birmingham (UHBFT), Sandwell and West Birmingham (SWBH) and Heart of England (HEFT).

3. Organisation of care for penile cancer

3.1 Pan Birmingham Cancer Network hosts the Supra Regional centre for the management and specialist MDT discussions for patients with penile cancer. This is at Heart of England NHS Foundation Trust. The Supra Regional MDT also functions as a Local Specialist MDT for Pan Birmingham Cancer Network.

3.2 The following MDTS / Trusts refer their patients to the supra regional centre:

- Dudley Group of Hospitals NHS Foundation Trust
  - Local Urology MDT
- Mid Staffordshire NHS Foundation Trust
  - Local Urology MDT
- Royal Wolverhampton Hospitals NHS Trust
  - Specialist Urology MDT
- Sandwell and West Birmingham Hospitals NHS Trust
  - Local Urology MDT
- Shrewsbury and Telford Hospital NHS Trust
  - Specialist Urology MDT
- University Hospital Birmingham NHS Foundation Trust
  - Specialist Urology MDT
- University Hospital of North Staffordshire NHS Trust
  - Specialist Urology MDT

- Walsall Healthcare NHS Trust
  - Local Urology MDT
- Worcestershire Acute Hospitals NHS Trust
  - Specialist Urology MDT

3.3 All patients should be discussed by the Supra Regional MDT. It is expected that most patients will be seen at HEFT. However, in some cases it may be appropriate for patients to be treated locally after discussion. These include:

a) those with carcinoma in-situ which can be treated with topical agents.
b) patients with very advanced disease requiring palliative care only.
c) patients receiving radio-or chemotherapy, after a course of such treatment has been agreed by the Supra Regional MDT.

3.4 In the event of a patient refusing to travel to HEFT, treatment may need to be arranged locally. The Supra Regional MDT should be informed and the case discussed as normal. The patient should be informed as part of the consent process that they have elected to have treatment which is not in accordance with current guidelines.

Guideline statements

4. Referral from GPs

4.1 Patients with suspected urological cancer should be referred from GPs to local urology units according to the NICE referral guidelines[1] (see page 4 for details).

4.2 Referrals deemed inappropriate by consultant urologists will be notified to the referring GP and to the relevant Commissioner according to agreed protocols in order to improve quality of future referrals.

4.3 GPs will be notified of the diagnosis of cancer within 24 hours of the diagnosis being made, and will be kept informed of all aspects of the patients care.

5. Multi Disciplinary Teams (MDTs)

5.1 Each team (see section 3.2) will hold regular MDT meetings. All patients with proven urological malignancy will be discussed by a MDT. Normally this will be the local MDT in the first instance, and the overall responsibility for the patient's management rests with the local MDT until referral has been agreed.

5.2 In accordance with the Urology Improving Outcomes Guidance (IOG), patients with penile cancer or suspected penile cancer will be referred to the specialist penile MDT based at HEFT.

6. Referral

6.1 The most common presentations are a lump on the foreskin or glans, or bleeding or persistent discharge from behind the foreskin. Such cases should be referred as a 2 week wait to the local urology MDT.

6.2 Patients can be referred to the Supra Regional MDT at HEFT by the local MDT either before or after histological confirmation of the diagnosis (see also 7.1 below). The clinical details of all cases of penile cancer should be discussed at the Supra Regional MDT. In certain cases it may not be necessary for the Supra Regional MDT to be involved in the patients care; such cases should be discussed on an individual basis. (See also 3.3).

6.3 The mechanism for referral to the Supra Regional MDT is normally by fax **(0121 424 8952)**, for the attention of Mr Foster or his team. Cases can be discussed by phone if necessary. Relevant histology slides and imaging should be sent to HEFT for discussion by the Specialist MDT.

7. Diagnosis and staging

7.1 Confirmation of diagnosis should be made by biopsy, which may be combined with definitive treatment. A biopsy is not necessary prior to surgical removal of obvious penile abnormalities

7.2 CT of the groins, pelvis abdomen and thorax should routinely be performed.

7.3 Staging is by CT scanning, but this is notoriously unreliable with regard to inguinal lymph nodes (see below), especially in the presence of an infected penile lesion. Staging investigations should not hold up treatment of the primary tumour.

Management of Primary Tumour

8. Surgery provides the mainstay of treatment, but consideration should be given to maintaining the cosmetic appearance and function of the penis wherever possible. Techniques such as glansectomy (with creation of a neo-glans using split skin grafts) and partial amputation with skin grafting should be employed where possible, except in such cases where the patient's general condition and preferences makes penile amputation more appropriate. In men with extreme advanced disease in whom radical amputation is essential, consideration should be given to referral for formation of a neo-penis at a specialist centre (Leicester or University College Hospital London).

9. Radiotherapy should be offered in cases where surgery is contra-indicated or the patient is extremely averse to surgery, but in such cases the patient should be

warned of the inferior cosmetic results of radiotherapy in the long-term. Treatment strategy is as follows:

a) T1, N0: tumour limited to the glans or prepuce local electron beam irradiation.
b) T2, N0: tumour invading the corpora or deep invasion of the shaft require irradiation of the whole shaft of the penis.
c) T3, N0: tumour invading the urethra or prostate gland may be considered for radical radiotherapy, however large volume disease may be most appropriately managed with palliative radiotherapy.
d) T4, inoperable nodal disease consider palliative radiotherapy.

10. Radical radiotherapy

10.1 Standard treatment includes megavoltage radiation dosage of 66Gy in 33 fractions over 6 and a half weeks or biological equivalent.

10.2 The dose modifying or tumourcidal enhancing potential of synchronous chemotherapy has not been assessed in a randomised trial (vis-a-vis anal cancer).

10.3 Where irradiation of the bulb of the penis or prostate is required this should be planned using 3D conformal or IMRT techniques.

11. Palliative radiotherapy

Treatment consists of megavoltage irradiation to encompass gross disease to a dose of 20Gy in 5 fractions over 1 week. This may be repeated depending upon response and tolerance to treatment.

12. Carcinoma-in-situ

Glansectomy may be appropriate in widespread carcinoma-in-situ, but non-surgical approaches using 5 F-U cream or imiquimod should be considered in the first instance.

13. Management of patients with advanced inoperable disease

Radiotherapy and/or chemotherapy using schedules such as Cisplatin + 5 Fluorouracil. Mitomycin C + 5 Fluorouracil may be considered as an alternative if renal function is impaired.

14. Treatment of inguinal lymph nodes

14.1 Both clinical assessment and imaging of inguinal lymph nodes is notoriously unreliable. There are frequent false negatives and false positives because up to 50% of patients will present with enlarged inguinal nodes of which approximately half will be due to infection rather than metastatic tumour. If the nodes are palpable aspiration cytology should be employed to confirm malignant involvement.

14.2 If the nodes are involved with tumour, treatment is with bilateral lymph node dissection, assuming there is no evidence on imaging of more widespread nodal or metastatic disease. After such a procedure (and histological confirmation of nodal involvement) consideration should be given to further treatment with prophylactic iliac node dissection.

14.3 Radiotherapy is reserved for incompletely resected disease. The combination of block dissection and post-operative radiotherapy is associated with a high risk of lower limb lymphodema. Prophylactic post-operative radiotherapy to iliac nodes should also be considered after resection of metastatic inguinal lymphadenopathy especially when multiple nodes are involved or there is extracapsular spread. A dose of 45 to 50 Gy over 4 and a half to 5 weeks is required.

14.4 Concurrent chemotherapy using combinations such as Cisplatin + 5FU may be considered with objective of increasing tumour control however this has not been addressed by a RCT and may increase the risk of lower limb and scrotal oedema. A boost of 20Gy in 10 fractions over 2 weeks should be considered if there is residual disease.

14.5 If the nodes are not obviously involved with tumour there is an argument in favour of prophylactic inguinal node dissection in certain cases. Patients can be stratified into low, medium or high risk depending on the primary histology:

a) low risk – Carcinoma in situ, ptag1/2 and pt1g1 – lymph node dissection not recommended.
b) medium risk – T1G2 – lymph node dissection may be advisable in patients with vascular and lymphatic invasion, or an infiltrating growth pattern.
c) high risk – pt2 or above, or any G3 tumours - lymph node dissection strongly indicated.

14.6 Patients should be carefully counselled regarding the risks and benefits of lymph node dissection, as the procedure is associated with significant morbidity. The technique of dynamic sentinel node biopsy is being developed in the Supra Regional centre.

14.6 Prophylactic inguinal node irradiation remains unproven, doses of 45-50 Gy over 5 and a half to 6 weeks are recommended where this is to be considered. Despite using lower doses than for primary disease, a risk of lymphodema remains.

15. Metastatic disease

Metastatic disease is normally treated with chemotherapy. Cisplatin + 5 Fluorouracil is the most commonly employed schedule. Mitomycin C + 5 Fluorouracil may be considered as an alternative if renal function is impaired. Palliative radiotherapy may be required for metastatic sites such as bone pelvic or para-aortic lymphadenopathy.

16. Follow up

16.1 Follow up is the responsibility of the team that managed the primary treatment. If the patient has been referred for primary treatment to the specialist team, follow-up by the referring team might be appropriate at a later date if both teams and the patient are in agreement. Long-term follow-up in primary care is appropriate if the patient's condition is stable.

16.2 Most patients will require the following follow up, however it is recognised that those with a high risk of recurrence may require more frequent monitoring.

a) 3 monthly for the first 12 months
b) 6 monthly thereafter to 5 years

16.3 In particular patients with high risk tumours who elect not to have lymph node dissection (see above) should be examined clinically with more frequent follow up (every 6 weeks) during the first 6-12 months.

16.4 CT scanning should be performed at initial staging, but is not normally indicated in routine cases without nodal involvement unless there is a particular suspicion of metastatic disease. If there is nodal disease at presentation follow-up imaging will likely be necessary but frequency will be individually determined and depends on treatment options.

16.5 Follow-up for patients with advanced or metastatic disease

a) these patients will require an individual approach to follow-up, with referral to palliative care teams as required.

17. Recurrent/progressive/metastatic disease

In the case of local recurrence or local progression after radical treatment consideration should be given to re-staging and treating with further radical therapy (radiotherapy or surgery).

18. Staging

18.1 Staging data for 70% of all cancers (90% of stageable cancers) should be collected electronically and transferred to the West Midlands Cancer Intelligence Unit (WMCUI).

18.2 All Trusts

a) the Trust should send electronic extracts from their histopathology system regularly to the WMCIU
b) the Trust should send imaging extracts for cancer patients electronically to the WMCIU regularly, who have established remote access for the WMCIU to their radiology information system

18.3 For cancers diagnosed clinically or those that have not had surgery

a) clinical TNM stage should be recorded on the MDT database

18.4 For those with invasive cancer who have had surgery

a) MDTs should record the full cancer registry dataset onto their MDT database at the time of discussion at the MDT meeting and send extracts to the WMCIU on a regular basis

19. Performance status

All patients should have their performance status recorded at the onto the MDT database at the MDT. This should be done using the WHO classification which will ensure it is in line with the cancer outcomes and services dataset guidance

20. Patient information and counselling

20.1 All patients, and with their consent, their partners will be given access to appropriate written information during their investigation and treatment, and on diagnosis will be given the opportunity to discuss their management with a clinical nurse specialist who is a member of the relevant MDT. The patient should have a method of access to the urology team at all times.

20.2 Access to psychological support will be available if required. All patients should undergo a Holistic Needs Assessment and onward referral as required.

21. Palliative care

Palliative care services will be made available to all patients as deemed appropriate by the MDT.

22. Clinical trials

22.1 Wherever possible, patients who are eligible should be offered the opportunity to participate in National Institute for Health Research portfolio clinical trials and other well designed studies.

22.2 Where a study is only open at one Trust in the Network, patients should be referred for trial entry. A list of studies available at each Trust is available from Pan Birmingham Cancer Research Network. Email: PBCRN@westmidlands.nhs.uk ..

22.3 Patients who have been recruited into a clinical trial will be followed up as defined in the protocol.

Monitoring of the guideline

Adherence to the Network guidelines may from time to time be formally monitored.

References

1. National Institute for Health and Clinical Excellence (2005). Referral guidelines for suspected cancer. http://www.nice.org.uk/pdf/cg027niceguideline.pdf
2. Improving Outcomes for Urological Cancer - Manual (www.nice.org.uk)
3. European Association of Urology (EAU) Clinical Guidelines (www.uroweb.org).

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