Penile Cancer Guidelines

North West & North Wales Cancer Networks' Clinical and Referral Guidelines for Penile Cancer

(Diagnosis, Assessment and MDT Discussion)

Revised April 2009

Date for Review - April 2012

Supranetwork Penile Cancer Guidelines

SERVICE OBJECTIVES

The objectives of concentrating this care into the hands of the Specialist Penile Team are:

- To ensure that designated specialists work effectively together in the team such that decisions regarding all aspects of diagnosis, treatment and care of individual patients and decisions regarding the team's operational policies are multidisciplinary decisions.

- To ensure that care is given according to recognised guidelines (including guidelines for onward referrals) with appropriate information being collected to inform clinical decision-making and to support clinical governance/audit.

- To ensure that mechanisms are in place to support entry of eligible patients into clinical trials, subject to patients giving fully informed consent.

1 ORGANISATION

1.1 The Supranetwork multidisciplinary team for penile cancer is based upon the specialist urological team at Christie Hospital NHS Foundation Trust.

1.2 The team delivers Supranetwork care to Lancashire & South Cumbria, Greater Manchester & Cheshire, Merseyside & Cheshire and North Wales - a population of 7.8m.

1.3 The team members will deliver all of the care, including local and specialist care, to at least part of their own cancer networks for the local catchment of their host locality.

1.4 For the team to add their full potential value to patient care, the supranetwork surgical procedures and their immediate post-op care are required to be restricted to certain named hospitals.

- **Christie Hospital**
- **Arrow Park Hospital, Wirral**

1.5 The host hospital for the Supranetwork MDT is Christie Hospital NHS Foundation Trust.

2 PENILE CANCER SUPRANETWORK & SPECIALIST CARE REFERRAL/CLINICAL GUIDELINES

(Clinical and referral guidelines for penile cancer - diagnosis, assessment & MDT discussion)

2.1 **Local care** is classed as:

The diagnostic process only.

Local care will be carried out by local teams for their catchment. It will also be carried out by specialist teams and the supranetwork team for the local catchment of their host locality.

2.2 **Referral to Local and Sn- MDTs (Supra-Network)**

In the primary care setting all patients with suspected penile cancer should be referred using the two week rule protocol. Diagnosis should be made with incisional/core biopsy or in some cases circumcision. Upon diagnosis ALL cases of penis cancer, including penile intraepithelial neoplasia, and pre-malignant/suspicious lesions should be logged at the local MDT and referred immediately to the Supra-network MDT. This should include notes and histology. The patient should be referred urgently to the Supra-network MDT. All local and specialist teams within the Networks (appendix C) may counsel patients regarding their primary treatment options. Definitive information will be provided following consultation with the SnMDT. This information should be relayed to the Primary Care Physician, referring Consultant and Patient.

2.3 **Specialist care (SnMDT)** is classed as:

2.3.1 **All Resections**. All resections should be carried out by the named supra-network hospital specialist teams. (see Appendix C).

2.3.2 **Radiotherapy and chemotherapy**.
Radiotherapy will be carried out **Christie Hospital NHS FT, Clatterbridge Centre for Oncology NHS FT and Lancashire Teaching Hospitals NHS Trust.**
Chemotherapy will be carried out in appropriate facilities, approved by the SMDT, throughout the Networks.

2.3.3 Specialist care will be carried out by the Supranetwork team members for the local catchment of their host locality.

2.3.4 Specialist care will only be carried out by teams designated as specialist teams within each Network. It will not be delivered by local urology teams in any of the Networks across the North West and Wales.

2.3.5 **All penile cancer cases should be discussed with the Supranetwork team prior to proposed treatment if not referred directly to that team**.

2.3.6 The Specialist MDTs will agree a policy whereby patients with early (stage 1) penile cancer should be offered a joint meeting with the surgeon, oncologist and specialist nurse to discuss treatment options prior to deciding which modality of treatment to use.

2.4 Supranetwork Care - Referral to Supra-Network MDT (SnMDT)

Supranetwork care is classed as:

2.4.1 All Resections, including cases needing penile reconstruction or lymph node resection. All resections will be carried out at Christie Hospital or Arrow Park Hospital. All such operations will be delivered by the ***Supranetwork team*** *listed in section 5 below.*

2.6.2 The treatment planning decisions on patients with penile cancer will be made by the Supranetwork penile cancer team during the regular weekly meetings at Christie Hospital, as and when those patients are referred.

2.6.3 The Supranetwork MDT at their regular meetings will agree and record patients' diagnosis and subsequent treatment plans. The record should include:

- The identity of patients discussed.
- The diagnosis.
- The multidisciplinary treatment planning decision i.e. to which modalities of Supranetwork or specialist care (surgery, radiotherapy, chemotherapy), they are to be referred for consideration.

2.6.4 **Referral to Supranetwork Team**
The responsible clinician at the local or specialist MDT should refer the patients with proven penile cancer or PIN, without delay, to the Supranetwork MDT within one week of histological diagnosis. In difficult cases, such as suspected pre-malignant changes other than PIN referral may also be made to the SnMDT. The referral should be done by Fax and post. It should include patient details, clinical findings and appropriate histology report. The referral should be made directly to one of the Lead Clinicians for Penile Cancer within the Cancer Network.

Fax Numbers:
Christie Hospital NHS Foundation Trust 0161 446 3352 or 3365
Wirral Hospital NHS Trust 0151 604 7481

2.6.5 Upon referral the patient should be seen in an outpatient clinic designated for Penile Cancer. A history and examination will be undertaken followed by an appropriate discussion regarding treatment. The treatment plan will be discussed between surgeon, oncologist, nurse specialist and the patient. The appropriate Patient information booklets should be dispensed.

2.6.6 Subsequent to this the patient will be discussed at the SnMDT. The Lead Clinician with the Nurse specialist will co-ordinate the discussion on each case.

2.6.7 The pathology should be reviewed at the SnMDT. Provision to obtain slides will be initiated at the time of receiving a referral. At this point the receiving clinician should inform the SnMDT Pathologist of this need, by fax / letter.

2.6.8 A decision should be made at that SnMDT as to whether the treatment plan is appropriate. The decision of the MDT will be relayed to the patient. If the plan is altered the patient will be informed accordingly.

2.7 **Follow up care**

The primary treatment of penile cancer can cause significant psychological distress. In addition follow-up treatments may be needed. Patients should be followed in a dedicated penile cancer clinic within the networks host hospital (in respect of Mersey this may be undertaken at the additional operating site).

This should be in the form of thorough penile and inguinal node examination. Imaging is not indicated outside the below recommendations. In cases of groin node surveillance or conservative treatment follow up should be 2-3 monthly for 2 years, 4 monthly for the 3rd year and then 6 monthly for years 4 and 5, then annually. In cases of groin node dissection or radical primary surgery follow up can be as follows: 3 monthly for 2 years, 6 monthly for 2 years and then annually.

3. Diagnosis & Assessment

3.1 Primary lesion

Patients should undergo history and physical examination. This should include medical/surgical history and risk factors. The examination should record:

i. Size
ii. Location
iii. Number of lesions
iv. Morphology
v. Relation to adjacent structures (corpora/urethra)

Cross-sectional imaging (preferably MR) may be used to assess the lesion and its stage. The purpose is to obtain as much information as possible regarding the grade and stage of the cancer in order to select the most appropriate treatment. Clinical photographs may be taken with patient consent in order to maintain a record of pre- and post-operative appearances and to facilitate audit.

3.2 Regional nodes

Inguinal nodes should be examined carefully. Note:

i. **Non palpable nodes**. In Intermediate and high risk disease it is appropriate to undertake prophylactic inguinal node dissection. Ultrasound scan (with Fine Needle Aspiration) and Dynamic Sentinel node biopsy and/or imaging should be considered in all such patients.

ii. **Palpable nodes**. On examination note size, position, number, fixation, relationship and oedema. In this scenario histological examination using FNA can be used. In cases where this is negative it can be repeated or excision biopsy can be undertaken. In appropriate cases where there are palpable nodes with negative histology/cytology, these can be re-assessed 4-6 weeks after surgery. In some circumstances

lymphadenectomy may be done at the same time of surgery for the primary lesion.

3.3 Distant metastasis

Patients with palpable nodes should undergo MR scan of the abdomen and pelvis in addition to a CXR to assess for distant mets. In patients with bone pain a bone scan is indicated.

Routine blood tests should be undertaken.

4. Treatment

4.1 **Primary lesion** (see Appendix A)

4.1.1 **PIN**

In penile intraepithelial neoplasia an organ preservation technique is advised and includes

- 5-Fluorouracil (5-FU) cream
- Topical Imiquimod (5%)
- Glansectomy and reconstruction (+/- graft)

Other therapies should be done in a trial setting only.

4.1.2 **Ta-1 G1-2**

An organ preserving therapy is recommended. This should be in the form of radiotherapy, local excision or glansectomy and reconstruction (+/- graft). Other therapies should be done within a trial setting only.
Pathological margins should be studied in surgical cases.

4.1.3 **T1G3, T2≥**

Partial or total amputation of the penis is recommended. More conservative surgery may be carried out in selected cases e.g. small tumours, unfit patients. Radiotherapy can be chosen in selected cases.

In patients requiring partial amputation the margin of clearance from the proximal area of induration should be approximately 1 cm.

Chemotherapy should be considered in a trial setting only.

4.2 **Regional nodes** (see appendix B)

Regardless of the treatment modality of the primary lesion all patients should undergo lymph node management.

4.2.1 Non palpable nodes

The three risk groups for nodal disease are

i. Low (Tis, TaG1-2 and T1G1) risk less than 10%. In these cases surveillance should be undertaken.
ii. Intermediate (T1G2) risk up to 25%. The risk is greater in cases of lymphatic and vascular invasion and also in those with infiltrative growth patterns. Dynamic sentinel node biopsy should also be considered with early modified lymph node dissection in positive cases. In negative cases surveillance should be initiated.
iii. High ($\geq$T1G3) risk up to 40% with G3 or $\geq$ T2 risk being 68%. In these cases Dynamic sentinel node biopsy should be considered with early modified lymphadenectomy in positive cases.

Ultrasound scan and fine needle aspiration has a role to play in this group of patients and should be considered.

In patients of high surgical risk surveillance or radiotherapy may be used.

4.2.2 Palpable nodes

In these cases FNA should be done. If negative it should be repeated or excision biopsy should be done. In positive cases a radical lymphadenectomy should be undertaken. Contralateral inguinal regions with no palpable nodes should be treated with either radical or modified lymphadenectomy. If excision biopsy is negative a programme of surveillance can be initiated.

If more than two nodes are found to be positive or there is extra capsular disease then the risk of pelvic nodal disease is up to 30%. In this group five year survival is very poor and chemotherapy may be considered in the trial setting. A pelvic/abdominal MR scan should be considered. In cases where no nodes are identified then pelvic lymphadenectomy can be undertaken although this is controversial. If positive nodes are found at pelvic lymphadenectomy then adjuvant chemotherapy may be considered preferably with in the trial setting.

In cases of fixed nodes chemotherapy can be considered followed by lymphadenectomy.

In cases of palpable nodes noted during follow-up then treatment should be directed as above. If there has been a long interval then unilateral lymphadenectomy can be considered, although the risk of bilateral disease can be as high as 30%.

4.3 Distant metastasis

Chemotherapy can be considered and should be case dependent.

5 SUPRANETWORK MDT CORE MEMBERSHIP

3.1 The group of people comprising the Core Membership are the surgeons operating on the named hospital sites together with the health professionals who work in the MDT membership roles with them.

	Christie	**Wirral**
Urological Surgeons*	Mr Vijay Sangar Mr Maurice Lau Mr Noel Clarke Mr Vijay Ramani	Mr Nigel Parr
Clinical Oncologists	Dr James Wylie	Dr John Littler
Medical Oncologists	Dr Michael Leahy	Dr Helen Innes
Histopathologists	Dr Jonathan Shanks	Dr Hani Zakhour
Radiologists	Dr Ben Taylor Dr Bernadette Carrington	Dr Joyce Magennis Dr David Hughes
Urology Nurse Specialists	Jane Booker	Beverley Rogers
MDT coordinator	Caroline Newton	Graham Totty
Palliative Care representative		
Plastic/reconstructive surgeon	Jim Murphy	

**Any consultant in the supranetwork catchment area of the MDT who is responsible for performing lymph node dissections and/or penile reconstruction should be a core member of the supranetwork penile cancer team*.

3.2 The MDT will nominate one of the members of the core or extended team as the person responsible for ensuring that service improvement is integrated into the functions of the MDT.

4 AUDIT AND DATA COLLECTION

4.1 During the year prior to the peer review visit the penile cancer team with all its referring teams should have carried out, as one of the agreed network audit projects, the following:

4.2 An audit of cases over the previous year, diagnosed with penile cancer by its referring teams, and its own cases.

4.3 Cases referred for specialist care and Supranetwork care should be audited for consistency with the network penile cancer guidelines (defining specialist and Supranetwork care for the network). The audit should also ascertain whether all cases diagnosed with penile cancer were discussed with the Supranetwork team prior to referral or to proposed specialist care.

4.4 The Supranetwork MDT will provide the total number of the following procedures performed for penile cancer by the team and by individual surgeons during the year prior to being reviewed.

i) Penile reconstruction procedures.
ii) Lymphadenectomies.

These will be presented at an annual meeting of the Supranetwork MDT.

5 ANNUAL MEETING

5.1 During the year prior to peer review, the Supranetwork penile cancer MDT will have held a meeting at which at least one core member of the team met with at least one core member of each of its referring teams to review all the cases during the previous year diagnosed as having penile cancer by its referring teams, and its own cases. At the meeting they should have ascertained:

- whether all cases were discussed with them prior to referral or to proposed specialist care and
- whether referrals for specialist and Supranetwork care were consistent with the network guidelines

5.2.1 The Annual Meeting will also be used to discuss, review, agree and record operational policies.

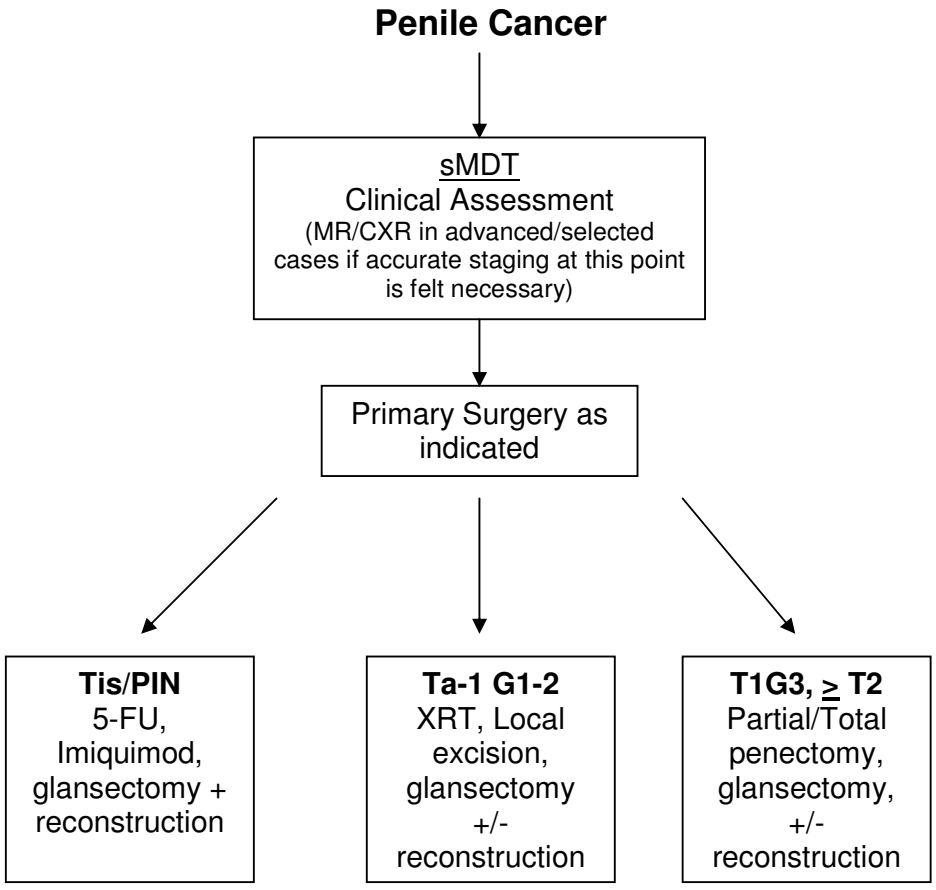
5.2.2 The Supranetwork penile cancer team may arrange more regular meetings (4 - 6 monthly) to facilitate research and audit.

6 TRIALS

6.1 The Supranetwork MDT will maintain a list of approved trials to which each Network agrees to enter patients.

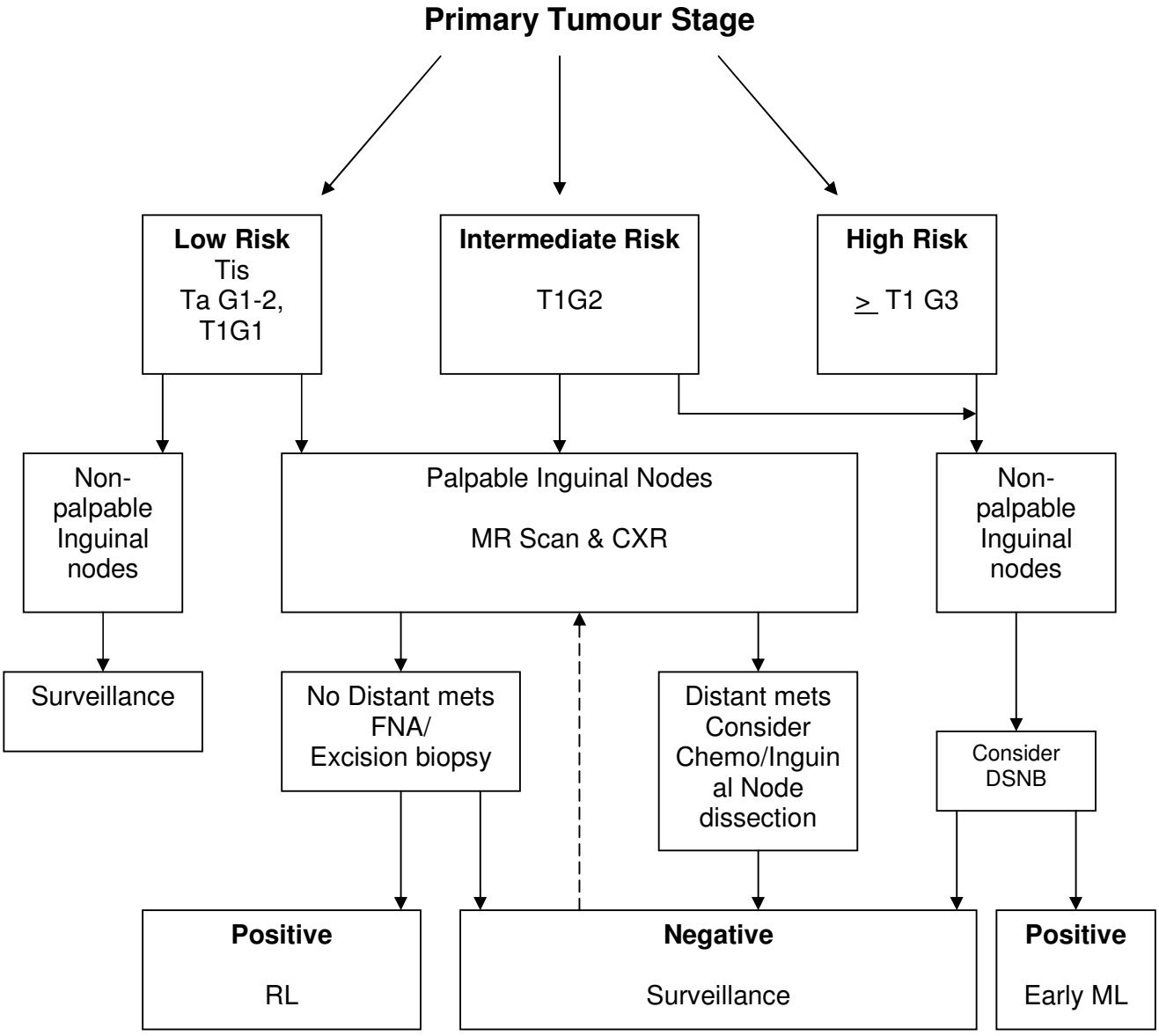
6.2 The Supranetwork MDT will ensure that mechanisms are in place to support entry of eligible patients into clinical trials, subject to patients giving fully informed consent.

Appendix A
Penile Cancer Primary Treatment



Appendix B

Lymph Node Assessment & Treatment



DSNB = Dynamic Sentinel Node Biopsy
FNA = Fine Needle Aspiration
ML = Modified Lymphadenectomy
RL = Radical Lymphadenectomy

Appendix C

Trusts included within MDT	Local MDT Name & Hospital Base of MDT	Specialist MDT Name and Hospital Base	Catchment Population
Pennine Acute Trust ,	**Pennine Acute** Royal Oldham Hosp	**North East Sector Urological Cancer Specialist MDT** **Hospital base to be confirmed**	**744,000**
Central Manchester and Manchester Children's Trust	**Central Manchester and Manchester Children's** Manchester Royal Infirmary		**225,000**
Bolton Hospitals NHS Trust	**Bolton Hospitals** Bolton Hospital	**Salford Urological Cancer Specialist MDT** **Salford Royal Hospital** **Salford NHS Foundation Trust**	**276,000**
Wrightington, Wigan and Leigh NHS Trust	**Wrightington, Wigan and Leigh** Royal Albert Edward Infirmary		**302,000**
Salford Hospitals NHS Trust	**Salford Hospitals** Hope Hospital		**243,000**
South Manchester University Hospital NHS Trust Trafford Healthcare NHS Trust	**South Manchester University Hospital** Wythenshawe Hospital	**South Manchester Urological Cancer Specialist MDT*** **Wythenshawe Hospital** **University Hospitals South Manchester NHS Foundation Trust**	146,000 + 224,000 **Total = 370,000**
Stockport Foundation Trust Tameside & Glossop Trust	**Stockport Foundation Trust -** Stepping Hill Hospital		290,000 + 233,000 **Total = 523,000**
East Cheshire Trust	**East Cheshire** Macclesfield General		**196,000**
Mid Cheshire Trust	**Mid Cheshire** Leighton Hospital		**246,000**

* South Manchester SMDT has operating sites for specialist urological cancer surgery at both South Manchester and Stockport FT.

Local MDT Name & Hospital Base of MDT	Catchment Population	Penile Cancer Specialist MDT	Total Catchment Population
Greater Manchester & Cheshire Cancer Network Local urology MDTs	**3.125m**	Christie Hospitals NHS Trust*	**7,725,000**
Merseyside & Cheshire Cancer Network	**2.3m**		
Lancashire & Cumbria Cancer Network Local MDTs	**1.7m**		
North Wales Local Urology MDTs	**0.6m**		

*Joint, single Supranetwork MDT with Wirral Hospitals NHS Trust. Operating sites at Arrow Park and Christie.

All hospitals within the Penile Cancer Network are listed below:

Organisation	Address
Pennine Acute Hospitals NHS Trust (North East)	Westhulme Avenue Oldham Lancashire OL1 2PN
Pennine Acute Hospitals NHS Trust	As above
Pennine Care NHS Trust	225 Old Street Ashton-under-Lyne OL6 7SR
Pennine Care NHS Trust	As above
Bolton, Salford & Trafford Mental Health NHS Trust	Bury New Road Prestwich Manchester M25 3BL
Bolton, Salford & Trafford Mental Health NHS Trust	As above
Bolton Hospitals NHS Trust	Royal Bolton Hospital Minerva Road Farnworth Bolton BL4 0JR
Bolton Hospitals NHS Trust	As above
Stockport NHS Foundation Trust	Oak House Stepping Hill Hospital Poplar Grove Stockport

	SK2 7JE
Stockport NHS Foundation Trust	As above
North West Ambulance Service NHS Trust	Ambulance Service HQ Ladybridge Hall Chorley New Road Heaton Bolton BL1 5DD
North West Ambulance Service NHS Trust	As above
North West Ambulance Service NHS Trust Cheshire & Mersey Area Office	Elm House Belmont Grove Liverpool L6 4EG
North West Ambulance Service Great Manchester Area Offices	Bury Old Road Whitefield Road Manchester M45 6AQ
Cumbria & Lancashire Area Office	Lancashire Area Office 449 – 451 Garstang Road Broughton Preston Lancs PR3 5LN
Calderstones NHS Trust	Mitton Road Whalley Clitheroe Lancs BB7 9PE
Calderstones NHS Trust	As above
Lancashire Teaching Hospital NHS Foundation Trust	Royal Preston Hospital Sharoe Green Lane Fulwood PRESTON PR2 9HT
Lancashire Teaching Hospital NHS Foundation Trust	As above
Trafford Healthcare NHS Trust	Moorside Road Urmston Manchester M41 5SL
Trafford Healthcare NHS Trust	As above
Wrightington, Wigan & Leigh NHS Trust	The Elms Royal Albert Edward Infirmary Wigan Lane Wigan WN1 2NN
Wrightington, Wigan & Leigh NHS Trust	As above

Salford Royal Hospitals NHS Trust	E2, Hope Hospital Stott Lane Salford M6 8HD
Salford Royal Hospitals NHS Trust	As above
Central Manchester & Manchester Children's University Hospitals NHS Trust	Cobbett House Manchester Royal Infirmary Oxford Road Manchester M13 9WL
Central Manchester & Manchester Children's University Hospitals NHS Trust	As above
Tameside & Glossop Acute Services NHS Trust	1st Floor, Darnton Building, Darnton Road Ashton under Lyne OL6 9RW
Tameside & Glossop Acute Services NHS Trust	As above
University Hospital of South Manchester NHS Foundation Trust	Wythenshawe Hospital Southmoor Road Wythenshawe Manchester M23 9LT
University Hospital of South Manchester NHS Foundation Trust	As above
Manchester Mental Health & Social Care NHS Trust	Chorlton House 70 Manchester Road Chorlton Manchester M21 9UN
Manchester Mental Health & Social Care Trust	As above
Christie Hospital NHS Trust	Wilmslow Road Withington Manchester M20 4BX
Christie Hospital NHS Trust	As above
Royal Liverpool & Broadgreen University Hospital NHS Trust	Prescot Street Liverpool L7 8XP
Royal Liverpool & Broadgreen University Hospital NHS Trust	As above
Aintree University	Aintree House

Hospitals NHS Foundation Trust	Longmoor Lane Liverpool Merseyside L9 7AL
Aintree University Hospitals NHS Foundation Trust	As above
Mersey Care NHS Trust	8 Princes Parade Princes Dock St Nicholas Place Liverpool L3 1DL
Mersey Care NHS Trust	As above
Wirral Hospital NHS Trust	Arrowe Park Arrowe Park Road Upton Wirral CH49 5PE
Wirral Hospital NHS Trust	As above
Cheshire & Wirral Partnership NHS Trust	Trust Board Offices Upton Lea Resource Centre 1st Floor Liverpool Road Chester CH2 1BQ
Cheshire & Wirral Partnership NHS Trust	As above
Countess of Chester NHS Foundation Trust Hospital	Health Park Liverpool Road Chester CH2 1UL
Countess of Chester NHS Foundation Trust Hospital	As above
Clatterbridge Centre for Oncology NHS Trust	Clatterbridge Road Bebington Wirral CH63 4JY
Clatterbridge Centre for Oncology NHS Trust	As above
Walton Centre for Neurology & Neurosurgery NHS Trust	Lower Lane Fazakerley Liverpool L9 7PJ
Walton Centre for Neurology & Neurosurgery NHS Trust	As above
The Cardiothoracic Centre Liverpool NHS Trust	Thomas Drive Liverpool L14 3PE
The Cardiothoracic Centre Liverpool NHS Trust	As above
Royal Liverpool Children's NHS	Alder Hey Hospital Eaton Road

Trust	Liverpool L12 2AP
Royal Liverpool Children's NHS Trust	As above
Southport & Ormskirk Hospital NHS Trust	Southport & Formby District General Hospital Town Lane Kew Southport
Southport & Ormskirk NHS Trust	As above
Blackpool, Fylde & Wyre Hospitals Trust	Blackpool Victoria Hospital Whinney Heys Road Blackpool FY3 8NR
Blackpool, Fylde & Wyre Hospitals Trust	As above
University Hospitals of Morecambe Bay	Westmorland General Hospital Burton Road Kendal LA9 RG
University Hospitals of Morecambe Bay	As above
North Cumbria Acute Hospitals NHS Trust	Cumberland Infirmary Carlisle CA2 7HY
North Cumbria Acute Hospitals NHS Trust	As above
Cumbria Partnership NHS Trust	The Carleton Clinic Cumwhinton Drive Carlisle CA1 3SX
Cumbria Partnership NHS Trust	As above
East Lancashire Hospitals NHS Trust	The Royal Blackburn Hospital Haslingden Road Blackburn Lancashire BB2 3HH
East Lancashire Hospitals NHS Trust	As above
Mid Cheshire Hospitals NHS Trust	Leighton Hospital Middlewich Road Crew CW1 4QJ
Mid Cheshire Hospitals NHS Trust	As above
East Cheshire NHS Trust	Macclesfield District General Hospital Victoria Road Macclesfield SK10 3BL
East Cheshire	As above

NHS Trust	
North Cheshire Hospital Trust	Lovely Lane Warrington Cheshire WA5 1QG
North Cheshire Hospital Trust	As above
St Helens & Knowsley Hospitals NHS Trust	Whiston Hospital Prescot Merseyside L35 5DR
St Helens & Knowsley Hospital Trust	As above
5 Boroughs Partnership NHS Trust	Hollins Park House Hollins Lane Winwick Warrington WA2 8WA
5 Boroughs Partnership NHS Trust	As above
Liverpool Women's NHS Foundation Trust	Crown Street Liverpool L8 7SS
Liverpool Women's Hospital Foundation NHS Trust	As above
Wrexham Maelor Hospital	Croesnewydd Road Wrexham LL13 7TD
Bangor Community Hospital	Castle Street Bangor BT20 4TA
North West Wales NHS Trust	Ysbyty Gwynedd Penrhosgarnedd Bangor Gwynedd LL57 2PW