ULTRASOUND GUIDANCE

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Introduction

Aim of information

This guidance aims to support primary care physicians and ultrasound providers in the appropriate selection of patients for whom ultrasound (US) would be beneficial in terms of diagnosis and or disease management.

If the required imaging is not covered by these guidelines or you have a specific enquiry please contact

Provider	Telephone Number	Email
North Middlesex University Hospital	020 8887 2439 / 3031	northmid.radiology@nhs.net
Royal Free – Hampstead	020 7830 2036	rf-tr.sonographersenquiries@nhs.net
Royal Free – Barnet Chase Farm	020 8216 4199	rf-tr.sonographersenquiries@nhs.net
Whittington Health	07887 833703	whh-tr.ImagingEnquiries-WhittHealth@nhs.net
UCLH	0203 447 3225	uclh.referrals.acuteradiologycoordinator@nhs.net
InHealth	0333 202 0300	PatientCareTeam@inhealthgroup.com

Considerations when referring

Ensure you complete the request form fully and include:

- A minimum of 3 pieces of patient identifiable data and ensure an up to date telephone number
- Patient's mobility and location
- Any known allergies
- Any special considerations such as disability, language spoken, dementia, learning disability etc.
- Examination requested and adequate clinical indicators
- Check patient history to ensure a similar examination has not been undertaken recently or for the same reason
- BMI/weight if above average (if known)

In addition, these guidelines are based on universally accepted principles:

- Imaging requests should include a specific clinical question(s)to answer
- Requests should contain sufficient information from the clinical history, physical examination findings and relevant laboratory investigations to support the suspected diagnosis(es)
- The majority of US examinations are now performed by sonographers not doctors therefore suspected diagnoses should be clearly stated.
- Although US is an excellent imaging modality for a wide range of abdominal diseases, there are many for which US is not an appropriate first line test (e.g. suspected occult malignancy)

- **Primary care clinicians may use clinical judgement and autonomy to request US for patients who do not meet the criteria in the guidance. In such cases, supporting clinical information to justify the request should be included and a clear clinical question posed.**
- **Please contact the radiology departments to discuss any queries or concerns as needed.**
- Consider seeking advice and guidance from appropriate specialty if your referral does not meet the current guidance included in this document and you have ongoing clinical concerns.
- If referral forms are inadequately completed this may result in the form being returned to the referrer.
- Where there is variance between clinical NCL and local pathways NCL is working to align these. In the short term clinicians are asked to use local pathways.

Patient Symptoms

ABDOMINAL

Abnormal/Altered LFTs	Clinicians should clarify relevant clinical history, examination findings or laboratory investigations and pose a clinical question. This will aid radiographers/sonographers to undertake most suitable scan and enhance diagnostics if necessary. An example of a good referral for Abnormal LFTS should provide details of at least one of the following: • Pain • Physical examination findings e.g. Jaundice • Alcohol excess • Hepatitis • NASH **See the NCL Hepatology: Abnormal LFTs Primary Care Protocol** Referrals that only state "abnormal/altered LFTs" may be returned to the clinician for further clarification.
Raised ALT (other LFTs normal)	Patients with high risk factors (DM, obesity, statins, & other medications which affect the liver) may have raised ALT. Consider USS if raised ALT is persistent despite following weight loss and altered lifestyle guidance, and/or change in medication justifies US

	Or if persistently raised ALT without other risk factors. USS is not recommended in patients with a single raised isolated ALT. Clinicians should clarify symptoms or relevant clinical findings and pose a clinical question. Referrals without additional clinical information may be returned for further clarification.
Upper abdominal mass	Patients should be referred to either of the following urgent pathways: • **Urgent Direct Access Imaging Pathway, see referral form** *In local EMIS global document library systems Urgent Direct Access Imaging Request Form (adult and paed) – Suspected Cancer – NCL FORM.* • **2WW Upper GI pathway, see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: 'Upper GI Suspected Cancer'.*

Abdo Pain (Excluding referrals for suspected Gallstones/GB disease or suspected pancreatic disease)	Consider USS to investigate generalised or localised pain if associated with other relevant clinical findings in the history, physical examination or laboratory investigations. A clinical question should be posed. Referrals without additional information will be returned for further clarification. If malignancy is suspected then referral via relevant 2WW pathway or Urgent Direct Access Imaging • **2WW Lower GI Referral Pathway, see referral form** • **2WW Upper GI Referral Pathway, see referral form** • **Urgent Direct Access Imaging Pathway, see referral form** If malignancy is not suspected, US may not be the best imaging modality. Consider other causes, investigations, or seeking advice from gastrointestinal/colorectal team.
Abdominal Bloating/ Abdominal distension (for pelvic/gynae symptoms see Gynaecology section)	Persistent bloating / distension in patients should be correlated clinical history, examination findings and laboratory investigations. Clinicians should pose a clinical question if US is requested. US is not the investigation of choice for IBS **See the NCL IBS Primary Care Pathway** Suspected ovarian cancer – Please see section *GYNAECOLOGY - For non-pregnant patients* on page 9. Referrals without additional information will be returned for further clarification.
	Ascites If malignancy/cancer is suspected, patients should be referred to appropriate 2WW pathway.
	Non Malignant Ascites. Usually due to liver or heart failure. Likely cause should be indicated on request e.g. Liver, Cardiac

Altered bowel habit/ Suspected IBS or Diverticular disease	US does not have a role in the management of IBS or diverticular disease. **See the NCL IBS Primary Care Pathway** If malignancy is suspected then referral via the 2WW Lower GI Pathway is required. • **2WW Lower GI Referral Pathway, see referral form** If malignancy is not suspected, US may not be the best imaging modality. Consider other causes, investigations, or seeking advice from gastrointestinal/colorectal team.
Diabetes - known	US does not have a role in the management of well controlled diabetes. Up to 70% of patients with DM have a fatty liver with raised ALT. If concerns, consider seeking advice from hepatology/endocrinology.
Suspected Pancreatic Cancer • Presenting symptoms of any of the following: ➢ with weight loss & Diarrhoea or constipation ➢ Nausea or vomiting ➢ Back pain Or New onset Diabetes or unexplained worsening controls	Patients should be referred to either of the following urgent pathways, unless clinically unwell, in which case they require immediate admission: • **2WW Upper GI Referral Pathway, see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: 'Upper GI Suspected Cancer* • **Rapid Diagnostic Centre Pathway, see referral form** *https://gps.northcentrallondonccg.nhs.uk/service/rapid-diagnostic-centres* *Local EMIS global document library systems in the 2WW Pan London Referral Forms folder > Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form* For Camden, please find the form on the **EMIS Forms** page

Jaundice	New, unexplained jaundice in an acutely unwell patient should be discussed with the acute medical team for consideration for immediate admission. Patients with painless jaundice should be referred to either of the following urgent pathways: • **2WW Upper GI Referral Pathway see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: 'Upper GI Suspected Cancer'* • **Rapid Diagnostic Centre Pathway, see referral form** *https://gps.northcentrallondonccg.nhs.uk/service/rapid-diagnostic-centres* *Local EMIS global document library systems in the 2WW Pan London Referral Forms folder > Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form* For Camden, please find the form on the **EMIS Forms** page.
Gallbladder polyp	**See the NCL Gastroenterology Gallbladder Polyp Pathway**
Suspected gallbladder disease	Consider US to identify gallbladder disease in patients presenting with pain plus a consistent history and/or dyspepsia.
Lymphadenopathy	Small nodes in the groin, neck or axilla are commonly palpable. Patients with clinically benign groin, axillary or neck lymphadenopathy may not benefit from US. However, if persistent and the clinician is concerned after examination then consider US, ensuring to include adequate clinical information and pose a clinical question. If new and a source of sepsis is evident, ultrasound is not required and patient should be managed with antimicrobials in primary or secondary care. If malignancy is suspected US, refer via appropriate urgent 2WW pathway. Signs of malignancy include: increasing size, fixed mass, rubbery consistency, refer via appropriate urgent pathway e.g. axillary lymph node via 2WW breast pathway.

GYNAECOLOGY - For non-pregnant patients	
Abnormal PV Bleeding (Pre and peri-menopausal patients)	Clinicians should clarify relevant clinical history, examination findings or laboratory investigations and pose a clinical question.
Prolonged i.e. > 6 months of unexplained amenorrhea	Consider US to assess endometrial thickness.
IUCD / Mirena Coil	US can be requested to assess presence of fibroids if placement of Mirena coil is considered or to investigate presence of IUCD when threads not seen.
PID	Routine US is not recommended in the management of suspected pelvic inflammatory disease. Patients should be discussed and/or referred to gynaecology.
Pelvic Pain	Clinicians should clarify relevant history, examination findings and laboratory investigations and pose a clinical question. This will aid radiographers/sonographers to undertake the most suitable scan and enhance diagnostics if necessary. E.g. Pelvic Pain and Palpable mass/Raised CRP or WCC/Nausea or Vomiting/ Menstrual Irregularities/Dyspareunia > 6 weeks duration 'Sudden' pelvic pain or '? Appendicitis' requires Emergency Department attention.
Bloating (See also Abdominal Bloating above)	Consider USS in patients presenting with persistent or frequent abdominal bloating, especially in women over 50. Clinicians should clarify relevant history, examination findings and laboratory investigations and pose a clinical question.
	Persistent abdominal distention or bloating *with the addition* of other symptoms such as palpable mass and / or raised Ca 125 requires referral via urgent pathway. • **2WW Gynaecology pathway; see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: Gynaecology Suspected Cancer'*
	Ascites – if malignancy suspected patients should be referred via appropriate 2WW pathway.
Follow-up of benign lesions e.g. fibroids, dermoid cyst, simple cyst	Follow-up scans or surveillance of benign lesions, such as fibroids, are not recommended, unless on advice of secondary care and in-patient management plan. If concerns, consider gynaecology advice.

	Consider USS if the If the patient has undergone a clinical change and include relevant clinic information in the referral.
Postmenopausal Bleeding (Women with postmenopausal bleeding must have gynaecology history review and vulva-vagina examination.)	If the vulva-vagina examination is normal, the woman should be referred via urgent 2ww gynaecology pathway. • For patients in Barnet under the age of 50 years with PMB please refer to the Community Gynaecology Service's Direct Access Hysteroscopy service (Barnet patients only). • **See 2WW Gynaecology pathway; see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: Gynaecology Suspected Cancer'*
PCOS	**See the NCL PCOS pathway** Clinicians should clarify relevant history, examination findings and laboratory investigations and pose a clinical question.
	Other referral criteria which women should fulfil to enable US first are: No relevant previous surgery i.e. no history of hysterectomy (previous surgery and PV loss requires gynaecology assessment prior to scan) No ring pessary present – (if present remove or refer to gynaecology first. USS is not compatible)

HEAD AND NECK	
Neck Lump	If lesion is clinically suggestive of sebaceous or epidermoid cyst, US is not routinely required for diagnosis. Clinical diagnosis is sufficient. If requiring surgical treatment, EBICS approval must be confirmed prior to referral for scan or secondary care.
	If lesion is thought to be malignant, urgent 2WW referral to appropriate specialty is required. If clinicians have concerns that may not meet the criteria for 2WW pathway referral, US can be considered. Clinicians should clarify relevant history, examination findings and laboratory investigations and pose a clinical question.
Thyroid Nodule	Routine follow up imaging of established U2 thyroid nodules/thyroid cysts/goitre with US is not recommended as per British Thyroid Association Guidelines 2014.
	Consider US where there is doubt as to the origin of a cervical mass i.e. is it thyroid in origin or if there is a sudden increase in size of an established thyroid nodule/goitre. Details of change should be given.
	If malignancy is suspected, e.g. new unexplained thyroid lump, refer via urgent 2WW head and neck pathway. • **See 2WW Head & Neck pathway; see referral form** Routine ultrasound of incidental thyroid nodules found on CT/MRI not required, as per British Thyroid Association Guidelines 2014, unless there is a strong family history of thyroid cancer or strong clinical concerns. Clinical features that increase the likelihood of malignancy include: history of irradiation, male sex, age (<20,>70), fixed mass, hard/firm consistency, cervical nodes, change in voice, family history of MEN II or medullary thyroid cancer or papillary/ follicular carcinoma (more than one first degree family member.
Thyroid Function	US is not recommended for the ascertainment of thyroid function (hyper/hypothyroid), consider endocrinology advice.
Globus	US is not recommended to investigate globus sensation, local discomfort or ‘sense of pressure’ in the absence of palpable thyroid fullness, consider ENT advice.

Salivary mass	Consider USS to investigate salivary masses. Clinicians should include relevant clinical history, such as if there is a history suggestive of salivary duct obstruction, and physical examination findings. If salivary tumour is suspected, refer via urgent 2WW pathway. Most parotid tumours will be benign however US guided FNA or core biopsy is recommended when a mass is detected to exclude malignancy. • **See 2WW Head & Neck pathway; see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: Head & Neck Suspected Cancer*

RENAL TRACT	
Urinary tract Infection	Consider USS in the following: Recurrent (> = 3 episodes in 12 months) with no underlying risk factors Non-responders to antibiotics Frequent re-infections H/O stone or obstruction • **See relevant NCL Urology pathways** https://gps.northcentrallondonccg.nhs.uk/topic/urology https://gps.northcentrallondonccg.nhs.uk/pathways/urology-pathways
Hypertension	Routine US imaging is not indicated. RAS (renal artery screening) is no longer offered. Consider cardiology/renal advice.
Visible Haematuria	Exclude UTI first and consider referral via routine urology pathway or 2WW Urology pathway/Urgent Direct Access Imaging pathway as appropriate. https://gps.northcentrallondonccg.nhs.uk/topic/urology https://gps.northcentrallondonccg.nhs.uk/pathways/urology-pathways • **2WW Suspected Urological Cancer Pathway, see referral form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: Urology Suspected Cancer'* • **Urgent Direct Access Imaging Pathway, see referral form** *In local EMIS global document library systems Urgent Direct Access Imaging Request Form (adult and paed) - Suspected Cancer - NCL FORM*
Renal Colic	Refer to NCL Renal Colic Primary Care Protocol
SCROTAL SYMPTOMS	

Scrotal mass	Any patient with a swelling or mass in the body of the testis should be referred via urgent 2WW pathway. • **Urgent Direct Access Imaging Pathway, see referral form** *In local EMIS global document library systems Urgent Direct Access Imaging Request Form (adult and paed) - Suspected Cancer - NCL FORM* • **See 2WW Urology pathway; see Urology Form** *In local EMIS global document library systems, search the 2WW Cancer Referral Forms folder using the keyword format: Urology Suspected Cancer'*
Scrotal Pain (in the absence of mass)	**Chronic**: USS is not recommended for patients with chronic (>4 months) pain and a normal scrotal examination**.** If no other symptoms, examination findings or abnormal laboratory investigations consider routine Urology Pathway Referral. Please include examination findings in the referral
	Acute: Suspected torsion requires emergency urological referral US is not recommend for infective causes of scrotal e.g. epididymo-orchitis. Treat with appropriate antimicrobials. **See the NCL Scrotal Problems Pathway**
Hernia	If characteristic history & examination findings, e.g. reducible palpable lump or cough impulse, then US not routinely required. Clinicians are advised to general surgery. US in primary care can lead to misdiagnosis and confusion and is not advised by British Hernia society / ASGBI Guideline 2013. Irreducible and/or tender lumps suggest incarceration and require urgent surgical referral. If groin pain is present, clinical assessment should consider MSK causes and appropriate referral. If hernia is suspected but not confirmed by clinical history and/or examination, US can be considered. Relevant clinical information should be provided and a clinical question posed.

SOFT TISSUE LUMP	
Soft Tissue Lump	The majority of soft tissue lumps are benign. If there are classical clinical signs of a benign lump with a corresponding clinical history and examination e.g. no recent increase in size or change in its clinical features, then US is not routinely required for diagnosis. Clinical diagnosis is sufficient. If symptoms are suggestive of malignancy e.g. Unexplained lump that is growing in size, refer via urgent 2WW pathway. • **See 2WW Sarcoma pathway; see referral form** For Camden, please find the form on the **EMIS Forms** page. If clinicians have concerns about a soft tissue lump that does not meet 2WW referral pathway criteria or if examination findings are equivocal and diagnosis is essential to management e.g. excision is planned, US can be considered. Clinicians should clarify relevant history, examination findings and laboratory investigations and pose a clinical question.
	Lipomata and ganglia that are typically less than 5cm, mobile, non-tender with no significant growth over 3 months do not need US for diagnosis. Larger lipomata that are planned for excision usually require routine US for confirmation/surgical planning.
	In cases of classical features of: Dupytren's Plantar fibromatosis Mobile nodules at the SI joint level Generalized lipomatosis at the nape of the neck Calf muscle hernias US is not routinely recommended for diagnosis. Please seek advice and guidance from appropriate specialty if clinicians have ongoing concerns.

WEIGHT LOSS	
Gradual unexplained weight loss	Consider urgent referral to Rapid Diagnostic Centre • **Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form** https://gps.northcentrallondonccg.nhs.uk/service/rapid-diagnostic-centres *Local EMIS global document library systems in the 2WW Pan London Referral Forms folder > Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form* For Camden, please find the form on the **EMIS Forms** page.
Weight loss and anaemia	Consider urgent referral to Rapid Diagnostic Centre • **Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form** https://gps.northcentrallondonccg.nhs.uk/service/rapid-diagnostic-centres *Local EMIS global document library systems in the 2WW Pan London Referral Forms folder > Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form* For Camden, please find the form on the **EMIS Forms** page.
Weight loss and chronic reflux	Consider urgent referral to Rapid Diagnostic Centre • **Rapid Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form** https://gps.northcentrallondonccg.nhs.uk/service/rapid-diagnostic-centres *Local EMIS global document library systems in the 2WW Pan London Referral Forms folder >* Rapid *Diagnostic Centre (RDC) for Non-Specific Symptoms Suspected Cancer Referral Form* For Camden, please find the form on the **EMIS Forms** page.