Maternity
Clinical Network
North East and North Cumbria

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Referral of patients to North East and North Cumbria Maternal Medicine Centre

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Referral of Patients to Maternal Medicine Centre

Introduction

Maternal morbidity and mortality is increased by diseases that pre-date pregnancy, and by complications that arise during pregnancy. Pregnancy induces significant changes in all aspects of physiology and optimal outcomes are achieved where care for medically complex pregnant women is guided by consultants with specific pregnancy expertise, with input from relevant physicians. As many of these conditions are uncommon, advice - and for some women, care - should be provided in a small number of designated specialist centres in order to concentrate expertise and improve outcomes.

NHSE have proposed that Networked Maternal Medicine Services (NMMS) will be mapped onto LMS regional footprints. Each Network has a Maternal Medicine Centre (MMC), which will provide advice and care for the most complex/highest risk women, along with system wide leadership and education. The Northern Regional MMC will be hosted by Newcastle University Trust Hospitals (NUTH).

Aim

Women with chronic medical conditions should receive personalised pre-pregnancy, antenatal, intrapartum and postnatal care as described in the NHS Long Term Plan. Women with rare or complex medical problems will be discussed at the regular Network MDT.

Women who book as low risk may develop an acute medical problem and present to primary care, emergency department, acute medicine, community midwifery, gynaecology or obstetric services. This document describes the mechanism for arranging timely referral to MMC when these women need specialist care or their clinical teams need advice.

Objectives

To describe referral criteria and pathways for referral to the NUTH Maternal Medicine Centre for:

- Women with rare or complex medical problems (referred to the Network MDT) to develop an individualised care plan
- Women who present to local clinical services with acute medical problems who require urgent input from the specialist maternal medicine teams at NUTH MMC.

Scope

This document applies to all pregnant women and staff involved in their care within the Northern East and North Cumbria Integrated Care System footprint.

Referral to MDT

The NUTH MDT will meet virtually with each satellite maternity unit on a monthly basis. Meetings will be attended by at least 2 MMC team members (maternal medicine obstetrician, maternal medicine physician, maternal medicine network midwife) and the maternal medicine lead from the local unit (or their nominated representative).

All women who meet the criteria for High (Category C) or Intermediate (Category B) risk (Appendix 1) should be referred to the MDT when pregnancy is confirmed. Units using Badgernet electronic Maternity record can refer using the 'Referral' facility within the software platform. All women that are referred should have a named consultant with their local maternity team.

Units not yet using Badgernet should complete the electronic referral form (Appendix 2) and send it to nuth.matmedteam@nhs.net. The electronic form can also be used for women requiring pre-pregnancy advice (and therefore not on Badgernet)

The referral will be processed within 2 working days. Where the electronic referral form is used, the referring clinician will be informed of the outcome by email. The woman will usually be added to the following months MDT list.

It is recognised that the list of medical conditions in Appendix 1 is not exhaustive and also that the available expertise in local units for less complex cases will vary over time due to staff changes and availability. Women can be referred to the MDT by an obstetrician or physician from a satellite unit wherever the local team feel that MDT discussion would be helpful.

Request for review in MMC specialist clinic

NUTH MMC hosts co-located obstetric-physician clinics in the following specialist areas:

- Diabetes and endocrine
- Neurology (including epilepsy)
- Haematology
- Cardiac
- Renal
- Connective tissue disorders
- Gastroenterology
- General Maternal Medicine

Women can be referred to these clinics by their local obstetric or physician team for advice in pregnancy or for pre-pregnancy counselling. The referring clinician will complete the maternal medicine referral form in Badgernet or, if not available, the electronic form (Appendix 2) and send it to nuth.matmedteam@nhs.net

Request for urgent advice

At present, out of hours and emergency advice should continue to be directed to the NUTH Consultant Obstetrician on call (via switchboard) who will direct the query to the appropriate team member.

Women with maternal medicine conditions where critical care input is being considered should be referred for regional MDT through the Acute Care Pathway (separate guideline)

Equality and Diversity

The NENC MMN is committed to providing pregnancy care for women with complex medical needs reflective of the needs of women from all communities especially those impacted by health inequalities. Network reporting will reflect the inequalities known to exist within our population. We will work with service users from these groups to co-produce service development.

Appendix A

Category A: Local expertise	Category B: Review, advice and guidance from maternal medicine centre	Category C: Care led by maternal medicine centre
Heart disease		
Mild pulmonary stenosis	Mild reduced left ventricular ejection fraction (>45%)	Pulmonary hypertension
Small/repaired patent ductus arteriosus	Hypertrophic cardiomyopathy with no high-risk features	Left ventricular ejection fraction <45%
Mitral valve prolapse	Repaired aortic coarctation	Severe aortic stenosis
Repaired atrial septal defect	Mild mitral stenosis	Systemic right ventricle
Repaired ventricular septal defect	Mild-moderate aortic stenosis	Fontan
Isolated atrial or ventricular ectopic beats	Other valve lesions not listed in A or C	Previous peripartum cardiomyopathy
Postural tachycardia syndrome (PoTS)	Atrioventricular septal defect	Ventricular arrhythmia
	Repaired tetralogy of Fallot	Mechanical valve
	Supraventricular arrhythmias	Moderate-severe mitral stenosis
	Turner syndrome without aortic dilatation	Aortic dilatation
	Treated ischaemic heart disease	Heart transplant
	Myocarditis	New ischaemic heart disease
Lung disease		
Uncomplicated Asthma	Complicated asthma: • Repeated presentations of asthma (≥3) in pregnancy • Asthma receiving biologics • Long-term corticosteroids	Sickle chest crisis (see Haematology pathway)
Pneumonia	Restrictive lung disease (eg ILD, kyphoscoliosis) with FVC >50%	Restrictive lung disease (eg ILD, kyphoscoliosis) with FVC <50%
TB	Any respiratory condition receiving immunotherapy / biologics	Neuromuscular disorders with respiratory muscle involvement eg myasthenia gravis, Guillain-Barré syndrome
Chronic Obstructive Airways Disease	Bronchiectasis	Cystic fibrosis

Category A: Local expertise	Category B: Review, advice and guidance from maternal medicine centre	Category C: Care led by maternal medicine centre
Pneumothorax	New diagnosis of obstructive sleep apnoea/obesity hypoventilation in pregnancy	Lung transplant
Sarcoidosis without restrictive lung disease, no renal involvement	COVID pneumonitis	Pulmonary vasculitis
Managed obstructive sleep apnoea/obesity hypoventilation	Lung cancer	
Pulmonary embolus (see Haematology pathway)		
Gastrointestinal and liver disease		
Hyperemesis gravidarum	Complex inflammatory bowel disease: • Active disease despite treatment • Biologics • Corticosteroids • Peri-anal disease • Pouch/stoma	Portal hypertension
Constipation	Acute and chronic pancreatitis	Complex pancreatitis • Not responding to treatment • Recurrent disease • Hypertriglyceridaemia • IR/surgical intervention
Gallstones	Treated GI malignancy	Active malignancy
Gastro-oesophageal reflux disease	Unexplained jaundice	Cirrhosis
Coeliac disease	Acute fatty liver of pregnancy	Decompensated liver disease/liver failure*
Viral hepatitis	Achalasia	Liver transplant
Intrahepatic cholestasis (bile acids <100)	Intrahepatic cholestasis (bile acids ≥100)	
Uncomplicated inflammatory bowel disease in remission	Liver infarction/haematoma	
Cholecystitis	Autoimmune hepatitis	
Viral hepatitis	Wilson's disease	
HELLP	Crigler Najjar syndrome	
	Primary biliary cirrhosis	
	Primary sclerosing cholangitis	

Category A: Local expertise	Category B: Review, advice and guidance from maternal medicine centre	Category C: Care led by maternal medicine centre
Diabetes and endocrine disease		
Gestational diabetes mellitus	Type I and II diabetes mellitus with: • Nephropathy (see kidney pathway) • Cardiovascular disease (see heart pathway)	Primary and secondary hyperaldosteronism
Type I and II diabetes mellitus including diabetic retinopathy	Monogenic diabetes	Phaeochromocytoma or paraganglioma
Hypothyroidism	Thyroid hormone resistance	Cushing's syndrome
Hyperthyroidism and gestational hyperthyroidism	Thyroid cancer	Acromegaly
Thyroid nodules	Macroprolactinoma	Metabolic disorders such as Glycogen storage disorder
Microprolactinoma	Pituitary disease on hormone replacement therapy	Hyperparathyroidsm
PCOS	Congenital adrenal hyperplasia	Hypoparathyroidism
Vitamin D deficiency	Dumping syndrome post bariatric surgery	
	Addison's disease	
Kidney disease		
Single kidney	Lupus nephritis in remission or on treatment	Active lupus nephritis
Non-lupus glomerulonephritis/ tubulointerstitial nephritis: • No immunosuppression AND • Stable pre-pregnancy CKD stage 1-2 AND • uPCR <100 or uACR <30 AND • BP <140/90	Non-lupus glomerulonephritis/ tubulointerstitial nephritis: • On immunosuppression OR • Pre-pregnancy CKD stage 3 OR • uPCR ≥100 or uACR ≥ 30 OR • BP >140/90	Pre-pregnancy CKD stages 4 and 5
Kidney stones	Kidney transplant	Combined kidney-pancreas transplant
Recurrent UTI (no immunosuppression)	Recurrent UTI on immunosuppression	Dialysis
Reflux nephropathy with normal kidney function	Reflux nephropathy with abnormal kidney function	New renal vasculitis in pregnancy and vasculitis on immunosuppression
Autosomal dominant polycystic kidney disease with normal kidney function.	Autosomal dominant polycystic kidney disease with abnormal kidney function	Scleroderma renal crisis
AKI responding to treatment	AKI not responding to treatment or not resolving post-partum	

Category A: Local expertise	Category B: Review, advice and guidance from maternal medicine centre	Category C: Care led by maternal medicine centre
AKI due to pre-eclampsia resolved post-partum	Previous renal vasculitis in remission, no longer on treatment	
	Previous urinary tract reconstructive surgery	
	Kidney disease requiring biologic treatment	
	Progressive kidney disease in pregnancy	
	Kidney disease on biologic treatment	
Rheumatological disease		
Uncomplicated[5] rheumatoid arthritis	Rheumatological disease requiring biologic therapy	Active lupus nephritis (see Kidney Pathway)
Uncomplicated[6] seronegative arthritis: • Ankylosing spondylitis • Psoriatic arthritis • Reactive arthritis • IBD related arthritis	Rheumatological not controlled on current treatment	Large and medium vessel vasculitis
Uncomplicated[7] connective tissue disease: • Lupus • Scleroderma (restricted disease) • Sjogren's	Rheumatological disease with restrictive lung disease and FVC >50% (see	Rheumatological disease with restrictive lung disease and FVC ≤50%
Osteoarthritis	Rheumatological disease with kidney involvement (see Kidney Pathway)	New small vessel vasculitis or small vessel vasculitis on immunosuppression
Obstetric antiphospholipid syndrome (see Haematology Pathway)	Thrombotic antiphospholipid syndrome (see Haematology Pathway)	Vascular Ehlers Danlos
Hypermobile Ehlers Danlos (type III)	Other Ehlers Danlos syndromes	Scleroderma renal crisis
	Diffuse scleroderma	Antisynthetase syndrome
	Small vessel vasculitis in remission, no longer on treatment	
	Polymyositis-dermatomyositis	
	Behcet's syndrome	

[5] Uncomplicated disease requires all of: no lung/kidney/heart/CNS/thrombotic/muscle involvement; controlled on current treatment; no current biological treatments.
[6] See 5.
[7] See 5

Category A: Local expertise	Category B: Review, advice and guidance from maternal medicine centre	Category C: Care led by maternal medicine centre
Neurological disease		
Epilepsy managed in a combined clinic including specialist neurology and obstetrics	Cluster headache	All epilepsy without local access to a combined clinic including specialist neurology and obstetrics.
Migraine	Idiopathic intracranial hypertension	Symptomatic raised intracranial pressure
Stable, small cerebrovascular malformation, reviewed within 2 years of conception, plan for mode of delivery	CVM, not reviewed within 2 years of conception	Unstable CVM/AVM/cavernoma Intracerebral bleed within 2 years
Previous brain tumour	Current brain tumour	Progressive brain tumour
Previous cerebral vein thrombosis (CVT)	New cerebral vein thrombosis (CVT)	Acute stroke*
Meningitis	Previous Guillain Barre Syndrome	New-onset Guillain-Barre syndrome
Previous encephalitis	Treated, stable myasthenia gravis	New diagnosis or flare of myasthenia gravis
Stable multiple sclerosis managed without disease modifying drugs	Unstable multiple sclerosis or disease modifying drugs	Myotonic dystrophy
Mononeuropathy eg: Bell's palsy carpal tunnel, peroneal nerve compression	Progressive or persistent mononeuropathy	
Post-dural puncture headache	New encephalitis	
	Reversible Cerebral Vasoconstriction Syndrome (RCVS)	
	Posterior Reversible Encephalopathy Syndrome (PRES)	
	Spinal cord injury	
	Neurofibromatosis	
	Neuromuscular dystrophy	
	Spinal muscular atrophy	
	Motor neurone disease	

Appendix 2: Referral form for MDT or MMC specialist clinic review (including prepregnancy)

Request for Maternal Medicine Referral (units not on Badgernet)

Antenatal Clinic, Level 4, Leazes Wing, RVI Telephone: 0191 2825846

Please email to nuth.matmedteam@nhs.net

Maternal Details	
Forename:	
Surname:	
Address:	
Contact phone number:	
NHS number:	
DOB:	
Gestation:	
EDD:	

Details of the referral	
Date of referral:	
Name of consultant making referral:	
Contact number of referring consultant	
Contact email of referring consultant:	
Referring hospital:	

Referral for clinic appointment	
Referral for discussion at network MDT	

Clinical issue: