NHS London Clinical Networks

North East London Local Maternity System

Networked Maternal Medicine Services in North-East London

This document offers guidance in the management of women with underlying medical conditions in pregnancy. Depending on the complexity of the condition the relative contribution of the maternal medicine hub and local maternity centres may change.

Medical conditions categories

Pan-London pathways

Heart disease

Lung disease

Gastrointestinal and liver disease

Diabetes and endocrine disease

Kidney disease

Rheumatological disease

Neurological disease

Haematological disease

Skin disease

Appendices

London Maternity Clinical Network
July 2021

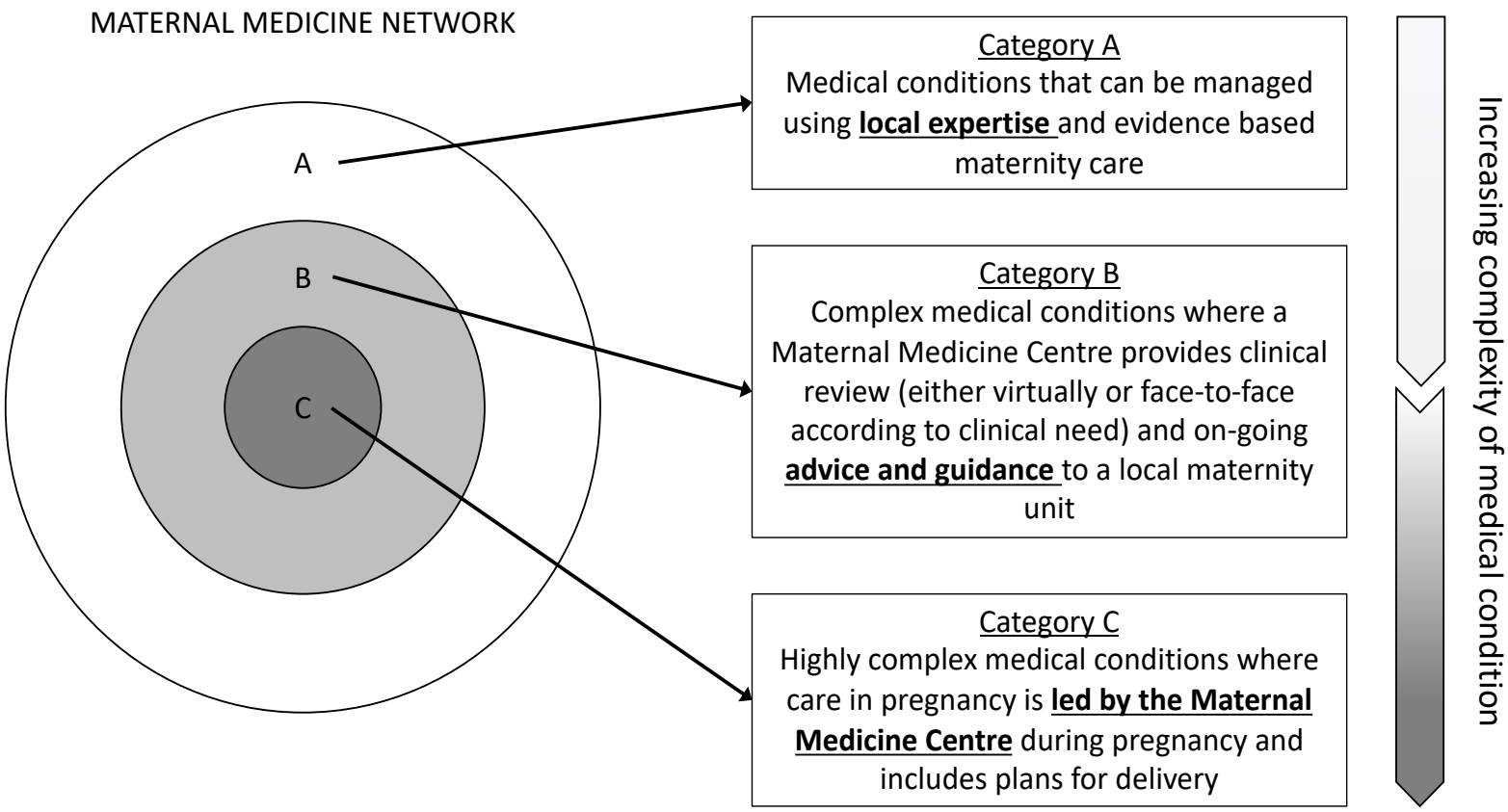
Medical conditions categories

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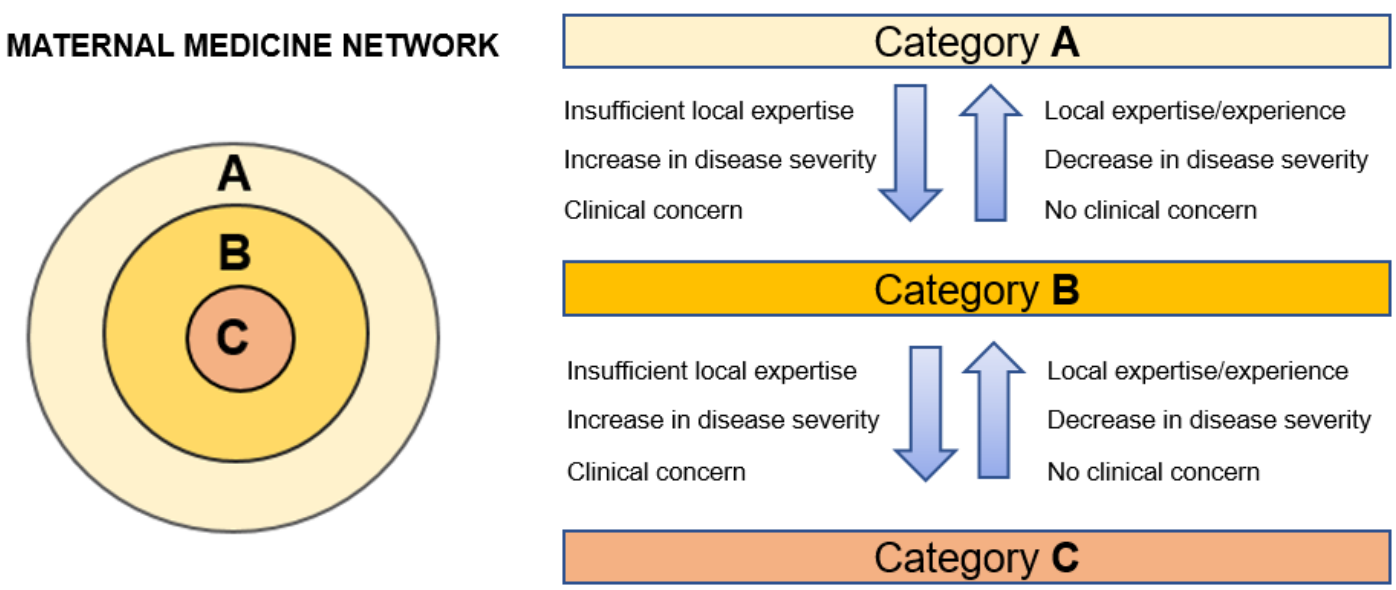
The maternal medicine network is made up of:

- Maternal medicine centres (hub)
- Local maternity centres (spoke)

Medical conditions are classified as category A, B or C, depending on complexity:



These categories are a guide only. They can be modified according to local expertise and experience. Where local expertise is sufficient, a condition may move from category C to B, or B to A. An example would be epilepsy, where there may be a local joint obstetric epilepsy clinic including a neurologist with expertise in epilepsy in pregnancy, in which case care could remain at a local centre. Where local expertise is insufficient, when a condition progresses or increases in severity during pregnancy, or when there is clinical concern, a condition should move from category A to B, or B to C:



Pan-London Pathways

The medical conditions on this page are commissioned services that may not align with maternal medicine networks. Each maternal medicine network will need to agree the provision of these services for pregnancy as care may be affected by the availability of co-located maternity and neonatal services. Each network should provide a list of the centre(s) offering specialist management for the above conditions including information and contact details for co-located maternity services. Whenever possible, pregnant or postpartum women presenting with these conditions should have access to the same specialist medical care as non-pregnant patients, with a plan made for safe obstetric and neonatal management.

ST-Elevation Myocardial Infarction

Primary percutaneous coronary intervention (PCI) centres reduce morbidity and mortality from myocardial infarction. Each network should provide a list of the primary PCI centres both within and geographically close to their network including information and contact details for co-located maternity services. If the nearest primary PCI centre is not co-located with obstetric care, a plan for timely and appropriate management of myocardial ischaemia with appropriate provision of maternity care is required.

Pulmonary Hypertension

Pulmonary hypertension is an extremely high-risk condition in pregnancy. Treatment often involves multi agent targeted therapies that require prescription and oversight by a nationally commissioned PH centre.
Pregnant women with PH should be referred to and managed by one of the centres below, all of which have co-located maternity units and Level 3 neonatal services:

- Imperial (non-CHD related PH), contact Rachel Davies
- Guy's and St. Thomas' and Royal Brompton Hospitals, St. Thomas' site (CHD and non-CHD related), contact Hannah Douglas or Laura Price
- St Georges (if already under their care), contact Brendan Maddon.

Acute Stroke

Hyperacute stroke units (HASUs) were commissioned to improve the care for patients with acute stroke. They are able to thrombolyse and use clot retrieval for patients with acute ischaemic strokes. Each network should provide a list of the HASUs both within and geographically close to their network including information and contact details for co-located maternity services. If the nearest primary HASU is not co-located with obstetric care, a plan for timely and appropriate management of acute stroke with appropriate provision of maternity care is required.

Neurosurgery

Neurosurgical centres are able to offer intervention for haemorrhagic stroke and other causes of cerebral haemorrhage presenting in pregnancy. The neurosurgical units in London are :-

- Charing Cross (no co-located obstetric unit)
- Royal Free Hospital (co-located obstetric unit, Level 1 neonatal care)
- Royal London (co-located obstetric unit, Level 3 neonatal care) or
- Queen's Hospital, Romford (co-located obstetric unit, Level 2 neonatal care)
- King's College Hospital co-located obstetric unit, (co-located obstetric unit, Level 3 neonatal care)
- St Georges (co-located obstetric unit, Level 3 neonatal care)

Acute Liver Failure

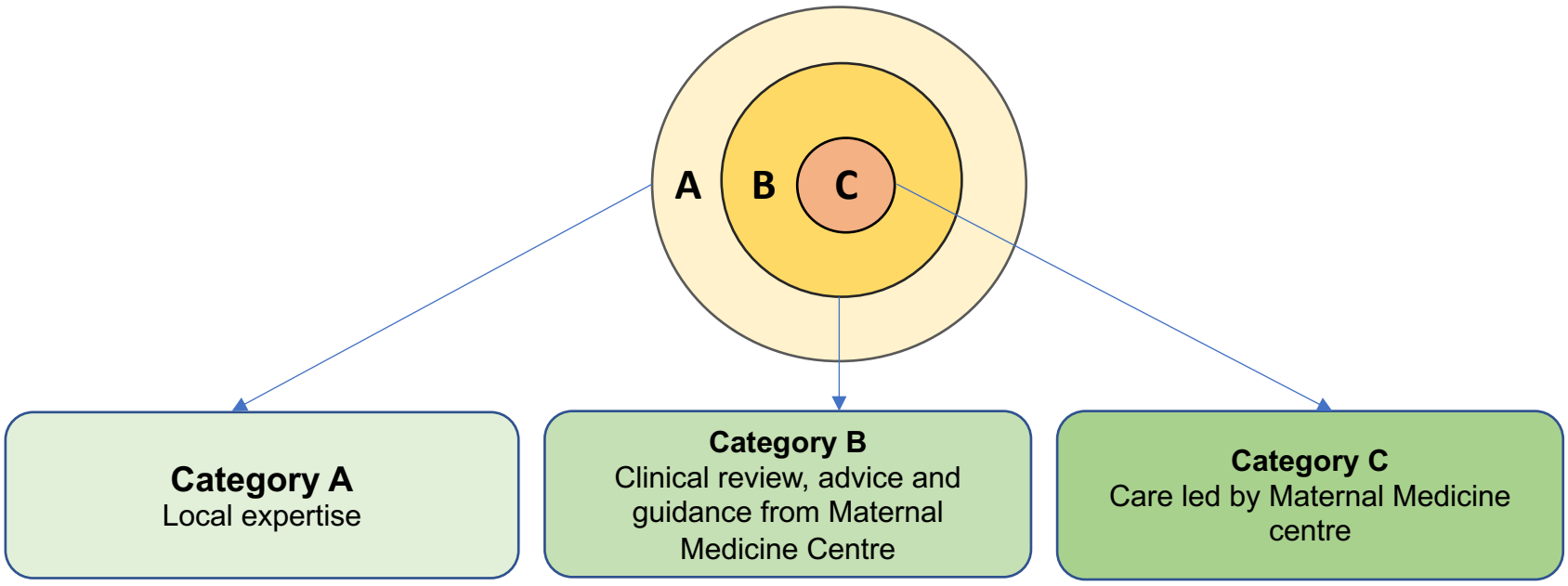
Women with liver failure in pregnancy/post-partum can be referred to:

- Royal Free Hospital (co-located obstetric unit, Level 1 neonatal care)
- King's College Hospital (co-located obstetric unit, Level 3 neonatal care)

East London Maternal Medicine Network

MATERNAL MEDICINE HUB: ROYAL LONODON		
ANAESTHETIST	Parvesh Verma	parvesh.verma3@nhs.net
FETAL MEDICINE	Elena Greco	elena.greco@nhs.net
MIDWIFE	Haley Martin Nafiza Anwar Rochelle Love	hayley.martin2@nhs.net nafiza.anwar@nhs.net rochelle.love1@nhs.net
PHYSICIAN	Kate Wiles	kate.wiles@nhs.net
OBSTETRICIAN	Rehan Khan	rehan.khan1@nhs.net
HOMERTON		
ANAESTHETIST	Tabitha Tanqueray	tabitha.tanqueray@nhs.net
FETAL MEDICINE	Yinka Akinfenwa	yinka.akinfenwa@nhs.net
MIDWIFE	Asma Subba	asma.subba@nhs.net
PHYSICIAN	Kate Wiles	kate.wiles@nhs.net
OBSTETRICIAN	Maryam Parisaei Kate Mayers	maryam.parisaei@nhs.net kate.mayers1@nhs.net
NEWHAM		
ANAESTHETIST	Constantinos Papoutsos	constantinos.papoutsos@nhs.net
FETAL MEDICINE	Luxmi Velauthar	l.velauthar@nhs.net
MIDWIFE	Regina Ndilei	regina.ndilei2@nhs.net
PHYSICIAN	Kirun Gunganah	kirun.guganah@nhs.net
OBSTETRICIAN	Vincent Oon Richard Maplethorpe	vincent.oon@nhs.net richard.maplethorpe@nhs.net
QUEEN'S AND KING GEORGE'S		
ANAESTHETIST	Elaine De Silva	elaine.de-silva@nhs.net
FETAL MEDICINE	Chineze Otigbah	chineze.otigbah@nhs.net
MIDWIFE	Elizabeth Phillips	elizabeth.phillips17.nhs.net
PHYSICIAN	Kate Wiles	kate.wiles@nhs.net
OBSTETRICIAN	Josie O'Heney Priya Sivarajasingam	josie.oheney@nhs.net s.sivarajasingam@nhs.net
WHIPPS CROSS		
ANAESTHETIST	Emamoke Oteri	emamoke.oteri1@nhs.net
FETAL MEDICINE	Rebecca Allen	rebecca.allen5@nhs.net
MIDWIFE	Rizwana Nawaz	rizwana.nawaz1@nhs.net
PHYSICIAN	Kate Wiles	kate.wiles@nhs.net
OBSTETRICIAN	Rebecca Allen	rebecca.allen5@nhs.net

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*

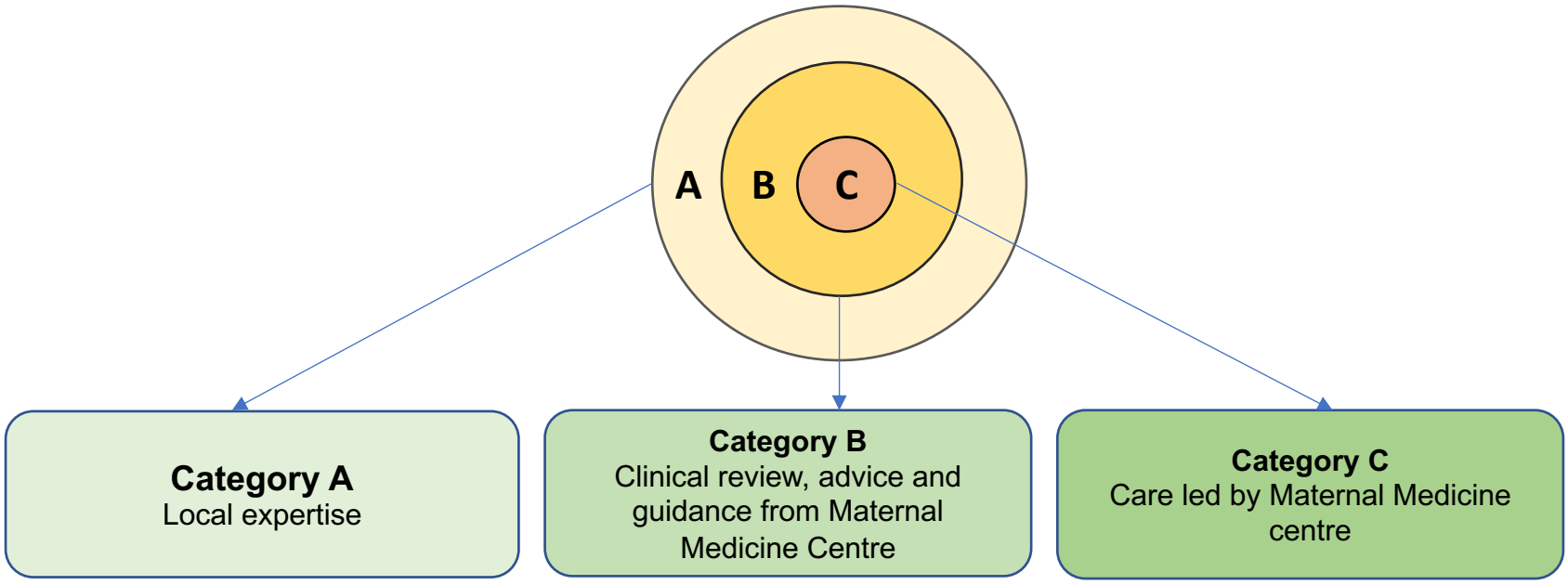
*see Pan-London Pathway

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Kate Von Klemperer	Rehan Khan	katherine.vonklemperer@nhs.net rehan.khan1@nhs.net	Wednesday afternoon, fortnightly Pre-pregnancy counselling, Thursday morning, monthly
Homerton	Andrew Deaner	Maryam Parisaei	a.deaner@nhs.net maryam.parisaei@nhs.net	Wednesday morning, every 4 weeks
Newham	Anna Herrey	Ferha Saeed	a.herrey@nhs.net ferha.saeed1@nhs.net	Thursday afternoon, 4th Thursday of the month
Queen's	Andrew Deaner	Josie O'Heney	josie.oheney@nhs.net richard.howard@nhs.net	Wednesday morning, every 4 weeks
Whipps Cross	Shanti Velmurugan	Rebecca Allen	Shanti via kate.wiles@nhs.net rebecca.allen5@nhs.net	Monday afternoon, 2nd Monday of the month

AVAILABLE CLINICAL GUIDANCE:

2018 ESC Guidelines for the management of cardiovascular diseases during pregnancy: The Task Force for the Management of Cardiovascular Diseases during Pregnancy of the European Society of Cardiology (ESC).
European Heart Journal 2018; 39 (34):3165–3241.

Lung Disease



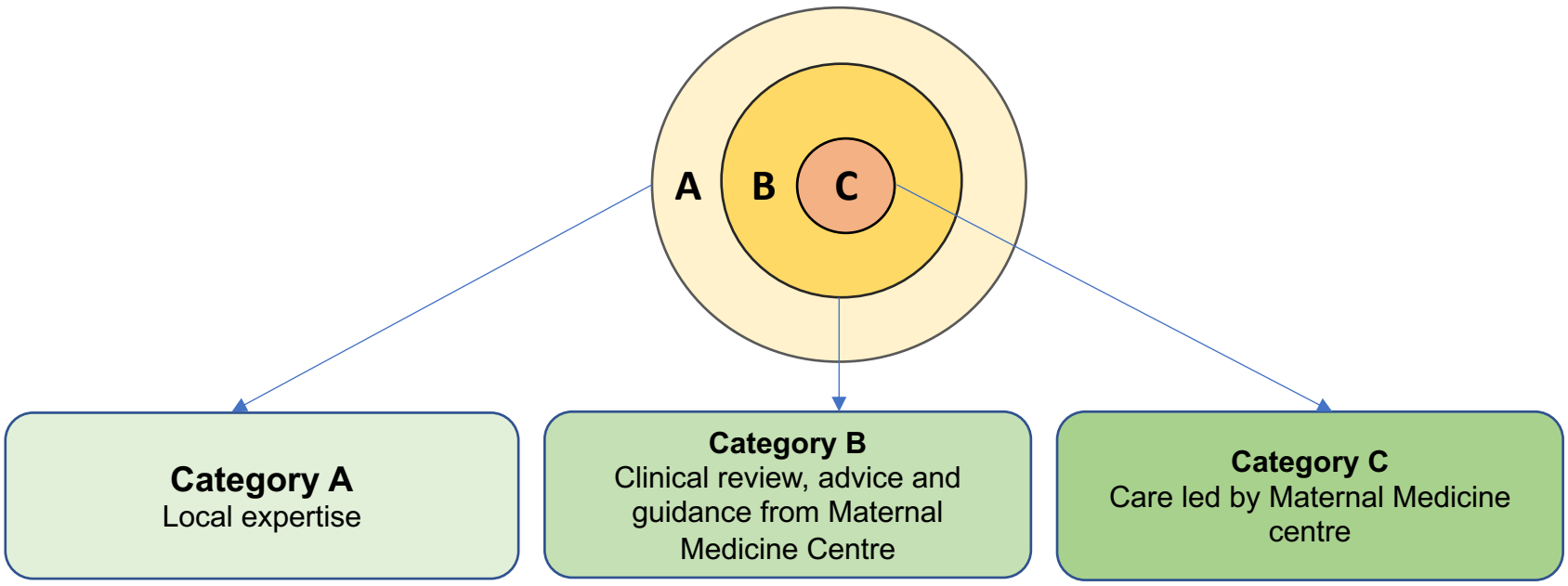
Uncomplicated Asthma	Complicated asthma: • Repeated presentations of asthma (≥3) in pregnancy • Asthma receiving biologics • Long-term corticosteroids	Sickle chest crisis (see Haematology pathway)
Pneumonia	Restrictive lung disease (e.g., ILD, kyphoscoliosis) with FVC >50%	Restrictive lung disease (e.g., ILD, kyphoscoliosis) with FVC <50%
TB	Any respiratory condition receiving immunotherapy / biologics	Neuromuscular disorders with respiratory muscle involvement e.g. myasthenia gravis, Guillain-Barré syndrome
Chronic Obstructive Airways Disease	Bronchiectasis	Cystic fibrosis
Pneumothorax	Lung cancer	Lung transplant
SARS-CoV-2 without oxygen requirement	SARS-CoV-2 with oxygen requirement	Pulmonary vasculitis
Managed obstructive sleep apnoea/obesity hypoventilation	New diagnosis of obstructive sleep apnoea/obesity hypoventilation in pregnancy	
Pulmonary embolus without haemodynamic compromise	Pulmonary embolus with haemodynamic compromise	
Sarcoidosis without restrictive lung disease, no renal involvement		

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Gavin Thomas (ILD) Paul Pfeffer (Asthma) Kate Wiles	Rehan Khan	gavin.thomas5@nhs.net paul.pfeffer1@nhs.net kate.wiles@nhs.net rehan.khan1@nhs.net	Thursday afternoon, weekly
Homerton	Kate Wiles	Kate Mayers	kate.wiles@nhs.net kate.mayers1@nhs.net	Monday morning, 1st Monday of the month
Newham	Kirun Gunganah	Vincent Oon Richard Maplethorpe	kirun.gunganah@nhs.net vincent.oon@nhs.net richard.maplethorpe@nhs.net	Tuesday/Thursday morning, fortnightly
Queen's	Kate Wiles	Josie O'Heney Priya Sivarajasingam	kate.wiles@nhs.net josie.oheney@nhs.net s.sivarajasingam@nhs.net	Monday afternoon, 3rd Monday of the month
Whipps Cross	Kate Wiles	Rebecca Allen	kate.wiles@nhs.net rebecca.allen5@nhs.net	Monday afternoon, 2nd Monday of the month

AVAILABLE CLINICAL GUIDANCE:

- British guideline on the management of asthma. British Thoracic Society/Scottish Intercollegiate Guidelines Network (SIGN158), 2019.
- Thromboembolic Disease in Pregnancy and the Puerperium: Acute Management. RCOG Green Top Guideline 37b, April 2015

Gastrointestinal and Liver Disease



Uncomplicated inflammatory bowel disease in remission or inflammatory bowel disease managed in a specialist IBD-obstetric service at a local centre	Complex inflammatory bowel disease without access to specialist IBD-obstetric service at a local centre: • Active disease despite treatment • Biologics • Corticosteroids • Peri-anal disease • Pouch/stoma	Complex pancreatitis • Not responding to treatment • Recurrent disease • Hypertriglyceridaemia • IR/surgical intervention
Hyperemesis gravidarum	Acute and chronic pancreatitis	Portal hypertension
Constipation	Treated GI malignancy	Active malignancy
Gallstones	Unexplained jaundice	Decompensated liver disease/liver failure/cirrhosis*
Gastro-oesophageal reflux disease	Acute fatty liver of pregnancy	Liver transplant
Coeliac disease	Achalasia	
Viral hepatitis	Liver infarction/haematoma	
Intrahepatic cholestasis (bile acids <100)	Intrahepatic cholestasis (bile acids ≥100)	
Cholecystitis	Autoimmune hepatitis	
Viral hepatitis**	Wilson's disease	
HELLP	Crigler Najjar syndrome	
Non-alcoholic fatty liver disease with normal fibroscan and no metabolic complications	Non-alcoholic fatty liver disease with abnormal fibroscan or metabolic complications	
	Primary sclerosing cholangitis	
	Primary biliary cirrhosis	
	Haemochromatosis	

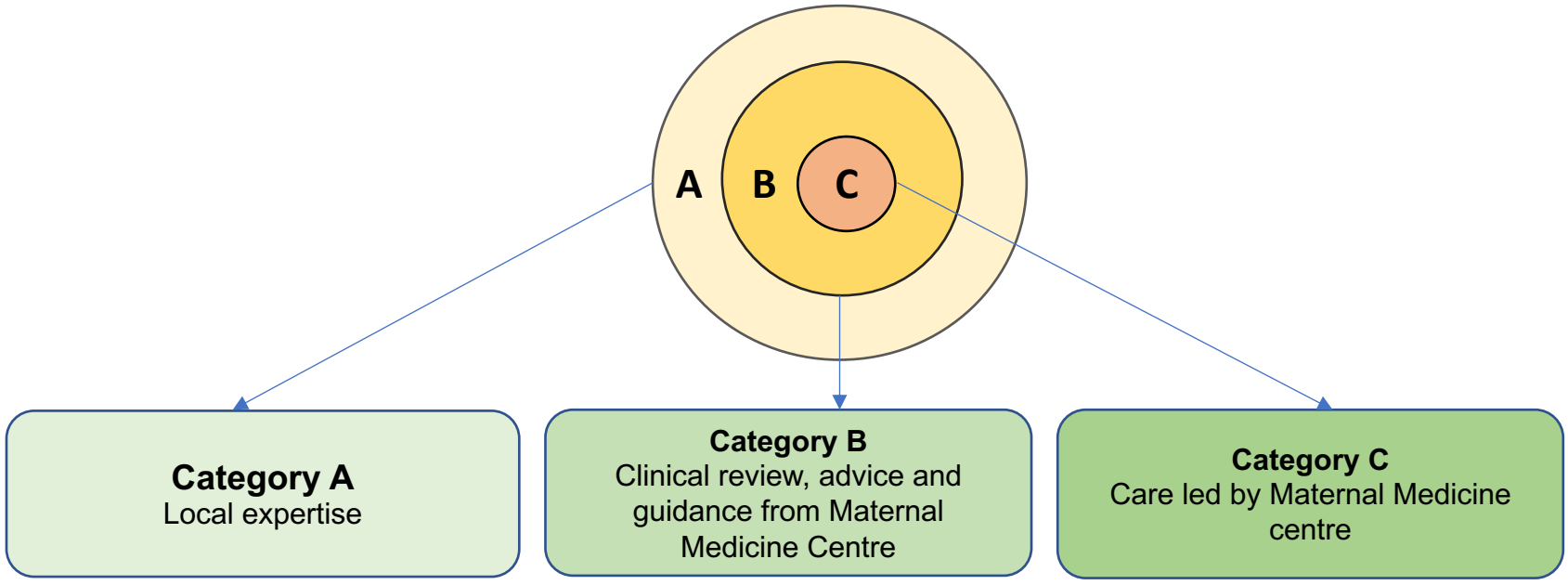
*see Pan-London Pathway ** New diagnoses of Hepatitis B should be referred directly to local hepatology services

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Bel Kok (GI) Janet Dearden (Liver)	Rehan Khan	klaartje.kok1@nhs.net janet.dearden@nhs.net rehan.khan1@nhs.net	Wednesday afternoon, every 4 weeks Liver MDT 1st Monday of month
Homerton	Noura Thoua	Maryam Parisaei Kate Mayers	nora.thoua@nhs.net maryam.parisaei@nhs.net kate.mayers1@nhs.net	Thursday afternoon, monthly
Newham	Kirun Gunganah	Vincent Oon Richard Maplethorpe	kirun.gunganah@nhs.net vincent.oon@nhs.net richard.maplethorpe@nhs.net	Tuesday/Thursday morning, fortnightly
Queen's	Kate Wiles	Josie O'Heney Priya Sivarajasingam	kate.wiles@nhs.net josie.oheney@nhs.net s.sivarajasingam@nhs.net	Mon afternoon, 3rd Monday of the month
Whipps Cross	Sami Hoque	Rebecca Allen	via kate.wiles@nhs.net rebecca.allen5@nhs.net	Monday afternoon, 2nd Monday of the month

AVAILABLE CLINICAL GUIDANCE:

- British Society of Gastroenterology. Management of the pregnant patient with inflammatory bowel disease, 2020. https://www.bsg.org.uk/web-education-articles-list/management-of-the-pregnant-patient-with-inflammatory-bowel-disease/
- European Crohn's and Colitis Guidelines on Sexuality, Fertility, Pregnancy, and Lactation, 2023. https://academic.oup.com/ecco-jcc/article/17/1/1/6675338

Diabetes and Endocrine Disease



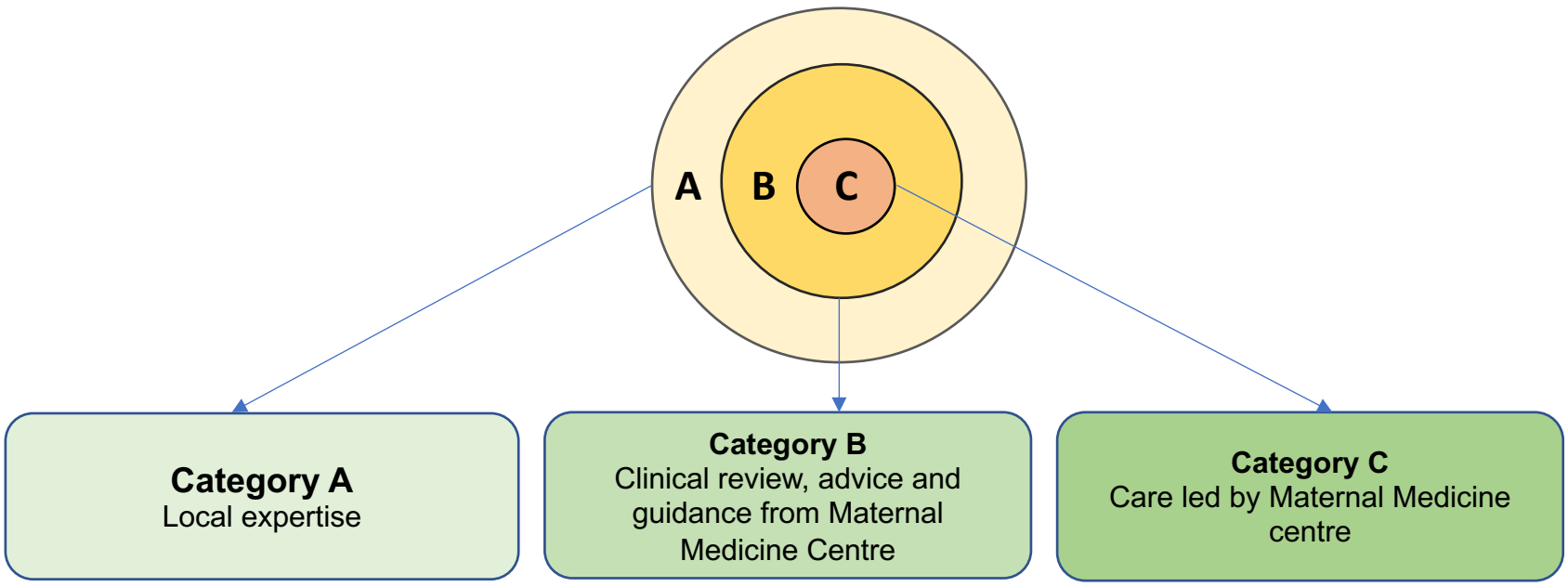
Gestational diabetes mellitus	Diabetes mellitus with: • Nephropathy (see Kidney Pathway) • Cardiovascular disease (see Heart Pathway) • CGM/CSII/Closed loop if support not available at local centre	Primary and secondary hyperaldosteronism
Type I and II diabetes mellitus including diabetic retinopathy	Monogenic diabetes	Phaeochromocytoma or paraganglioma
Hypothyroidism	Thyroid hormone resistance	Cushing's syndrome
Hyperthyroidism and gestational hyperthyroidism	Thyroid cancer	Acromegaly
Thyroid nodules	Pituitary disease on hormone replacement therapy	Pituitary apoplexy
Microprolactinoma	Macroprolactinoma	Hyperparathyroidsm
PCOS	Congenital adrenal hyperplasia	Hypoparathyroidism
Vitamin D deficiency	Dumping syndrome post bariatric surgery	Metabolic disorders such as glycogen storage disorder
	Addison's disease	

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Bobby Huda (Diabetes) Ayesha Siddiqi (Endocrine)	Mandeep Kaler	bobby.huda1@nhs.net ayesha.siddiqi2@nhs.net mandeep.kaler@nhs.net	Friday morning, weekly
Homerton	John Anderson	Maryam Parisaei Ade Kojeku Wiece Koniman	john.anderson@nhs.net maryam.parisaei@nhs.net ademola.kojeku@nhs.net wkoniman@nhs.net	Wednesday afternoon, weekly
Newham	Kirun Gunganah Philippa Hanson	Jamna Saravanamuthu	kirun.gunganah@nhs.net philippa.hanson@nhs.net jamna.saravanamuthu@nhs.net	Endocrine: Monday morning, weekly Diabetes: Friday, weekly
Queen's	Usman Shah Nemanja Stojanovic	Josie O'Heney Priya Sivarajasingam	usman.shah2@nhs.net n.stojanovic@nhs.net josie.oheney@nhs.net s.sivarajasingam@nhs.net	Monday morning (Queen's) Friday morning (KGH)
Whipps Cross	Rina Davison Deepa Chandran	Fiona Cheong-See	rina.davison@nhs.net d.chandran@nhs.net fiona.cheong-see@nhs.net	Friday morning, weekly

AVAILABLE CLINICAL GUIDANCE:

- NICE Diabetes in pregnancy: management from preconception to the postnatal period, 2020. https://www.nice.org.uk/guidance/ng3
- Guidelines of the American Thyroid Association for the Diagnosis and Management of Thyroid Disease During Pregnancy and the Postpartum, Thyroid 27(3): 315-389, 2017. https://www.liebertpub.com/doi/10.1089/thy.2016.0457

Kidney Disease



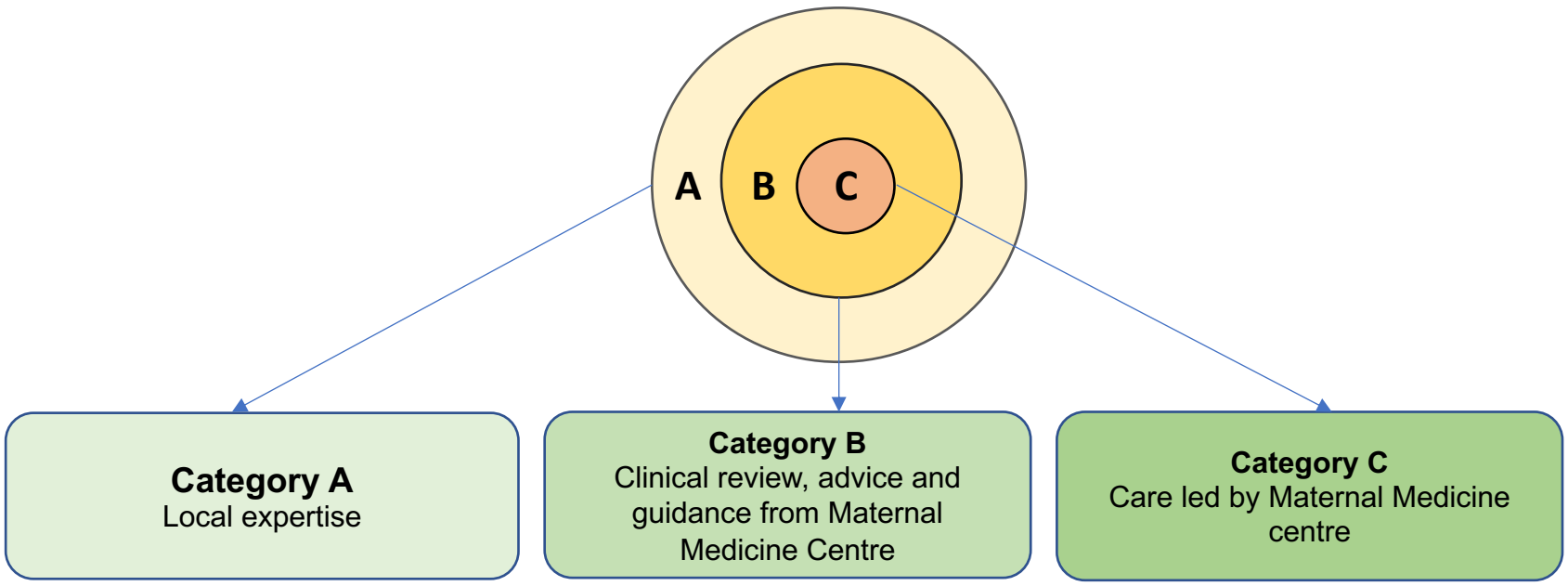
Single kidney	Lupus nephritis in remission or on treatment	Active lupus nephritis
Non-lupus glomerulonephritis/ tubulointerstitial nephritis: • No immunosuppression AND • Stable pre-pregnancy CKD stage 1-2 AND • uPCR <100 or uACR <30 AND • BP <140/90	Non-lupus glomerulonephritis/ tubulointerstitial nephritis: • 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
Recurrent UTI (no immunosuppression)	Recurrent UTI on immunosuppression	Combined kidney-pancreas transplant
Reflux nephropathy with normal kidney function	Reflux nephropathy with abnormal kidney function	Dialysis
Autosomal dominant polycystic kidney disease with normal kidney function.	Autosomal dominant polycystic kidney disease with abnormal kidney function	New renal vasculitis in pregnancy and vasculitis on immunosuppression
AKI responding to treatment	AKI not responding to treatment or not resolving post-partum	Scleroderma renal crisis
AKI due to pre-eclampsia resolved post-partum	Previous renal vasculitis in remission, no longer on treatment	
Kidney stones with normal kidney function	Kidney stones with abnormal kidney function	
	Previous urinary tract reconstructive surgery	
	Kidney disease requiring biologic treatment	
	Progressive kidney disease in pregnancy	
	Pre-pregnancy CKD stage 3	
	Kidney transplant	

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Kate Wiles	Rehan Khan	kate.wiles@nhs.net rehan.khan1@nhs.net	Wednesday afternoon, every 4 weeks
Homerton	Kate Wiles	Kate Mayers	kate.wiles@nhs.net kate.mayers1@nhs.net	Monday morning, 1st Monday of the month
Newham	Kirun Gunganah	Vincent Oon Richard Maplethorpe	kirun.gunganah@nhs.net vincent.oon@nhs.net richard.maplethorpe@nhs.net	Tuesday/Thursday morning, fortnightly
Queen's	Kate Wiles Nasreen Samad	Josie O'Heney Priya Sivarajasingam	kate.wiles@nhs.net nasreen.samad@nhs.net josie.oheney@nhs.net s.sivarajasingam@nhs.net	Monday afternoon, 3rd Monday of the month
Whipps Cross	Kate Wiles	Rebecca Allen	kate.wiles@nhs.net rebecca.allen5@nhs.net	Monday afternoon, 2nd Monday of the month

AVAILABLE CLINICAL GUIDANCE:

- Clinical practice guideline on pregnancy and renal disease. Wiles et al. BMC Nephrology 20, 401, 2019.

Rheumatological Disease



Uncomplicated* rheumatoid arthritis	Rheumatological disease requiring biologic therapy	Active lupus nephritis (see Kidney Pathway)
Uncomplicated* seronegative arthritis: • Ankylosing spondylitis • Psoriatic arthritis • Reactive arthritis • IBD related arthritis	Rheumatological not controlled on current treatment	Large and medium vessel vasculitis
Uncomplicated* 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***	

*Uncomplicated disease requires all of:

1. no lung/kidney/heart/CNS/thrombotic/muscle involvement
2. controlled on current treatment
3. no current biological treatment

** The Ehlers-Danlos National Diagnostic Service for suspected/complex Ehlers-Danlos syndrome is at Northwick Park Hospital

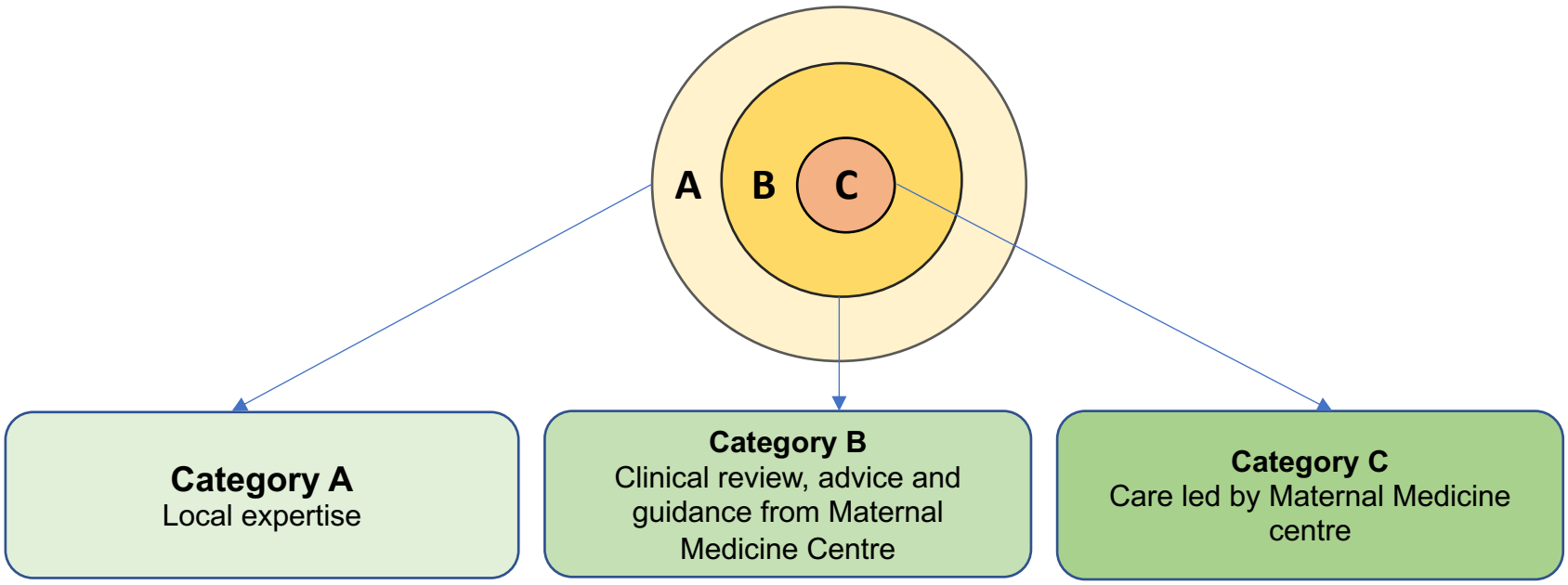
*** The regional centre for Behcets syndrome for London is at Royal London Hospital

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Maria Bickerstaff	Mandeep Kaler Matt Hogg	maria.bickerstaff@nhs.net mandeep.kaler@nhs.net matthew.hogg2@nhs.net	Tuesday morning, every 2 weeks
Homerton	Shahryah Hadavi	Maryam Parisaei	shahryah.hadavi@nhs.net maryam.parisaei@nhs.net	Thursday afternoon, monthly
Newham	Kirun Gunganah	Vincent Oon Richard Maplethorpe	kirun.gunganah@nhs.net vincent.oon@nhs.net richard.maplethorpe@nhs.net	Tuesday/Thursday morning, fortnightly
Queen's	Kate Wiles	Josie O'Heney Priya Sivarajasingam	kate.wiles@nhs.net josie.oheney@nhs.net s.sivarajasingam@nhs.net	Monday afternoon, 3rd Monday of the month
Whipps Cross	Angela Pakozdi	Rebecca Allen	a.pakozdi@nhs.net rebecca.allen5@nhs.net	Monday afternoon, monthly

AVAILABLE CLINICAL GUIDANCE:

- British Society for Rheumatology guideline on prescribing drugs in pregnancy and breastfeeding: immunomodulatory anti-rheumatic drugs and corticosteroids, 2023. https://academic.oup.com/rheumatology/article/62/4/e48/6783012
- EULAR recommendations for women's health and the management of family planning, assisted reproduction, pregnancy and menopause in patients with systemic lupus erythematosus and/or antiphospholipid syndrome. Andreoli et al. Annals of Rheumatic Diseases 76: 476-485, 2017. https://ard.bmj.com/content/76/3/476

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 with plan for mode of delivery	Cerebrovascular malformation not reviewed within 2 years of conception	Large or multiple cerebrovascular malformation/AVM/cavernoma or with 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	Multiple sclerosis with disease flare or on disease modifying drugs	Myotonic dystrophy
Mononeuropathy eg: Bell's palsy carpal tunnel, peroneal nerve compression	Progressive 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	

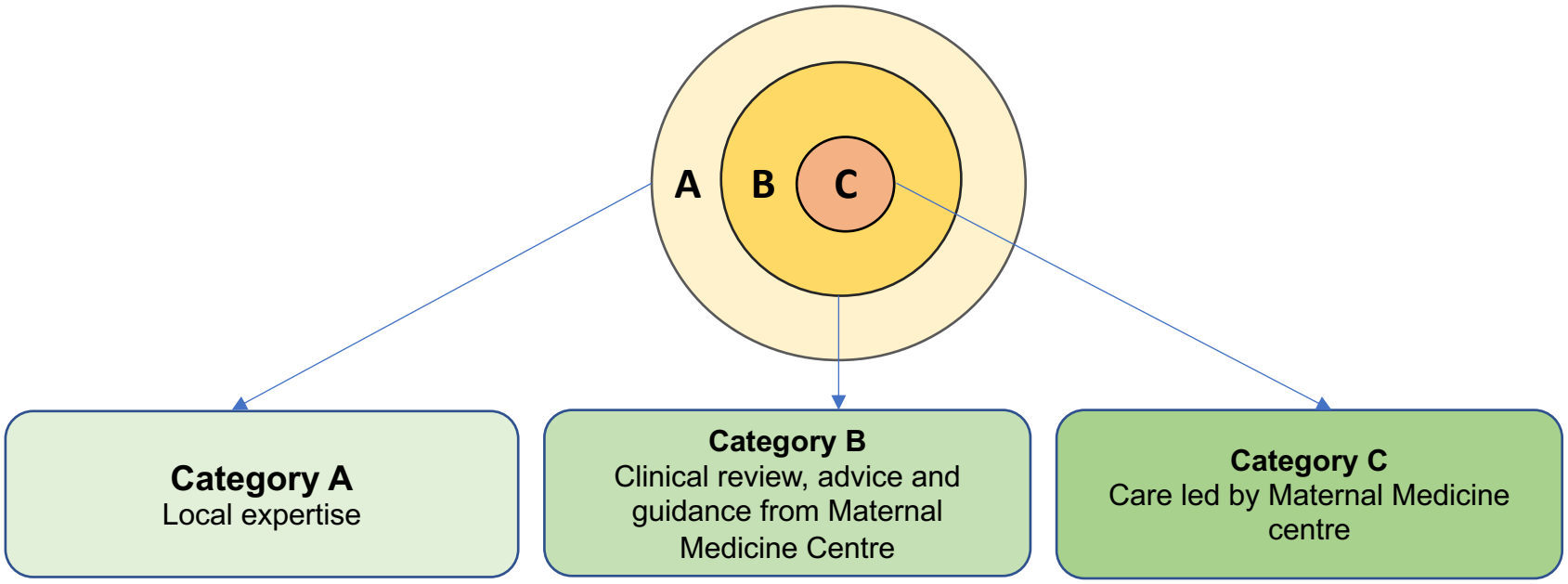
*see Pan-London Pathway

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Maria Garcia	Rehan Khan	mariaeugenia.garcia2@nhs.net rehan.khan1@nhs.net	Wednesday afternoon, every 4 weeks
Homerton	Aidan Neligan	Maryam Parisaei	aneligan@nhs.net maryam.parisaei@nhs.net	Thursday afternoon, monthly
Newham	Aidan Neligan	Alpa Shah	aneligan@nhs.net alpa.shah@nhs.net	Monday morning, 4th Monday of the month
Queen's	Rajith de Silva	Nissanka Madipola	rdesilva@nhs.net nissanka.madipola@nhs.net	Friday morning, weekly
Whipps Cross	Kate Wiles	Sujatha Thamban	kate.wiles@nhs.net sujatha.thamban@nhs.net	Wednesday afternoon, 1st Wed of the month

AVAILABLE CLINICAL GUIDANCE:

- RCOG Epilepsy in Pregnancy, Green Top Guideline 68, June 2016. https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines/epilepsy-in-pregnancy-green-top-guideline-no-68/
- UK consensus on pregnancy in multiple sclerosis: Association of British Neurologists' guidelines. Dobson et al. Practical Neurology 19(2): 106-114, 2019. https://pn.bmj.com/content/practneurol/19/2/106.full.pdf

Haematological Disease



Sickle cell trait	Current immune thrombocytopenia and platelet count ≤75	Sickle cell disease
Historical immune thrombocytopenia and platelet count >75	Thrombocytosis	Beta thalassaemia major
Gestational thrombocytopenia	White cell disorders	Complex thalassaemia: - iron overload - Endocrine disease - Pulmonary hypertension*
Current VTE or previous single VTE	Recurrent VTE	Current extensive VTE without access to Factor Xa monitoring
Obstetric antiphospholipid syndrome	Thrombotic antiphospholipid syndrome with venous thrombosis	Antiphospholipid syndrome with arterial thrombosis
Inherited thrombophilia (no VTE, not antithrombin deficiency)	Inherited thrombophilia with previous VTE	Antithrombin deficiency
History of treated haematological malignancy	Stable myeloproliferative/myelodysplastic disease	Active haematological malignancy
Alpha/beta thalassaemia trait	Mild, isolated clotting factor deficiency • Factor II, V, XI or XIII > 0.2iu/ml • Factor X > 0.3iu/ml	Clotting factor deficiency: • Factor II, V, XI or XIII ≤ 0.2iu/ml • Factor X ≤ 0.3iu/ml • Combined deficiencies
B12/folate deficiency	Mild platelet function disorder with platelet count ≥100	Moderate/severe platelet function disorder or with platelet count <100
	Carriers of haemophilia with known female fetus and normal factor VIII/IX	Carriers of haemophilia with male or unknown gender of fetus
	Type I Von-Willebrand disease, VWF activity normalised in pregnancy	Von-Willebrand disease: Type 1 if VWF not normalised, Type II and Type III
		Transfusion dependent disease

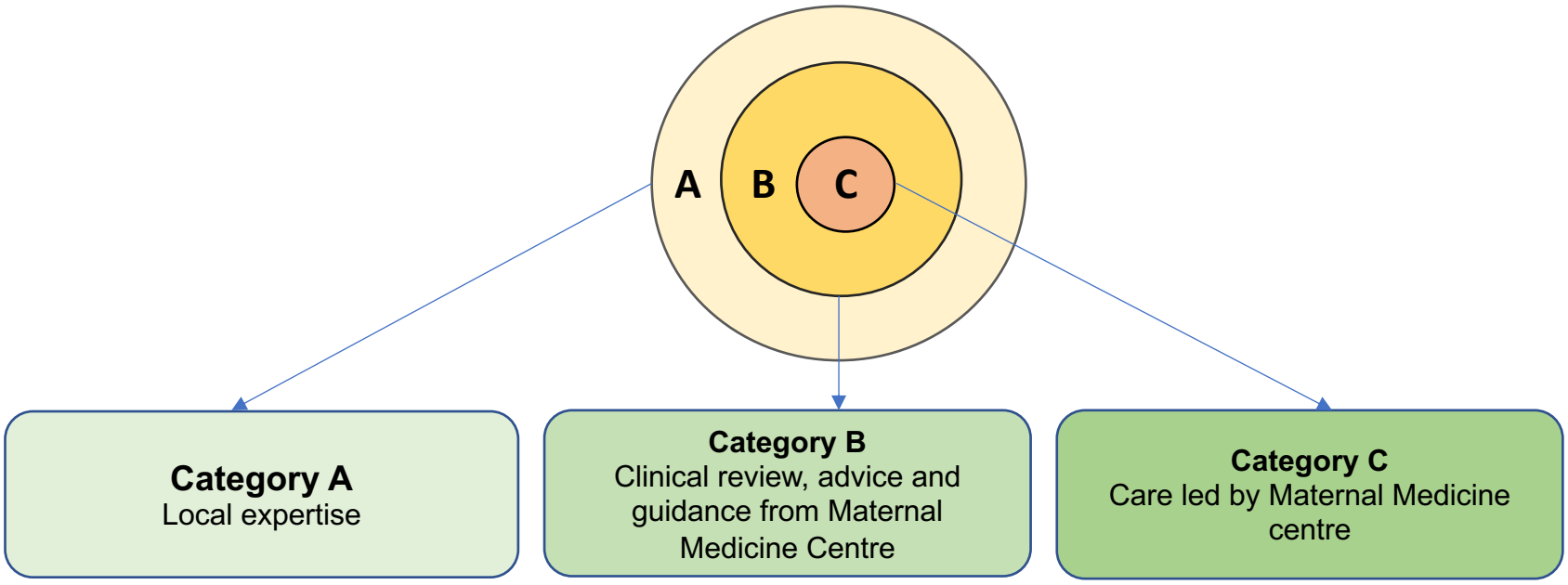
*see Pan-London pathway

Site	Physician	Obstetrician	E-mail	Clinic details
Royal London	Louise Bowles Katie White	Matt Hogg	louise.bowles@nhs.net kate.white32@nhs.net matthew.hogg2@nhs.net	Tuesday morning, weekly
Homerton	Basabi Chatterjee	Maryam Parisaei Kate Mayers Charlotte Kingman	basabi.chatterjee@nhs.net maryam.parisaei@nhs.net kate.mayers1@nhs.net charlottekingman@nhs.net	Thursday afternoon, monthly
Newham	Kirun Gunganah	Vincent Oon Richard Maplethorpe	vincent.oon@nhs.net richard.maplethorpe@nhs.net	Thursday morning, 3rd Thursday of the month
Queen's	Claudia Boshier Chris Sin	Priya Sivarajasingam	claudia.boshier@nhs.net wing.sin@nhs.net s.sivarajasingam@nhs.net	Monday afternoon, 4th Monday of the month
Whipps Cross	Angela Theodoulou	Rebecca Allen	angela.theodoulou@nhs.net rebecca.allen5@nhs.net	Monday afternoon, monthly

AVAILABLE CLINICAL GUIDANCE:

- Thromboembolic Disease in Pregnancy and the Puerperium: Acute Management. RCOG Green Top Guideline 37b, April 2015.
- Reducing the Risk of Venous Thromboembolism during Pregnancy and the Puerperium. RCOG Green Top Guideline 37a, April 2015.

Skin Disease



Uncomplicated eczema	Complex eczema/psoriasis: • Biologic therapy • Systemic immunosuppression	Stevens-Johnson syndrome/toxic epidermal necrolysis
Uncomplicated psoriasis*	Impetigo herpetiformis	
Atopic eruption of pregnancy	Pemphigoid	
Polymorphic eruption of pregnancy	Pemphigus	
Prurigo of pregnancy	Vasculitic rash**	
Treated skin cancer	Active skin cancer	
Pruritic folliculitis		
Acne		
Pityriasis rosacea		
Urticaria		
Herpes simplex		
Varicella Zoster		
Cellulitis		
Scabies		

*see Rheumatology Pathway for psoriatic arthritis
** see Kidney Disease Pathway for vasculitis/lupus

Site	Physician	Obstetrician	E-mail	Details
Royal London	Kate Wiles	Rehan Khan	kate.wiles@nhs.net rehan.khan1@nhs.net	MDT Friday morning, 3rd Friday of the month

AVAILABLE CLINICAL GUIDANCE:

- Prescribing for pregnancy: chronic skin diseases, 2023. https://dtb.bmj.com/content/61/4/55
- British Association of Dermatologists. Polymorphic eruption of pregnancy. Available at: https://www.bad.org.uk/ResourceListing.aspx?sitesectionid=159&itemid=352
- Vaughan-Jones et al. Skin disease in pregnancy. BMJ 2014; 348: g3489.

Appendices

1. Management of the third stage of labour for women with category C heart disease.

Adapted from Intrapartum care for women with existing medical conditions or obstetric complications and their babies (NG121). https://www.nice.org.uk/guidance/ng121

Condition	First-line uterotonic	Second-line uterotonics	Drugs to avoid because of potential harm
• Significant aortopathy • Marfan syndrome and Loeys–Dietz with aortic dilatation >40 mm. • Bicuspid aortopathy and aortic dilatation >45 mm. • Previous aortic dissection. • Turner syndrome and • Aortic size index >25 cm/ 2 m	Oxytocin	Misoprostol Carboprost	Ergometrine: risk of hypertension-induced aortic dissection or rupture
• Limited or fixed low cardiac output, or preload- dependent circulation • Severe systemic ventricular dysfunction (ejection fraction <30%). • Severe valvular stenosis. • HCM with diastolic dysfunction or significant outflow tract obstruction. • Fontan circulation. Cyanotic heart disease	Slow infusion of oxytocin to avoid sudden haemodynamic change	Misoprostol Carboprost	Long-acting oxytocin analogues and ergometrine: risk of hypertension-induced heart failure
• Pulmonary arterial hypertension.	Oxytocin	Misoprostol	Ergometrine, carboprost and long-acting oxytocin analogues: risk of worsening pulmonary hypertension

2. Recommendations for obstetric anaesthesia and monitoring in cardiac disease in pregnancy.

Adapted from: ESC Guidelines for the management of cardiovascular diseases during pregnancy. European Heart Journal 2018; 39 (34):3165–3241. https://doi.org/10.1093/eurheartj/ehy340

	mWHO I	mWHO II	mWHO II-III	mWHO III	mWHO IV
Uterotonics					
Oxytocin	Y	Y	Low dose	Low dose	Low dose
Carbetocin	Y	Y	N	N	N
Misoprostol 400-600mcg	Y	Y	Y	Y	Y
Injectable Prostaglandin Carboprost	Y	Y	N	N	N
Ergometrine	Y	N	N	N	N
Oxytocin with Ergometrine	Y	N	N	N	N
Monitoring in labour and delivery					
Heart rate	Y	Y	Y	Y	Y
Non-invasive blood pressure	Y	Y	Y	Y	Y
Pulse oximetry	Y	Y	Y	Y	Y
ECG continuous	N	N	Y	Y	Y
Arterial blood pressure continuous	N	N	N	Y	Y
Central venous pressure continuous	N	N	N	N	Y
Analgesia and Anaesthesia					
Nitrous oxide inhaled	Y	Y	Y	Y	Y
Morphine/ Fentanyl/ Opioid parenteral	Y	Y	Y	Y	Y
Epidural for labour	Y	Y	Y	Y*	Y*
Spinal anaesthesia standard	Y	N	N	N	N
CSE standard	Y	N	N	N	N
CSE low dose spinal, incremental top-up	Y	Y	Y	Y*	Y*
General anaesthesia	Y	Y	Y#	Y#	Y#
Intravenous fluid boluses	Normal	Normal	Cautious	Carefully titrated*	Carefully titrated*
Key					
Y denotes Yes can be given or Yes should be used					
N denotes Not to be used or Not required					
** denotes with invasive monitoring as above*					
# denotes avoid unless other techniques contra-indicated					

3. Immunosuppressant use in pregnancy and lactation

	Peri-conception	First trimester	Second/third trimester	Breastfeeding	Paternal exposure
Corticosteroids					
Prednisolone	Yes	Yes	Yes	Yes	Yes
Antimalarials					
Hydroxychloroquine (≤400 mg/day)	Yes	Yes	Yes	Yes	Yes
Conventional synthetic DMARDs					
Methotrexate (≤25 mg/week)	Stop ≥1 month pre-conception	No	No	No	Yes
Sulfasalazine (with folic acid 5 mg/day in first trimester)	Yes	Yes	Yes	Yes[a]	Yes[b]
Leflunomide	No: Cholestyramine washout	No	No	No	Yes
Azathioprine	Yes	Yes	Yes	Yes	Yes
Ciclosporin	Yes	Yes[c]	Yes[c]	Yes	Yes
Tacrolimus	Yes	Yes[c]	Yes[c]	Yes	Yes
Cyclophosphamide	Exceptional circumstances[d]	Exceptional circumstances[d]	Exceptional circumstances[d]	No	No
Mycophenolate mofetil	Stop ≥6 weeks pre-conception	No	No	No	Yes
Intravenous immunoglobulin	Yes	Yes	Yes	Yes	Yes
Anti-TNFα medications					
Infliximab	Yes	Yes	Yes[e]	Yes	Yes
Etanercept	Yes	Yes	Yes[f]	Yes	Yes
Adalimumab	Yes	Yes	Yes[g]	Yes	Yes
Certolizumab	Yes	Yes	Yes	Yes	Yes
Golimumab	Yes	Yes	Yes[g]	Yes	Yes
Other biologic DMARDs					
Rituximab	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-6 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-1 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
Abatacept	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
Belimumab	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-17 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
IL-12/23 inhibitors	Consider stopping at conception[h]	Severe disease if no alternatives[h]	Severe disease if no alternatives[i]	Yes[j]	Yes[j]
Targeted synthetic DMARDs					
JAK-inhibitors	Stop ≥2 weeks pre-conception	No	No	No	Yes[j]

Table 1.
Summary of drug compatibility in pregnancy and breastmilk exposure
For further information and caveats, see relevant recommendations and main text in the executive summary and full guideline.
a In the healthy, full-term infant only.
b If conception is delayed by >12months, consider stopping sulfasalazine alongside investigation of other causes of infertility.
c Suggested monitoring of maternal blood pressure, renal function, blood glucose and drug levels.
d Only in cases of severe (life or organ-threatening) maternal disease.
e If low risk of disease flare and stopped by 20 weeks, full-term infant can have a normal vaccination schedule.
f If low risk of disease flare and stopped by 32 weeks, full-term infant can have a normal vaccination schedule.
g If low risk of disease flare and stopped by 28 weeks, full-term infant can have a normal vaccination schedule.
h May be considered to manage severe maternal disease if no other pregnancy-compatible drugs are suitable.
I If used in third trimester, avoid live vaccinations in infant vaccination schedule until 6 months of age.
j Limited evidence.

4. Contraception

Guidance for women with medical disorders:

https://www.fsrh.org/standards-and-guidance/documents/ukmec-2016-summary-sheets/

Drug interactions:

http://www.fsrh.org/pdfs/CEUGuidanceDrugInteractionsHormonal.pdf

Information for users:

- Pictorial representation of effectiveness: https://www.cdc.gov/reproductivehealth/unintendedpregnancy/pdf/family-planning-methods-2014.pdf
- Family Planning Association guidance: https://www.fpa.org.uk/professionals/resources/

Access:

- All East Sexual Health Advice and Support: https://www.alleast.nhs.uk/contraception or 020 7377 7307
- Sexual Health London: https://www.shl.uk/clinics