Wessex Maternal Medicine Network Regional Guideline: Working together to optimise outcomes for Women with Medical Problems in Pregnancy

Description	Wessex Maternal Medicine Referral guideline
Target audience	Clinical staff and patients across Wessex maternal medicine network including obstetricians, physicians, midwives and nurses.
Related documents / policies (do not include those listed as appendices)	See section 5.
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Policy sponsor	Freya Pearson – Divisional Clinical Director
Is there any non-compliance with NICE guidance?	No
First Consultation	Guideline has been circulated and discussed on several occasions (2019-2024) and agreed by the Wessex Maternal Medicine Network June 2024
Second Consultation	N/A

Approval committee	Approval date
Women and Newborn Governance Steering Group	02/08/2024

UHS reference	Version	Publication date	Next review due
N/A	2	September 2024	August 2027

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1. Version Control

Date	Consultation / Comments	Version created	Page	Key changes
4th June 2021	Wessex Maternal Medicine Network	1	N/A	New guideline
Aug 2023-June 2024	Wessex Maternal Medicine Network	2		Updated with national guidance etc. including guidance for MM network referral (appendix A). Adjustment of category grades and details for maternal medicine disease qualification. Format and summary tidying to improve clarification referral categories. Adjusted after feedback and Wessex reginal consultation.

2. Index

3. Executive Summary

- **The vision of the Wessex Maternal Medicine Network (WMMN)** is network wide excellence in maternal medicine, achieving this through collaboration, sharing and support in all aspects of care for women with medical conditions. This includes quick and easy collaboration/consultations when there are uncertainties, shared learning and experience, shared outcomes and related audit and governance at individual and service levels.

- Further the vision is to **ensure equity** of **access across all geographical areas and ethnic groups** to appropriate excellent pregnancy and maternal medicine care and clinicians throughout the Wessex region.

- **All women with medical conditions should be assessed pre-conceptually** to optimise their health and plan future pregnancies. This should include the associated mother and baby risks and in particular any planned adjustments to current treatments before, during and after pregnancy.

- **Women with high-risk medical conditions should be considered for** referral for specialist pre-conceptual advice (as a guide see pregnancy referral guidance in appendix).

- **Who to refer (including disease categorisation) –** this is complex and dependent on many factors including disease severity, incidence, clinician experience, associated comorbidities, local facilities and including appropriate support if unexpected deterioration occurs out of working hours. At the moment, the Wessex maternity record system (Badgernet) suggests disease categorisation into three categories based on an empirical national template (A B C in increasing severity). The Wessex referral guideline has adopted most categorisations but has adapted many, with continued emphasis on individualised care based on disease severity, clinician experience and importantly, local facilities with complete peripartum care cover.

- **Category C diseases** –usually severest and often rarest diseases. Strongly recommend **ALL** are discussed with the maternal medicine centre on at least one occasion in early pregnancy. In most cases regular MMC MDT clinical review will be recommended and would be best practice. Complexity is often increased by co-morbidity, and this should be included in the assessment of severity and decision for referral.

- **Most women** will have pregnancy planning as part of their usual medical reviews, either in primary or secondary care.

- **Local maternity service guidelines** for common and serious medical problems in pregnancy, including this guideline, will form the basis of regional organisation and

management including referral for opinion or transfer if indicated. The aim of the Wessex Network referral guideline is to support and confirm quality and consistency of care including equity of access to appropriate clinical experience and facilities throughout Wessex.

- ***This guideline, which summarises network collaboration and referrals, has previously been agreed by the Wessex maternal medicine network. The latest iteration has been discussed and circulated Spring 2024 and agreed JULY 2024.***

4. Scope and Purpose

4.1 The scope of this guideline covers referral throughout the **Wessex Maternal Medicine Network (Wessex MMN)** related to medical disease before, during and after pregnancy**.**

4.2 The purpose of this guideline is to demonstrate a clear and agreed method and location of pregnancy care and thresholds for referral to the Wessex Maternal Medicine centre in Southampton.

5. Background

The aims of the Wessex MMN outlined in this guideline are regional collaborative working to improve outcomes for women with new and background medical disease before, during and after pregnancy. There is also a close relationship between medical specialties, maternal, anaesthetic and neonatal management which are all linked clearly to achieving excellent outcomes for women, children and families.

This reginal guideline has been circulated and agreed throughout the Wessex MMN.

Like all guidelines it provides guidance and recommendations for women and clinicians. Specific and individualised care alongside this guideline is always recommended also.

Wessex MMN collaborating organisations include (but not-exclusively): **Winchester and Basingstoke (Hampshire Hospitals), Portsmouth and Isle of Wight Hospitals, Poole, Bournemouth and Dorchester (Dorset hospitals) and Salisbury. We also collaborate with clinicians and patients beyond our formal boundaries in the Channel and Falkland Islands.**

Southampton University Hospital is the Wessex Maternal Medicine Network Centre

6. Pre-Conceptual Counselling

Pre-conceptual counselling for all women with medical problems is advocated by several professional bodies, national guidelines, confidential enquiries and audits including RCOG, NICE3,4, and MBRRACE(UK)1.

The purpose of pre-conceptual counselling is to:

- inform women and their families of recommended best management of their medical condition before, during and after pregnancy including specific details for the birth if needed.
- include potential risks of pregnancy and benefits of planning their pregnancy.
- confirm understanding of the need for any different medical and obstetric monitoring before, during and after pregnancy.
- optimise health and medications prior to pregnancy and importantly to clarify any early pregnancy modifications to any current or new treatments.

This can be delivered in primary care. However, where there is particular risk or complexity or where current treatments may be harmful during pregnancy including risk to the developing baby, consideration of referral for secondary or tertiary level counselling is recommended.

A pre-conceptual clinical service is available at UHS for all medical conditions (email; WessexObstetricMedicine@uhs.nhs.uk)

Examples of appropriate conditions for definite consideration before pregnancy include:

- Heart disease
- Long term anticoagulation and or significant VTE risks (strong FH of pregnancy or oestrogen related VTE, medical conditions associated with VTE risk)
- Pre-existing diabetes mellitus (especially higher HbA1c and/or complications (Saving Babies Lives v3, 2023)
- Epilepsy on anticonvulsants medication
- Teratogenic medication e.g., methotrexate, sodium valproate, warfarin
- Significant renal impairment (serum creatinine in pregnancy >125 and or CKD 3 or above- see appendix)
- Previous organ transplant- any
- Combined multiple background medical conditions.
- Previous poor pregnancy outcomes related to background medical disease.
- **Multi-morbidities that in combination may have significant pregnancy effect.**

7. Local Maternity Guidelines

Specific common conditions may have specific national guidelines and should be referred to if they are suitable. These include, but are not limited to national guidance on diabetes, epilepsy, thrombosis and thrombophilia, epilepsy and cardiac conditions before and during pregnancy.

Local guidelines should inform individualised and appropriately detailed care plans, including specific management before, during and after birth (i.e., who, when and how to call with what to do in typical birth scenarios and or events). Arrangements for further postnatal care after discharge from hospital should be outlined.

All clinicians are reminded of the requirement for clear and accurate documentation of communication between all members of the multidisciplinary team involved.

8. Referral for Opinion / Transfer to the Obstetric Medicine Centre Southampton.

Thresholds for referral to the Wessex maternal medicine network (WMMN) Centre depend on maternal medical and fetal clinical details, local obstetric, medical and Anaesthetic experience including consistent 24 hour, 7 days a week clinician availability before, during and after the pregnancy and birth. Multiple morbid conditions clearly add to complexity and will influence thresholds for referral.

We support continuity of care in other centers for care of existing medical. However, referral to the Wessex MMN **is still recommended for data collection and outcome monitoring** and to also confirm if other care aspects are required.

Appendix 1 lists the previously circulated, recommended and agreed conditions and thresholds for referral to the Wessex MMN center for either opinion, shared care or transfer of care.

Patients who meet criteria for referral but are NOT referred should be agreed by the responsible local maternity clinicians, the relevant medical and Anaesthetic teams and local neonatology services. These patients should be discussed ***with the MMC in principle at least.***

Referral pathways see Appendix 2

Urgent and out of hours referral – call LW on call clinical medical or midwifery team at Southampton using on call LW consultant bleep (9025 or mobile via switch or on call senior trainee on bleep 2406).

Non-urgent referrals – email using WessexObstetricMedicine@uhs.nhs.uk **ONLY (**Badgernet referral not currently used).

Documentation – to help easy maternal and multidisciplinary access and review communication and referral should be confirmed in writing ASAP.

9. Roles and Responsibilities

This guideline applies to all clinical staff involved in the Wessex regional maternal medicine network employed or contracted by any of the network hospitals who provide care to women.

Staff have a responsibility to ensure that they are aware of this guideline and its contents. They should clearly document their rationale if they have not followed recommendations detailed in this guideline. It is the responsibility of department managers, consultants, team leaders and education leaders to ensure staff are aware of this guideline.

10. Communication and Training Plans

The guideline will be displayed and used throughout the Wessex MMN and sent to the relevant Wessex MM clinical teams. The hospital team leaders will be expected to cascade to all relevant staff groups.

All medical, nursing and midwifery staff caring for women and newborns should have support and training in implementing the contents of the guideline. In addition, the guidelines will be included in local induction programs for all new staff members.

The author is responsible for ensuring the effective dissemination of this guideline.
To ensure dissemination takes place and to avoid duplication of work, do not assume others will do this based on their involvement in guideline consultation process.

11. Process for Monitoring Compliance

The purpose of monitoring is to provide assurance that the agreed approach is being followed. This ensures that we get things right for patients, use resources well and protect our reputation, throughout the Wessex maternal medicine network. Our monitoring will therefore be proportionate, achievable and deal with specifics that can be assessed or measured.

Key aspects of this policy will be monitored via the national key performance indicators Wessex regional Wessex region agreed auditable outcome measures.

Element to be monitored	Regional Hospital referrals by disease severity (starting with category C disease). Total numbers and accuracy, and later related pregnancy and other outcomes.
Lead (name/job title)	Wessex maternal medicine centre clinicians
Tool	Review of referrals
Frequency	Ongoing
Reporting arrangements	Wessex Maternal Medicine Network Meeting

Where monitoring identifies deficiencies, actions plans will be developed to address them.

Quarterly highlight reports and progress with key performance indicators will be submitted to Dorset, SHIP and BSW Local Maternity and Neonatal Systems.

12. Document Review

Guideline to be reviewed after three years or sooner because of audit findings or as any changes to practice occurs.

13. References

2018 ESC Guidelines on the management of cardiovascular diseases during pregnancy European Heart Journal (2018) 39, 3165–3241

Saving Babies' Lives Version Three A care bundle for reducing perinatal mortality Version 3.1, July 2023

OCKENDEN REPORT – FINAL FINDINGS, CONCLUSIONS AND ESSENTIAL ACTIONS from the Independent Review of Maternity Services at The Shrewsbury and Telford Hospital NHS Trust 30th March 2022

Maternal medicine network service specification 13 October 2021, Version 1 Publication approval reference: PAR709

14. Appendix 1 – Specific medical disease thresholds for management and referral.

Category A Typically, low risk for maternal mortality or mortality. Normally local management unless additional complexity	Category B Usually managed with MMC advice and guidance MMC. Individual clinicians and hospitals to confirm type of clinical care (local or referral MMC based on complexity, local experience, capacity, and facilities)	Category C Typically, high risk for significant maternal morbidity or mortality. All should be referred to MMC, many will require MMC review, some may need transfer of care and birth MMC
Heart disease including hypertension. **National cardiac categories copied here for easy reference but** **PLEASE USE WESSEX CARDIAC GUIDELINE AND REFERRAL THRESHOLDS**		
Mild pulmonary stenosis	Mildly reduced left ventricular ejection fraction (>45%)	Left ventricular ejection fraction <45%
Small/repaired patent ductus arteriosus	Hypertrophic cardiomyopathy with no high-risk features	Pulmonary hypertension (any)
Mitral valve prolapse	Mild mitral stenosis	Previous peripartum cardiomyopathy
Repaired atrial septal defect	Mild-moderate aortic stenosis	Severe aortic stenosis
Repaired ventricular septal defect	Other valve lesions not listed in A or C	Moderate-severe mitral stenosis
Isolated atrial or ventricular ectopic beats	Atrioventricular septal defect	Fontan
Postural tachycardia syndrome (POTS)	Repaired tetralogy of Fallot	Systemic right ventricle
Supraventricular Arrythmias	Repaired aortic coarctation	Mechanical valve
	Turner syndrome without aortic dilatation See ESC guidance for guidance on aortic dilatation	Moderate to severe aortic dilatation e.g. - Turner Syndrome - Marfan Syndrome - Vascular Ehlers- Danlos Syndrome - Inheritable Aortopathies
	Treated ischaemic heart disease	New ischaemic heart disease

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	Long QT syndrome	Ventricular arrhythmia
	Myocarditis	Endocarditis- current
		Heart transplant
Hypertension Mild uncomplicated primary hypertension. Including monotherapy with good blood pressure control <135/85).	**Hypertension** Requiring >1 antihypertensive agent, and or previous adverse pregnancy affect	**Hypertension** Severe resistant primary hypertension requiring >2 antihypertensive agents especially if blood pressure uncontrolled, associated teratogenic risk and or end organ damage (cardiac, cerebral or renal impairment).

Lung disease (NB regional difficult airway's MDT)

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Asthma - uncomplicated Asthma	Complicated asthma: • Repeated presentations of asthma (≥3) in pregnancy • Use of biologics • Long-term corticosteroids	Severe asthma requiring repeated pregnancy inpatient stays, or corticosteroids > 15mgs, or concerns re preterm birth related to asthma control.
COVID Uncomplicated COVID requiring hospital admission.	COVID pneumonitis with significant oxygen requirement.	COVID pneumonitis requiring CPAP or intubation and or consideration of birth <36 weeks to assist disease management.
Cystic fibrosis - limited respiratory or other affect	Cystic fibrosis – lung disease but FVC >50%	Cystic fibrosis with FVC <50% and or those with additional other complexity
Pulmonary embolus (see Haematology pathway)	Pulmonary embolus after 34 weeks (discuss at Obstetric Haematology MDT meeting)	Complex VTE related disease, especially after 34 weeks, including significant (large) pulmonary embolism. Any patient for consideration of IVC filters or embolectomy

Other respiratory disease TB or TB risk including latent TB. Chronic Obstructive Airways Disease Pneumothorax Pneumonia – uncomplicated Managed obstructive sleep apnoea / obesity hypoventilation. Sarcoidosis without restrictive lung disease, no renal involvement, limited medical treatments	Restrictive lung disease (e.g., ILD, kyphoscoliosis) with FVC >50% Respiratory conditions receiving immunotherapy / biologics Bronchiectasis New diagnosis obstructive sleep apnoea / obesity hypoventilation Lung cancer without significant loss lung function or other	ALL restrictive lung disease (e.g., ILD, kyphoscoliosis, sarcoidosis) with FVC <50% Neuromuscular disorders with respiratory muscle involvement e.g., myasthenia gravis, Guillain-Barré syndrome Lung transplant (any cause) New and or significant lung cancer with loss function Pulmonary vasculitis. Disease complexity out with local clinician experience or hospital facilities.

Gastrointestinal and liver disease

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Hyperemesis gravidarum requiring antiemetic medication and rehydration	Hyperemesis gravidarum requiring hospital admission and >2 antiemetic medication. Significant weight loss.	Hyperemesis gravidarum – prolonged and severe including those requiring corticosteroid treatment
Uncomplicated inflammatory bowel disease (IBD) in remission (not on biologics).	Complex IBD: • Active disease despite treatment • Corticosteroids>15mgs daily • Significant active peri-anal disease • Use of biologics • Pouch/stoma	Uncontrolled, complex active IBD with significant systemic factors and related risks including risk of early birth.
	Acute and chronic pancreatitis without significant systemic maternal fetal affect or risk of early birth.	Complex pancreatitis • Not responding to treatment • Recurrent disease • Hypertriglyceridaemia • IR/surgical intervention
Gastro-oesophageal reflux disease	Cirrhosis normal synthetic liver function Unexplained jaundice Liver infarction / haematoma	Cirrhosis with abnormal synthetic liver function (any cause) Portal hypertension- All causes Decompensated liver disease/liver failure including abnormal liver synthetic function (any cause)
Coeliac disease Gallstones Cholecystitis	Achalasia	Liver transplant Active current malignancy
Intrahepatic cholestasis of pregnancy	Acute fatty liver of pregnancy (AFLP) Pregnancy -related HELLP syndrome Cholestasis with diagnostic uncertainty	AFLP with deteriorating liver function and requirement for additional liver/intensive care support and/or consideration liver transplantation

Viral hepatitis	Autoimmune hepatitis – new, uncertain liver tests with normal synthetic function.	Decompensated liver disease / liver failure including abnormal liver synthetic function and or other significant concerns/complexity
Others Treated GI malignancy without significant effect for pregnancy	Wilson's disease Crigler Najjar syndrome Primary biliary cirrhosis Primary sclerosing cholangitis	Any with abnormal synthetic function or additional complexity Disease complexity out with local clinician experience or hospital facilities.

Diabetes and endocrine disease

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Type 1 and 2 DM – uncomplicated with good glycaemic control. Gestational diabetes mellitus (DM) Monogenic DM uncomplicated	Type 1 and 2 DM with - • Nephropathy (see kidney pathway) • Cardiovascular disease (See cardiac pathway also) • Retinopathy requiring treatment. • Monogenic DM- additional complexity	Complex DM as per Cat B) with co-existing significant DM and or other disease complexity. Any disease complexity out with local clinician experience or hospital facilities.
Vitamin D deficiency	Dumping syndrome post bariatric surgery	
Hypothyroidism (usually with GP) Gestational hyperthyroidism Thyroid nodules	Hyperthyroidism Thyroid hormone resistance Thyroid cancer	
Microprolactinoma	Macroprolactinoma Pituitary disease on hormone replacement therapy	Macroprolactinoma requiring complex medical treatment and or surgical review. Parathyroid disease with significant metabolic changes and or requirement for surgical intervention
PCOS	Addison's disease Congenital adrenal hyperplasia	Any with significant additional medical complexity or treatments
Others	Diabetes insipidus previous or pregnancy related	Secondary hyperaldosteronism Phaeochromocytoma or paraganglioma Cushing's syndrome Acromegaly Metabolic disorders such as Glycogen storage disorder

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Kidney disease **Chronic Kidney Disease (CKD)** **Stage 1 (normal) eGFR > 90ml/min) / Stage 2–eGFR 60 - 89ml/min / Stage 3a –eGFR 45 - 59ml/min / Stage 3b –eGFR 30 - 44ml/min / Stage 4 –eGFR 15 - 29ml/min / Stage 5 – (severe) eGFR < 15ml/min**		
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 OR • Diabetes CKD >=2 with proteinuria	Kidney disease stages 4 and 5 (all causes) Dialysis (all causes)
	Kidney transplant	Combined kidney-pancreas transplant
Recurrent UTI (no immunosuppression)	Recurrent UTI on immunosuppression	
Reflux nephropathy - normal GFR	Reflux nephropathy - abnormal GFR	
Autosomal dominant PCKD normal GFR.	Autosomal dominant PCKD abnormal eGFR (stage 2-3 as above)	Autosomal dominant PCKD abnormal eGFR (stage 4 and 5)
AKI responding to treatment. AKI due to pre-eclampsia resolved post-partum	AKI not responding to treatment or not resolving post-partum	AKI requiring dialysis
	Previous renal vasculitis in remission, no longer on treatment	New renal vasculitis / vasculitis on immunosuppression
Kidney calculi uncomplicated	Kidney calculi complicated. Previous urinary tract reconstructive surgery	Disease complexity out with local clinician experience or hospital facilities.
	Biologic treatments Progressive kidney disease in pregnancy (NB see CKD criteria above also)	

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Rheumatological disease		
Uncomplicated seropositive or negative arthritis or connective tissue disease.	Rheumatological disease requiring biologic treatment or not controlled on current treatment or with restrictive lung disease and FVC >50%, or kidney involvement. Small vessel vasculitis in remission, no current treatments.	Active lupus nephritis (see Kidney Pathway). Rheumatological disease with restrictive lung disease and FVC ≤50% or significant renal or other associated disease. Any new and active vasculitis requiring immunosuppression.
Obstetric antiphospholipid syndrome (see Haematology Pathway).	Thrombotic antiphospholipid syndrome	Complex APLS (acute or recurrent VTE despite treatment and or other significant complexity)
Hypermobile Ehlers Danlos (type III).	Other Ehlers Danlos syndromes.	Vascular Ehlers Danlos.
	Diffuse scleroderma.	Scleroderma with significant other organ involvement (renal or other)
	Polymyositis-dermatomyositis.	Antisynthetase syndrome.
	Behcet's syndrome.	

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Neurological disease **(All Wessex hospitals have access to senior neurological clinicians including Wessex on-call stroke team)**		
Epilepsy managed in a combined clinic including specialist neurology and obstetrics	Epilepsy without access combined clinic including specialist neurology and obstetrics.	Complex epilepsy with significant associated comorbidity or affect. Seizures in pregnancy uncertain aetiology
Migraine well-controlled	Migraine with significant complexity	
	Idiopathic intracranial hypertension - uncomplicated. Cluster headache	Symptomatic or complicated raised intracranial pressure (acute referral) including surgical management
CVM - stable, small cerebrovascular malformation, reviewed within 2 years of conception, plan for mode of delivery	CVM, not reviewed within 2 years of conception. Previous surgical management without long-term complications.	Unstable CVM / AVM /cavernoma. Intracerebral bleed within 2 years
Previous brain tumour	Current brain tumour requiring treatment	Progressive brain tumour
Previous cerebral vein thrombosis (CVT)	New cerebral vein thrombosis (CVT)	CVT with significant maternal affect including requirement for neurosurgical review
	Previous stroke	Acute stroke (hyperacute management as per local hospital pathway with advice as needed from regional Wessex on-call stroke team) All
	Previous Guillain Barre Syndrome	New-onset Guillain-Barre syndrome
Previous encephalitis or meningitis		New meningitis and or encephalitis

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Multiple sclerosis (MS) stable and managed without disease modifying drugs	MS - unstable or requiring disease modifying drugs.	Disease complexity out with local clinician experience or hospital facilities.
Mononeuropathy (Bell's or Carpel tunnel etc)	Progressive or persistent peripheral neuropathy	
	Myasthenia gravis – treated and stable	Myasthenia gravis - new diagnosis or significant disease deterioration
Post-dural puncture headache	Reversible Cerebral Vasoconstriction Syndrome (RCVS) or Posterior Reversible Encephalopathy Syndrome (PRES)	Acute and evolving neurological disease with diagnostic and or significant effect uncertainty
Neurofibromatosis	Acute spinal cord injury	
	Neuromuscular dystrophy Spinal muscular atrophy	Motor neurone disease – all depending on details and severity
	Myotonic dystrophy	Any neurological disorder with diagnostic and or pregnancy management uncertainties, following input from patient's local neurology team.

Haematological disease (NB monthly regional MDT meetings)

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Haemoglobinopathy trait (without significant affect (Sickle or thalassaemia etc) Hereditary Spherocytosis / Elliptocytosis uncomplicated	Haemoglobinopathy trait (limited affect (Sickle or thalassaemia etc) Hereditary Spherocytosis / Elliptocytosis limited affect	Sickle disease including any significant acute crisis (referred acutely) Thalassaemia major including complex thalassaemia: iron overload / endocrine disease / pulmonary hypertension
Immune thrombocytopenia (ITP)- platelet count >75 Gestational thrombocytopenia	Current ITP or other cause - platelet count ≤75	ITP or other cause - current platelets <50
	Thrombocytosis / White cell disorders (non-malignant)	Disease complexity out with local clinician experience or hospital facilities.
Current or previous single VTE	Recurrent VTE despite anticoagulation Acute VTE after 34 weeks current pregnancy	Current extensive VTE. Recurrent VTE despite anticoagulation with thrombophilia Factor Xa monitoring indicated and inaccessible locally
Obstetric antiphospholipid syndrome	Thrombotic antiphospholipid syndrome	Complex antiphospholipid syndrome (acute or recurrent VTE despite treatment and or other significant complexity)
Inherited thrombophilia (no personal VTE)	Inherited thrombophilia previous personal VTE	Complex and or uncertain thrombophilia requiring further investigation and or treatments. Antithrombin deficiency
Malignancy – previous and cured.	Stable myeloproliferative / myelodysplastic disease including thrombocythaemia	Active or new haematological malignancy and or atypical disease

	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
	Mild platelet function disorder with platelet count >100	Moderate / severe platelet function disorder or platelet count ≤ 100
	Carriers of haemophilia with known female fetus and normal factor VIII/IX Carriers of haemophilia with male or unknown fetal gender	Carriers of haemophilia with significant coagulation abnormality and or affect
	Type I Von-Willebrand disease, vWF activity normalised in pregnancy	vWD: Type 1 if vWF not normalised, Type II and Type III
B12 / folate deficiency		Any transfusion dependent disease

15. Appendix 2 - referral process