

# Referral to the East Midlands Maternal Medicine Network: Regional Standard Operating Procedure

East Midlands Maternal  
Medicine Network



UHL Trust ref: E1/2024

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## **1. Introduction and who this Standard Operating Procedure (SOP) applies to**

The East Midlands Maternal Medicine Network was commissioned in April 2022 as part of the National programme to implement Maternal Medicine Networks aiming to improve outcomes for women and birthing people with new and background medical disease before, during and after pregnancy.

The Integrated Care Boards included in the Region are:

- Leicester, Leicestershire and Rutland (lead ICB)
- Derby and Derbyshire
- Lincolnshire
- Northamptonshire
- Nottingham and Nottinghamshire

The scope of this SOP covers working with women and birthing people with medical co-morbidities pre-conceptually, in pregnancy and postnatally across the East Midlands Region. Specifically it describes the process and the clinical pathways for management of women and birthing people in their local environment (where appropriate) whilst ensuring access to high quality tertiary services via referral pathways to Multi-Disciplinary Teams identified by medical speciality (e.g. Cardiology, Neurology etc.)

## **2. Standards and Procedures**

### **Executive Summary**

Ideally, all women and birthing people with known 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 and birthing people with high-risk medical conditions should be considered for referral for specialist pre-conceptual advice. This may take place in either primary or secondary care.

Routine medical reviews for women and birthing people of childbearing age, both in primary or secondary care, should include planning for pregnancy and raising awareness of the advantages of this planning.

Local maternity service guidelines for common and serious medical problems in pregnancy, including this SOP, will form the basis of regional organisation and management including referral for opinion or transfer if indicated. The aim of this is to confirm quality and consistency of care and access throughout the East Midlands, in order to reduce the risk of maternal and neonatal morbidity and mortality.

The vision of the East Midlands Maternal Medicine Network (EMMMN) is to provide excellent care to women and birthing people with medical conditions before during and after pregnancy. This will be achieved by working collaboratively with all the staff within our network, sharing and providing support in all aspects of care for women and birthing people with medical conditions. This will include monthly MDTs for identified medical specialties or sooner if more urgent advice and guidance is required. There will be shared learning and experience, shared outcomes and related audit and governance at individual and service levels.

This document has been developed by the team responsible for implementation of the EMMMN and is the outcome of work involving consultation with Chairs of the specialty MDTs (obstetricians, physician and surgeons) and other relevant specialties such as obstetric anaesthetists, midwives and specialist nurses. All provider organisations have been invited to take part in these discussions. The document also incorporates the recommendations in the Service Specification for the Network (appendix 2).

The SOP particularly focuses on:

- Categorisation of complexity of clinical conditions to inform need for referral and regional specialty advice
- Process for referral and gaining access to specialty advice
- Process for communication and archiving of clinical discussions, advice and planning
- Documentation and reporting of Key Performance Indicators (KPIs)

## **Background**

In high income countries such as the United Kingdom pregnancy and childbirth is very safe. However, there are still a significant number of maternal deaths and in the last triennial report; the numbers were increased by comparison to the previous triennium, although this increase was not statistically significant (MBRRACE 2018 to 2020). Most women and birthing people who die are not dying from the direct complications of pregnancy but from indirect causes such as cardiac disease, neurological conditions and suicide. Mental health is outside the scope of this guideline. The majority of deaths occur post-delivery.

Nearly 60% of women and birthing people who died in 2018 to 2020 were known to have pre-existing medical conditions. These conditions can be exacerbated by other factors such as maternal age, BMI, ethnicity and social deprivation. There is evidence that for a significant number of women and birthing people, the outcome may have been different if the quality of the care they had received had been better. Maternal medical conditions are also significantly associated with neonatal morbidity and mortality.

The formation of national maternal medicine networks, as recommended in Safer Maternity Care November 2017 (<https://www.gov.uk/government/publications/safer-maternity-care-progress-and-next-steps>), aims to deliver coordinated and specialist care for all women and birthing people with background medical conditions. The network approach to delivering care has been embraced by many specialties of medicine, surgery and maternity. It is already practiced for some conditions, most commonly diabetes, for medical problems in the maternity population. This document aims to formalise this approach and describe the operational aspects of the East Midlands Maternal Medicine Network (EMMMN).

As with all guidelines, this document provides guidance for women, birthing people and clinicians involved in their care. Specific and individualised conversation and communications are recommended regarding application of the SOP to clinical management as needed, including ensuring the views of women and birthing people themselves are heard.

The EMMMN collaborating organisations include (but not-exclusively):

- Universities of Leicester, University Hospitals of Leicester NHS Trust
- Nottingham University Hospitals NHS Trust
- Chesterfield Royal Hospital NHS Foundation Trust
- University Hospitals of Derby and Burton NHS Foundation Trust
- Sherwood Forest Hospitals NHS Foundation Trust
- United Lincoln Hospitals NHS Trust
- Kettering General Hospital NHS Foundation Trust
- Northampton General Hospital NHS Foundation Trust

UHL is the Maternal Medicine Lead Centre working in close collaboration with the supporting Maternal Medicine Centres NUH and UHDB.

### **3. 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, NICE<sup>3,4</sup>, and MBRRACE(UK)<sup>1</sup>.

The purpose of pre-conceptual counselling is to:

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

Largely this can be delivered in primary care. However, where there is particular risk or complexity or where current treatments may be harmful to the developing fetus, consideration of referral for secondary or tertiary level counselling is recommended. Pre-conceptual advice is available for a variety of medical co-morbidities in pregnancy across the East Midlands.

An aim of the EMMMN is to promote the development of these services further and introduce a structured approach to offering this service across the region. Examples of conditions that should be considered for referral can be found in appendix 1 and correspond to category B and C patients.

Conditions in category C should be considered for referral for pre-conceptual care to the one of the maternal medicine centres either: Leicester, Nottingham or Derby or directly to the EMMMN MDT. Conditions in category B can be managed through the local hospital but may be referred to the EMMMN or one of the MMC if these services are not available. These are examples and consideration of the whole clinical picture should be taken, which includes such factors as BMI, ethnicity and previous pregnancy history.

At the present time referral for pre-conceptual advice can be made through Refer-a-Patient and will be managed via the appropriate MDT.

#### **4. Local Maternity Guidelines**

Specific common conditions may have specific national guidelines and should be referred to if they are suitable.

National guidelines supporting development of local guidelines include:

- Epilepsy (RCOG 2016) (Green Top No 68)
- Hypertension (NICE, 2023) (NG133)
- Diabetes (NICE, 2015) (NG3) (SBLV3)
- Inherited bleeding disorders (RCOG, 2017) (Green top No 71)
- Cardiovascular disease (ESC, 2018)
- Acute VTE (RCOG, 2015) (Green Top 37b)
- Prevention of VTE (RCOG, 2015) (Green Top 37a)
- Sickle cell disease (BSH 2021)

Local guidelines should include individualised and appropriately detailed care plans, including specific management before during and after the birth. In particular arrangements for further postnatal care and clear responsibilities 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.

#### **5. Referral for Opinion/Transfer to the East Midlands Maternal Medicine Network.**

Factors influencing referral to the EMMMN include a variety of clinical issues. These include obstetric, medical and anaesthetic experience before, during and after the pregnancy and birth ([See Appendix 1](#)). Appendix 1 lists the agreed conditions for referral to an EMMMN MDT for either an opinion, for shared care or transfer of care and should be considered by the local hospital and the MDT.

#### **All category C patients should be discussed at a relevant Maternal Medicine Centre MDT for a plan of care to be made and documented appropriately.**

Where women and birthing people meeting the criteria for referral are not referred, this should be agreed by the responsible local maternity clinicians, the relevant medical and anaesthetic teams and local neonatology services. A decision not to refer needs appropriate documentation with the reasons for this decision clearly recorded in the patient's medical record. This includes women and birthing people in the antenatal period through to a year post delivery. The principle method of communication between the local and tertiary referral hospital is via referral on the Refer-a-Patient platform.

The easiest way to do this is via the EMMMN website <https://east-midlands-maternal-medicine-network.nhs.uk>. Mobile telephone communication to a dedicated EMMMN mobile number may also be useful in normal working hours, for example if Refer-a-Patient is not available – 07977 566059. For non-urgent communication the network email address can be

used [eastmidlandsmaternalmedicinenetwork@uhl-tr.nhs.uk](mailto:eastmidlandsmaternalmedicinenetwork@uhl-tr.nhs.uk). This is monitored Monday to Friday excluding bank holidays. For urgent out-of-hours advice, please contact your local on call teams.

All MDT meetings will be held remotely using suitable IT technology, currently Microsoft Teams.

## **6. Roles and Responsibilities**

This SOP applies to all clinical staff employed or contracted by one or more of the following NHS Trusts who provide care to women and birthing people:

- Universities of Leicester, University Hospitals of Leicester NHS Trust
- Nottingham University Hospitals NHS Trust
- Chesterfield Royal Hospital NHS Foundation Trust
- University Hospitals of Derby and Burton NHS Foundation Trust
- Sherwood Forest Hospitals NHS Foundation Trust
- United Lincoln Hospitals NHS Trusts
- Kettering General Hospital NHS Foundation Trust
- Northampton General Hospital NHS Foundation Trust

All staff have a responsibility to ensure that they are aware of this document and its contents. If category C patients are not referred to the EMMMN MDT, it should be clearly documented in the patient records the reason / rationale for this and this information should be notified to the network. This information is required to be reported quarterly to the national team NHSE. It is the responsibility of department managers, heads of service, consultants, team leaders and education leaders in each individual unit to cascade the SOP to ensure staff are aware of this document.

It is the responsibility of the referring clinician to disseminate the outcome of the regional MDT to the relevant staff within the region. A local standard operating procedure should be developed by each hospital to determine the most appropriate method for each hospital. The information will also be able to be accessed through refer a patient using the QR code generated for each patient.

## **7. Communication of SOP and Training Plans**

The SOP will be available on the local intranet or other platform as agreed locally in each individual maternity unit in the East Midlands, and distributed to the relevant clinical teams. Team leaders and relevant managers will be expected to cascade to all relevant staff groups. The SOP will be distributed to the EMMMN MDTs via the MDT Chairs as well as to the organisations that are in the Regional Footprint of the EMMMN (see earlier in the document). Once the EMMMN website is available, the SOP and referral categories will be available on the website.

## **8. 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. Monitoring will therefore be proportionate, achievable and deal with specifics that can be assessed or measured. It is expected to be facilitated by the Refer-a-Patient platform.

Furthermore there are national Key Performance Indicators for Maternal Medicine Networks currently in development which will be critical for monitoring compliance and will be subject to change from time to time. There is an expectation from NHSE that all Trusts will submit relevant data for purposes of monitoring, governance and learning. (The KPIs will be added as an appendix when available.)

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
% of women who have been referred for care/opinion to MMC and seen at MMC (remote or in person), who have an MDT produced care plan. Wherever feasible, care plan should incl PN care & handing care back to physicians.	Audit	Lead Midwife East Midlands Maternal Medicine Network	Quarterly	Reported to NHS England
Adverse outcomes are case reviewed and learning shared across the network.	Audit		Quarterly	NHS England
Evidence that regular MDT meetings are held in every MMC	Audit		Quarterly	NHS England
All category C cases are discussed in a timely manner across the Network footprint	Audit		Quarterly	NHS England
Evidence that regular MDT meetings are held in every MMC and share learning across the Network to incl; maternal deaths, adverse /serious incidents and service level recommendations in annual MBRRACE reports on maternal mortality.	Audit		Quarterly	NHS England
Evidence of at least one – ideally MDT regional teaching session each quarter targeting at least one of the following staff groups; primary & secondary care clinicians, midwives, obstetric anaesthetists, specialist	Audit		Quarterly	NHS England

nurses, pharmacists & allied health professionals.				
Monitor women's experiences of accessing and receiving care. Appropriate representation from those groups impacted by health inequalities	Service user feedback via questionnaires		Annually	LCB
MMN can demonstrate user co-production of all aspects of MMN function.	Service user feedback via questionnaires		Annually	LCB

## **9. Review**

SOP to be reviewed after three years or sooner as a result of audit findings or as any changes to practice occurs.

## **10. Education and Training**

See dissemination process as noted above. This SOP needs to be adopted across the East Midlands. The EMMMN will support this but the responsibility for the patient lies with the local hospital.

## **11. Supporting References**

MBRRACE-UK - Saving Lives, Improving Mothers' Care 2022  
 NHS England Maternal medicine networks: Service Specification October 2021  
[https://www.england.nhs.uk/wp-content/uploads/2021/10/B0709\\_Service-specification-for-maternal-medicine-networks-October-2021.docx](https://www.england.nhs.uk/wp-content/uploads/2021/10/B0709_Service-specification-for-maternal-medicine-networks-October-2021.docx)

## **12. Key Words**

Pregnancy  
 Network  
 Maternal medicine  
 Maternal medicine  
 Category C  
 Complex Pregnancy



The EMMMN recognises the diversity of the community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.

As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS	
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<b>Details of Changes made during review:</b> New document	

## Appendix 1: EMMMN referral criteria

Threshold for referral should depend on local obstetric, anaesthetic and other specialist expertise. Women and birthing people with conditions that fall into Tiers B and C should be considered for referral for discussion or transfer of care to an MDT pre-conceptionally (where possible) for advice and in early pregnancy.

Where women and birthing people meeting criteria for referral are not referred this should be agreed by the responsible local obstetrician, anaesthetist and relevant physician, and preferably neonatology services.

The MDTs are of course happy to receive referrals for advice and guidance or discussion for conditions that fall outside those listed.

Please complete all referrals via this link. An NHS.net or NHS Trust email address is required. <https://east-midlands-maternal-medicine-network.nhs.uk>

### Cardiology

Category A	Category B	Category C
Local hospital planned care Refer to MDT for opinion if required	Consider referral to MDT for discussion and advice	Refer to MDT Consider transfer of Care
<b>Congenital Heart Disease</b>		
<ul style="list-style-type: none"> <li>Successfully repaired or device closed ASD/VSD/PDA/partial or total anomalous pulmonary venous connection with no arrhythmia or LV/RV dysfunction</li> <li>Repaired AVSD with no or mild left AV valve regurgitation</li> </ul>	<ul style="list-style-type: none"> <li>Tetralogy of Fallot</li> <li>Successfully repaired or stented coarctation</li> <li>AVSD with residual moderate or greater left AV valve regurgitation</li> </ul>	<ul style="list-style-type: none"> <li>Unrepaired ASD/VSD/PDA</li> <li>Systemic right ventricle</li> <li>Fontan circulation</li> <li>Cyanotic heart disease</li> <li>Unrepaired coarctation or severe recoarctation</li> <li>Other complex congenital heart disease</li> </ul>
<b>Arrhythmias and Channelopathies</b>		
<ul style="list-style-type: none"> <li>SVT</li> <li>Successfully ablated atrial arrhythmias</li> </ul>	<ul style="list-style-type: none"> <li>Arrhythmias that are problematic or requiring 2 or more agents</li> <li>Channelopathies including Brugada syndrome, Long QT syndrome, CPVT and other ion channel diseases linked to heart rhythm disturbance</li> </ul>	<ul style="list-style-type: none"> <li>Poorly controlled ventricular arrhythmias</li> </ul>
<b>Aortic Disease</b>		

	<ul style="list-style-type: none"> <li>• Marfan syndrome with normal aorta</li> <li>• Bicuspid AV with Aorta &lt;45 mm</li> <li>• Previous aortic dissection</li> <li>• Other heritable thoracic aortic diseases</li> <li>• Turner syndrome (irrespective of aortic dimensions)</li> </ul>	<ul style="list-style-type: none"> <li>• Marfan syndrome with dilated aorta</li> <li>• Loeys-Dietz syndrome, Takayasu's Disease (irrespective of aortic dimensions)</li> <li>• Turner's syndrome with aortic dimensions)</li> <li>• Aorta &gt;45 mm in association with bicuspid aortic valve</li> <li>• Vascular Ehlers-Danlos Syndrome (all patients)</li> </ul>
<b>Valvular Heart Disease</b>		
<ul style="list-style-type: none"> <li>• Mild to moderate AS/AR, MR, PS/PR with no evidence of LV/RV dysfunction</li> <li>• Mild mitral stenosis with no current atrial arrhythmia</li> </ul>	<ul style="list-style-type: none"> <li>• Any bioprosthetic valve</li> <li>• MR severe or with evidence of LV dysfunction</li> <li>• PS/PR severe or with evidence of RV dysfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Any mechanical valve</li> <li>• AS/AR – moderate or severe or with evidence of LV dysfunction</li> <li>• Mitral stenosis or symptomatic moderate mitral stenosis</li> </ul>
<b>Myocardial Disease</b>		
<ul style="list-style-type: none"> <li>• Left ventricular impairment that is mild and stable but with a low threshold for MDT referral</li> </ul>	<ul style="list-style-type: none"> <li>• Cardiomyopathies including hypertrophic cardiomyopathy, dilated cardiomyopathy, arrhythmogenic right ventricular cardiomyopathy, left ventricular non-compaction and other inherited disorders of heart muscle</li> <li>• Left ventricular impairment of any cause that is moderate</li> <li>• Previous or current peripartum cardiomyopathy (including if LV function normal after previous peripartum cardiomyopathy)</li> </ul>	<ul style="list-style-type: none"> <li>• Left ventricular impairment of any cause that is moderate-severe or severe</li> <li>• Cardiomyopathies with significant adverse features e.g. severe LVOT obstruction with HCM, poor RV function or ventricular arrhythmia with ARVC</li> </ul>
<b>Coronary Disease</b>		

	<ul style="list-style-type: none"> <li>• Previous myocardial infarction related to acquired coronary disease (NSTEMI or STEMI)</li> <li>• Previous myocardial infarction related to spontaneous coronary artery dissection</li> <li>• Previous myocardial infarction related to thrombotic coronary artery occlusion (paradoxical embolus, thrombus in situ)</li> </ul>	
<b>Pace Makers and Defibrillators</b>		
<ul style="list-style-type: none"> <li>• Normally functioning devices with sufficient battery longevity to complete pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• Active device complications including lead malfunction, system infection, insufficient battery longevity to complete pregnancy</li> <li>• Appropriate and inappropriate therapy for ventricular tachycardia</li> </ul>	<ul style="list-style-type: none"> <li>• Device related complications that require tertiary cardiology care</li> </ul>
<b>Other</b>		
		<ul style="list-style-type: none"> <li>• Pulmonary Hypertension</li> <li>• Heart Transplant</li> </ul>

## Renal

Category A Local hospital planned care Refer to MDT for opinion if required	Category B Consider referral to MDT for Discussion	Category C Refer to MDT Consider Transfer of Care
<ul style="list-style-type: none"> <li>• Uncomplicated CKD stage 1-2</li> </ul>	<ul style="list-style-type: none"> <li>• CKD stage G3a-3b</li> <li>• Significant baseline proteinuria (e.g. &gt;1g/day, PCR&gt;100mg/mmol)</li> <li>• Glomerulonephritis</li> <li>• Lupus nephritis</li> <li>• Inherited kidney disease</li> <li>• Kidney transplant recipient</li> </ul>	<ul style="list-style-type: none"> <li>• CKD stage G4-5</li> <li>• Dialysis recipient</li> </ul>

## Diabetes & Endocrinology

## Diabetes

Category A	Category B	Category C
Local hospital planned care Refer to MDT for opinion if required	Consider referral to MDT for discussion and advice	Refer to MDT Consider Transfer of Care
<ul style="list-style-type: none"> <li>• Gestational Diabetes</li> <li>• Type 2 Diabetes</li> <li>• Uncomplicated Type 1 diabetes</li> </ul>	<ul style="list-style-type: none"> <li>• Diabetes with CKD 3</li> <li>• Type 1 Diabetes with autonomic neuropathy</li> <li>• Previous bariatric surgery</li> <li>• MODY (maturity-onset diabetes of the young)</li> </ul>	<ul style="list-style-type: none"> <li>• Cystic Fibrosis with Type 1 Diabetes</li> <li>• Diabetes with CKD 4 or 5</li> <li>• Diabetes and retinopathy requiring treatment during pregnancy and/or kidney impairment (CKD 2 with significant proteinuria i.e. PCR&gt;30; or CKD 3 or more)</li> </ul>

## Endocrinology

Category A	Category B	Category C
Local hospital planned care Refer to MDT for opinion if required	Consider referral to MDT for discussion and advice	Refer to MDT Consider Transfer of Care
<ul style="list-style-type: none"> <li>• Hyperthyroidism – well controlled</li> <li>• Hypothyroidism</li> <li>• Pituitary Microadenoma (not secreting dopamine)</li> </ul>	<ul style="list-style-type: none"> <li>• Pituitary macroadenoma</li> <li>• Dopamine producing pituitary microadenoma</li> <li>• Acromegaly</li> <li>• Uncontrolled Hyperthyroidism</li> <li>• Hyperparathyroidism with raised calcium</li> <li>• Functioning adrenal tumours</li> <li>• Congenital adrenal hyperplasia</li> <li>• Addison's disease</li> </ul>	<ul style="list-style-type: none"> <li>• Pheochromocytoma</li> <li>• Cushing Syndrome</li> <li>• Acromegaly</li> <li>• Pituitary macroadenoma</li> <li>• MEN (multiple endocrine neoplasia)</li> </ul>

## Gastroenterology, Hepatology & Nutrition

## Luminal Gastroenterology

Category A	Category B	Category C
Local hospital planned care Refer to MDT for opinion if required	Consider refer to MDT for discussion and advice	Refer to MDT Consider Transfer of Care
	<ul style="list-style-type: none"> <li>• IBD with plans to continue biologics into third trimester</li> <li>• IBD with active perianal disease</li> <li>• Treated GI malignancy</li> </ul>	<ul style="list-style-type: none"> <li>• Bowel Transplant</li> <li>• Active GI malignancy</li> <li>• Complex pancreatitis</li> </ul>

## Hepatology

Category A	Category B	Category C
Local hospital planned care Refer to MDT for opinion if required	Consider referral to MDT for discussion and advice	Refer to MDT Consider Transfer of Care
<ul style="list-style-type: none"> <li>• Stable Autoimmune Hepatitis</li> <li>• Chronic Liver disease without Cirrhosis</li> <li>• Gall Stones</li> </ul>	<ul style="list-style-type: none"> <li>• Liver transplant – managed in conjunction with transplant centre</li> <li>• Cirrhosis</li> <li>• Portal Hypertension without varices</li> <li>• Acute fatty liver of pregnancy</li> <li>• Autoimmune hepatitis</li> <li>• Liver infarction / haematoma</li> </ul>	<ul style="list-style-type: none"> <li>• On Liver Transplant List</li> <li>• Liver transplant not jointly managed with transplant centre</li> <li>• Portal Hypertension with varices</li> </ul>

## Nutrition

Category A	Category B	Category C
Local hospital planned care Refer to MDT for opinion if required	Consider referral to MDT for discussion and advice	Refer to MDT Consider Transfer of Care
	<ul style="list-style-type: none"> <li>• Enteral or parenteral nutrition</li> </ul>	

## Haematology

Category A	Category B	Category C
Local Hospital Planned Care Refer to MDT for opinion if required	Refer to MDT for Discussion unless local haematology expertise available	Refer to MDT Consider Transfer of Care
<b>Haemoglobinopathy</b>		<i>Refer to Haemoglobinopathy Treating Centre</i>
<ul style="list-style-type: none"> <li>Sickle cell trait</li> </ul>		<ul style="list-style-type: none"> <li>Sickle cell disease</li> </ul>
<ul style="list-style-type: none"> <li>Alpha thalassaemia carriers</li> <li>Beta thalassaemia carriers, not requiring transfusions</li> </ul>	<ul style="list-style-type: none"> <li>Non transfusion-dependent thalassaemia such as HbH or thalassaemia intermedia</li> </ul>	<ul style="list-style-type: none"> <li>Beta thalassaemia major</li> <li>Transfusion dependent thalassaemia (including intermedia requiring transfusions during pregnancy)</li> </ul>
<ul style="list-style-type: none"> <li>Uncomplicated enzyme or membrane disorders without iron overload</li> </ul>		<ul style="list-style-type: none"> <li>Rare inherited anaemias</li> </ul>
<b>Bleeding Disorders</b>		<i>Refer to Haemophilia Comprehensive Care Centre HCC</i>
	<ul style="list-style-type: none"> <li>Haemophilia carrier with normal levels and female fetus</li> </ul>	<ul style="list-style-type: none"> <li>Low-level haemophilia carrier</li> <li>All carriers of severe haemophilia A or B</li> <li>Carriers of haemophilia with a male fetus (or gender unknown)</li> </ul>
	<ul style="list-style-type: none"> <li>Type 1 VWD</li> </ul>	<ul style="list-style-type: none"> <li>Type 2 and 3 VWD</li> </ul>
	<ul style="list-style-type: none"> <li>Other mild bleeding disorders</li> </ul>	<ul style="list-style-type: none"> <li>FXI deficiency with bleeding phenotype</li> </ul>
		<ul style="list-style-type: none"> <li>Any other severe bleeding disorder eg Glanzmann's, Bernard Soulier</li> </ul>
<b>Malignancy, MPN, other haematological disorders</b>		
<ul style="list-style-type: none"> <li>Previous haem malignancy in remission without late effects</li> </ul>	<ul style="list-style-type: none"> <li>Previous haem malignancy with late effects or post bone marrow transplant</li> </ul>	<ul style="list-style-type: none"> <li>Active haematological malignancy</li> </ul>
<ul style="list-style-type: none"> <li>Haematinic deficiencies and iron deficiency anaemia</li> </ul>	<ul style="list-style-type: none"> <li>Autoimmune haemolytic anaemia (AIHA)</li> </ul>	<ul style="list-style-type: none"> <li>Aplastic anaemia</li> <li>Paroxysmal nocturnal haemoglobinuria (PNH)</li> <li>Myeloproliferative conditions (ET/PV/MF)</li> </ul>
<b>Mechanical Heart Valves</b>		

		<ul style="list-style-type: none"> <li>All mechanical heart valves</li> </ul>
<b>VTE</b>		
<ul style="list-style-type: none"> <li>VTE in previous pregnancy</li> <li>High risk VTE (RCOG guidelines RA)</li> </ul>	<ul style="list-style-type: none"> <li>Acute VTE in current pregnancy at &lt;32 weeks gestation</li> </ul>	<ul style="list-style-type: none"> <li>Acute VTE at &gt;32 weeks gestation</li> <li>Complex VTE</li> </ul>
<ul style="list-style-type: none"> <li>Inherited thrombophilia (except antithrombin deficiency)</li> </ul>		<ul style="list-style-type: none"> <li>Antithrombin deficiency</li> </ul>
<ul style="list-style-type: none"> <li>Obstetric antiphospholipid syndrome</li> </ul>		<ul style="list-style-type: none"> <li>Thrombotic antiphospholipid syndrome</li> </ul>
<b>Thrombocytopenia</b>		
<ul style="list-style-type: none"> <li>Gestational thrombocytopenia</li> <li>All other ITP</li> </ul>	<ul style="list-style-type: none"> <li>ITP requiring treatment in pregnancy (previous or current)</li> <li>ITP with previous neonatal thrombocytopenia or bleeding</li> </ul>	<ul style="list-style-type: none"> <li>Complicated ITP or platelet count consistently &lt;50</li> </ul>
		<ul style="list-style-type: none"> <li>Women or birthing people with history of TTP or atypical HUS</li> </ul>
<b>Antibody mediated conditions</b>		
<ul style="list-style-type: none"> <li>Low risk red cell antibodies</li> </ul>		<ul style="list-style-type: none"> <li>Previous NAIT</li> <li>HDFN requiring IVIG antenatally</li> </ul>

### Rheumatology

Category A	Category B	Category C
Local Hospital Planned Care Refer to MDT for opinion if required	Refer to MDT for Discussion	Refer to MDT Consider Transfer of Care
<ul style="list-style-type: none"> <li>Any other rheumatological condition not in 2 or 3</li> </ul>	<ul style="list-style-type: none"> <li>Any Connective Tissue Disease on DMARD or biologic therapy except if only on hydroxychloroquine</li> <li>Any Connective Tissue Disease with extra-articular manifestations involving heart or kidneys</li> <li>SLE with cerebral, renal or</li> </ul>	<ul style="list-style-type: none"> <li>Systemic sclerosis</li> <li>Any Connective Tissue Disease with Lung involvement</li> <li>Ehlers Danlos type VI (vascular type)</li> </ul>



	cardiac involvement <ul style="list-style-type: none"> <li>• Any vasculitis</li> <li>• Any rheumatological condition or connective tissue disease with plans to continue biologics into third trimester</li> <li>• Behçets on DMARDs</li> </ul>	
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### Neurology & Neurosurgery

Category A	Category B	Category C
Local Hospital Planned Care Refer to MDT for opinion if required	Refer to MDT for Discussion	Refer to MDT Consider Transfer of Care
<ul style="list-style-type: none"> <li>• Epilepsy managed in a combined clinic including specialist neurology and obstetrics</li> <li>• Migraine</li> <li>• Previous brain tumour</li> </ul>	<ul style="list-style-type: none"> <li>• Previous ischaemic stroke</li> <li>• Previous intracranial haemorrhage</li> <li>• Untreated intracranial aneurysm</li> <li>• Myotonic dystrophy</li> <li>• Pituitary apoplexy</li> <li>• Poorly controlled epilepsy on multiple AEDs</li> <li>• Multiple sclerosis on disease modifying therapy</li> <li>• Current brain tumour</li> <li>• Neurofibromatosis</li> </ul>	<ul style="list-style-type: none"> <li>• Myasthenia Gravis</li> <li>• All epilepsy without local access to a combined clinic including specialist neurology and obstetrics</li> <li>• Progressive brain tumour</li> <li>• Acute stroke</li> <li>• New-onset Guillain-Barre</li> <li>• Progressive brain tumour</li> </ul>

### Respiratory

Category A	Category B	Category C
Local Hospital Planned Care Refer to MDT for opinion if required	Refer to MDT for Discussion	Refer to MDT Consider Transfer of Care

<ul style="list-style-type: none"> <li>• Asthma not on immunotherapy</li> <li>• Pneumonia</li> <li>• TB</li> <li>• Chronic obstructive Airways Disease</li> <li>• Pneumothorax</li> <li>• Sarcoidosis without restrictive lung disease, no renal involvement</li> <li>• Managed obstructive sleep/ obesity hypoventilation</li> <li>• Pulmonary embolus</li> </ul>	<ul style="list-style-type: none"> <li>• Restrictive lung disease with FVC &lt; 50% predicted including scoliosis</li> <li>• Any respiratory condition currently receiving immunotherapy / biologics</li> <li>• Complicated asthma:</li> <li>• Repeated presentations of asthma (<math>\geq 3</math>) in pregnancy</li> <li>• Asthma receiving biologics</li> <li>• Long-term corticosteroids</li> <li>• Bronchiectasis</li> <li>• New diagnosis of obstructive sleep apnoea/ obesity hypoventilation in pregnancy</li> <li>• Covid Pneumonitis</li> <li>• Lung cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Cystic Fibrosis</li> <li>• Lung Transplant</li> <li>• Restrictive lung disease (e.g. ILD, kyphoscoliosis) with FVC &lt;50%</li> <li>• Neuromuscular disorders with respiratory muscle involvement e.g. myasthenia gravis, Guillain-Barré syndrome</li> <li>• Pulmonary Vasculitis</li> </ul>
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Please complete all referrals via this link - <https://east-midlands-maternal-medicine-network.nhs.uk>



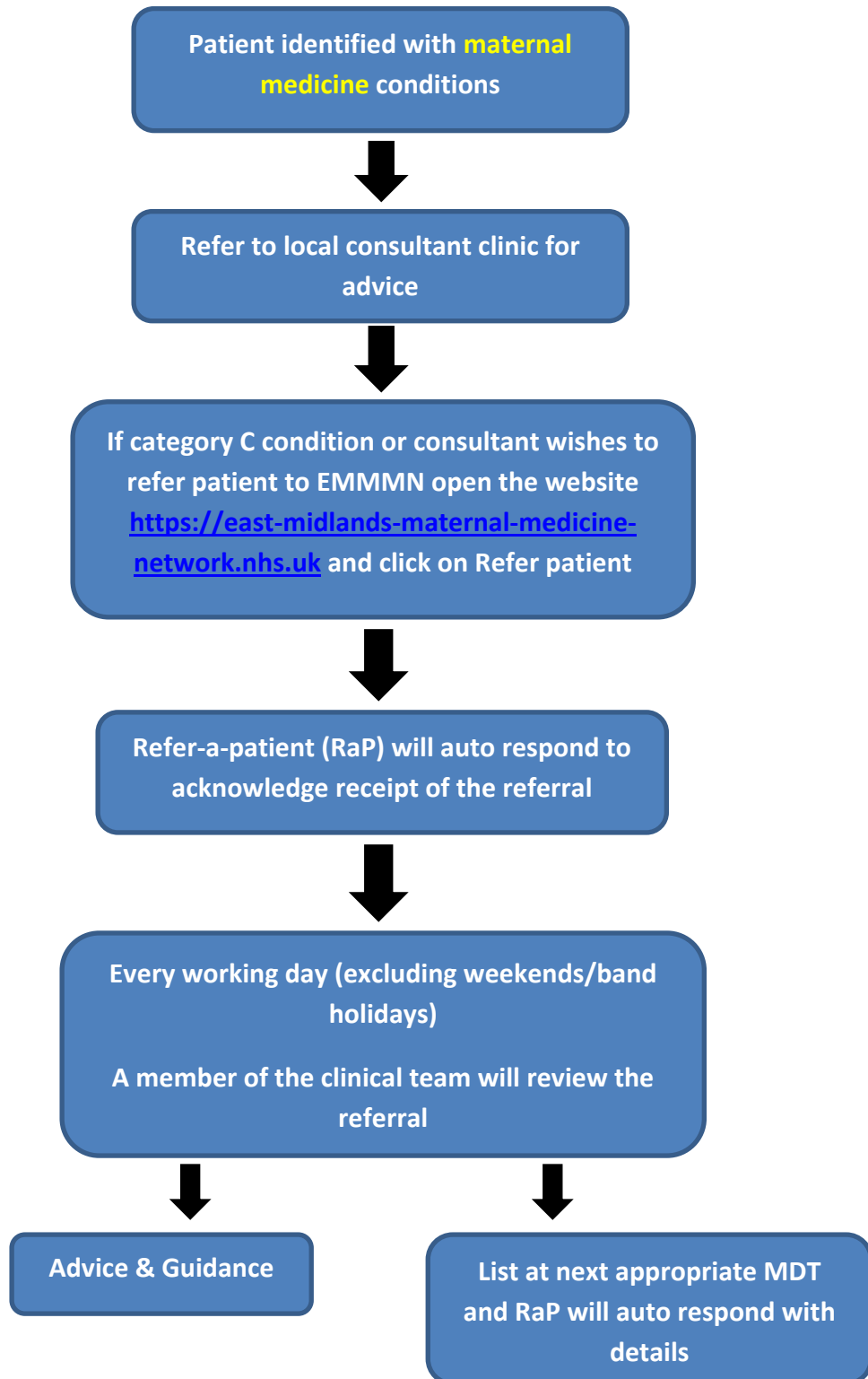
## Appendix 2: Time table for Multi-Disciplinary Meetings

Multidisciplinary Team meetings are held monthly with a minimum of 10 a year. Each MDT has 2 (at least) co-chairs. One is a physician, the other (an obstetrician) maternal medicine consultant with a specialist interest. The MDTs are open to all relevant NHS staff to attend, including obstetricians, physicians, obstetric physicians, obstetric anaesthetists, midwives, specialist nurses, specialist trainees, medical and midwifery students. Please email East Midlands Maternal Medicine Network for a link. This must be from an NHS Trust or NHS.net email account: [eastmidlandsmaternalmedicinenetwork@uhl-tr.nhs.uk](mailto:eastmidlandsmaternalmedicinenetwork@uhl-tr.nhs.uk)

Below is a list of when the MDTs are currently held. This may be varied from time to time when clinical needs take precedence or it falls on a bank holiday.

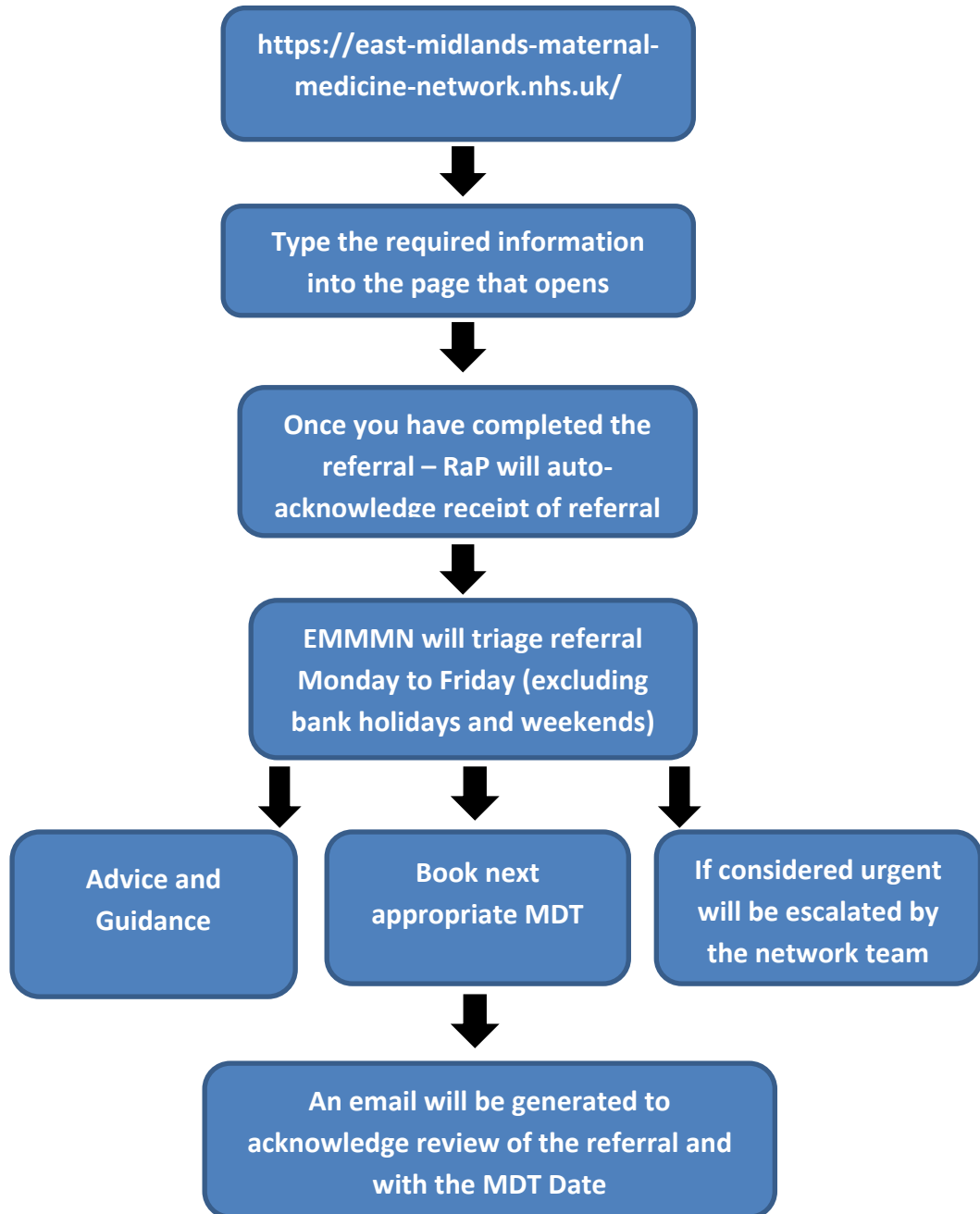
MDT by specialty:	When it occurs by weeks of the month:	Time:
Diabetes and Endocrine	4 <sup>th</sup> Monday	13.00 - 14.00
Cardiac	2 <sup>nd</sup> Friday	12.30 -14.00
Haematology	2 <sup>nd</sup> Thursday	09.00 - 10.00
Renal	3 <sup>rd</sup> Friday	15.00 - 16.00
Gastroenterology and Hepatology	2 <sup>nd</sup> Wednesday	13:00 - 14:00
Respiratory	3 <sup>rd</sup> Tuesday	14:00-15:00
Neurology	1 <sup>st</sup> Friday	14.00-15.00
Rheumatology	4 <sup>th</sup> Tuesday	14.00-15.00

**Appendix 3: Referral pathway when clinical situation is not immediately critical. Includes pre-pregnancy, currently pregnant or post-partum.**

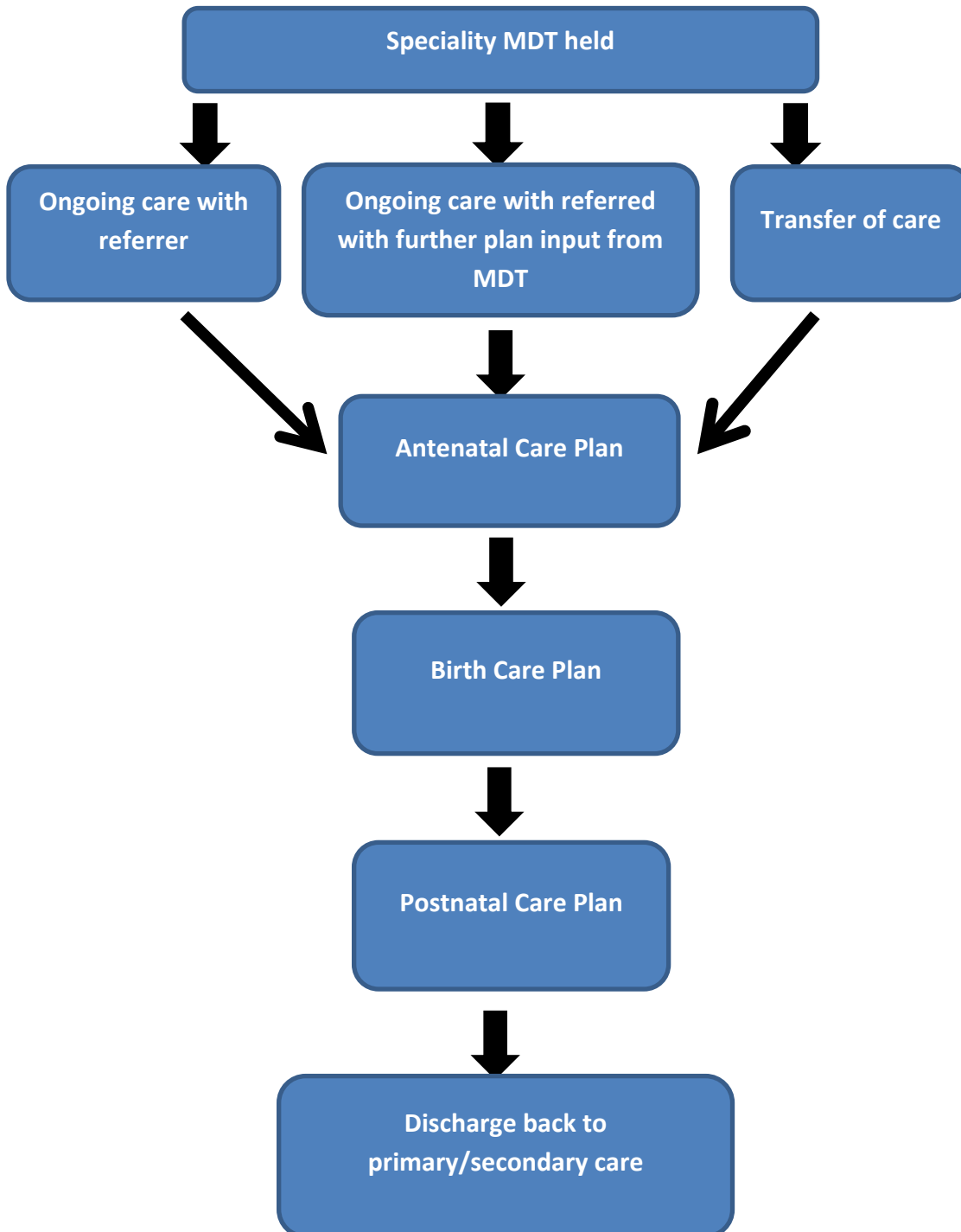


#### Appendix 4: Referral via Refer a Patient Using the Website

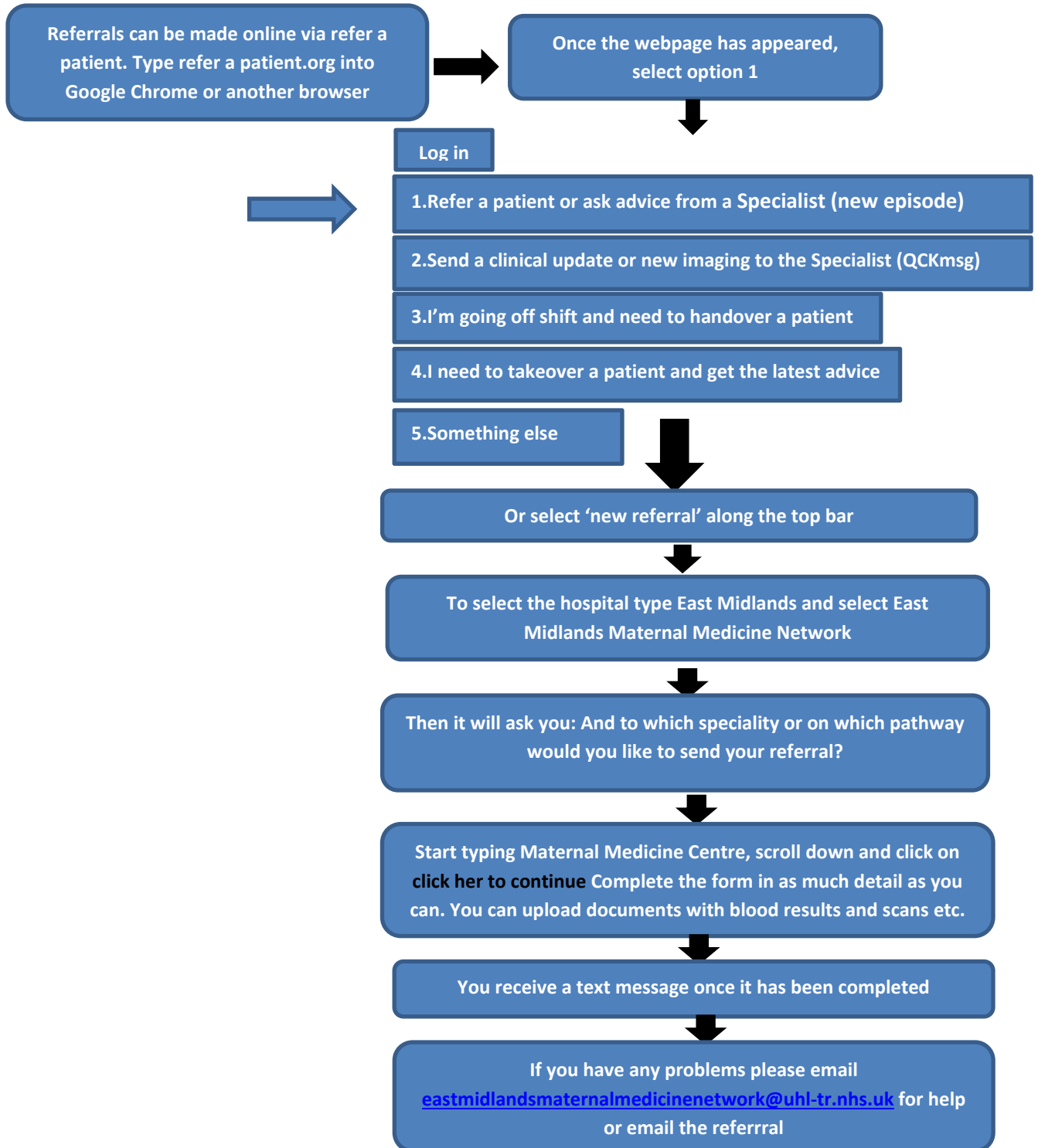
<https://east-midlands-maternal-medicine-network.nhs.uk/>



**Appendix 5: Flow through the MDT process and ongoing clinical responsibilities agreed after MDT held**



**Appendix 6: How to refer a patient to the East Midlands Maternal Medicine Network where the website is not available**



## Appendix 7: Service Health Inequalities Matrix

# Service – Health Inequalities Matrix



Dr Bola Owolabi – Director –  
Health inequalities