



The Role of Maternal Medicine Networks and Risk Stratification Categories

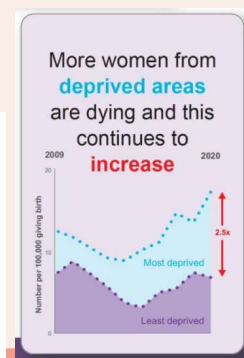
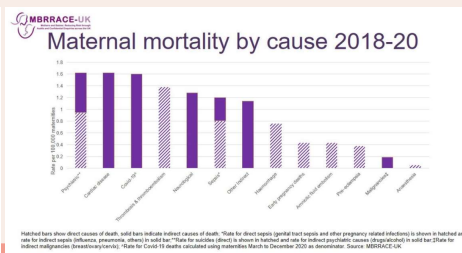
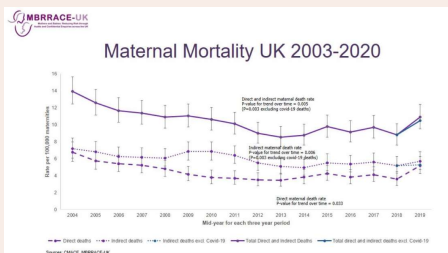
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Why is maternal medicine important?

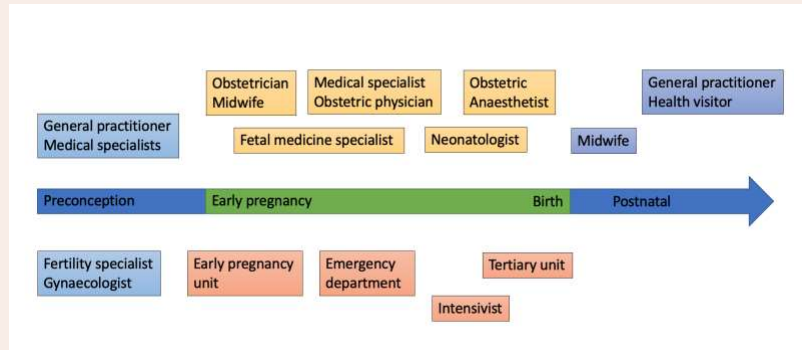
- MBRRACE-UK
 - Increasing rates of women with pre-existing medical conditions becoming pregnant
 - Increasing rates of women with first presentation of medical conditions during pregnancy
 - Consistent identification of lack of “joined-up-care” as a contributory factor



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Pregnancy with pre-existing conditions



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Origins of the MMN



- Maternity Transformation Programme (2016)
 - Aim to reduce maternal mortality by 50% by 2025
 - Included maternal medicine networks concept
- Ockenden Review
 - Independent review of maternity services at Shrewsbury and Telford Hospital NHS Trust
 - Interim report contained Immediate and Essential actions (2020)
 - Included recommendation for strengthening of maternal medicine networks to provide complex antenatal care services

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Maternal Medicine Networks



- 17 MMN in England
- MMN consists of
 - 1-2 maternal medicine centres (tertiary units) within a region
 - Work with other hospitals/Trusts in region
 - High standard of expert care to women with complex medical conditions
- Yorkshire and the Humber
 - Leeds & Sheffield



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The aims of the MMN



- Advice and planned care for women with pre-existing medical conditions, before, during and after pregnancy.
- Advice and additional care for women with medical conditions that arise during pregnancy.
- To reduce inequalities in pregnancy
- Develop referral pathways for pregnant women with medical conditions and also develop 'key principles' to incorporate in local guidance.
- Provide education and training.

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The MMN team

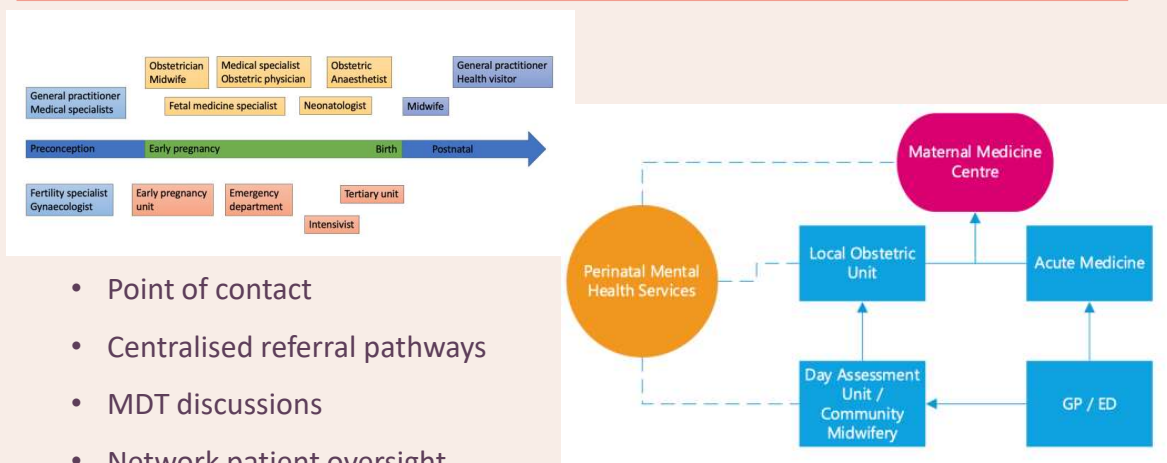


- Lead obstetrician
 - Obstetricians with sub-specialism/special interest in maternal medicine
- Lead (Obstetric) Physician
 - Physicians with special interest in care in pregnancy
- Consultant midwife
 - Maternal medicine midwives in MMCs and local hospitals
- Administrative and network support managers

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The MMN role



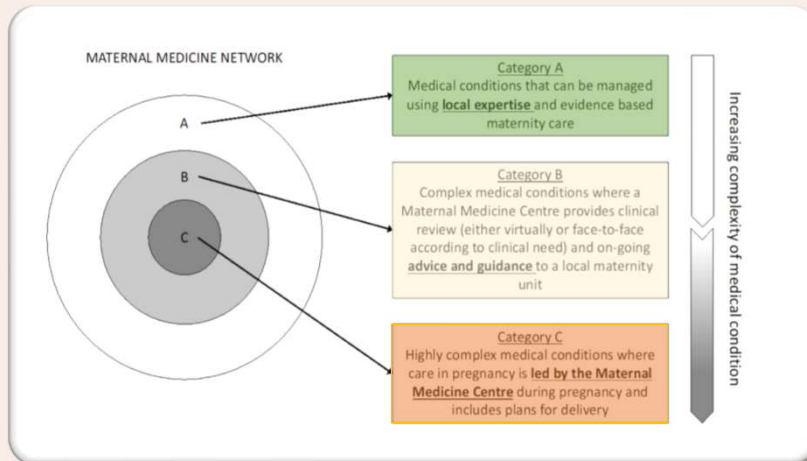
- Point of contact
- Centralised referral pathways
- MDT discussions
- Network patient oversight

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Risk stratification



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Criteria for referral

- Developed using the NHSE Maternal Medicine Service Specification (2021)
- Tailored in consultation with the Pregnancy Care Guideline for Women in Yorkshire & Humber Network with known Congenital Cardiac Disease
- Amendments to reflect local expertise and capacity at both MMC hospitals

Shared care...

Improves patient experience

Relies on good communication

Reduced disruption for women and their families

Ensures care remains as local as possible

To improve outcomes for women and their babies

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Cardiology Referral criteria - congenital

Urgent referral to MMC	Care led by Maternal Medicine Centre
<ul style="list-style-type: none"> ➢ BAV with aortopathy or Turner's syndrome with max aortic root/ascending aorta diameter ≥ 45mm ng aorta diameter ≥ 45mm ➢ Marfan's syndrome or other CTD* with dilated aortic root 	<ul style="list-style-type: none"> ➢ Severe aortic or mitral regurgitation
<ul style="list-style-type: none"> ➢ Severe systemic ventricular impairment 	<ul style="list-style-type: none"> ➢ Severe pulmonary stenosis Moderate or severe aortic stenosis
<ul style="list-style-type: none"> ➢ Mechanical (metal) valve 	<ul style="list-style-type: none"> ➢ Moderate or severe mitral stenosis Coarctation of aorta, native, operated or intervened on
<p>*Ehlers-Danlos Type 4, Loeys-Dietz, Familial Thoracic Aortic Aneurysm and Dissection syndrome or high suspicion of unidentified cause</p>	<ul style="list-style-type: none"> ➢ TGA repair: Mustard/Senning, Arterial switch (not good function/quality) ➢ Fontan circulation
	<ul style="list-style-type: none"> ➢ Cyanotic heart disease without pulmonary hypertension ➢ Bicuspid Aortic Valve (BAV) with aortopathy or Turner's syndrome

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Cardiology Referral criteria - congenital

Review, advice & guidance from MMC	Local expertise
<ul style="list-style-type: none"> ➢ Mild-moderate aortic /mitral regurgitation 	<ul style="list-style-type: none"> ➢ Repaired ASD/ VSD**
<ul style="list-style-type: none"> ➢ Severe Pulmonary regurgitation 	<ul style="list-style-type: none"> ➢ Repaired Patent Ductus Arteriosus**
<ul style="list-style-type: none"> ➢ Moderate aortic stenosis (Pre-pregnancy peak gradient < 50mmHg) 	<p>** If discharged from local cardiology care</p>
<ul style="list-style-type: none"> ➢ TGA repair: good quality/function arterial switch 	
<ul style="list-style-type: none"> ➢ Mild mitral stenosis 	
<ul style="list-style-type: none"> ➢ Unrepaired ASD 	
<ul style="list-style-type: none"> ➢ Tetralogy of Fallot 	
<ul style="list-style-type: none"> ➢ Repaired Fallot's Tetralogy 	
<ul style="list-style-type: none"> ➢ Restrictive VSD (unrepaired) 	
<ul style="list-style-type: none"> ➢ Repaired ASD/VSD with ongoing congenital cardiology follow up 	
<ul style="list-style-type: none"> ➢ Isolated Patent Ductus Arteriosus (without pulmonary hypertension) with ongoing congenital cardiology input 	
<ul style="list-style-type: none"> ➢ Repaired total anomalous pulmonary venous drainage 	
<ul style="list-style-type: none"> ➢ Bicuspid aortic valve; no aortopathy 	

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Cardiology Referral criteria - acquired

Urgent referral to MMC	Care led by Maternal Medicine Centre	Review, advice & guidance from MMC	Local expertise
<ul style="list-style-type: none"> > Pulmonary hypertension – refer to Sheffield 	Cardiomyopathies: <ul style="list-style-type: none"> > Hypertrophic - Dilated or Previous or Peripartum 	<ul style="list-style-type: none"> > ICD 	<ul style="list-style-type: none"> > Common arrhythmias*
<ul style="list-style-type: none"> > Mod-Severely impaired left ventricular dysfunction 	Channelopathies: <ul style="list-style-type: none"> > Long QT > Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT) > Brugada > Other 	<ul style="list-style-type: none"> > Common arrhythmias (where concerned) 	
<ul style="list-style-type: none"> > Heart Transplant 		<ul style="list-style-type: none"> > Ischaemic heart disease (stable) > Acute coronary syndrome > SCAD > Previous Cardio toxic chemotherapy with abnormal 1st or 3rd trimester echo 	

* Should be reviewed by local Obstetric and Cardiology teams. Refer after local Cardiology review if required

www.maternalmedicine.org.uk

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Our Referral Form

Referral Date	Consultant	
Contact Number	Email address	
Patient Contact Details		
Full Name	DOB	
NHS Number	Ethnicity	
Address and Postcode	Contact Numbers	
GP's name and address		
Details of this pregnancy		
EDD	Parity	Gestation
Or please indicate if pre-conception advice required		
Medical Diagnosis		
Current Medication/ Allergies		
Physician in charge of care		
Obstetric History		
Mental Health Concerns		
Safeguarding Concerns		

This referral form enables us to prioritise referrals and manage appointments. It also enables us to collect data which informs our KPI's.

Here are the referral email addresses for the 2 Maternal Medicine Centres;

Sheffield - sth.jessopwing.maternalmedicine@nhs.net

Leeds - leedsth-tr.maternalmedicine@nhs.net

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Management of the acutely unwell woman



The Maternal Medicine Network does not offer a 24 hour service but if you need to contact us urgently, please contact the on-call obstetrician at either Leeds or Sheffield.

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THANK YOU



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