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# Maternal Medicine
# MRCOG Part 2

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# What you need to know

Maternal Medicine
MRCOG Part 2

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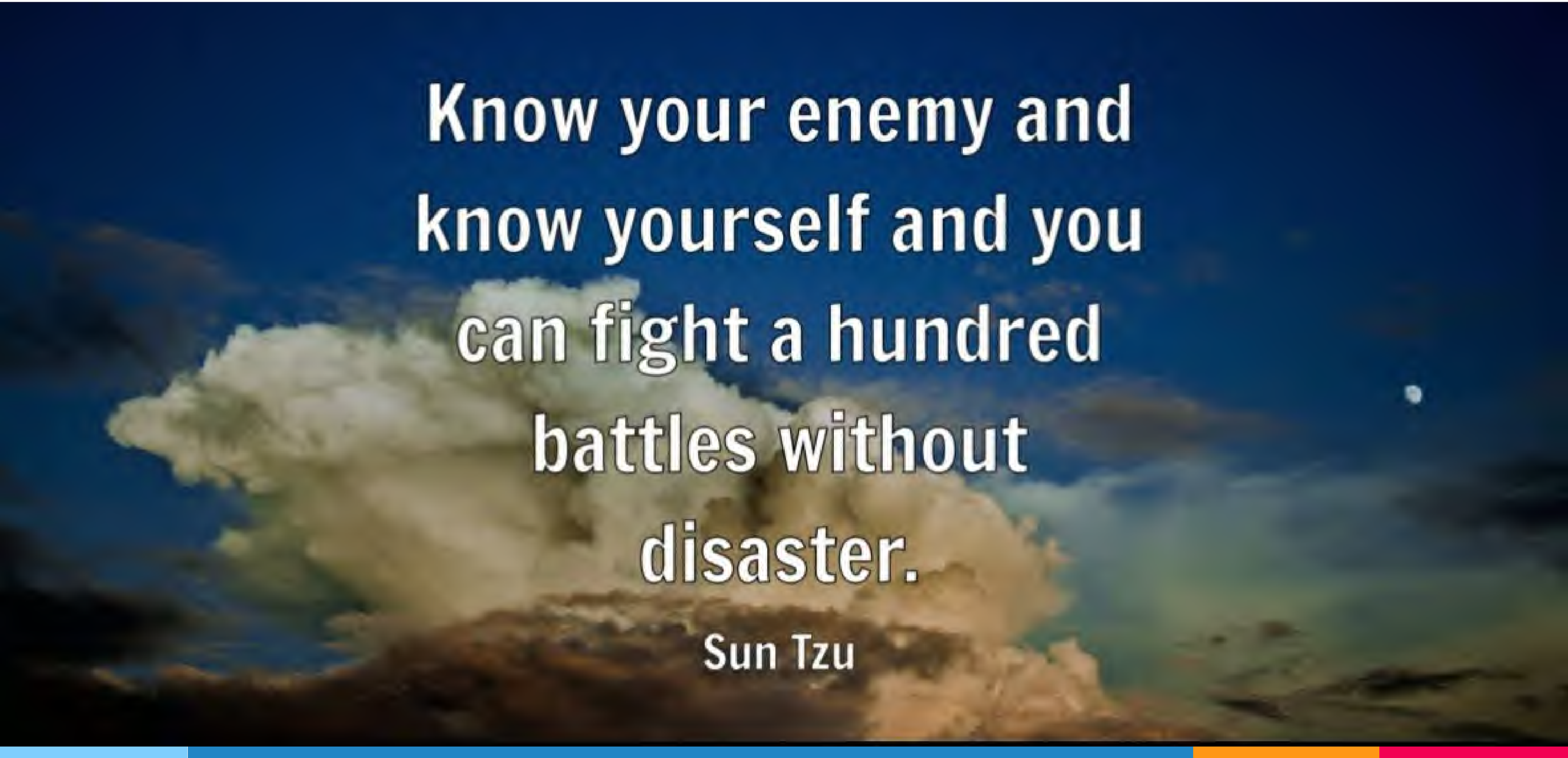

# MRCOG Syllabus and Knowledge Requirements for Core Curriculum 2019

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## Knowledge Area 6 – Maternal medicine

| CiP | CiP Description |
|---|---|
| 1 | The doctor is able to apply medical knowledge, clinical skills and professional values for the provision of high-quality and safe patient-centred care |
| 6 | The doctor takes an active role in helping self and others to develop |
| 12 | The doctor is competent in recognising, assessing non-emergency obstetrics care |

**Summary Knowledge Requirements**

*PART 1 MRCOG*

- Epidemiology and pathological processes that underlie common maternal diseases in pregnancy, including diabetes and endocrine, respiratory, cardiac and haematological disease
- Pathophysiology and presentation of common infections that affect pregnant women and the treatments and interventions used for these infections
- Drugs used to treat maternal disease, and the potential maternal and fetal complications associated with their use
- Imaging methods used to screen for maternal and fetal complications of maternal disease, e.g. ultrasound, X-ray and magnetic resonance imaging, and how to interpret their results

*PART 2 MRCOG*

- Have a good understanding of common medical disorders and the effect that pregnancy may have on them, as well as the effect of such disorders on pregnancy (this includes both medical and obstetric problems)
- Demonstrate your ability to assess and treat these conditions and liaise with colleagues in other specialties

# In detail, you need

1. Epidemiology
2. Aetiology
3. Pathophysiology
4. Clinical characteristics
5. Prognosis
6. Management

1. Hypertension
2. Kidney – UTI, pyelonephritis, CKD, renal stones, transplantation, AKI
3. Heart – Congenital, Rheumatic, Ischaemic, Cardiomyopathy, HF
4. Liver – Cholestasis, Hepatitis, Acute fatty degeneration, Gallstones
5. Circulatory – Coagulation defects, Thrombocytopenia, Thromboembolism, Transfusion, Replacement of blood, Varicose Veins
6. Pulmonary – Asthma, Infection, Embolism, Aspiration
7. (list goes for another 12 more)

NICE National Institute for Health and Care Excellence

## Hypertension in pregnancy: diagnosis an management

NICE guideline
Published: 25 June 2019
Last updated: 17 April 2023

NICE National Institute for Health and Care Excellence

## Diabetes in pregnancy: management from preconception to the postnatal period

NICE guideline
Published: 25 February 2015
Last updated: 16 December 2020

# NICE Guidelines

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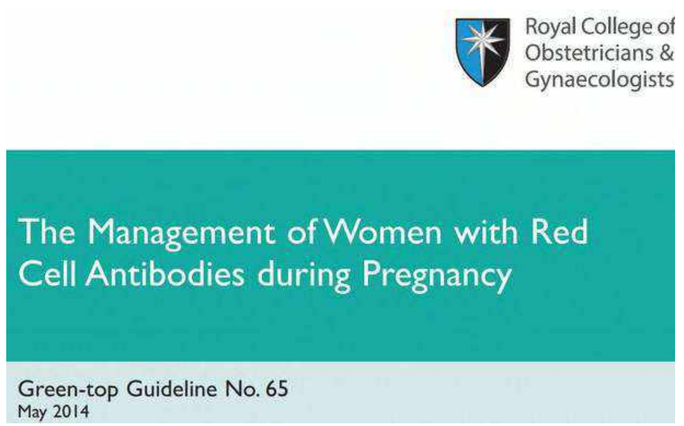
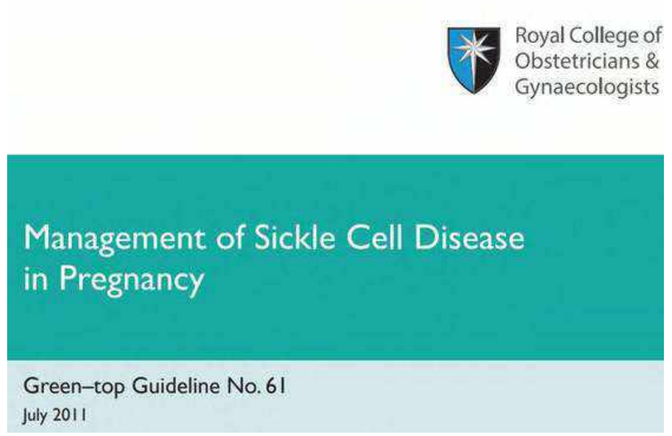
# Green Top Guidelines

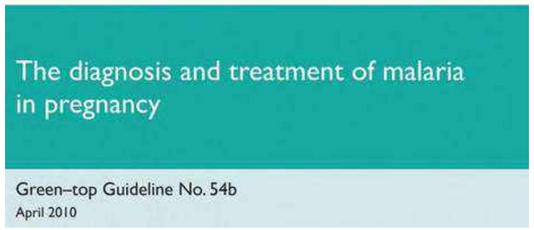




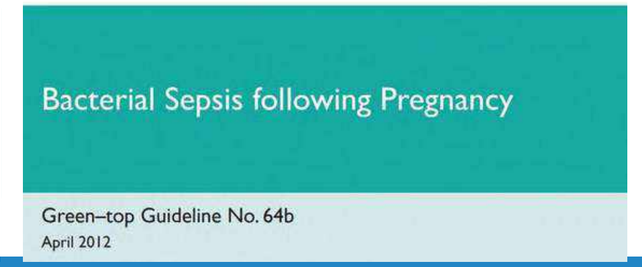


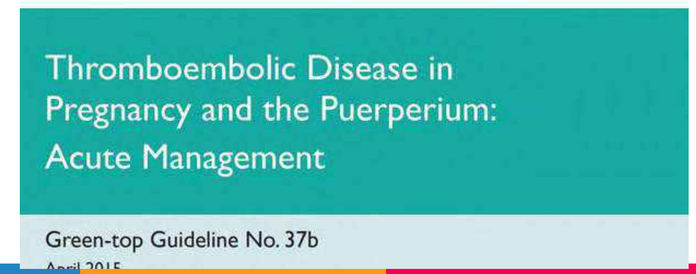









DOI: 10.1111/tog.12888 2023;25:175–85 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

Tuberculosis

Ainharan Raveendran
Anish Keepanasseril
Ravi Kumar Balu
Mahendran Chetty

DOI: 10.1111/tog.12887 2023;25:196–209 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

Hyperlipidaemia and severe hypertriglyceridaemia in pregnancy

Mohammed Bashir
Justin C Konje

DOI: 10.1111/tog.12861 2023;25:101–9
The Obstetrician & Gynaecologist
http://onlinetog.org

Acute coronary syndromes in pregnancy: a literature review

Amy Freeman MBChB DFSRH MRCOG,*[a] Gareth Squire MA MBChB MRCP FHEA PGCAPP MD,[b] Anna Herrey MD PhD FRCP,[c] Kai Hogrefe MD FRCP CCST,[d] Rebecca Allen MBBS MRCOG MD[e]

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DOI: 10.1111/tog.12770 2021;23:278–89 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

Peripartum cardiomyopathy

Akshatha Kulkarni
Mohamed Waseem

DOI: 10.1111/tog.12761 2021;23:265–77 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

Adrenal disea

Mayada Ahmed MBBS CAE MBA,[c] Justin C. Konje MD

DOI: 10.1111/tog.12809 2022;24:188–94 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

Peripartum hypor prevention and m

Eleftheria Demertzidou MD,*

DOI: 10.1111/tog.12805 2022;24:109–18 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

The management of haemoglobinopathies in pregnancy and childbirth

Lucy A Jackson BMedSci (Hons
Etienne Ciantar MRCOG MD FI

DOI: 10.1111/tog.12725 2021;23:89–93
The Obstetrician & Gynaecologist
http://onlinetog.org

Acute and chronic pancreatitis in pregnancy

Josie L O'Heney MBBS BSc (Hons) MRCP MRCOG,*[a] Rebecca E Barnett MBBS MRCS PhD,[b] Ashraf Rasheed MBBCh BAO MD FRCSI FRCS Eng FRCS Gen Surg[d]

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DOI: 10.1111/tog.12832 2022;24:260–71 Review
The Obstetrician & Gynaecologist
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Current management of recurrent pregnancy loss

Mark R Chester MRCOG DFSRH MBBS BMedSci,[a,b]* Anushka Tirlapur MRCOG MD MBChB BSc,[c] Kanna Jayaprakasan MD MRCOG MBBS PhD[d,e]

DOI: 10.1111/tog.12792 2022;24:50–7
The Obstetrician & Gynaecologist
http://onlinetog.org

Pregnancy in underweight women: implications, management and outcomes

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[b]ST6, Kingston Hospital, Kingston upon Thames KT2 7QB, UK
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The Obstetrician & Gynaecologist
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Preconception health in the well woman

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Foundation Trust, John Radcliffe Hospital, Oxford OX3 9DU, UK
[c]Honorary Senior Clinical Lecturer, Endometriosis CaRe Oxford, Nuffield Department of Women's and Reproductive Health, University of Oxfo
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[d]Consultant Obstetrician and Gynaecologist, Subspecialist in Reproductive Medicine, Women's and Children's, Imperial College Healthcare N
Trust, St Mary's Hospital, Praed Street, Paddington, London W2 1NY, UK

DOI: 10.1111/tog.12599 2019;21:263–70 Review
The Obstetrician & Gynaecologist
http://onlinetog.org

Management of palpitations and cardiac arrhythmias in pregnancy

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12576 2019;21:177–84
& Gynaecologist
org

ple sclerosis and pregnancy

agaraj MBBS MRCOG,[a]* Nikos Evangelou FRCP DPhil (Oxon),[b] Dipanwita Kapoor MBBS MI

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mber 2018.

NICE National Institute for Health and Care Excellence

NICE guideline

# Intrapartum care for women with existing medical conditions or obstetric complications and their babies

NICE guideline
Published: 6 March 2019
nice.org.uk/guidance/ng121

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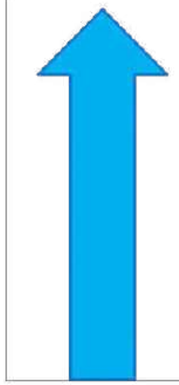
## Contents

# Relevant physiology

| | | |
|---|---|---|
|  | 5% | TPR |
| | 10% | DBP |
|  | 20% | HR |
| | 30% | SV |
| | 40% | CO |
| | 50% | PV |
| | 18-25% | RBC |

# Heart disease

- Multidisciplinary team
- Share care decision
- mWHO or NYHA
- Mechanical or Biological heart valve?

Table 2.3 – Pregnancy-associated risk with different cardiac disease

| Low risk | Small increased risk of mortality/ moderate increased risk of morbidity | Moderate increased risk of mortality or severe morbidity | Significant increased risk of mortality or severe morbidity | Extremely high risk of mortality or severe morbidity |
|---|---|---|---|---|
| **2.5%–5% risk cardiac event** | **5%–10% risk cardiac event** | **10%–19% risk cardiac event** | **19%–27% risk cardiac event** | **40%–100% risk cardiac event** |
| Uncomplicated small or mild PS, PDA, MVP | Unrepaired ASD, VSD | Mild LV dysfunction (LVEF >45%), HCM | Moderate LV dysfunction (LVEF 30%–45%)<br>Previous PPCM with normal LVEF<br>Mechanical valves | PAH<br>Severe LV impairment (<30%), NYHA III/IV<br>Previous PPCM with any residual LV impairment |
| Successfully repaired ASD, VSD, PDA, APVD | Repaired tetralogy of Fallot | Repaired coarctation<br>AVSD | Systemic RV with normal–mild ventricular dysfunction<br>Fontan circulation | Systemic RV with moderate–severe ventricular dysfunction<br>Fontan with complication |
| Atrial and ventricular ectopic beats | Most arrhythmias (e.g. SVT)<br>Turner syndrome without aortopathy | Most native or tissue valve disease (except those in extremely high risk) e.g. mild MS, moderate AS | Unrepaired cyanotic congenital heart disease (without PAH)<br>Moderate MS/severe asymptomatic AS | Severe MS/symptomatic AS<br>Severe aortic (re) coarctation |
| | | Marfan syndrome or other HTAD without aortic dilation<br>Aorta <45 mm in bicuspid AoV | Aorta 40–45 mm in Marfan syndrome or other HTAD<br>Aorta 45–50 mm in bicuspid AoV, Turner syndrome ASI 20–25 mm/m$^2$, tetralogy of Fallot <50 mm<br>Ventricular tachycardia | Aorta >45 mm in Marfan syndrome or other HTAD<br>aorta >50 mm in bicuspid AoV, Turner syndrome ASI >25 mm/m$^2$, tetralogy of Fallot >50 mm<br>Vascular EDS |

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# Which condition has the highest risk of maternal morbidity or death?

a. Heart transplant recipient
b. Marfan Syndrome with an aortic root measurement of 4cm
c. Mechanical prosthetic heart valve
d. Repaired tetralogy of Fallot
e. Wollf-Parkinson-White Sydrome

# Which condition has the highest risk of maternal morbidity or death?

a. Heart transplant recipient
b. Marfan Syndrome with an aortic root measurement of 4cm
c. **Mechanical prosthetic heart valve**
d. Repaired tetralogy of Fallot
e. Wollf-Parkinson-White Sydrome

# Mechanical heart valve

- Stop warfarin 36w or 2w before delivery
- Start LMWH 24 hours after, aim anti-Xa levels:
  - 0.6 IU/ml (trough)
  - 1.0 – 1.2 IU/ml (peak, 3 to 4 hrs later)
  - Recheck weekly once target achieved
- LMWH – withhold 24 hours – 30 hours before delivery
- UH – withhold 4 to 6 hours before delivery
- Restart Warfarin 7 days post delivery

# IE Prophylaxis

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## Remember H I V V S

- Hypertrophic cardiomyopathy
- Infective Endocarditis
- Valvular heart disease / valve replacement
- Structural heart disease (exclude isolated ASD, repaired VSD)

# Second commonest indirect cause of maternal death?

a.COVID-19
b. Sepsis
c.PPH
d. Embolism
e.Suicide
f. Epilepsy
g. Cardiac

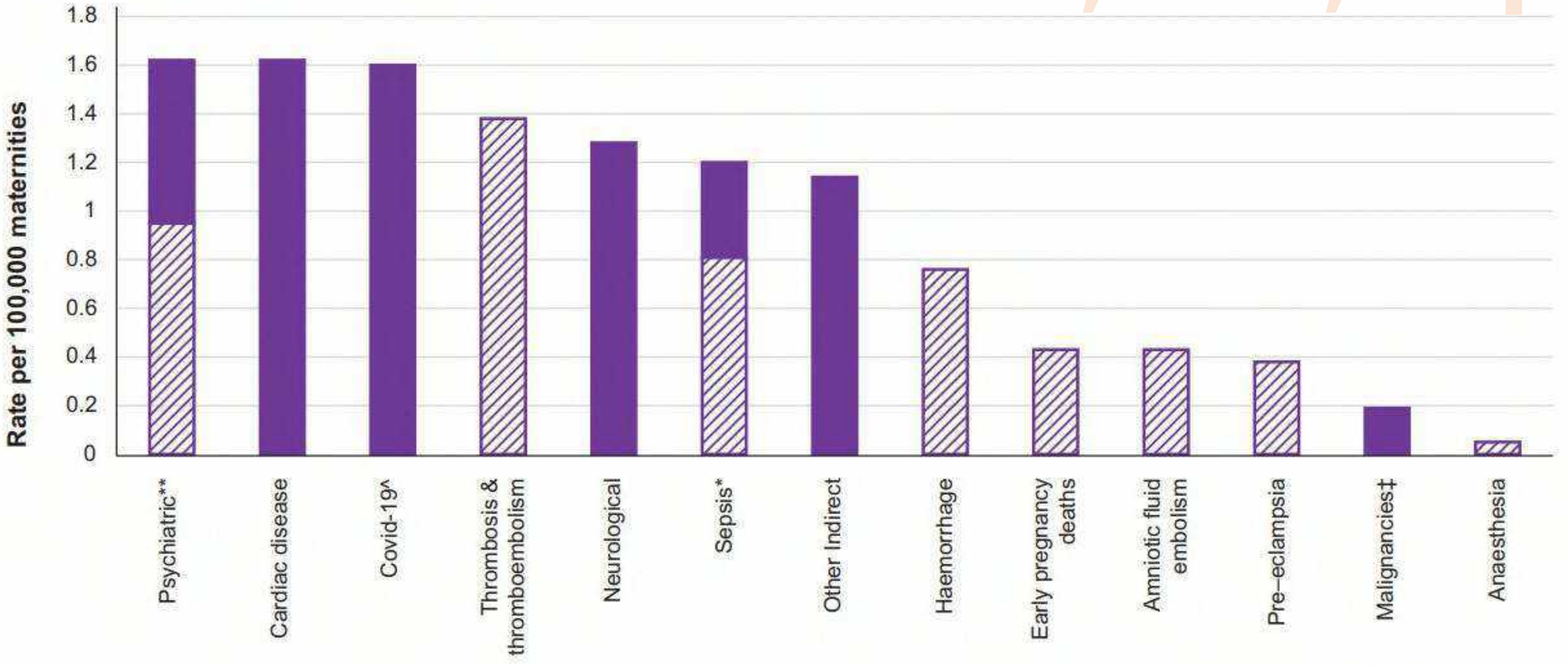
# Second commonest direct cause of maternal death?

a.COVID-19
b. Sepsis
c.PPH
d. Embolism
e.Suicide
f. Epilepsy
g. Cardiac

**Figure 2.3: Maternal mortality by cause 2018-20**

**MMBRACE-UK**

**Direct: VTE, PSY, Sepsis**

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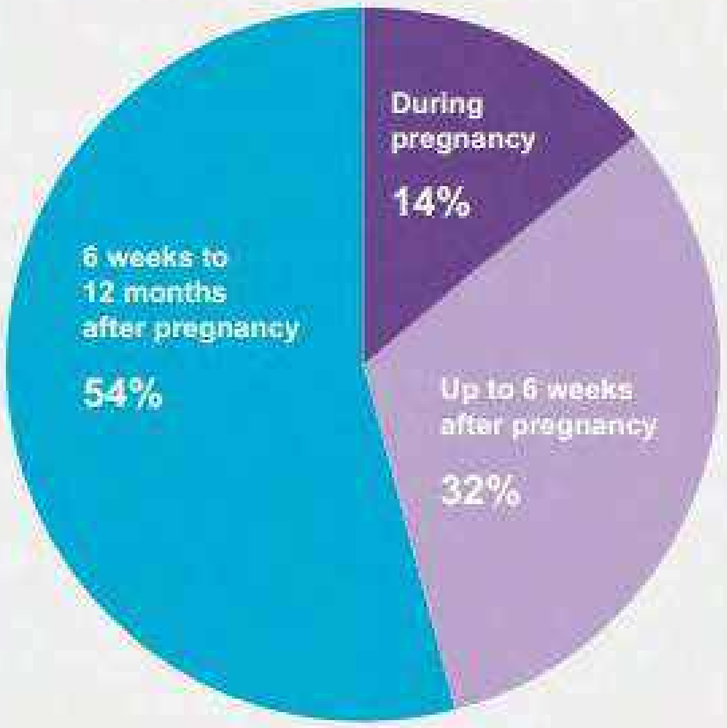
# Indirect: Cardiac, COVID, Neuro

# Most women died in the postnatal period 86%




## MMBRACE-UK

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# ey messages

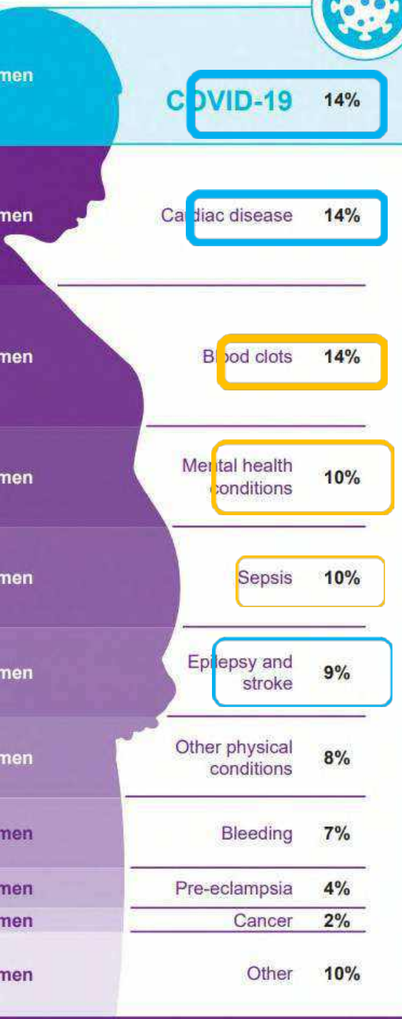
MBRRACE-UK
Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK

m the surveillance report 2023

019-21, **241 women died** during or up to six weeks after pregnanc
ng 2,066,997 women giving birth in the UK.
**women** per 100,000 died during pregnancy or up to six weeks aft
birth or the end of pregnancy.

## ses of women's deaths

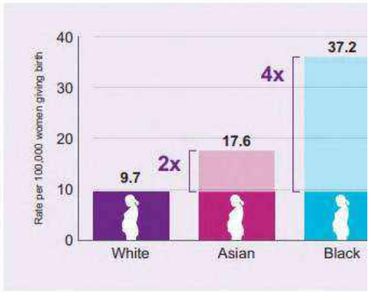
When maternal deaths due to COVID
are excluded, **10.1 women** per 100,0
died during pregnancy or up to six we
after childbirth or the end of pregnanc



| | |
|---|---|
| COVID-19 | 14% |
| Cardiac disease | 14% |
| Blood clots | 14% |
| Mental health conditions | 10% |
| Sepsis | 10% |
| Epilepsy and stroke | 9% |
| Other physical conditions | 8% |
| Bleeding | 7% |
| Pre-eclampsia | 4% |
| Cancer | 2% |
| Other | 10% |

## Inequalities in maternal mortality

### Ethnic group




### Living in more deprived area


# Key messages

from the themed morbidity

MBRRACE-UK
Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK

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## Recognition and management of bleeding

**Assess blood loss early and regularly**

**Don't rely on a single b measurement of clott or haemoglobin**

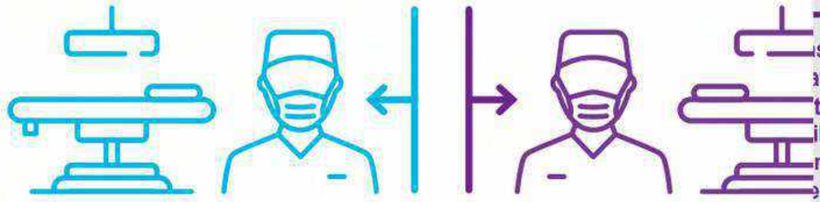
**Consider and exclude concealed bleeding**

Pulse rate and blood pressure are typically maintained until 30% of circulating volume is lost

A **raised pulse rate** or **drop in blood pressure** should prompt clinical evaluation of blood loss

## National recommendation

**Manage operating teams for urgent and elective caesarean sections separately**



Category 1-3

Category

**at pregnant, recently pregnant, and breastfeeding women the sa**
**s a non-pregnant person unless there is a very clear reason not t**

**epare a route for rapid livery of advice and ta on new vaccines d treatments**

**Include in medici and vacci resear**

**ilor care after egnancy to woman's dividual eds**

**Include guidance admissi to ECM servic**

*ECMO = Extracorp membrane oxyger

**Equity for pregnant and breastfeeding women**

**sure staff in aternal medicine tworks have the ills to care for mplex physical, ental and social re needs**

**Develop traini resources to promo shared decisi making and counselli on medication u**

INTERNATIONAL MEDICAL UNIVERSITY MALAYSIA

A woman presented with palpitations. She describes as fast heartbeat which last about 5 to 10 minutes and occur roughly once a week. They can come on suddenly at any time. She hasn't blacked out with them, but feels anxious when they happen. She hasn't any heart problems before, but her father had a heart attack aged 55. There is no other family history of note

a. Anxiety
b.Atrial fibrillation
c.Ectopic beats
d.Supraventricular tachycardia
e.Ventricular tachycardia

A woman presented with palpitations. She describes as fast heartbeat which last about 5 to 10 minutes and occur roughly once a week. They can come on suddenly at any time. She hasn't blacked out with them, but feels anxious when they happen. She hasn't any heart problems before, but her father had a heart attack aged 55. There is no other family history of note

a. Anxiety
b.Atrial fibrillation
c.Ectopic beats
d.**Supraventricular tachycardia**
e.Ventricular tachycardia

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An obese 39-year-old smoker is admitted with chest pain at 34 weeks' gestation. She refused LMWH as she doesn't want to self-inject. The pain came on suddenly and has been present for 90 minutes so far. It radiates to her back, between her shoulder blades. She also has some pins and needles in one arm. The midwife noticed that her blood pressure is different in the two arms. On examination a harsh systolic murmur is heard.

a.Aortic dissection
b. Costochondritis
c.Indigestion
d.Myocardial ischaemia
e.Pulmonary embolism

An obese 39-year-old smoker is admitted with chest pain at 34 weeks' gestation. She refused LMWH as she doesn't want to self-inject. The pain came on suddenly and has been present for 90 minutes so far. It radiates to her back, between her shoulder blades. She also has some pins and needles in one arm. The midwife noticed that her blood pressure is different in the two arms. On examination a harsh systolic murmur is heard.

a.**Aortic dissection**
b. Costochondritis
c.Indigestion
d.Myocardial ischaemia
e.Pulmonary embolism

a. Folic acid 400mcg 1 month pre conception until 12 weeks
b. Folic acid 400mcg 3 months pre conception until 12 weeks
c. Folic acid 400mcg 1 month pre conception until 28 weeks
d. Folic acid 400mcg 3 months pre conception until 28 weeks
e. Folic acid 400mcg 1 month pre conception until 36 weeks
f. Folic acid 400mcg 3 months pre conception until 36 weeks
g. Folic acid 1mg 1 month pre conception until 12 weeks
h. Folic acid 1mg 3 months pre conception until 12 weeks
i. Folic acid 1mg 1 month pre conception until 28 weeks
j. Folic acid 1mg 3 months pre conception until 28 weeks
k. Folic acid 1mg 1 month pre conception until 36 weeks
l. Folic acid 1mg 3 months pre conception until 36 weeks
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q. Folic acid 5mg 1 month pre conception until 36 weeks
r. Folic acid 5mg 3 months pre conception until 36 weeks

1.Maternal obesity 2.Type 1 DM 3.Type 2 DM 4.Epilepsy on treatment 5.Valvular heart disease on treatment 6.Sickle cell anemia 7.Alpha thalassemia 8.Beta thalassemia 9.Iron deficiency anemia

1.3.2.1 Pregnant women (and those intending to become pregnant) should be informed that dietary supplementation with folic acid, before conception and throughout the first 12 weeks, reduces the risk of having a baby with a neural tube defect (for example, anencephaly or spina bifida). The recommended dose is 400 micrograms per day.

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*4.2 What nutritional supplements should be recommended to women with obesity who wish to become pregnant?*

**Women with a BMI 30 kg/m$^2$ or greater wishing to become pregnant should be advised to take 5 mg folic acid supplementation daily, starting at least 1 month before conception and continuing during the first trimester of pregnancy.**

D

1.1.11 Advise women with diabetes who are planning to become pregnant to take folic acid (5 mg/day) until 12 weeks of gestation to reduce the risk of having a baby with a neural tube defect. [2008]

periconceptional folate (108, 95% CI 106–111) ($P = 0.0009$).[15] Given the potential benefit of folate on long-term cognitive outcomes, the known safety of the supplement and the absence of evidence of its ineffectiveness in preventing major congenital malformation, it is advised that WWE are prescribed high-dose folic acid 5 mg daily from at least 3 months prior to conception to the end of the first trimester.

*4.5 What vitamin supplements should be given?*

**Folic acid (5 mg) should be given once daily both preconceptually and throughout pregnancy.**

Folic acid is recommended in all pregnant women to prevent neural tube defects.[39]

Folic acid at a dosage of at least 1 mg daily is recommended for women with SCD outside pregnancy in view of their haemolytic anaemia, which puts them at increased risk of folate deficiency.[40]

Folic acid 5 mg daily should be prescribed during pregnancy to reduce the risk of neural tube defect and to compensate for the increased demand for folate during pregnancy.[41]

*4.7 What vitamin supplements should be recommended?*

**Folic acid (5 mg) is recommended preconceptually to all women to prevent neural tube defects.**

Women with thalassaemia have a much higher demand for folic acid so high-dose supplementation is needed. Folic acid 5 mg daily should be commenced 3 months prior to conception.[42,43]

A woman with history of asthma attends clinic at 36 weeks. BP 145/85, Proteinuria –ve. She has ankle oedema. She is treated with Labetalol. She becomes breathlessness

a. Anxiety
b.Aortic stenosis
c. Asthma
d. Flu
e. Hypertrophic cardiomyopathy
F) Mitral stenosis
G) Peripartum cardiomyopathy
H) Pneumonia
I) Pre-eclampsia

A woman with history of asthma attends clinic at 36 weeks. BP 145/85, Proteinuria –ve. She has ankle oedema. She is treated with Labetalol. She becomes breathlessness

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A South-east Asia woman becomes breathless 12 hours after delivery of her first child. She had epidural in labour, kept well-hydrated because of pyrexia and had syntometrine for third stage. She is coughing up pink frothy sputum

a. Anxiety
b.Aortic stenosis
c. Asthma
d. Flu
e. Hypertrophic cardiomyopathy
F) Mitral stenosis
G) Peripartum cardiomyopathy
H) Pneumonia
I) Pre-eclampsia

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A 40-year-old African woman with an IVF twin pregnancy at 35w is admitted with a cough. HR 110bpm, RR 25/min. Refuses to lie down as it makes her more breathless. She has attended frequently during pregnancy because she is very worried about fetal wellbeing. She has ankle oedema and is agitated.

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Table 16.1 – Breathlessness

| Differential diagnosis | Important clinical features | Investigations |
|---|---|---|
| Physiological | Can occur at any stage of pregnancy, but is most common in the last trimester. May be most apparent at rest or when speaking | This is a diagnosis of exclusion, which common should only be made once t diagnoses have been considered |
| Anaemia[a] | May not cause symptoms until severe. May be associated with lethargy | Full blood count |
| Asthma[b] | Often associated with cough and/or wheezy breathing<br>Symptoms are usually worse at night and on waking or after exercise | The diagnosis is usually made on the<br>PEFR may be normal in clinic<br>If there is doubt about the diagnosis, measure her own PEFR at home (mor and look for diurnal variation and mo<br>FeNO (fractional concentration of exp<br>Response to inhaled bronchodilators i confirmatory feature |
| Pulmonary embolus[c] | Onset is usually sudden and associated with pleuritic or central (large pulmonary embolus) chest pain. Worse on exercise and may be associated with haemoptysis. Look for associated sinus tachycardia, raised JVP. A high index of suspicion is needed and this diagnosis should always be considered in a pregnant or postpartum woman with breathlessness, chest pain or syncope<br>The risk is higher in obese, older women, post-caesarean section or surgery and in those with previous thromboembolism or thrombophilia | ECG (sinus tachycardia, tall peaked p-<br>Right heart strain ($S_1$, $Q_3$, $T_3$) may be pregnancy<br>Chest x-ray (often normal but may sh effusion, oligaemia, wedge-shaped in<br>Arterial blood gases (hypoxaemia and<br>The diagnosis should be confirmed w scan, CTPA or echocardiogram |
| Cardiac causes[d] | There are many cardiac causes of breathlessness; most are uncommon and only two are discussed here | |
| Mitral stenosis[d] | Consider in migrant women<br>Breathlessness is due to pulmonary oedema. Women may have been asymptomatic at the beginning of pregnancy<br>Ask about orthopnoea, paroxysmal nocturnal dyspnoea and haemoptysis<br>The mid-diastolic murmur may be difficult to hear. Look for associated sinus tachycardia<br>Pulmonary oedema in association with mitral stenosis is a particular risk immediately following delivery. NB. Pulmonary oedema may cause wheeze on auscultation 'cardiac asthma' | ECG<br>Echocardiogram<br>Chest x-ray |
| Peripartum cardiomyopathy (PPCM) or decompensated pre-existing dilated cardiomyopathy[d] | PPCM most common in the first month after delivery, but can present antenatally<br>More common in older, multiparous black women and women with multiple pregnancy, pre-eclampsia or hypertension<br>Symptoms and signs of biventricular failure i.e. tachycardia, pulmonary oedema and peripheral oedema. NB. Pulmonary oedema may cause wheeze on auscultation 'cardiac asthma' | ECG<br>Echocardiogram<br>Chest x-ray<br>BNP |

# How disease get affected and vice versa

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# Asthma

- 1/3 improves, 1/3 maintain, 1/3 worsens (TOG 2013) Pregnancy does
- not influence the severity of asthma (HOM 2021) The risk of atopic
- disease developing in the child of a woman with asthma is about 1 in 10 or 1 in 3 if both parents are atopic PGE1 and PGE2 is safe. Avoid
- PGF2α.
- Most antibiotics are safe to use in pregnancy and during lactation; caution is required with aminoglycosides, tetracycline and quinolones (e.g. ciprofloxacin, levofloxacin

# Epilepsy

- Pregnancy does not affect the frequency
- Women who have been seizure free for >9 months pre pregnancy, 75% remain seizure free in pregnancy
- All AED can cross placenta. Most teratogenic is sodium valproate. Lower risk one are: Carbamazepine, Lamotrigine and Levetiracetam
- TENS, Epidural, Diamorphine are safe in labour. Avoid using Pethidine

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# SLE

- 50% likelihood of flare (skin and joints), especially puerperium period
- Rule of 30
  - 30% risk of renal flare
  - 30% risk of pre-eclampsia
  - 30% risk of preterm delivery and low birthweight
  - 30% patients are anti-Ro/La positive
  - 30 – 40% have aPLs
- ACTH is safe in pregnancy. MM is teratogenic
  - Azathioprine, Cyclosporin, Tacrolimus, Hydroxychloroquine
  - Methotrexate, Mycophenolate Mofetil

# SLE

- In babies of anti Ro/La positive mothers, risk of transient cutaneous lupus is ~5% and risk of CHB ~2%
- If previous 1 child has CHB, risk for current child 16 – 18%
- If previous 2 children has CHB, risk for current child 50%

# Skin eruptions specific to pregnancy: an overview

**Table 1.** Dermatoses of pregnancy

| Dermatoses of pregnancy | Areas affected | Risk factors | Recurrence risk | Management | Pregnancy outcome |
|---|---|---|---|---|---|
| Intrahepatic cholestasis of pregnancy | Scalp, anus, vulva and abdominal skin | Indian–Asian or Pakistani–Asian ethnic origin, previous obstetric cholestasis | 60–70% in future pregnancies | Ursodeoxycholic acid<br>Topical emollients<br>Sedating antihistamines<br>? Water-soluble vitamin K | ? Increased risk of stillbirth<br>? Increased risk of PPH<br>? Increased risk of fetal distress<br>Increased risk of premature birth (mostly iatrogenic), meconium passage and caesarean section |
| Atopic eruption of pregnancy | Face, neck, chest and extensor surfaces of the limbs and trunk | Family history of atopy | Limited data | Topical emollients<br>Topical anti-pruritics<br>Topical steroids<br>Antihistamines<br>Ultraviolet light<br>Topical acne treatment | No adverse effect on mother or fetus |
| Polymorphic eruption of pregnancy | Abdominal striae with periumbilical sparing<br>Can progress to trunk and extremities, sparing palms, soles and face | Nulliparity, multiple pregnancies<br>Any cause of overdistension of skin | Rarely recurs | Topical steroids (first-line)<br>Topical emollients<br>Antihistamines<br>Oral steroids | No adverse effect on mother or fetus |
| Pemphigoid gestationis | Appears around umbilicus unlike PEP<br>Can progress to trunk, extremities, palms and soles with mucosal sparing | Recognised correlation with the haplotypes HLA-DR3 and HLA-DR4<br>Other autoimmune conditions | May recur in subsequent pregnancies, with earlier onset and increasing severity<br>Also may recur with oral contraception/ menstruation | Topical/oral corticosteroids<br>Antihistamines<br>Antibiotics<br>Immunophoresis<br>Immunosuppressants | IUGR<br>? Preterm labour<br>Self-limiting skin lesions in neonate |

IUGR = intrauterine growth restriction; PEP = polymorphic eruption of pregnancy; PPH = Postpartum haemorrhage; ? = limited evidence

# Asthma – When do you need IV Hydrocortisone?

a.When patient on MDI Salbutamol b.When patient on MDI Salbutamol and Budesonide c.When patient on MDI Salbutamol and Seretide d.When patient on Montelukast 5mg OD for 2 weeks e.When patient on Montelukast 5mg OD for 3 weeks

f.When patient on Montelukast 10mg OD for 2 weeks

g.When patient on Montelukast 10mg OD for 3 weeks

h.When patient on Prednisolone 5mg OD for 2 weeks

i.When patient on Prednisolone 5mg OD for 3 weeks

j.When patient on Prednisolone 10mg OD for 2 weeks

k.When patient on Prednisolone 10mg OD for 3 weeks

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1.5.2 For women planning a vaginal birth who have adrenal insufficiency or who are taking long-term oral steroids (equivalent to 5 mg or more prednisolone daily for more than 3 weeks):

- continue their regular oral steroids **and**
- when they are in established first stage of labour, add intravenous or intramuscular hydrocortisone and consider a minimum dose of 50 mg every 6 hours until 6 hours after the baby is born.

1.5.3 For women having a planned or emergency caesarean section who have adrenal insufficiency or who are taking long-term oral steroids (equivalent to 5 mg or more prednisolone daily for more than 3 weeks):

- continue their regular oral steroids **and**
- give intravenous hydrocortisone when starting anaesthesia; the dose will depend on whether the woman has received hydrocortisone in labour, for example:
  - consider giving 50 mg if she has had hydrocortisone in labour
  - consider giving 100 mg if she has not had hydrocortisone in labour
- give a further dose of hydrocortisone 6 hours after the baby is born (for example, 50 mg intravenously or intramuscularly).

# Inherited disease

- Autosomal dominant
- Autosomal recessive
- X-link dominant
- X-link recessive

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# Inheritance

- Auto Dom
- Auto Rec
- X-link Dom
- X-link Rec

- BPV DOMINANT HUMANS
- ABCDEFGH SWEATING
- ARIF
- DR GH

# AD = BPV DOMINANT HUMANS

- BRCA
- Pseudo-hypoparathyroidism
- Von Williebrand Hypercholeterolemia
- Huntington’s
- Hypertrophic obstructive
- cardiomyopathy HNPCC
-

- Dystrophia myotinica
- Osteogenesis Imperfecta
- Marfan Syndrome
- Intermittent porphyria
- Neurofibromatosis
- Achondroplasia / Adult polycystic kidney
- Noonan Syndrome
- Tuberous Sclerosis

# AS = ABCDEFGH SWEATING

- Albinism
- Beta thalassemia
- CAH CF
- Distal spinal muscular atrophy
- Emphysema
- Friedreich ataxia
- Galactosaemia
- Haemochromatosis / Homocystinuria
- Sickle cell, Wilson, Tay Sach's disease

# X-D = ARIF

- Alport Syndrome
- Rett Syndrome
- Incontinentia pigmenti
- Fragile X Syndrome

# X-S = Doctor GH (DRGH)

- DMD
- Red-Green Blindness
- G6PD
- Haemophilia A & B

Victorious warriors win first and then go to war, while defeated warriors go to war first and then seek to win.

~ Sun Tzu

AZ QUOTES

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a.Acyclovir 200mg TDS from 28w until delivery
b.Acyclovir 200mg TDS from 32w until delivery
c.Acyclovir 200mg TDS from 34w until delivery
d.Acyclovir 200mg TDS from 36w until delivery
e.Acyclovir 200mg QID from 28w until delivery
f.Acyclovir 200mg QID from 32w until delivery
g.Acyclovir 200mg QID from 34w until delivery
h.Acyclovir 200mg QID from 36w until delivery
i.Acyclovir 400mg TDS from 28w until delivery
j.Acyclovir 400mg TDS from 32w until delivery
k.Acyclovir 400mg TDS from 34w until delivery
l.Acyclovir 400mg TDS from 36w until delivery
m.Acyclovir 400mg QID from 28w until delivery
n.Acyclovir 400mg QID from 32w until delivery
o.Acyclovir 400mg QID from 34w until delivery
p.Acyclovir 400mg QID from 36w until delivery

- Madam A, treated for genital herpes at 12w pregnancy
- Madam B, completed treatment for genital herpes at 28+1
- Madam C, diagnosed genital herpes at 5w and 15w, currently 25w pregnancy
- Madam D, diagnosed HIV and genital herpes last year, currently 28w pregnancy