# Defining Hypertensive States in Pregnancy

¶ 2.1

$t < 20$ weeks
→ Pre-existing Hypertension

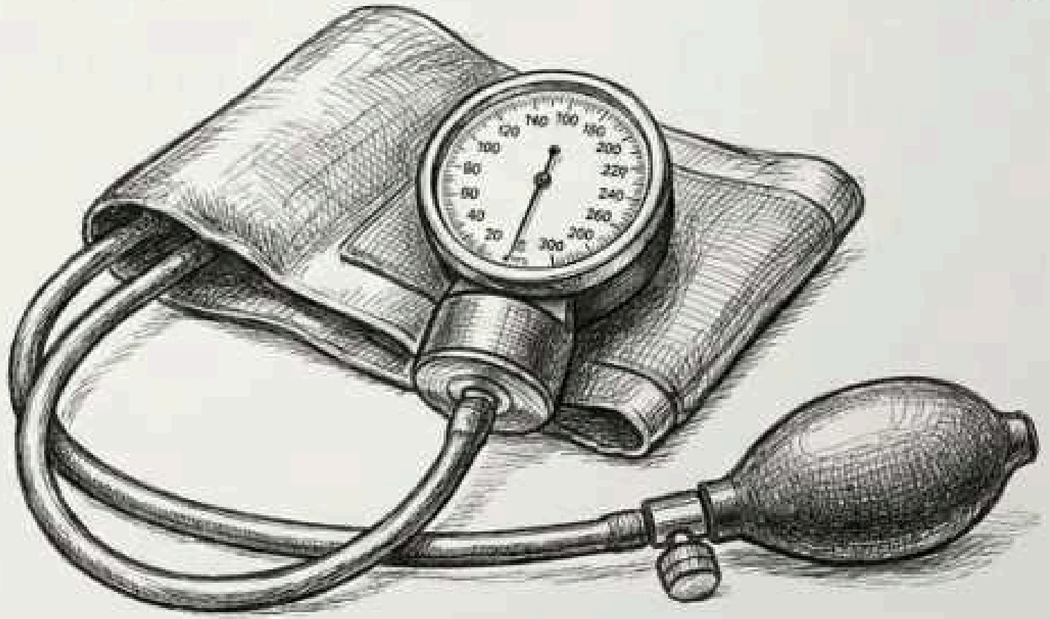
$t > 20$ weeks
→ Gestational Hypertension

$t > 20$ weeks ✓
+ (Proteinuria U / Organ Damage)
→ **Pre-eclampsia** (!)

20 Weeks

$$P(HTN) = \frac{1}{10}$$

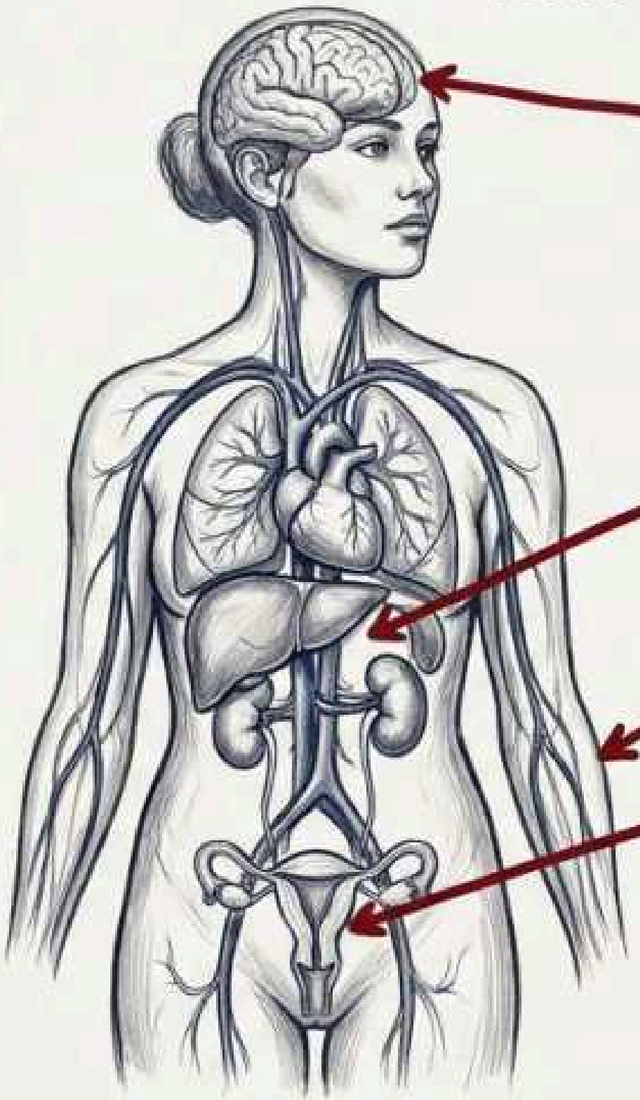
Hypertensive disorders affect 1 in 10 pregnancies.



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# Systemic Impact of Pre-Eclampsia

Note: May present asymptomatically.



- **Headache**, visual disturbance, stroke risk
- **Pain below ribs**, HELLP syndrome (liver & blood)
- **Severe swelling**
- **Placental abruption**, poor fetal growth, preterm birth risk

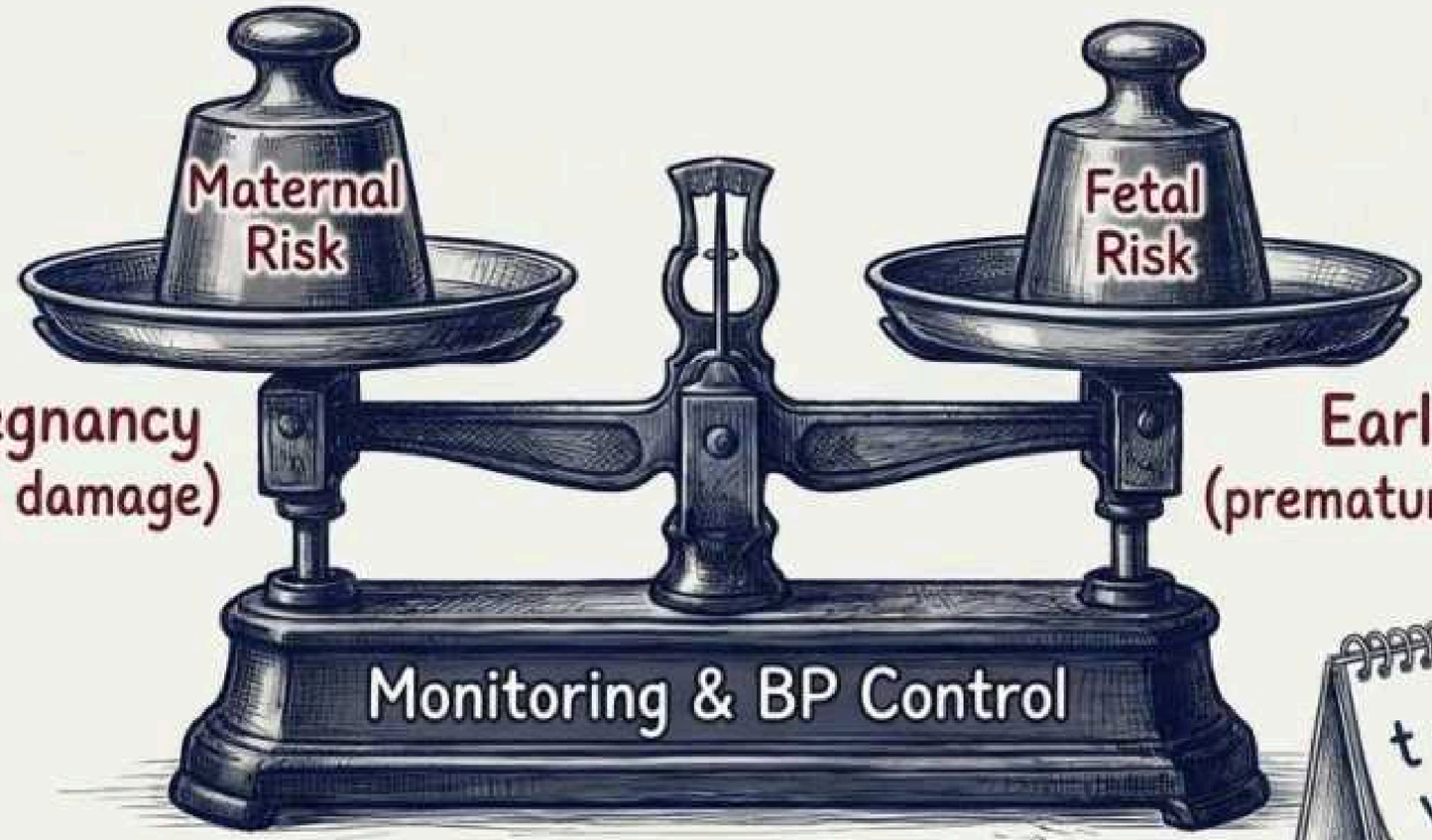
Eclampsia Seizures ↓ 50% = Magnesium Sulphate ($MgSO_4$)

[Magpie Trial, 2002]

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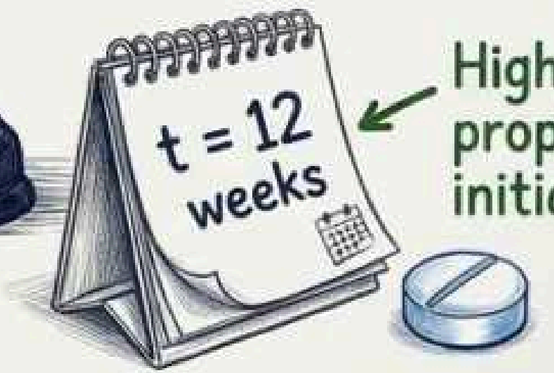
# The Management Dilemma

## Delivery = Cure (Recommended at or near term)




Continuing Pregnancy
(BP spikes, organ damage)

Early Delivery
(prematurity complications)




High-risk prophylaxis initiation.

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# Gestational & Pre-existing Diabetes Tracking






Pre-existing Diabetes + High Glucose early → P(Defect) ↑

(Requires careful control before and during pregnancy)

Diet

↓

Monitoring

↓

Medication
(if Δ > threshold)

↓

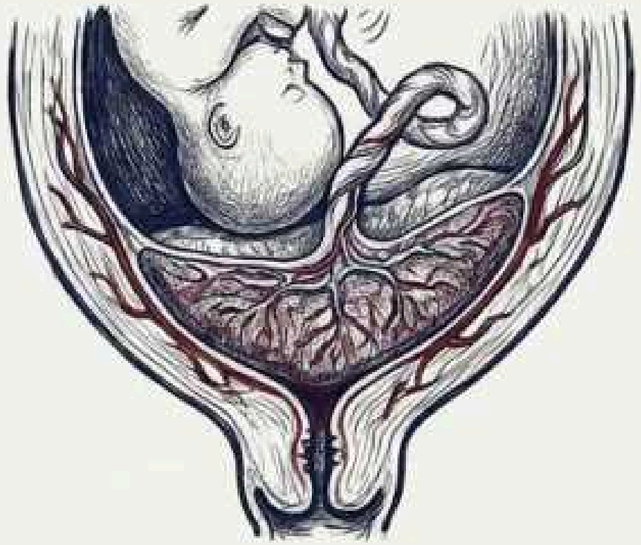
↓ Risk of large baby & difficult birth

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# Diagnostic Matrix: Antepartum Haemorrhage

**Bleeding in later pregnancy is always a medical emergency.**

## Placenta Praevia



- Painless bleeding
- Usually known via scan
- Requires Caesarean section

## Placental Abruption



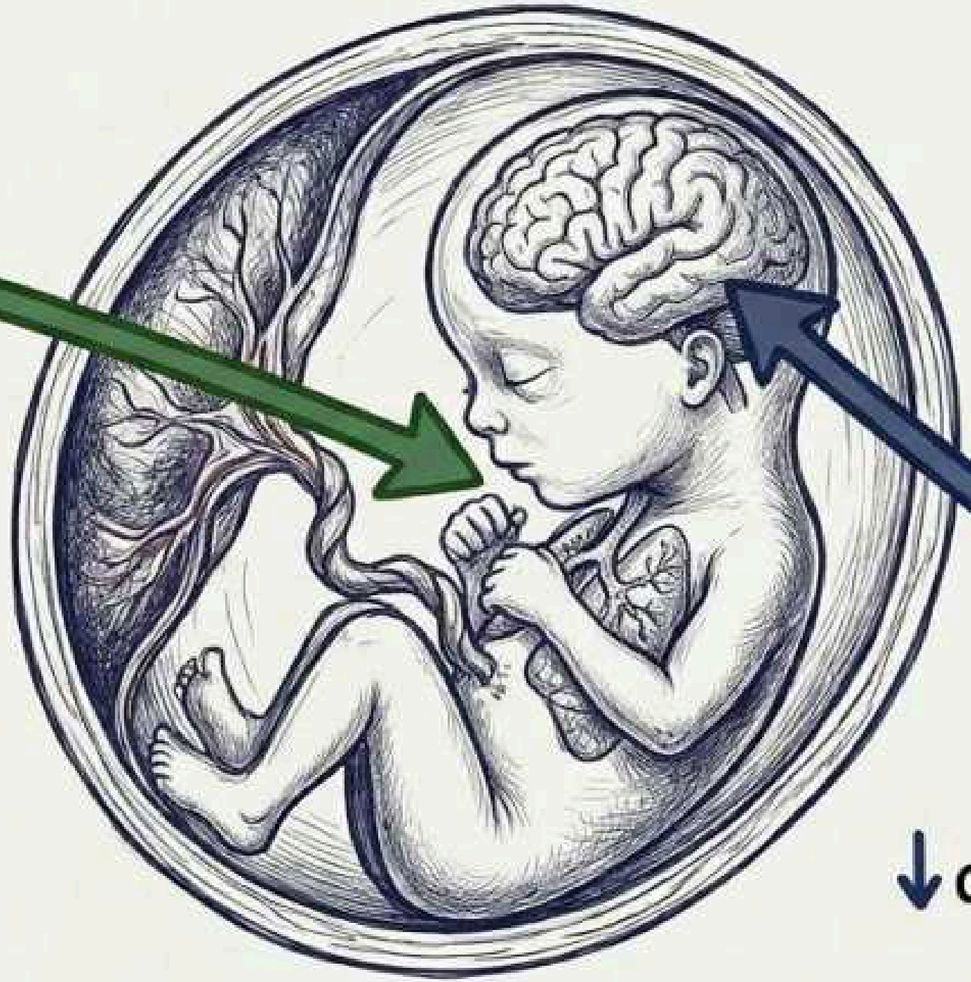
- Painful bleeding
- Tense uterus
- Rapid threat to mother and baby

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# Preterm Labour & Acute Interventions

Preterm (t < 37w) = $f$(prev. preterm, short cervix, twins, infection, smoking)

**Steroids**
(Promotes lung maturation)



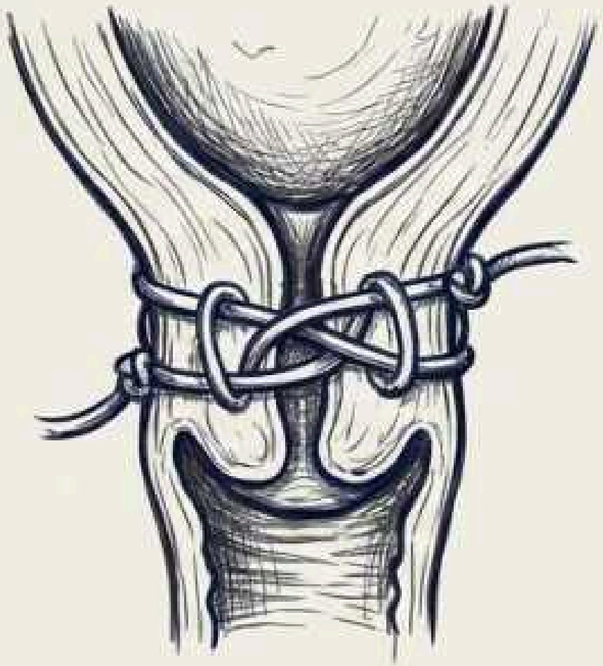
**$MgSO_4$**
(Neuroprotection / ↓ cerebral palsy risk before very preterm birth)

**Global Statistic:**
≈ 1 in 10 births worldwide

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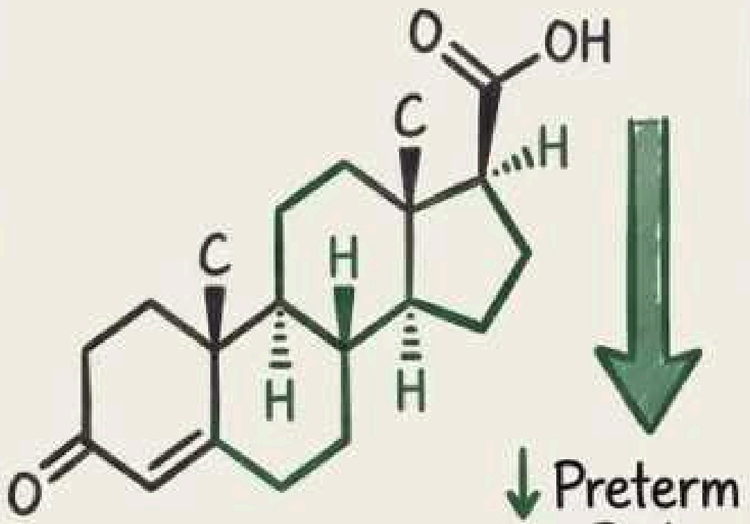
# Targeted Preterm Prevention Strategies

## Mechanical Intervention



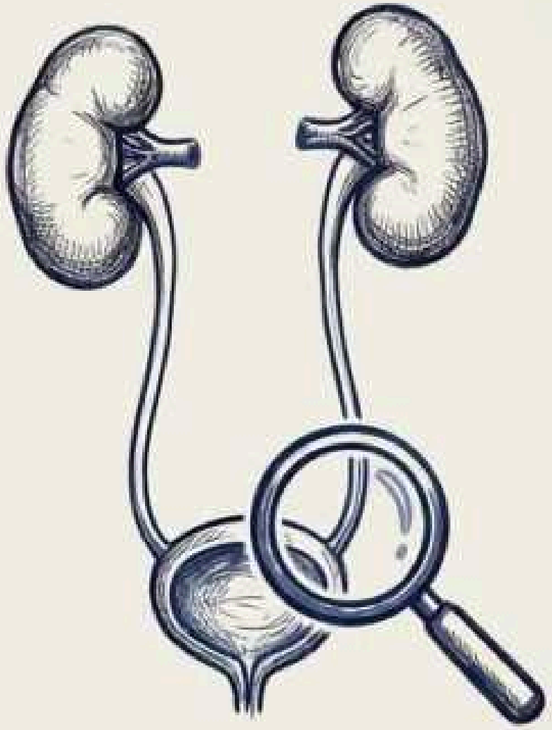
Reduces preterm risk in selected cases.

## Chemical Intervention




Progesterone Rx

## Infection Control

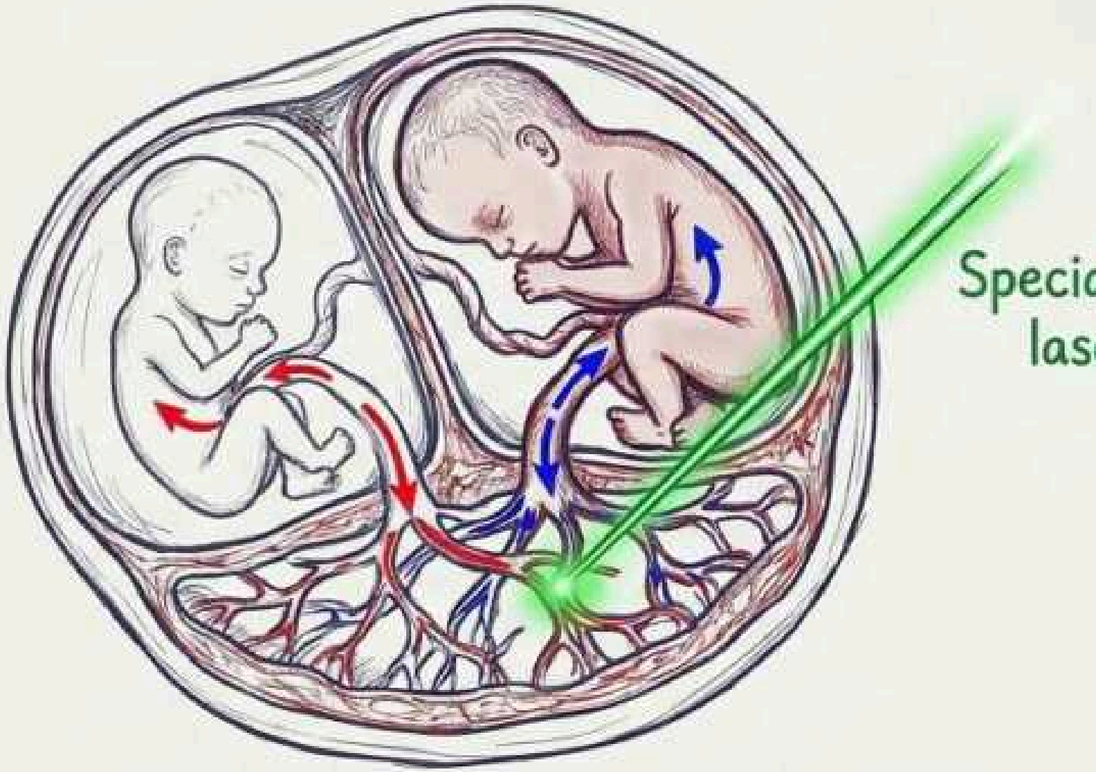


Screening for asymptomatic urine infection → Prevents kidney infection & triggered preterm labour.

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# Multiple Pregnancies & TTTS

¶ 2.8




Twin-to-Twin Transfusion Syndrome (TTTS)

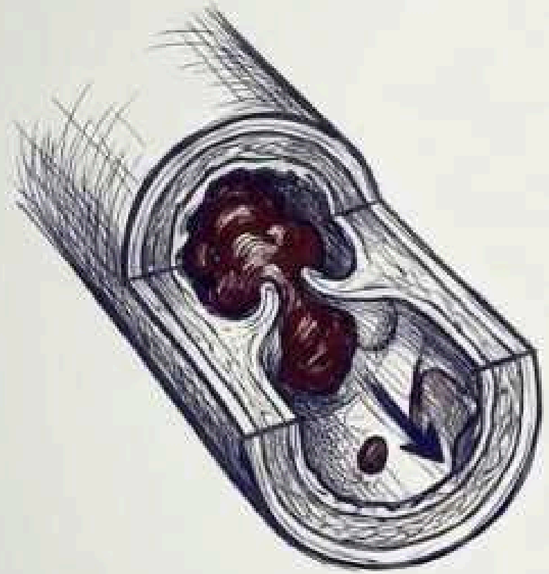
Twins → Risk(Preterm x Pre-eclampsia x Gestational Diabetes x Fetal Complications) ↑

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# Intersecting Systemic Conditions

¶ 2.9

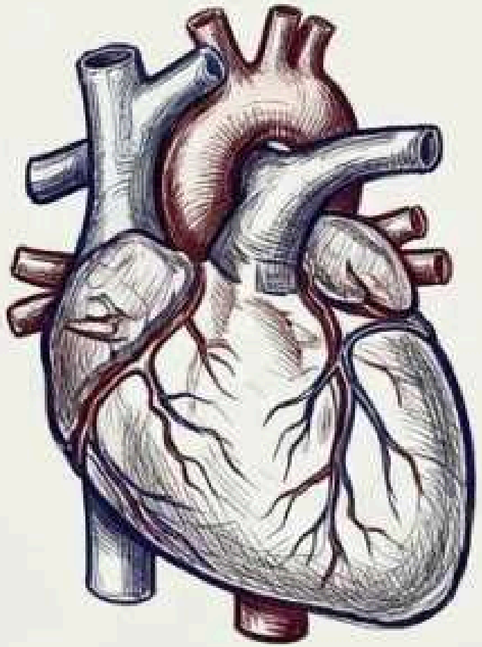
## Vascular (Blood Clots)



Clot Risk (pregnancy/ postpartum) ≫ Clot Risk (baseline)

→ Preventive anticoagulation required.

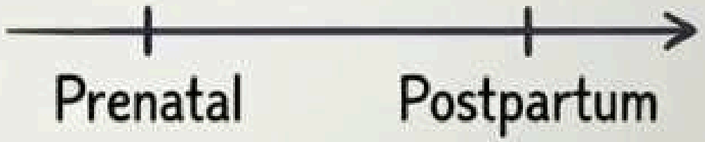
## Cardiac (Heart Disease)



A leading cause of maternal death in wealthy countries; necessitates specialist care.

## Psychiatric (Mental Illness)

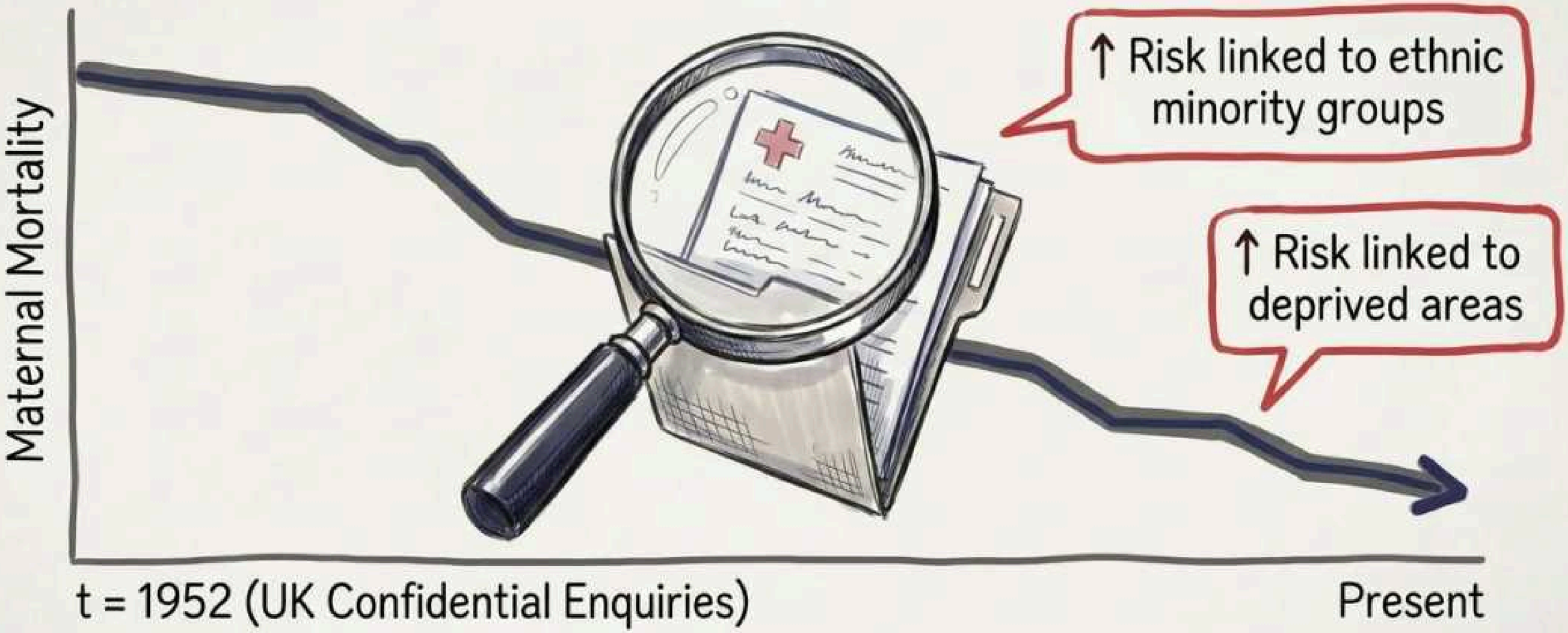





Risk of onset or relapse of severe depression and psychosis.

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# Systemic Improvement Through Mortality Review




**Detailed Review (identifying sub-optimal care) = Improved Care**

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# Synthesis: Evidence-Based Management

1 Hypertensive Disorders



2 Gestational Diabetes



3 Antepartum Haemorrhage



4 Preterm Labour




Evidence-Based Treatments & Confidential Review

Next: Labour and Birth

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