

Transfer or Deliver?

Acute Fetal Compromise Revealing Pre-eclampsia in a Rural Maternity Service

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Background

Hypertensive disorders of pregnancy remain a leading cause of maternal and perinatal morbidity worldwide.¹ Although pre-eclampsia (PET) is traditionally recognised through maternal hypertension and end-organ dysfunction, current diagnostic criteria also acknowledges uteroplacental dysfunction—including fetal growth restriction (FGR), fetal compromise, and stillbirth—as evidence of disease.^{1,2}

In rural maternity services, the management of acute fetal compromise is particularly challenging. Clinicians must rapidly balance maternal stability, fetal condition, gestation, local surgical capability, retrieval availability, and transfer times. Timely multidisciplinary communication is essential to optimise outcomes.

Aims

To describe the multidisciplinary management of acute fetal compromise in a rural maternity service, highlighting the challenges of transfer versus emergency local delivery, and demonstrate how unrecognised uteroplacental dysfunction can support the diagnosis of pre-eclampsia despite normal maternal biochemistry.

The Case

A 32-year-old primigravida at 29+0 weeks presented with 2 days of decreased fetal movements to her local level 3 maternity service

- Pregnancy complicated by gestational hypertension (on methyl dopa)
- PMHx: Essential hypertension, asthma
- No symptoms of severe pre-eclampsia including headache, visual changes, abdominal pain, oedema
- Prior antenatal surveillance reassuring
- Normal USS growth and wellbeing scans with normal growth velocity and parameters

Examination findings:
BP150/106 HR105 RR18
SpO2 100% T36.8
Abdo soft, non-tender.
Neuro exam: 1 beat
clonus, mild hyperreflexia

Investigations

Hb	134 (98-137)
PLTs	232 (150-430)
LFTs	Normal
Fibrinogen	4.9 (1.7-4.5)
APTT & PT	normal
Urine PCR	13 (<15)

- CTG: Absent variability, recurrent prolonged decelerations, baseline FHR 160bpm
- USS: Nil breathing movements, nil fetal movements, placenta posterior

Management

Due to potential fetal demise, betamethasone was given for lung maturation and magnesium sulfate (MgSO₄) for neuroprotection in anticipation for delivery. Urgent discussions amongst local rural generalist obstetricians, tertiary specialists, and neonatal retrieval services evaluated maternal transfer versus local delivery. Ongoing pathological CTG findings showed fetal compromise, and the patient's worsening hypertension required management with MgSO₄.

Given fetal distress and transfer risks, an emergency caesarean was performed locally by the rural obstetrics team, with neonatal retrievals present to ensure immediate stabilization and transfer.

Outcomes

- Live born infant delivered via caesarean section once retrieval services onsite for neoresus
- 1030g birth weight (2nd percentile) confirming a diagnosis of FGR, APGARS 4 at 1min, 6 at 5min, retrieved immediately once stable
- Placental delivered completely, appeared normal
- Mother was transferred to the tertiary centre postnatally to follow neonate

A postnatal diagnosis of pre-eclampsia was made based on FGR in the presence of gestational hypertension.

Discussion

This case demonstrates the complexity of managing acute fetal compromise in rural maternity services where delivery, transfer, and neonatal retrieval must be coordinated simultaneously.

Despite previously reassuring fetal growth surveillance, delivery revealed severe fetal growth restriction, highlighting uteroplacental dysfunction as the predominant manifestation of pre-eclampsia. In the absence of maternal biochemical abnormalities, diagnosis relied on integrating fetal findings with worsening maternal hypertension.

The principal learning point, however, is the multidisciplinary decision-making required when transfer may no longer be safe. Ongoing communication between the rural generalist obstetrician, tertiary obstetric team, neonatal retrieval service, and local maternity staff enabled timely delivery while balancing maternal and neonatal risks. This case also reinforces the importance of maintaining emergency obstetric capability within rural maternity services, supported by established referral pathways and retrieval networks.

Key Takeaways

- Acute fetal compromise should prompt immediate multidisciplinary assessment and escalation.
- Pre-eclampsia may present predominantly through uteroplacental dysfunction despite normal maternal biochemistry.
- Decisions regarding maternal transfer versus local delivery should remain dynamic and prioritise fetal and maternal safety.
- Strong collaboration between rural, tertiary, and retrieval services is essential to optimise outcomes.

References

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2. Queensland Clinical Guidelines. Hypertension and pregnancy [Internet]. Brisbane: Queensland Health; 2021 [cited 2026 Jul 24]. Available from: https://www.health.qld.gov.au/_data/assets/pdf_file/0034/139948/g-hdp.pdf