TYGERBERG HOSPITAL AND METRO EAST MATERNITY SERVICE

Department of Obstetrics and Gynaecology

PROTOCOL for Abnormal (RI>95th centile) Umbilical Artery Doppler (UAD)

- **Verify** that the gestation is correct (history, first dating scan)
- Refer the woman to the **nearest ultrasound service and doctor's clinic**:
    - Perform a growth scan including liquor volume (deepest vertical pool, DVP)
    - Plot size and Doppler on graphs for correct gestation
    - Advise on smoking, alcohol, etc.

  →These pregnancies are at risk of intra-uterine fetal death (IUFD), fetal distress in labour and preeclampsia (PE) - they CANNOT be referred back to an MOU or BANC+ clinic but further care must be in a doctor's clinic or high risk clinic
- **Do weekly visits to rule out PE (**BP and urine check) until viability
- **Once the baby is viable (at least 27 weeks AND at least 800g):**
    - Instruct mother on **daily kick count chart**
    - **Arrange twice weekly cardiotocography (CTG) at Tygerberg Fetal Evaluation clinic (FEC)**
    - **Doppler** weekly at FEC
    - **Follow up weekly at Tygerberg HRC until 33 weeks**
    - **Do a growth scan at the 33 week's visit**
    - **Consider earlier delivery if significant aggravating factors develop (PE, DVP < 2cm or plateau of growth, persistent non-reactive CTG after 34 weeks) – this should always be a consultant decision and in the context of the current GA (discuss with fetal medicine if unclear).**
    - **From 34 weeks (if growth adequate): refer to district hospital to follow up twice weekly at district hospital doctor's clinic to** continue the care as above (daily kick chart, CTG twice weekly, UAD weekly, BP and urine check weekly, monitor SF growth weekly)
- In the absence of aggravating factors arrange **deliver no later than 36^{6} weeks.**
- **Delivery must be in a specialist hospital (Tygerberg) if ≤34 weeks. After 34 weeks, delivery can take place in a district hospital. Make sure patient is at the correct level of care for the anticipated GA at delivery and anticipated birthweight.**
- **This finding is not a contra-indication to vaginal delivery but requires continuous CTG monitoring throughout labour.**

- Any delivery before 36 weeks must be carefully thought through (correct GA, strong indication, repeated and confirmed abnormal observations etc) and antenatal steroids should be considered only if delivery is anticipated ≤34 weeks.

Absent or reversed end diastolic flow on FEC Doppler: Refer to Fetal Medicine Clinic at Tygerberg (tel 021 938 5572 during office hours). After hours- refer directly to Tygerberg labour ward.

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Signed

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