FETAL ANOMALY SCREENING

Summary: Fetal Anomaly Screening: Morphology Ultrasound and Referral PPG is changing. All pregnant women should be offered morphology US with a plan for this between 18 and 20 weeks gestation to ensure sufficient time for appropriate follow-up investigations if required.

Clinical practice re Fetal Anomaly Screening: Morphology Ultrasound and Referral

Please note that a new SA Perinatal Practice Guideline (PPG) *Fetal Anomaly Screening: Morphology Ultrasound and Referral,* is in development. Although the PPG is yet to be completed, we thought it prudent to inform you of the clinical practice implications.

- As per the SA Health Antenatal Visit Schedule (SAPR), offer all women morphology US and plan for this between 18 and 20 weeks gestation to ensure sufficient time for appropriate follow-up investigations if required.
  - Initial morphology US should be performed no later than 20^{+0} weeks
  - Any follow-up US to complete morphology (if required) should be performed no later than 21^{+0} weeks
  - Follow-up visit with maternity care provider should be within 1 week of original morphology US to review the results (i.e. no later than 21^{+0} weeks)
- This timing of the morphology US allows sufficient time for additional investigations, counselling and discussion of women's options, if necessary.
  - Investigations may include:
    - Amniocentesis +/- microarray (may take up to 3 weeks for result)
    - Fetal MRI (may take up to 10 days to organise and then report)
    - Fetal echocardiogram (may take up to 10 days to organise and then report)
    - Infection screening (e.g. CMV screening including avidity may take up to 2 weeks)
    - Other specific genetic testing of mother and/or partner (e.g. cystic fibrosis screening may take up to 2 weeks).
  - Counselling can take up to 10 days to organise and may include:
    - Maternal Fetal Medicine specialist
    - Geneticist +/- genetic counsellor
    - Paediatric specialist.
- It is important to note the following parameters are in place within the institutions that provide late GTOP services:
  - GTOP must commence on or by 22 weeks and 6 days gestation (22^{+6}) as the point of fetal viability is considered to be at 23^{+0} weeks gestation
  - GTOP after 23^{+0} weeks can only be undertaken:
    - To preserve the life of the mother
    - If the fetus is assessed as being non-viable for reasons other than gestation (e.g. lethal congenital anomaly, severe early onset IUGR)
    - If either above criteria is present, local review and approvals must still take place ie Patient Care Ethics review
  - Consider tertiary level morphology US in the first instance for the following women who are at increased risk of fetal anomaly:
    - Pre-existing diabetes type 1 or 2
    - Epilepsy (depending on medication)
    - Multiple pregnancy
    - Maternal or paternal chromosome translocations
    - Known genetic disorders in parents/previous children/pregnancies
    - Maternal cardiac conditions
    - Previous fetal anomaly/chromosomal condition
    - Previous severe early onset IUGR or confirmed maternal antiphospholipid syndrome (increased risk of early placental insufficiency)
    - Known maternal substance misuse
- It is important to note the following for women with a high BMI, as visualisation of fetal structures is frequently more difficult:
  - Obesity may not be the reason that structures are not visualised; there may be an anomaly. Follow-up US should be no later than 20+3 weeks
  - There is an increased risk of diabetes and resultant fetal anomaly
  - Consider prompt referral for tertiary level US if structures are not visualised at first local US.

Public Obstetric Imaging Units providing tertiary level ultrasound include the Women's and Children's Hospital and Flinders Medical Centre. Maternal Fetal Medicine Service referral is also suggested if tertiary level ultrasound is required.