FETICIDE AND MULTI-FETAL REDUCTION

*This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.*

1. **AIM**
   - Singleton feticide under aseptic conditions to induce fetal asystole prior to pregnancy termination
   - Selective feticide under aseptic conditions of fetus in a multiple pregnancy affected by a fetal anomaly
   - Multi-fetal reduction under aseptic conditions to reduce a higher order multiple pregnancy to a singleton or a twin pregnancy
   - Appropriate and sympathetic supportive medical and psychosocial counselling of the woman

2. **PATIENT**
   - Woman requesting induction of fetal demise prior to medical or surgical termination of pregnancy
   - Woman requesting selective feticide for fetal anomaly or multi-fetal reduction of a higher order multiple

3. **STAFF**
   - Maternal Fetal Medicine (MFM) Accredited Specialist
   - MFM trainee under supervision of Specialist
   - MFM Midwives
   - Genetic counsellor
   - Social Workers
   - Psychiatrists
   - Sonographers

4. **EQUIPMENT**
   - Ultrasound machine
   - 20G echotip needle
   - 22G spinal needle
   - 1ml syringes (fetal rocuronium and morphine where required)
   - Anaesthetic Procedure Pack containing:
     - Sterile drape
     - 5 ml syringe (for local anaesthetic)
     - 10 ml syringe (for potassium chloride – KCL)
     - 23G needle
     - 18G needle
   - Chlorhexidine 0.5% in alcohol 70%, 25 mls antiseptic skin cleaner
   - 2 sterile gowns
   - 2 pairs sterile gloves
   - Sterile cotton wool balls
   - Sterile ultrasound probe cover
   - 2 Sterile lubricating gel sachets
   - Bandaids
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5. MEDICATION
- Lignocaine 2%, 2 x 5mL ampoules
- Sterile KCL concentrate 10 mmol/L (0.75g) in 10 ml
- Rocuronium bromide (50 mg in 5mL for fetal paralysis as required)
- Morphine 10 mg/1 mL (for fetal analgesia as required)
- Lorazepam 1mg - 2mg orally and Panadeine Forte x 2 orally for maternal anxiety and pain relief (as required)

6. CLINICAL PRACTICE
- Counsel woman with MFM specialist and MFM midwife with regard to clinical options
- Ensure woman has met with Social Worker and/or other appropriate support service
- Fulfil hospital termination review process in cases of a gestation beyond the 20th week
- Advise woman (where applicable) of the risks of the procedure including spontaneous miscarriage of entire pregnancy
- Obtain written consent from woman for procedure of feticide or multi-fetal reduction
- Offer woman oral anti anxiety medication Lorazepam and oral pain relief Panadeine forte. Ideally should be given 30 minutes prior to procedure.
- Perform the procedure in one of the two ultrasound procedure rooms with:
  - aseptic technique
  - a medical assistant (if trainee is performing the procedure, this must be an accredited specialist)
  - a midwife assistant
- Confirm the site of the relevant fetus(es) on ultrasound and chorionicity
  - when performing selective feticide state the position of the affected fetus aloud and document with 2 clinicians confirming correct fetus
  - when performing multi-fetal reduction select fetus furthest away from cervix where possible or fetus with greater number of markers for aneuploidy: e.g. large nuchal translucency, shortest Crown Rump Length (CRL)
- Administer local anaesthetic 2% lignocaine 5 mls to the woman at relevant site by subcutaneous injection
- Consider the use of Rocuronium for fetal paralysis:
  - Less than 30 weeks gestation 2 mg = 0.2mls by intramuscular (IM) injection into fetus
  - Greater than 30 weeks gestation 3 mg = 0.3mls by IM injection into fetus
- Consider the use of intra-muscular morphine to the fetus for analgesia in gestations of 24 weeks and above at a dose of 100 mcg/kg
- Enter amniotic cavity under ultrasound visualisation with 20G needle. Aim for intra-cardiac injection
- Aspirate fetal blood to confirm correct needle placement into the fetal heart then inject KCL (10 mMol/10ml)
  - First trimester 1 – 2 mL KCL
  - Second trimester 5 mL KCL
  - Third trimester 10 mL KCL
- Watch for asystole, inject further KCL up to a volume of 10 mL if required and watch for 2 minutes to confirm asystole
- Rescan 30 – 60 mins later to ensure fetal asystole
- Arrange appropriate follow up with midwife, obstetrician, social work or mental health worker
- Arrange admission for induction of labour where appropriate
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7. DOCUMENTATION
   • Medication Chart
   • Integrated Clinical Notes
   • Antenatal Yellow Card
   • ViewPoint report
   • ObstetriX

8. EDUCATIONAL NOTES
   • The use of intra-cardiac KCL is the most effective method of feticide (1)
   • In one series of 239 terminations of pregnancy beyond 20 weeks of gestation the mean dose of KCL required was 4.7 mL with a range of 2 – 10 mL
   • There is one reported case of maternal sepsis in the literature secondary to feticide
   • There is one reported case of inadvertent maternal intravascular injection of KCL necessitating successful resuscitation of the mother
   • If additional sedation is required, intravenous midazolam may be a suitable alternative to oral medication. An anaesthetist must be present for administration of IV sedation. This may require the procedure to be performed in the operating theatre.

9. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP
   • Terms of Reference for the Termination Review Committee, RHW
   • Termination of Pregnancy – Framework
   • Misoprostol mifepristone for medical termination of pregnancy and or fetal death

10. RISK RATING
    • Low

11. REFERENCES

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