FETAL SCALP ELECTRODE (FSE) APPLICATION GUIDELINE

1. OPTIMAL OUTCOMES
   • Appropriate and correct application of a fetal scalp electrode to ensure accurate monitoring of fetal heart rate

2. PATIENT
   • Labouring women with a baby in cephalic presentation and ruptured membranes who require continuous electronic fetal monitoring, and for whom accurate external monitoring is not possible and who do not have any of the following contraindications:
     - Hepatitis B or C positive
     - HIV seropositive
     - Primary Herpes
     - Group B streptococcus (GBS) positive unless covered at least 30 minutes prior to application of FSE

3. STAFF
   • Registered Midwives
   • Medical staff

4. EQUIPMENT
   • Cardiotocograph monitor
   • Fetal scalp electrode
   • Fetal scalp electrode lead and leg attachment
   • Amnihook
   • Plastic apron, gloves and protective eyewear (PPE)

5. CLINICAL PRACTICE
   • Discuss need for FSE with the woman and her partner/support people and obtain verbal consent
   • Document evidence of this discussion in the integrated notes
   • Perform vaginal examination to confirm cephalic presentation, absence of membranes and determine fetal position
   • Apply electrode as per manufacturer’s instructions, ensuring it is not applied to the fetal face, fontanelles or sutures
   • Attach the electrode wire to lead attachment that is applied to the woman’s leg and connect the lead to the CTG monitor
   • Commence monitoring and ensure satisfactory recording
   • Explain findings to the woman and document in the integrated notes
   • Ensure safe removal of the electrode prior to or at time of birth and dispose of in a sharps container
   • Leave FSE on in the instance of a transfer to operating theatres for an emergency caesarean section until monitoring can be ceased
   • Remove prior to commencement of surgery
   • Do not apply an FSE in the instance of suspected fetal demise

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6. HAZARDS/SUB-OPTIMAL OUTCOMES
   - Trauma or infection to the infant
   - Vertical transmission of Hepatitis B, C, congenital herpes or HIV
   - The fetal heart rate pattern is of poor technical quality
   - Unrecognised monitoring of maternal heart rate
   - Contamination of a caesarean section wound

7. DOCUMENTATION
   - Integrated notes
   - Partogram
   - ObstetriX

8. EDUCATIONAL NOTES
   - Clear benefit to the fetus should be established prior to the application of FSE as this
     is an invasive procedure with the potential of causing trauma or infection to the infant
   - Electronic fetal monitoring is limited in its capacity to predict neonatal condition, and
     has failed to lead to reduced rates of cerebral palsy and neurological injury
   - The FSE may inadvertently pick up the maternal heart rate particularly when the
     fetus has demised

9. RELATED POLICIES/ PROCEDURES/GUIDELINES
   - Intrapartum fetal heart rate monitoring
   - Vaginal examination
   - Fetal Blood Sampling

10. REFERENCES
      www.uptodate.com