

SOP

On Performing CTG

Department of Obstetrics & Gynaecology
Faculty of Medicine
UWUSL

Standard Operating Procedure (SOP) On performing Cardiotocography (CTG)

Title

SOP for performing CTG

Issued By

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(1) Purpose

To provide a standardized procedure for performing and documenting cardiotocography (CTG) monitoring to assess fetal wellbeing and uterine activity in antenatal and intrapartum care.

(2) Scope

This SOP applies to all healthcare professionals involved in maternal and fetal monitoring including obstetricians, medical officers, medical students, midwives, and nursing staff.

(3) Responsibilities

(3.1) Clinician / Healthcare Provider

- Assess indication for CTG.
- Explain the procedure & obtain informed verbal consent.
- Perform CTG recording correctly.
- Interpret CTG findings appropriately.
- Escalate abnormal findings promptly.

(3.2) Assistant / Nursing Staff

- Prepare CTG machine & accessories.
- Assist patient positioning.
- Ensure patient comfort and privacy.
- Maintain infection prevention practice.

(4) Ethical and Clinical Considerations

- Maintain patient confidentiality.
- Request informed verbal consent before procedure.
- Ensure privacy during monitoring.
- Explain purpose and duration of CTG.
- Ensure maternal comfort throughout procedure.
- Follow infection prevention protocols.

(5). Indications for CTG Monitoring

- Reduced fetal movements
- Hypertensive disorders of pregnancy
- Diabetes in pregnancy
- Suspected fetal growth restriction
- Post-term pregnancy
- Induction of labour
- Epidural analgesia
- Meconium-stained liquor
- Abnormal fetal heart rate detected clinically

(6) Equipment Required

- CTG Monitor Machine



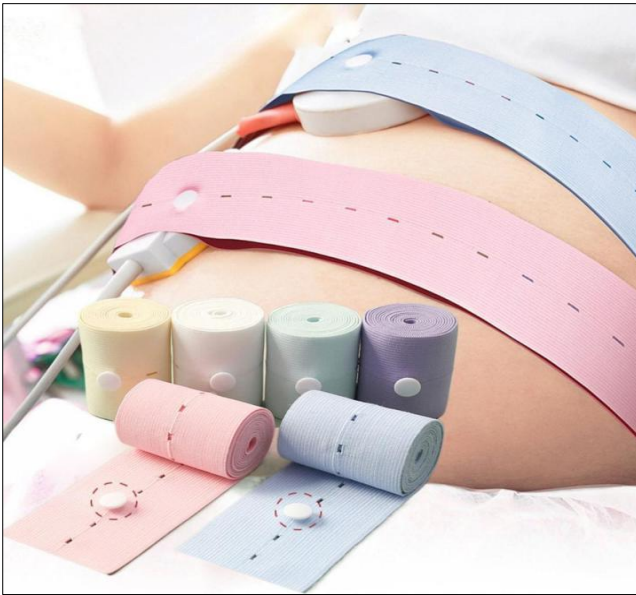
- Ultrasound Transducer (Fetal Heart Rate Probe)



- Tocodynamometer (TOCO Probe)



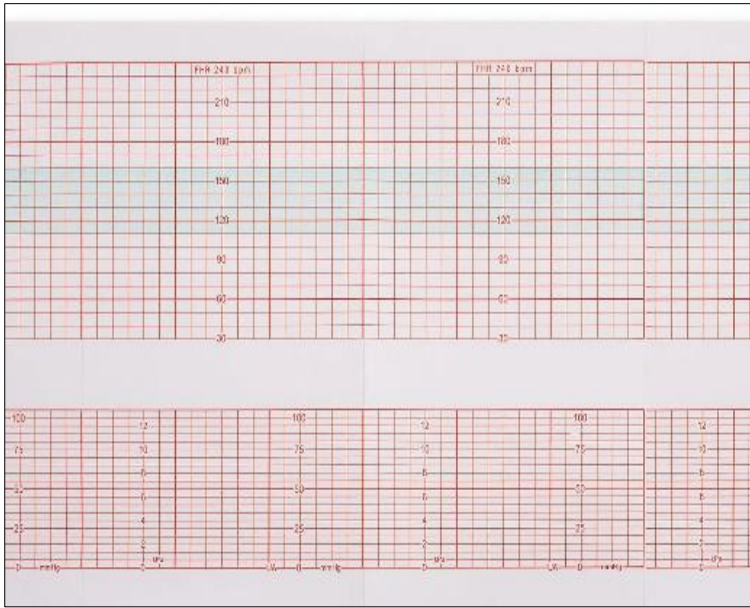
- Elastic belts / straps



- Ultrasound Gel



- Recording paper or digital recording system



(7) Procedure

(7.1) Patient Preparation

- Explain the procedure and obtain verbal consent.



- Ensure privacy and comfort.

- Position the patient in a semi-recumbent or left lateral position to avoid supine hypotension



(7.2) Application for CTG

- Palpate the abdomen to determine fetal lie and presentation.



- Apply ultrasound gel to the fetal heart transducer.



- Position the fetal heart transducer over the area of maximum fetal heart sound.

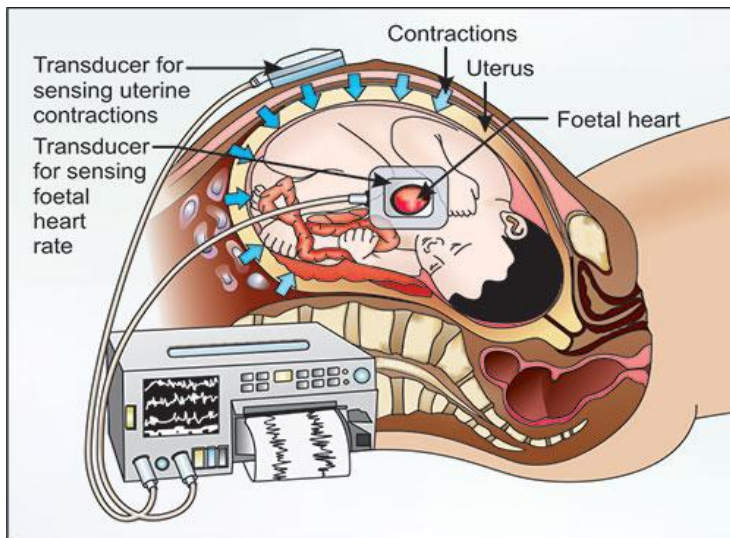


- Place the tocodynamometer over the uterine fundus.



- Secure both transducers with belts.





- Confirm fetal heart rate signal quality

(7.3) Monitoring

- Record maternal pulse initially to differentiate maternal from fetal heart rate.
- Monitor and record fetal heart rate and uterine contractions continuously.
- Ensure the tracing is clearly visible and interpretable.
- Continue monitoring according to clinical indication and institutional policy

(8) CTG Interpretation

(8.1) Assess the following parameters

- Baseline fetal heart rate
Normal: 110–160 bpm
- Baseline variability
Normal: 5–25 bpm
- Accelerations
A transient increase in FHR of at least 15 bpm lasting at least 15 seconds
- Decelerations
A transient decrease in the FHR of 15 bpm or more

Each feature of the CTG (baseline rate, variability, accelerations and decelerations) should be assessed each time a CTG is reviewed.

Each feature can be described as ‘reassuring’, ‘non-reassuring’ or ‘abnormal’ according to certain nationally agreed definitions outlined in the National Institute for Health and Care Excellence (NICE) guideline on intra-partum management.

CTG findings alone are insufficient for interpretation & should always be considered within the appropriate clinical context.

(8.2) CTG Classification

1. Normal
All four features are reassuring
2. Suspicious
Only one feature is non-reassuring
3. Pathological
Two or more non-reassuring features or any one abnormal feature.

(9) Infection Prevention and Control

- Perform hand hygiene before and after the procedure.
- Clean reusable equipment according to institutional infection control policy.
- Use disposable materials where applicable.

(10) Documentation

- Record date and time of monitoring.
- Document indication for CTG.
- Record interpretation and classification.
- Document actions taken for abnormal findings.
- Ensure signature and designation of the healthcare provider

(11) Escalation of Abnormal CTG

If CTG findings are suspicious or pathological:

- Reposition the patient.
- Assess maternal condition.
- Consider intrauterine resuscitation measures.
- Notify obstetric team immediately.
- Prepare for further intervention if indicated.

(12) References

- FIGO Consensus Guidelines on Intrapartum Fetal Monitoring: Cardiotocography 2015

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