اسم السياسة /الخطة: سياسة رعاية المريضة المصابة بامراض القلب أثناء المخاض **Care Of Patient In Labor With Cardiac Disease**
رقم السياسة/ الخطة: OSD–PP- 05

المجموعة: رعاية المرضى	المعنيين بالسياسية: كوادر قسم النسائية والتوليد	
إعداد: قسم النسائية والتوليد	تاريخ الاعداد: 2025/8/12	توقيع مسؤول صالات الولادة:
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1. **Purpose:**

1.1 To establish a treatment plan to prevent potential complications during delivery.

1.2 To reduce strain to the heart and maintains adequate cardiac output to meet maternal and fetal needs

1.3 To provide a safe delivery of the mother and the baby.

2. **Policy:**

2.1 Mother history must be obtained to provide valuable information to help the patient and fetus achieve a good outcome. History must include patient's ability to perform physical activity before and during pregnancy and any complaints of associate cardiovascular effects such as:

2.1.1 Dyspnea on exertion.

2.1.2 Palpitation.

2.1.3 Chest pain.

2.1.4 Fatigue.

2.1.5 Cyanosis.

2.2 There should be frequent assessment of the woman with a multidisciplinary approach involving midwives, obstetricians, cardiologists and anaesthetists.
The aim is to maintain a steady hemodynamic state and prevent complications, as well as promote physical and psycho-logical wellbeing

2.3 Maternal vital signs, blood pressure, hemoglobin, oxygen saturation and fetal heart rate must be monitored.

2.4 Auscultation of the heart for abnormal heart sounds and breath sounds by resident doctor.

2.5 Extremities and central body surfaces should be observed for edema and Tenderness.

2.6 Diagnostic test must be taken initially to determine baseline cardiac function and Functional capacity as ordered.

2.6.1 ECG

2.6.2 Chest X ray

2.6.3 Hemoglobin, WBC and Hematocrit

2.6.4 PT, PTT, clotting time and Heparin assay if patient is receiving anticoagulant therapy.

2.7 High risk consent must be explained by physician and signed by mother and husband.

2.8 Epidural analgesia considered the best pain relief &decreasing cardiac output heart rate to avoid emergency general anesthesia.

2.9 For patient taking anticoagulants, it should be discontinued during labor, and must be resumed 6-12 hours after delivery, if there's no post-partum hemorrhage.

3. **Scope:**

3.1 This policy is applicable to all mother in Labor with cardiac disease.

4. **Responsibility:**

4.1 It is responsibility of head department unit to assure applied this policy.

4.2 It is responsibility of all midwifes who interact with patient.

4.3 It is responsibility of all resident doctors who interact with patient

5. Definitions:

5.1 **Cardiac Disease**: refers to a variety of structural malformations of the heart or Great vessels.

6. Equipment's/Forms/Attachments:

6.1 Stethoscope.
6.2 Blood pressure apparatus.
6.3 ECG machine.
6.4 Pulse oximetry.
6.5 Oxygen tank and 02 mask.
6.6 Hypo tray for blood extraction and IV insertion.
6.7 Delivery set.
6.8 Patient's gown.
6.9 I.D. tag for patient.
6.10 Sterile gloves.
6.11 Sterile gauze.
6.12 Syringes.
6.13 Antibiotics as prescribed.

7. Procedure:

7.1 The first stage of Labor:

7.1.1 Wash hands to maintain standards precaution.
7.1.2 Keep patient on bed rest in semi or Fowler's position.
7.1.3 Assess maternal vital signs every 1 to 2 hours as required.
7.1.4 Inform immediately for breathlessness.
7.1.5 Position patient on the left side most of the time or high fowler position.
7.1.6 Monitor fetal heart rate and maternal uterine contraction by Cardiotocography continuously.

7.1.7 Secure venous access
7.1.8 Obtain laboratory results especially WBC &HB
7.1.9 PAIN RELIEF IN FIRST STAGE

The midwife should assist the woman to use the tech-niques that she has learned for coping with stress. Pethidine are usually considered safe means of intrapartum analgesia for women with cardiac disease, but it is important to review the labor plan with the multidisciplinary team before admin-istration. In some situations, epidural anaesthesia may be the analgesia of choice for its effectiveness in relieving pain and decreasing cardiac output and heart rate. It causes peripheral vasodilatation and decreases venous return, which alleviates pulmonary congestion. Furthermore. An effectively working epidural in situ may eliminate the need for emergency general anaesthesia.

7.1.10 Prepare oxygen and resuscitation equipment.

7.1.11 Allow patient and family to discuss their feelings regarding hospitalization and delivery.

7.2 Second stage of Labor:

7.2.1 The midwife should therefore encourage the woman to breathe as normal and follow her natural desire to bear down giving several short pushes during each contraction.

7.2.2 An instrumental birth using forceps or ventouse may be undertaken to shorten the second stage of labor. Care should be taken, however, when the woman is in the lithotomy position, where the lower part of the body is higher than the trunk, as this produces a sudden increase in venous return to the heart, which may result in heart failure wedge should therefore be used to avoid aorto-caval compression.

7.2.3 Observe patient for any post partum complication, assess maternal vital signs.

7.2.4 Fluid balance should be recorded and use intravenous fluid may be limited.

7.3 THE THIRD STAGE OF LABOR

7.3.1 An active third stage of labor is usually advocated with a
Slow IVI of 2 U/min oxytocin administered after the birth of the placenta to avoid systemic hypotension and prevent hemorrhage Prostaglandin F analogues are useful to treat PPH, unless an increase in pulmonary artery pressure (PAP) is undesirable.

7.3.2 IMPORTANA NOTE: Ergometrine is contraindicated in women with cardiac disease as it can cause vasoconstriction and hypertension

7.4 POST NATAL CARE

7.4.1 The first 48 hours following the baby's birth are critical for the woman with significant cardiac disease

7.4.2 Breastfeeding should be encouraged as cardiac output is not affected by lactation, although drug therapy for specific heart conditions may need to be reviewed for safety during breastfeeding. The midwife is required to provide the woman with support to successfully breastfeed her baby, emphasizing the importance of adequate rest and a dietary intake containing sufficient calories to sustain breastfeeding

7.4.3 Documentation serves as a means of communication of the health team for the continuity of care.

8. References:

8.1 NICE 2024