1.0 Introduction

The Intrauterine Pressure Catheter can be inserted by physicians when it is necessary to better document contraction frequency, duration, intensity and resting tone.

2.0 Contraindications

Use of the Intrauterine Pressure Catheter is contraindicated in the presence of uterine bleeding, uterine infection and/or low lying placenta with a risk of hemorrhage.

3.0 Physician Responsibilities

3.1 Ascertain the localization of the placenta because of the high incidence of extraovular placement.
3.2 Ensure amniotic membranes are ruptured and cervix is at least 2 cm dilated.
3.3 Perform a vaginal exam, and with the index finger, palpate fetal presenting part to determine optimal position for placement.
3.4 Ensure amniport is vented by confirming filtered vented cap (blue cap) is in place on amniport.
3.5 Using aseptic technique, insert introducer and catheter through vagina up to cervical os. Secure introducer between examining fingers adjacent to fetal presenting part.

**Do not extend Introducer beyond fingertips.**
3.6 Advance catheter 10 to 14 cm into uterus by inserting catheter until bottom of introducer is at text "Pause for Flashback".

3.7 Ensure the catheter has been placed in amniotic space by watching for amniotic fluid flowing through catheter length. **Evidence of blood indicates extraovular placement.**

3.8 If catheter placement does not proceed easily or amniotic fluid is not visualized in catheter:
   3.8.1 Pull back catheter tip to introducer and alter catheter direction by changing angle of introducer, or
   3.8.2 Determine alternate position for placement and proceed with insertion. **Do not use force and stop if resistance is felt.**

3.9 Advance catheter into proper position until double mark (45 cm) is at intraoitus. This indicates the tip of the catheter has progressed 30 to 45 cm into the uterus and should be positioned at fundus. **The “STOP” marking should still be visible outside vagina.**

3.10 Following insertion and placement confirmation, carefully slide introducer back along catheter. Pull catheter through slot in introducer for removal.

3.11 Filtered cap (blue) may be removed and replaced with tethered cap (clear) or it may remain in place. Connect the cable to the catheter. The catheter should snap into the connector.
Be sure the monitor paper is printing.

3.12 Once catheter is secured to patient’s leg and connected to the cable and monitor, verify proper placement by encouraging the patient to cough and confirming a sharp spike on the uterine activity tracing. Further confirmation will be the visualization of wave forms with contractions on the monitor paper.

If catheter does not respond:
- 3.12.1 Confirm cable/catheter is connected to monitor
- 3.12.2 Disconnect catheter from cable, flush with 10 to 20 ml of normal saline through amniport then reconnect.
- 3.12.3 Disconnect catheter from cable, rotate, retract or advance catheter, wait 15 seconds, then reconnect.

3.13 To remove catheter, grasp catheter and pull gently until fully withdrawn. Disconnect catheter from cable.

4.0 Nursing Responsibilities

4.1 Gather necessary supplies: disposable IUPC Catheter, reusable cable and Corometrics fetal monitor.
4.2 Turn fetal monitor on
4.3 Remove TOCO cable from Uterine Activity outlet on fetal monitor if plugged in and plug in IUPC cable.
4.4 Open sterile disposable Intrauterine Catheter and give to gloved physician for insertion.
4.5 Following insertion and placement confirmation by physician, secure catheter to patient’s thigh using the supplied adhesive pad. To do this, remove paper from center portion of adhesive pad and secure catheter to the center of the pad by pinching the adhesive around it. Remove remaining paper from adhesive pad and secure to patient’s thigh as close to the introitus as possible. This will prevent a bend in the catheter from working it out of the uterus.
4.6 Zero the monitor by pushing the UA reference button on the fetal monitor.

**The catheter must not be connected to the cable before the monitor is zeroed.**

4.7 Remove the yellow protective cap from catheter. Connect the cable to the catheter. The catheter should snap into the connector. Be sure the monitor paper is printing.
4.8 Document insertion in patient care record.
4.9 Document the mmHg of the peak intrauterine pressure (IUP) and the mmHg of the resting tone on the partogram.
4.10 If the catheter is removed, discard catheter into a biohazardous waste receptacle. Keep reusable cable

5.0 Normal IUPC Values

5.1 Normal Resting Tone is between 9 – 12 mmHg.
5.2 In the 1st stage of labour, uterine contractions typically increase progressively from 25 mmHg at the start of labour to 50 mmHg at the end of labour. The uterus can normally still be easily depressed with the fingers at 40 mmHg.
5.3 In the 2nd stage of labour, with pushing, contractions of 80-100 mm Hg are normal.

6.0 Potential Complications

6.1 Extraovular placement of the catheter causing placental abruption
6.2 Perforation of placental vessels
6.3 Entanglement of the catheter with the umbilical cord.
6.4 Perforation of the uterus.
6.5 Placental abruption
6.6 Perforation of the uterus

7.0 Cleaning the Reusable Cable

7.1 Wipe monitor plug, cable and outside of grey connector with water then wipe with an alcohol swab.
7.2 Clean inside of grey connector with an alcohol swab. Insert alcohol swab inside cable connector cone and rotate to clean. Take care to avoid disturbing the transducer protecting gel inside the connector. **Do not soak or submerge cable connector.**

8.0 References


