Purpose

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

Applicability

The Intrauterine Pressure Catheter can be inserted by Obstetricians and Senior Residents with Intrauterine Pressure Catheter insertion education or experience in inserting Intrauterine Pressure Catheters.

Responsibility

Staff and Physicians in Labour and Delivery will demonstrate a commitment to the safety of all patients when using this Procedure.

Procedure

1. Gather necessary supplies: Intrauterine Catheter and cable to link with fetal monitor.

2. Turn fetal monitor on. Ensure monitor paper recorder is running.

3. Plug cable into fetal monitor outlet U/A.

4. Using aseptic technique, open package and remove catheter.

5. Ensure amniotic membranes are ruptured and cervix is at least 2 cm dilated.

6. Perform a vaginal exam, and with the index finger, palpate fetal presenting part to determine optimal position for placement.
7. Ensure amniport is vented by confirming filtered vented cap (blue cap) is in place on amniport.

![Image of amniport](image1)

8. 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.*

![Diagram of catheter placement](image2)

9. Advance catheter 10 to 14 cm into uterus by inserting catheter until bottom of introducer is at text "Pause for Flashback".
10. Ensure the catheter has been placed in amniotic space by watching for amniotic fluid flowing through catheter length.

**Evidence of blood indicates extraovular placement.**

11. If catheter placement does not proceed easily or amniotic fluid is not visualized in catheter:
   a. Pull back catheter tip to introducer and alter catheter direction by changing angle of introducer, OR
   b. Determine alternate position for placement and proceed with insertion.

**Do not use excessive force and stop if resistance is felt.**

Repeat steps 9, 10 and 11 until you are comfortable that the catheter has been placed properly.

12. 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.

   **“STOP” marking should still be visible outside vagina.**

13. Following insertion and placement confirmation carefully slide introducer back along catheter. Pull catheter through slot in introducer for removal.
14. Filtered cap (blue) may be removed and replaced with tethered cap (clear) or it may remain in place.

15. Connect the cable to the catheter. The catheter should snap into the connector.

16. Secure the catheter to the patient’s thigh using the supplied adhesive pad. To do this, remove the paper from the center portion of adhesive pad and secure the catheter to the center of the pad by pinching the adhesive around it. Remove the 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.

17. 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.
18. Remove yellow protective cap from catheter. Connect cable to catheter.

19. 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.

![](Crisp%20Wave%20Form%2C%20Accurate%20Baseline)


21. If Intrauterine Pressure Catheter does not respond:
   a. Confirm cable is connected to monitor.
   b. Disconnect catheter from cable and flush with 10-20 ml of Normal Saline through amniport then reconnect.
   c. Disconnect catheter from cable, rotate, retract, or advance catheter, wait 15 seconds, then reconnect.

22. To remove catheter, grasp catheter and pull gently until fully withdrawn. Disconnect catheter from cable. Discard catheter and clean and store reusable cable.

**Normal I UPC Values**

Normal Resting Tone is between 9 – 12 mmHg.
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.

In the 2nd stage of labour, with pushing, contractions of 80-100 mm Hg are normal.

**Potential Complications**

- Extraovular placement of the catheter causing placental abruption
- Perforation of placental vessels
- Entanglement of the catheter with the umbilical cord
- Perforation of the uterus
- Placental abruption
Cleaning the Reusable Cable

Use alcohol wipes to clean the cable thoroughly. Clean outside of connector with soap and water.

Use a cotton swab to push an alcohol wipe gently into the grey port and rotate until clean.
Take care to avoid disturbing the transducer protecting gel inside the connector.

Do not soak or submerge cable connector. Return cable to the designated storage area.
References


Revisions

August 2011