

Labor & Delivery Procedures- Maternal (OB) Nursing

Amniotomy

Rupture of the amniotic sac; often done in conjunction with induction of labor

Enables internal electronic monitoring

Fetus must be at a 0 or plus station

Physician uses an Amnihook to perforate the amniotic sac

Nursing interventions:

- Nurse should monitor for prolapsed umbilical cord, infection, and abruption placenta after amniotomy
- Before the amniotomy the nurse should assess the fetal heart rate; must be reassuring
- Nurse should place pads and towels under the patient to absorb the amniotic fluid
- Nurse should assess the fetal heart rate for one minute after the amniotomy
- Assess quantity, color, and odor of amniotomy
- Monitor temperature every 2 hours after amniotomy

Induction and augmentation

Indications:

- Fetal compromise
- Premature rupture of membranes
- Chorioamnionitis
- Postterm pregnancy
- Hypertension
- Fetal death

Bishop score is used to predict cervical readiness for labor

Contraindications:

- Placenta previa
- Vasa previa
- Abnormal fetal presentation
- Umbilical cord prolapse
- Uterine surgeries such as classic cesarean

Techniques for induction:

Cervical ripening:

- Prostaglandins (dinoprostone) to ripen cervix
 - o Tachysystole is a major adverse reaction

- Misoprostol- Cytotec- synthetic prostaglandin tablet
- Transcervical catheter- balloon-tipped Foley catheter is inserted into the cervix
- Lamical, Laminaria tents- absorbs water in the cervical canal and gradually expands

Oxytocin (Pitocin) administration:

- Diluted in isotonic solution and given as a secondary infusion (IVPB)
- Oxytocin is started slowly and increased gradually
- Uterine activity and fetal heart rate are closely monitored
- Titrated according to maternal and fetal response
- Fetal heart rate is charted and recorded every 15 minutes during first stage of labor and then every 5 minutes during second stage
- Monitor for non-reassuring fetal heart rate patterns that could indicate tachysystole
 - o Bradycardia
 - o Tachycardia
 - o Late decelerations
 - o Decreased fetal heart rate variability
- Uterine contractions are closely monitored, same frequency as fetal heart rate
- Monitor maternal blood pressure and heart rate every 30 minutes
- If fetal heart rate pattern is non-reassuring or if uterine contractions are hypertonic
 - o Reduce/stop oxytocin
 - o Place woman in a side lying position
 - o Give 8-10 L O2 via face mask
 - o Administer terbutaline to reduce uterine contractions if physician prescribes it
- Record intake and output to monitor for water intoxication.
 - o Headache
 - o Blurred vision
 - o Increased blood pressure and respirations
 - o Behavioral changes

Version

Used to changed fetal presentation

Internal vs External

- External
 - o Used to change fetus from breech, shoulder, or oblique presentation
 - o Nonstress test or biophysical profile should be obtained before version
 - o Ultrasound to confirm gestational age, fetal presentation, and adequacy of amniotic fluid
 - o Should be more than 37 weeks gestation
 - o Woman may be given a tocolytic drug such as terbutaline to relax uterus before version
- Internal
 - o May be used to achieve a vaginal birth for the second twin in a twin gestation

- Unexpected and urgent procedure
- Physician maneuvers the fetus into a longitudinal lie

Operative Vaginal Birth

Use of forceps or vacuum extractor during a vaginal birth to help aid the expulsion efforts

Forceps

Metal instruments with two curved blades with rounded edges that can be locked in the center- the physician applies to the fetal head to gain traction during birth

Vacuum extractor

A cap like suction device

May also be used during a cesarean birth to help pull the baby through the incision

Technique:

- Patient needs to have an empty bladder, ruptured membranes, and complete cervical dilation
- Regional or epidural block for anesthesia

Trauma associated with operative delivery:

- Maternal laceration or hematoma of perineum or vagina
- Infant ecchymosis, lacerations, facial nerve injury, cephalohematoma, intracranial hemorrhage,
- Infant may have a chignon at application site after use of a vacuum extractor

Nursing interventions:

- Monitor fetal heart rate; report a rate of less than 100 bpm
- Monitor mother and baby for trauma
- Monitor for broken skin on the baby's head and ensure the area is kept clean
- Monitor for neurological abnormalities, such as seizures, in the baby

Episiotomy

Incision of the perineum just before birth

May be used for fetal shoulder dystocia, forceps or vacuum extractor assisted births, fetus in occiput posterior position

Nursing interventions:

- Observe area for hematoma and edema

- Educate patient on use of cold applications to the site for 12 hours followed by heat for 12 hours

Cesarean birth

C-section is performed when vaginal birth would compromise the mother, fetus, or both
Gestation should be confirmed to be greater than 39 weeks

Risks:

- Infection
- Hemorrhage
- UTI
- Thrombophlebitis
- Paralytic ileus

An epidural block is used for a scheduled c-section

General anesthesia is used for an emergency c-section in which there is no time to establish an epidural block

Nursing care before c-section:

- Educate patient on the procedure and what to expect
- Provide emotional support for the woman and her family
- Place a wedge under one hip
- Administer the prescribed IV dose of prophylactic antibiotic
- Insert an indwelling urinary catheter
- Clip hair that is present at the planned incision site
- Complete a sterile abdominal skin prep

Nursing care after c-section

- Assess for return of sensation and movement after an epidural block
- Assess for level of consciousness if general anesthesia was used
- Assess the mother per facility protocol or
 - o Q 15 minutes for the first hour
 - o Q 30 minutes for the second hour
 - o Q 1 hour
- Focused assessment of the mother should include
 - o Vital signs
 - o Oxygen saturation
 - o Uterine fundus
 - o Lochia
 - o Urine output
 - o Abdominal dressing
- Provide pain relief as needed via prescribed analgesics