Induction & Dysfunctional Labor

Labor & Birth at Risk

- Induction of labor
  - Reasons:
    - Postmaturity
    - Pre-eclampsia
    - Diabetes
    - IUGR
    - Prolonged rupture of membranes

Induction of labor

- Criteria:
  - Longitudinal lie
  - Fetus is viable
  - Cervix is ready “ripe” for birth
  - Presenting part is engaged
  - No CPD
Ripening of Cervix
Prepares for elective induction

- Prostaglandin gel – speeds ripening; Laminaria (seaweed), Cervidil.
- Bishop’s criteria for scoring cervix for elective induction, uses 0-3 scoring factor. (p582)
  1. Dilation
  2. Effacement
  3. Station
  4. Consistency
  5. Position

Total Score = _____  Ex. 8 (cervix is ready)

Amniotomy
Artificial rupture of membranes

- Used to stimulate labor when cervix is ripe
- Performed to induce labor, augment labor or allow internal EFM & fetal scalp blood sampling.
- Amnihook
- 3 risks: prolapse of the cord, infection & abruptio placenta.

Nursing Care

- Assess FHR X1 minute
- Chart quantity, color and odor of fluid
- Change pads regularly.
- Assess temp. & VS q2-4 hours,
Nursing Management

- FHR monitoring
- Contraction (ctx) monitoring
- VS q30-60 minutes
- FHR, Ctx. pattern q 15min
- Monitor I&O accurately
- Support & coaching

Estimation of fetal maturity

- L/S ratio: best known test. Equal to or greater than 2:1
- Sonogram: in 3rd trimester to evaluate fetal lung maturity.

External version

- Performed after 37 weeks
- Turn fetus from breech to cephalic presentation before labor.
- Need NST to ensure fetal well being
- FHR & ultrasound should be recorded continuously.
Hypotonic contractions

Seen in active phase

Cause:
- Analgesia given too early
- Bladder or bowel distention
- Uterus lax from grand multiparity

Treatment: Oxytocin infusion to augment labor to strengthen contractions and increase effectiveness.

Hypertonic contractions

- High uterine resting tone
- Occur frequently, but are ineffective to dilate cervix
- Occur during latent phase:
  - Cause: too much Pitocin, no relaxation of uterus

Treatment: Rest and pain relief – morphine sulfate, decrease stimulation
- Cesarean birth may be necessary

Length of Normal Labor in Hours (Freidman curve)

<table>
<thead>
<tr>
<th></th>
<th>Primip</th>
<th>Multip</th>
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<tbody>
<tr>
<td>Latent</td>
<td>8.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Active</td>
<td>5.8</td>
<td>2.5</td>
</tr>
<tr>
<td>2nd Stage</td>
<td>1</td>
<td>0.25</td>
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</table>
Prolonged latent phase
- Primip: >20 hours; Multip: >14 hours
- Cause:
  - cervix not ripe
  - excessive use of analgesia
  - uterus in hypertonic state
- Management:
  - IV fluids to prevent dehydration
  - Analgesia to relax uterus if hypertonic
  - Encourage rest & relaxation

Arrest of descent
- primip: no descent of fetus into ischial spines for 2 hours (-3 to +3)
- multipara: for 1 hour
- Failure of descent:
  - no engagement of fetus or has not moved below 0 station
  - cause (of both): CPD
- Treatment: C/S

Nursing interventions
- Assess for depletion of glucose stores
- Decrease anxiety
- Offer comfort measures
- Maintain adequate blood flow to uterus
- Monitor urinary output
- Monitor fluid & electrolyte balance
**Fatigue r/t prolonged labor**

**Interventions:**
- IV therapy
- High CHO fluid if in early labor
- Offer explanations of all procedures
- Nonpharmacologic comfort measures
- Void q2h, keeps bladder empty & aids progress.

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**Forceps delivery**

- Instrument applied to fetal head after head reaches perineum (+2) = low forceps, 0 = midforceps.

**Criteria:**
- ROM; No CPD
- Cervix at full dilation
- Empty bladder
- Assess FHR before and immediately after application of forceps.

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**Vacuum Extraction**

- Disc-shaped cup applied to fetal scalp over posterior fontanel, vacuum suction applied, traction helps deliver infant.

**Advantages over forceps:**
- Little anesthesia is necessary
- Fewer lacerations of birth canal

**Disadvantages:**
- Causes a marked caput, noticeable for 7 days after birth; provide reassurance to mother-harmless

**Limitations:** not for preterm infants