Nursing Care in Labor

When the deceleration pattern of the fetal heart rate "mirrors" the uterine contraction which nursing action is indicated?

A. Administer oxygen by nasal cannula.
B. Reposition the women
C. Apply a fetal scalp electrode
D. Record this reassuring pattern

Which factor ensures that the smallest anterior-posterior diameter of the fetal head enters the pelvis?

A. descent
B. engagement
C. flexion
D. station
The strongest part of the labor contraction is the
A. increment
B. acme
C. decrement
D. interval

Nursing Care During First Stage of Labor
Is it true or false labor?
- **Contractions**: occur irregularly, stop with walking, are felt in back or top of abdomen. Don't increase in duration, frequency or intensity.
- **Cervix**: no dilatation
- **Fetus**: not affected.

Plan of Care (POC)
- Maintain safe, effective care environment
- Orient couple to surroundings, promote physical safety
- Promote **physiological integrity** of Mom & NB & **psychosocial integrity**
- Health promotion & maintenance
- Parent information/knowledge continuous
Plan of Care (POC)

- FHR patterns: WNL or nonreassuring patterns are identified and relevant measures are provided
- Document observations & actions established by standards of care.

Nursing Care

- Review prenatal record
- Interview
- Psychosocial factors
- Cultural considerations
- Physical exam/assessment
- Lab tests

Nursing Care – 1st stage

- Assess FHR & ROM
- Report non-reassuring patterns to MD/midwife
- Leopold’s maneuvers
- Vaginal exam:
  - dilatation & effacement
  - check station, presentation, position
- Perform independent nursing interventions
Nursing Care

- Uterine ctxs-frequency, duration, intensity
- Monitor maternal VS - q1h or as indicated
- General systems-encourage bladder emptying q2-4h.
- Provide support & comfort measures
- Ice chips

Risk for ineffective individual coping r/t birthing process and fatigue of labor.

- Assess: couple for contributing factors r/t feelings of loss of control.
- Interventions: Reassure that labor is proceeding without problems.
  - Provide continued emotional support
  - Encourage closing eyes in-between ctxs. to regain energy.
  - Cool wash cloth

ROM

- Note color – clear
- Yellow-stained - ? Blood incompatibility between mother & fetus
- Green fluid – meconium staining -?fetal anoxia
Position

Frequent maternal position changes necessary:
- relieve fatigue
- increase comfort, assist with pushing effort (lithotomy, side-lying)
- improve circulation

External or Internal Monitoring

**External:**
- Ultrasound transducer
- Tocodynamometer

**Internal:**
- Spiral electrode:
- IUPC:

Respiratory

- $O_2$ consumption increases 40% in early stages, another 100% during second stage of labor
- Risk:
Nursing Diagnoses

- **Decreased Cardiac Output** r/t supine hypotension sec. to position.
- **Ineffective coping** r/t lack of knowledge of monitoring, restriction of mobility.
- **Impaired fetal gas exchange** r/t cord compression, placental insufficiency.
- **Risk for injury** r/t unrecognized hypoxemia/hypoxia

Nursing Care During Second Stage of Labor

**Assessment:**
- Cervix fully dilated and effaced
- Sudden appearance of perspiration-upper lip
- Assess VS q1h,
- Status of fetus – continuous monitor/q5min.
- Episode of vomiting
- Increased bloody show

Nursing Care During Second Stage of Labor

**Assessment:**
- Shaking of extremities
- Increased restlessness
- Involuntary bearing-down efforts
- Woman’s responses and supportive care
Nursing Care

- Monitor coping ability.
- Ctx monitoring – lasts no longer than 90 seconds, with a minimum of 30 sec. between cxs.
- Promote effective pushing
- Assess need for additional pain management
- Support Mom-to-be & coach as needed.

Nursing Care During Third Stage of Labor

- **Schultze’s mechanism** - shiny surface emerges from vagina first.
- **Duncan’s mechanism** - dull, red, rough surface emerges from vagina first - associated with placental fragments.

- Continue to assess maternal VS, psychological status (bonding) and status of fetus (Apgar score).

Risk for hemorrhage r/t separation of placenta

- Assess vaginal bleeding
- Assess fundal consistency
- Monitor vital signs
- Monitor for restlessness
- Maintain IV rate
- Monitor I & O
**Nursing Care**

- Assess need for parental support, readiness to interact with NB.
- Document delivery time of NB & placenta
- Administer oxytocic medication per MD.
- Adverse effects: hypertonicity, tetanic contractions, bradycardia.
- Episiotomy repair discomfort
- Monitor I & O accurately

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**Initial NB assessment**

- After cord is cut & clamped
- Assess NB’s Apgar score
- Radiant warmer
- Dried well, hat, monitor respirations, color
- Identification - banding
- Introductions – parent-child relationship
- Eye ointment
- Breastfeeding option

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**Evaluation**

- Ability to focus on pushing
- Response to encouragement/support
- Maintains normal physical parameters
- Indicates comfort level
- Effectiveness - Epidural anesthesia
- Monitor urinary output, urge is diminished.
- Type of *Episiotomy* - extent of repair
Nursing Documentation

- Maternal VS; O2 saturation
- Position changes
- Vaginal exams & findings
- Medications
- Voids
- Pushing phase
- IV fluids – increases/changes
- Discontinuation of Pitocin
- MD notified

Cesarean Birth

- Birth of fetus through a transabdominal incision of the uterus.
- May have negative effect on woman’s self-concept
- Indications?
  - Vertical (“classic”) vs. horizontal (“low cervical”, pfanensteil”)
  - Anesthesia – epidural or general

National Health Goals – Cesarean Birth

- Reduce cesarean births among low-risk (full-term, singleton, vertex) women having their first child to 15% of live births from a baseline of 18%.

- Reduce cesarean births among women who have had a prior cesarean birth to 63% of live births from a baseline of 72%.
Cesarean Birth

- Maternal Complications?
- Fetal Complications?
- Scheduled vs. Emergency

Powerlessness r/t medical need for cesarean birth

Nursing Role

- Prenatal preparation
- Preoperative interview & care
- Intra-operative care
- Immediate post-operative care
- Postpartum Care
Operative Risks

- Poor nutritional status
- Age variations
- Altered General Health
- Fluid & Electrolyte Imbalance
- Fear
- Operative Risk to the Newborn

Vaginal Birth After Cesarean (VBAC)

- Length of labor is similar to primiparas
- Increased anxiety, level of apprehension
- Dismay at length and discomfort of vaginal birth
- Support person valuable
- External EFM r/t risk for uterine rupture
- Oxytocin augmentation used to strength uterine contractions

Management of Discomfort
Nursing Management
- Understand a woman’s experience and how she perceives pain, in her own unique way.
- Pain needs to be acknowledged by RN.
- Pain is compounded when fear & anxiety are also present.
- Goal: coping with pain. Pain impacts perception of birth as “good” or “bad”.
- Teach techniques to relieve discomfort during labor thereby reducing fear.

Physical Factors Influencing Pain
- Intensity of pain, Fatigue
- Cervical Readiness
- Fetal Position
- Characteristics of the Pelvis
- Caregiver Interventions

Psychosocial Factors
- Culture
- Anxiety and Fear
- Previous Experiences with pain
- Preparation for childbirth-less analgesia & anesthesia required
- Support System
Discomfort of Labor

- Pain perception - *individualized*.
- Pain expression-psychic responses & reflex physical actions. Sympathetic NS has increased activity--changes BP, P, R, skin
- *Gate control theory*

Sources of Discomfort

**Neurologic origins**
- First stage - *visceral pain*
  originates from cervical dilation & effacement, uterine ischemia/decreased blood flow(oxygen deficit)
- Second stage - *somatic pain*
  stretching of perineal tissues, pain impulses carried via S-1 thru S-4 & parasympathetic system from perineal tissues.

Sources of Discomfort

- Pain impulses from uterus & cervix are transmitted through spinal nerves (T-11, T-12)
- Visceral pain = Slow, deep pain, poorly localized
- Somatic pain = Faster, sharp pain.
- Referred pain = discomfort is felt-back, thighs
Complementary & Alternative Therapies

- Relaxing & breathing techniques
- Effleurage & sacral pressure
- Jet hydrotherapy
- TENS
- Hypnosis, yoga, acupressure, biofeedback, therapeutic touch/massage
- Women encouraged to tune in to their body cues & use natural responses

Pharmacologic Management

- Type used - chosen by stage of labor & method of birth
- Systemic analgesics cross blood-brain barrier. IV is preferred b/c faster onset & more reliable
- Narcotic analgesics: Demerol & Fentanyl - short acting, onset 2 min.

Pharmacologic Management

- Stadol & Nubain – effective analgesic
- Analgesic-potentiatior (ataractics) - Phenergan, Largan, Vistaril, Sparine
- Side effects: some respiratory depression, effects beat to beat variability in FHR
Nursing Care
- Look for cues of the woman's pain and relief of pain
- Administer pain meds as ordered, assess for side effects
- Teach and review nonpharmacologic management of discomfort
- Encourage support person to remain with woman in labor

Regional anesthesia: epidural/spinal
- **Advantages**: provide pain relief for labor & birth. Allow woman to be fully awake & aware. No uterine tone depression.
- **Disadvantages**: may induce hypotension, prolong the second stage of labor.

Regional anesthesia Theory
- Narcotic receptors – located along the pain pathway in SC, brain stem, & thalamus.
- Highly sensitive to narcotics,
- Small quantity produces analgesia lasting several hours.
- Injected through catheter in subarachnoid or epidural space-->narcotic receptors, pain transmission is blocked.
Regional anesthesia

- MS derivative (Duramorph, Astromorph).
- After delivery, catheter is removed, pt. free of pain X24hrs. Allows increased mobility & freedom from pain.
- Side effects- n/v, itching, U. retention, delayed respiratory depression 12hrs p administration. Monitor RR q1hr x24hrs. Tx: antiemetics, antipruritics, narcotic antagonists.
- Fentanyl – used during & after delivery

Duramorph (Astromorph)

- Monitor for respiratory depression
- Level of consciousness
- Vital signs/Pain scale
- IV access for 24 hours
- Urinary output for 24 hours
- Document: changes in VS, I&O, response to medication
- Two common side effects:
  - Antagonist: Narcan

Contraindications of epidural/spinal

- Antepartum hemorrhage
- Anticoagulant therapy or bleeding disorder
- Infection at injection site
- Tumor at injection site
- History of spinal injury or surgery
- Marked hypotension
**Nursing Care**
- Assist in positioning during procedure.
- Baseline VS for comparison after regional block is begun.
- Maintain IV access & pulse oximetry.
- Maternal respirations hourly x24 hrs.
- Bladder assessment q2-4h.

**Nursing Care**
- Assess anxiety, reinforce explanations
- Encouragement & support
- Monitor IV hydration
- VS & FHR monitoring
- Adverse effects: N&V and pruritis.
- Observe signs of catheter migration.
- Monitor contraction patterns

**General anesthesia**
- Obtain consent
- NPO
- IV/Foley
- Antacid (sodium citrate 30cc):
- Wedge under right hip
- Cricoid pressure: seals off esophagus by compression (prevents gastric reflux & aspiration before intubation is achieved)
- Infant born with CNS depression.