

- ◆ Pain Management for Childbirth
  - ◆ 4235 9-08
  - ◆ Learning Objectives
    - ◆ Describe how excessive pain can affect the laboring woman and her fetus
    - ◆ Describe the non-pharmacologic pain management techniques used in labor
    - ◆ Describe how medications can affect a pregnant woman and her fetus/neonate
    - ◆ Identify the benefits and risks of pharmacologic pain control methods
    - ◆ Explain nursing care related to pain management
  - ◆ Concepts
    - ◆ Comfort/Pain
    - ◆ Neuro/Sensory
    - ◆ Motion/Mobility
- ◆ Introduction
  - ◆ Each woman has expectations about birth including ability to handle pain
  - ◆ Woman who does well with pain more likely to view experience of birth in positive fashion
  - ◆ Each experience with labor differs based on physical and psychologic factors
  - ◆ Individuals respond differently to pain
- ◆ Adverse Effects of Pain
  - ◆ Pain and anxiety escalate metabolic rate and oxygen consumption by increasing production of catecholamines, cortisol and glucagon
    - ◆ Breathes too fast, exhales too much CO<sub>2</sub>, result is less O<sub>2</sub> for fetus
    - ◆ Also inhibits uterine response to oxytocin, contractions become shorter, less frequent and less effective, labor slows
- ◆ Decreased pleasure for mother may cause difficulty in
  - ◆ Interacting with infant
  - ◆ Responding sexually to partner d/t bad memories

- ◆ Sources of Pain
- ◆ Ischemia of uterus
- ◆ Cervical dilation and stretching of lower uterine segment
- ◆ Pressure and pulling on pelvic structures
- ◆ Distention of vagina and perineum
- ◆ Factors Influencing Perception or Tolerance of Pain
- ◆ Fatigue
  - ◆ Reduces ability to tolerate pain and using coping skills
- ◆ Interventions of care givers
  - ◆ Use of IV, restricting woman to bed, induction of labor
- ◆ Culture
  - ◆ Nurse avoids judgment about noisy expression of pain
  - ◆ Stoic expression may lead to belief that pain is lacking
- ◆ Factors Influencing Perception or Tolerance of Pain
- ◆ Anxiety and fear
  - ◆ Magnifies sensitivity to pain, impairs ability to tolerate
  - ◆ Increases muscle tension
- ◆ Previous experiences with pain
- ◆ Preparation for childbirth
- ◆ Support system
  
- ◆ Non-Pharmacologic Pain Management
- ◆ Can be adjunct to or alternative to drugs
- ◆ Advantages
  - ◆ Doesn't slow labor, no side effects, no concern about allergies, no sedation risk
- ◆ Limitations
  - ◆ Does not relieve pain adequately for most women
- ◆ Best time to learn is in last trimester

- ◆ Methods of Non-Pharmacologic Pain Management
- ◆ Relaxation
  - ◆ Promotes uterine blood flow, improves fetal oxygenation
  - ◆ Promotes efficient contractions
  - ◆ Reduces tension that increases pain perception and decreases pain tolerance
  - ◆ Decreases tension that may inhibit fetal descent
- ◆ Relaxation Techniques
- ◆ Environment
  - ◆ Lights low, temperature as desired, quiet surroundings
- ◆ Reducing anxiety and fear
  - ◆ Provide information, concentrate on normalcy of childbirth
- ◆ Progressive relaxation, touch relaxation
- ◆ Massage
  - ◆ Effleurage, counter pressure to back, massage of hands, feet, shoulders
  - ◆ Hold her hand, stroke her hair
- ◆ Thermal stimulation
  - ◆ Warm water shower or whirlpool
  - ◆ Rice sock to back
  - ◆ Cool cloth to face, neck, throat
- ◆ Mental stimulation
  - ◆ Imagery
  - ◆ Focal point
- ◆ Breathing
  - ◆ Begin with simple patterns, move to complex
  - ◆ Could hyperventilate

- ◆ Pharmacologic Pain Management
- ◆ Includes systemic drugs, regional methods and general anesthesia
- ◆ Considerations
  - ◆ Any drug taken by mother may affect her fetus
  - ◆ Drugs may have unusual effects in pregnancy
  - ◆ Drugs can affect course and length of labor
  - ◆ Complications may limit options
  - ◆ Women who use other drugs may have fewer options
  
- ◆ Regional Techniques
- ◆ May be used for labor analgesia, anesthesia or both
- ◆ Advantages
  - ◆ Woman awake and in control with good pain relief
- ◆ Limitations
  - ◆ Effects on fetus dependent on specific regional used
- ◆ Epidural
  - ◆ Can be used for both vaginal and cesarean deliveries
  - ◆ Inject local anesthetic into epidural space
    - ◆ Small catheter introduced into epidural space
      - ◆ Allows continuous or intermittent infusion
    - ◆ Provides relief from contractions and distension of birth canal
    - ◆ Woman retains some motor function and sensation with low dose for vaginal birth
    - ◆ Higher concentrations used for C/S, with loss of both motor and sensory functions
  - ◆ Local anesthetic usually combined with small dose of opioid analgesic (Stadol, Nubain, Sublimaze, Duramorph)
    - ◆ Works better with rapid onset, less total dose of anesthetic with less motor function impairment

- ◆ Adverse effects
  - ◆ Maternal hypotension – sympathetic nerves blocked with vasodilation
    - ◆ Decreases flow to placenta, fetus
    - ◆ Rapid infusion of 500 – 1000 mL prior to epidural offsets hypotension
  - ◆ Bladder distention
  - ◆ Prolonged second stage
- ◆ Adverse effects of opioids in epidural
  - ◆ Nausea/ vomiting
  - ◆ Pruritis
  - ◆ Respiratory depression
- ◆ Nursing Care
  - ◆ Obtain baseline vital signs and fetal heart rate
  - ◆ Give preload of IV fluid
  - ◆ Support and help position woman during placement
  - ◆ Monitor BP q 5 minutes for first 15-20 minutes after initial or re-dosing
  - ◆ Assess bladder frequently
  - ◆ Assess for adverse effects of opioids
- ◆ Regional Techniques
- ◆ Intrathecal (Subarachnoid ) Opioid Analgesics
  - ◆ Provides pain management without sedation
    - ◆ Woman feels contractions, but no pain
  - ◆ Advantages
    - ◆ Rapid onset
    - ◆ No motor block
    - ◆ No hypotensive effects

- ◆ Limitations
  - ◆ Shorter duration of action
  - ◆ Inadequate for late labor/birth
- ◆ Can be used in conjunction with epidural for longer lasting relief
- ◆ Nursing care : VS and FHR as normal for stage of labor
  
- ◆ Regional Techniques
- ◆ Spinal block (subarachnoid block)
  - ◆ Used for emergent C/S when epidural not in place
  - ◆ Local anesthetic combined with opioid injected as single dose into subarachnoid space
  - ◆ Woman loses sensory and motor function below level of block
  - ◆ Adverse effects
    - ◆ Maternal hypotension
    - ◆ Bladder distension
    - ◆ Spinal headache d/t leakage of spinal fluid
      - ◆ Worse when upright, bedrest helps
      - ◆ Hyper hydration
      - ◆ Blood patch
  
- ◆ Systemic Drugs
- ◆ Have multiple effects because they are distributed throughout body
- ◆ Opioids
  - ◆ Reduce perception of pain without loss of consciousness
  - ◆ Are the drugs of choice for labor
    - ◆ Demerol
    - ◆ Sublimaze
    - ◆ Stadol

- ◆ Nubain
  - ◆ Nubain and Stadol have agonist and antagonist effects
    - ◆ Should not be given to opiate dependent client, causes withdrawal
  - ◆ All cause respiratory depression, usually in newborn
  - ◆ Usually given IV in small frequent doses with start of contrx
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- ◆ Opioid antagonists (Narcan) reverses opioid induced respiratory depression, used most often in neonate
    - ◆ Can induce withdrawal in opioid dependent client
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- ◆ Adjunct meds
    - ◆ Meds with tranquilizing and anti-emetic effects, sedatives
    - ◆ Given to reduce nausea, anxiety, promote rest
    - ◆ Do not have analgesic effects
    - ◆ Sedatives not routinely used, have prolonged resp depressant effects on neonate
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- ◆ Vaginal Birth Anesthesia
- ◆ Local
    - ◆ Inject local anesthetic into perineum just before birth
      - ◆ Provides anesthesia only to perineum
      - ◆ Does not relieve pain of contractions or vaginal distension
      - ◆ Rare adverse effects
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- ◆ Pudendal block
    - ◆ Anesthetizes lower vagina and perineum for episiotomy and vaginal delivery
    - ◆ Inject pudendal nerves near ischial spines with local anesthetic
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- ◆ General Anesthesia
  - ◆ Causes loss of consciousness
  - ◆ Rarely used for vaginal delivery

- ◆ Often used for emergent C/S – takes less time to do than spinal/epidural
- ◆ Adverse effects of general
  - ◆ Maternal aspiration
  - ◆ Respiratory depression in mother/baby
  - ◆ Uterine relaxation
  - ◆ Methods to minimize adverse effects
    - ◆ NPO, drugs to raise gastric pH (Bicitra, Zantac, Tagamet, Pepcid)
    - ◆ Cricoid pressure
    - ◆ Reduce induction time to clamping of cord
- ◆ Cricoid Pressure
  
- ◆ Nursing Care for Pain Management
- ◆ Assess pain throughout labor with verbal and non-verbal evidence
  - ◆ Ask her to rate and describe type of pain
- ◆ Offer pain med – some women won't ask
  - ◆ Watch for indications that she needs it
- ◆ Avoid tying med administration to cervical dilation, labor progress or intensity of contractions
- ◆ Observe for pains not typical of labor
  
- ◆ Interventions
  - ◆ As discussed previously, promote comfort and make environment comfortable by
    - ◆ Changing underpads and linens
    - ◆ Offering blanket, cool cloth
    - ◆ Warm shower
    - ◆ Walking, change position, support body with pillows
    - ◆ Answer questions honestly, provide information
    - ◆ Massage

- ◆ Mental stimulation
- ◆ Breathing