

- The Woman with an Intrapartal Complication
- 4235
- 9-08
- Learning Objectives
- Describe maternal and fetal risks associated with premature rupture of the membranes
- Analyze factors that increase a woman's risk for preterm labor
- Explain maternal and fetal problems that may occur if pregnancy persists beyond 42 weeks
- Describe common intrapartum emergencies
- Explain therapeutic management of each intrapartal complication

- Concepts
- Oxygenation/Perfusion
- Comfort/Pain
- Immunity/Infection

- Introduction
- Complications can make childbearing dangerous to mother and/or baby
- Nurse's job is to identify and manage complications promptly while supporting family

- Dysfunctional Labor
- Normal labor characterized by progress
- Dysfunctional labor does not result in progress of dilation, fetal descent or effacement
- May result from problems with any of the “Ps”
- Result may be non-reassuring FHR patterns, maternal exhaustion or infection

- Power Problems
 - Ineffective contractions
 - Contractions weak – hypotonic dysfunction – occurs in active phase
 - Management is amniotomy or oxytocin
 - Contractions uncoordinated, ineffective but painful – occurs in latent phase
 - Management is rest, low dose oxytocin to help coordinate contractions
 - In both cases must rule out CPD before administering oxytocin
 - Ineffective pushing
 - Manage with correct pushing positions - gravity
 - Reassure mother she will not tear
 - Wait until push urge present – labor down
 - Forceps or vacuum extractor if mother exhausted
 - Decrease epidural dose if it is impeding push

- Problems with Passenger
 - Fetal size
 - Macrosomia

- Shoulder dystocia
 - Malpresentation or malposition
 - Occiput posterior
 - Back pain
 - Position changes – lunge, hands and knees, side lying, squatting, kneeling, birthing ball
 - Breech
 - Poor flexion of head
 - Multifetal pregnancy
 - Over-distension, abnormal presentation
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- Problems of the passageway
 - Small or abnormally shaped pelvis
 - 4 types
 - Gynecoid – most favorable, most common
 - Anthropoid – increases risk for OP
 - Android and Platypelloid – not favorable
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- Premature Rupture of Membranes (PROM)
 - Rupture of amniotic sac before onset of true labor, regardless of gestational age
 - PPRM is preterm (< 38 weeks) premature rupture of membranes
 - Cause ?? Many risk factors
 - Infections of vagina or cervix, or amnion
 - Weak amniotic sac

- Fetal anomalies, malpresentation
- Incompetent cervix, over-distension of cervix
- Poor maternal nutrition
- Maternal stress
- Recent intercourse

- Complications

- Infection, both mother and baby
 - Limit vaginal exams
- Oligohydramnios
 - Umbilical cord compression
 - Reduced lung volume
 - Limb anomalies

- Management

- Depends on gestation, presence of infection
 - Possible labor induction if close to term
 - If cervix ripe, if not may ripen cervix or do C/S
 - If < 34 weeks, conservative management, to allow fetal lungs to mature if no infection
- Must determine if membranes truly ruptured
 - Avoid vaginal exam, esp if preterm and no labor
 - Do sterile speculum exam
 - Obtain specimen for nitrazine or fern test
 - Also for lung maturity tests

- Management
 - May give maternal antibiotics
- Nursing considerations
 - If hospitalized, observe for infection
 - If sent home must teach woman to
 - Avoid insertion of anything into vagina
 - Avoid breast stimulation
 - Take temp qid
 - Maintain any activity restriction recommended
 - Note and report uterine contractions
- Preterm Labor (PTL)
- Labor begins after the 20th week but before the end of the 37th week
- Little additional risk to mother if no other complications present
- Biggest risk is to fetus based on effects of prematurity
- Risk Factors
 - Maternal medical conditions such as infections, DM, chronic HTN, drug abuse
 - Pregnancy resulting from assisted reproductive techniques
 - Previous or present obstetric conditions such as short cervix, multi-fetal gestation, PROM, PIH,
 - Fetal conditions – IUGR, birth defects, oligohydramnious
 - Social and environmental factors – inadequate prenatal or dental care, domestic violence, smoking, housing deficiency

- Demographic factors – race, age, financial stability, number and interval of other children

- Signs and Symptoms

- Very subtle, blamed on other things, may not recognize in early phase
- Contractions –may or may not be painful
- Sensation baby is “balling up”
- “Menstrual” or abdominal cramps with or without diarrhea
- Back pain may be constant or intermittent
- Sensation of pelvic pressure or of baby pushing down
- Discomfort or pressure in vulva, thighs
- Change or increase in vaginal discharge
- Sense of feeling bad
- Most have no identified risk factor

- Prevention

- Community education
- Improved access to care
- Identifying risk factors
- Promoting adequate nutrition
- Educating client about symptoms
- Empower client and partner to be proactive

- Self Care

- Teach all women symptoms of PTL since most cases occur in women with no risk factors
- Drink adequate amount of water to increase hydration, reduce bladder irritation
- Empty bladder frequently, full bladder associated with uterine irritability
- Lie down on side, to promote uterine blood flow
- Limit physical activity, to avoid diuresis
- Palpate contractions for 1 hour
- Go to hospital if uterine activity increases in frequency, duration

- Management

- Identify PTL in order to delay birth

- Criteria

- Gestation 20-37 weeks
- Contractions; 4 in 20 min or 8 in 60 min
- Cervical change or effacement 80% or >; dilation of 1 cm or >.

- Frequent PN visits

- Determine PTL

- Difficult to do, success varies with S & S
- Sterile spec exam
- U/S for cervical length
- fFN – protein produced by fetal membranes; helpful in diagnosing likelihood of birth within next 2 weeks
- Presence of UTI or other infections

- Stopping PTL

- Must intervene before point of no return

- Determine if any reason not to stop labor

- Preeclampsia
- Maternal hypovolemia/ hypoxemia
- Serious infections
- Non-reassuring fetal heart rate pattern

- Interventions

- Treat infections
- Restrict activity
 - Increases flow to uterus, lessens pressure on cervix
 - Lengthy, complete bedrest not advantageous, may cause serious side effects for mom
- Hydrate woman
 - Not beneficial for all women

- Interventions

- Tocolytics
 - Med given to delay birth, not prevent it
 - » Allows administration of steroids or transfer of mother
 - Four types of meds, most used for other conditions
 - » Magnesium sulfate
 - » Beta adrenergics
 - » Prostaglandin synthesis inhibitors
 - » Calcium antagonists

- Interventions

- Accelerate fetal lung maturation

— By use of corticosteroids

» Dexamethasone, betamethasone

- Indicated between 24-34 weeks gestation
- Delay birth for 24 hours (tocolytics)
- Also decreases incidence of intraventricular hemorrhage (IVH)

● Medication Focus

● Magnesium Sulfate

— Used in preeclampsia

- Added effect of quieting uterine activity

— Loading dose 4-6 g over 15-20 min

— Maintenance dose 1-4 g/hr

— Side effects/nursing care already discussed

● Medication Focus

● Beta –Adrenergic

— Ritodrine (Yutopar)

- Not often used, less effective and significant maternal side effects

— Terbutaline (Brethine)

- Works better, costs less, can give po, SQ or IV

- Adverse reactions

— Maternal/fetal tachycardia, palpitations, dysrhythmias, chest pain

- Tremors, restlessness, headache, dizziness
- Hyperglycemia
- Nausea/vomiting
- Flushing, diaphoresis
- May develop tolerance

- Nursing care
 - Keep Propranolol available (beta-adrenergic blocker)
 - Assess apical heart rate, lung sounds
 - » Heart rate > 120, wet lungs, increased respiratory rate, SOB, suggests drug toxicity
 - Assess FHR continuously with EFM

- Medication Focus

- Prostaglandin synthesis inhibitors

- Indomethacin (Indocin)

- Fetal effects
 - Constriction of ductus arteriosus if < 32 weeks and mother receives for > 48-72 hours
 - Impairs renal function, affects amount of amniotic fluid
- Maternal effects
 - Prolonged bleeding times
 - Heartburn, indigestion, epigastric pain
 - Headache, dizziness

- Medication Focus

- Calcium channel blocker

— Nifedipine (Procardia)

- Calcium essential for muscle contraction in smooth muscles
- Is vasodilator, so may experience lightheadedness, dizziness
- Side effects
 - Flushing of skin
 - Headache
 - Increase in maternal/fetal heart rates
- Nursing Care
 - Observe for side effects

● Medication Focus

● Betamethasone, Dexamethasone

— Dose

- Betamethasone
 - 12 mg IM x 2; 24 hours apart
- Dexamethasone
 - 6 mg IM q 12 hr x 4 doses

— May cause glucose intolerance

— Side effects

- Few since short course

— Nursing care

- Assess lung sounds
- Assess glucose levels

- Nursing Care
- In addition to care already mentioned
 - Preparation for preterm infant
 - Support for anticipatory grieving if very immature
 - Psychosocial concerns
 - Assess how coping with crisis situation
 - Care for other children
 - Financial
 - Fetal well being
 - Provide
 - Information, teaching
 - Express concern
- Prolonged Pregnancy
- Lasts longer than 42 weeks
 - Causes
 - Miscalculated EDD most common reason
 - Complications
 - Placental insufficiency secondary to aging placenta
 - Late decelerations
 - Meconium staining
 - Oligohydramnious
 - If good placental function
 - Macrosomia

- Psychologic
 - Mother feels like pregnancy never ends
 - Becomes more fatigued, decreases ability to tolerate added stress and anxiety

- Management

- Determine accurate EDD

- Determine condition of fetus

- Induction if cervix favorable

- Wait and see approach or ripening procedure if cervix not ripe

- Nursing care

- Provide info, teaching
- Support psychologically

- Intrapartal Emergencies

- Prolapse umbilical cord

- Slips down and gets compressed between fetus and pelvis after ROM
 - Potentially fatal since interferes with fetal oxygenation

- Risk factors

- High station
- Small fetus
- Breech presentation, esp footling
- Transverse lie

- Hydramnios

— Management

- Birth by C/S
- Relieve pressure on cord to restore blood flow
 - Elevate hips
 - Manual elevation of presenting part
- Give oxygen at 8-10 L/mask
- Cover cord if not occult with warm saline soaked sterile towel
- Nursing care
 - Must remain calm
 - Give info
 - Acknowledge anxiety of woman

● Uterine rupture

— Three types

- Complete
- Incomplete
- Dehiscence
 - Partial separation of old uterine scar
 - Is fairly common, often no S & S
 - Higher if classical incision

— Nursing care

- To be aware of risk factor
- Remain alert for S & S
 - Abd pain, tenderness
 - Shock

- Non-reassuring FHR pattern or absence of FHR
- Cessation of contractions

- Uterine inversion

- Uterus turns inside out
- Is potentially fatal
- Main causes
 - Pulling on cord before placenta separated
 - Fundal crede to help deliver placenta
- Result is massive hemorrhage
- Nursing care
 - Observe and maintain blood volume, correcting shock
 - Assess VS, fundus once replaced
 - Assess urine output
 - Keep NPO until stable