This PowerPoint file is a supplement to the video presentation. Some of the educational content of this program is not available solely through the PowerPoint file. Participants should use all materials to enhance the value of this continuing education program.

After 1-2-3 PUSH: Caring for the Postpartum Mom and Infant

Kate Woehl, RN, MSN
Director, ADN Program
Texas State Technical College

Nursing I 32715
Nurses must be able to discern the value that team training offers for reducing the incidence of negative outcomes during postdelivery care.

**Orientation**
- After the birth of a baby, most facilities will move the mother to the mother/baby unit, or they may stay in the actual birthing room but move to the postdelivery phase.

**Delivery Unit or Mother/Baby Unit**
**Orientation to the Unit**

**Assessments to be Performed:** Expectations of Mom
- Type of delivery: SVD or C-section (spontaneous vaginal delivery or cesarean section)
- Epidural (sea legs)
- Postdelivery voids

**Assessment:** Mom
- Vital signs
  - may vary in your facility
  - will vary depending upon the type of delivery
    - generally C-section patients are “recovered” prior to admittance on the mother/baby unit (due to safety, the patient must be 1:1)
- Fluids: continuation of oxytocin?
  - IV (intravenous), NS (normal saline) lock, or none at all
  - oral/PO
    - water
    - ice
    - juice

**Ambulation**
- imperative to get patient up and out of bed – get them moving

**Reflex assessment**
- lower limb assessment

**Fundal Assessment**
- To assess a fundus:
  - empty the bladder prior to pressing and assessing
  - if C-section, have the patient press PCA (patient-controlled analgesia) or medicate with other alternative ordered
  - determine the degree of involution
  - position – supine and knees flexed
- two-handed approach
  - one hand should be at the top of the uterus; the other hand stabilizes the uterus
  - fundus should be midline (especially if the bladder is drained)
  - boggy uterus can mean a retained placenta, bleeding, etc.
  - the goal is for the uterus to be firm or massage until firm
**Fundal Assessment**

- Once the fundus is assessed for location and firmness, check for placement of the uterus within the abdominal cavity
  - count the number of fingerbreadths you can get between the fundus and umbilicus
  - 1-2 hours after delivery, it is typical to be between the umbilicus and symphysis pubis
  - 6-12 hours after birth, the fundus is usually at the umbilicus
  - normal progression for the fundus is to move down about 1 cm (centimeter) per day
  - by the 10th day, you should not be able to feel the fundus at all

**Lochia Assessment**

- Assess in terms of color, odor, and amount
- Usually observed through Peri-Pad™ use
- Question any clot formation
  - if yes, was the patient stationary for a long period of time?
  - size of clot?
- Usually report in terms of scant, small, moderate, or heavy

**Perineum Assessment**

- To ascertain the damage to the tissue following birth, have the patient roll over on their side and have their top leg lifted
  - this position will let the nurse check for hemorrhoids, tears, and episiotomy site
- Do not skip this step due to embarrassment or feeling of being intrusive – patients can come to the unit with a perineum that has massive edema
  - nurses need to know this, chart this, and take appropriate action for this

**Vital Signs**

- Initial vital signs should cover:
  - blood pressure (follow up if abnormal)
  - pulse
  - respiration
  - temperature
  - oxygen saturation (if warranted)
    - if patient is on a PCA pump, it is warranted to maintain oxygen
- Be aware of the patient’s weight
  - there will be shifts due to loss of fluids and birth
Ambulation

- Hypercoagulability during pregnancy protects the mother when childbirth occurs with the loss of fluid volume.
- The same hypercoagulability can also make the new mother prone to thromboembolic disorders during pregnancy:
  - stasis can occur due to heavy uterus on large vessels
  - alteration of blood flow (at risk for clot formation)
- Assessment of the lower extremities is essential:
  - need to check for any edema (degree)
  - need to check for Homan’s sign [DVT (deep venous thrombosis)]
  - need to check the Clonus (reflex test for preeclampsia)
- Get the patient up and out as soon as possible

Amenities

- There are usually many amenities offered to new parents as part of their OB (obstetrics) experience (hospitals vary):
  - formula or breast feeding support items
  - BP (blood pressure) cuff
  - thermometer
  - measuring tape
  - contact for resources after discharge
  - nutrition room
  - well-mom first meal
  - pictures

Adjusting

- New baby affects the entire family unit
- It is important for siblings to see the baby but not share in the birthing process
- Include grandparents
- Do not make it a gathering – safety first

Temperature

- Usually normal
- May spike up to 100.4°F
  - usually a result from dehydration
  - related to EBL (estimated blood loss)
- Should return to normal with hydration
- Continuance of temperature past 24 hours of first elevation could be indicative of sepsis
  - warrants continued monitoring and longer stay
Pulse

- 40-80 bpm (beats per minute) are considered normal in the first postdelivery week
- Puerperal bradycardia is a condition due to heavily pregnant uterus (causes venous blood flow to decrease to mother’s heart)
- With birth, intravascular volume increases significantly
- Elevated stroke volume in CO (cardiac output) leads to a drop in heart rate
- New mothers may experience orthostatic hypotension when standing up

Tachycardia is not a normal finding immediately postpartum

Causes of tachycardia:
- anxiety
- fatigue
- pain
- excessive blood volume loss or delayed hemorrhage
- infection
- underlying/undetected cardiac issue

Respirations

- 16-20 breaths/minute is considered normal
- Abnormalities may be caused from:
  - pulmonary edema
  - atelectasis
  - medication side effects PCA
  - pulmonary embolus

Blood Pressure

- Should be returning to mother’s pre-pregnant state/range
- Increase could be an indication of gestational hypertension
- Decrease could indicate shock, dehydration, or a medication side effect (PCA)

Pain Assessment

- Use a pain scale
- Assess duration and location
- What alleviates and aggravates the pain?
- What is the patient’s expectation of pain; what is the nurse’s?
  - does the patient have a laceration?
  - does the patient have an episiotomy?
  - are pains during breast feeding?
  - does voiding help or aggravate pain?
  - often ibuprofen is ordered along with the pain medication
  - PCA for C-section
  - ice packs for perineum
  - heat packs (breast or cramping uterus)

Physical Assessment

- Will seem like a head-to-toe assessment
- Breasts
- Uterus
- Bladder
- Bowels
- Lochia
- Perineum
- Epidural/spinal site
- Incision site
- Extremities

Services

- Visitation
- Birth certificate representative
- Photo shop representative
- Special meal from dietary
- Lactation consultant
- Well-baby channel continuing education
- Support group information
Rules and Regulations

- Vary between hospitals, states, etc.
- Only banded-select individuals can be left with baby
- Baby cannot be left alone in the room
- Baby cannot go near stairwells or main doorways
- Parents or other individuals are not allowed to carry infant in the hallways
- Hugs™ tags must be kept attached until discharge
- Mother’s and infant’s identification bracelets must be verified together with every re-entry into the room
- Mother/father cannot sleep with infant in bed
- Objects need to stay out of the crib
- Bottles are thrown after every attempt to feed – usually within the hour
- Visitation hours are enforced to aid the mother’s recovery

Safety in Numbers

- Bringing entire families up to see the infant provides excessive amount of opportunities for germs and incidents to occur
- It is also difficult for the mother/father to ask them to leave when they have outstayed their welcome
  - the family may ask nurse to be the enforcer

Physical Aspects

- The body needs to return to the pre-pregnancy state
  - uterus goes through repair and remodeling; involution
    - size and shape return with the assistance of massage/breast feeding
  - after birth, the uterus that held an 8-lb (pound) baby will shrink to about a 2-lb uterus
  - one week later, the uterus will become about 1 lb
  - lochia goes from bright red after delivery to white or light brown
    1) lochia rubra: deep red (3-4 days)
    2) lochia serosa: pinkish brown (3-10 days)
    3) lochia alba: white or light brown (10 days – 6 weeks)
- Pain is certainly not uncommon; it occurs while the uterus is returning to its normal state
- The perineum heals and ligaments that were stretched to carry a large belly are now returning to a normal state
- Cervix will close, but never quite becomes the same as the pre-pregnant state
- Vagina returns to normal in 6-8 weeks
- Perineum heals, but it can take up to 6 months, especially if laceration has occurred
- CV (cardiovascular) status dramatically changes
- The heart is displaced upward from pregnant uterus so now it returns to the normal location
Physical Aspects

- Blood volume decreases and CO increases
  - it can take up to 4 weeks to return to the total normal state
- Blood pressure returns to normalcy in 2 weeks
- Hematocrit and hemoglobin decreases due to the RBC (red blood cell) production cessation directly after birth to 6 weeks postdelivery
- Levels gradually return to normal unaided
  - some doctors have the new mom continue prenatal vitamins
- Urinary system
  - glomerular filtration rate increases during the pregnancy state and will return to normal 6 weeks after delivery
- The sensation to void takes a while to return
- GI (gastrointestinal) system returns to normal quickly once the “burden” has been removed
- Musculoskeletal system returns at various levels differently to each individual
  - center of gravity is regained
  - muscle laxity and weight gain are all adjustments
  - all will return once the hormonal level equalizes
- Integumentary system never returns to a total normal state
- Some women experience hair loss due to estrogen and progesterone levels decreasing
  - hair loss is temporary, but regrowth can take up to 6 months to totally return

Physical Aspects

- Linea nigra: dark pigmentation on the abdomen
- Striae gravidarum: stretch marks
- Profuse diaphoresis: sweating is normal as it helps the body to get rid of excess fluids from postdelivery
- Respiratory state returns to normal once the uterus is evacuated
- Endocrine system normalizes once the hormone levels drop
- Much occurs in the female body – much more than you would think on the surface

Psychologically

- New mothers need assistance with:
  - confidence
  - need to gain experience
  - adjust to the new role
  - overwhelmed feelings
  - insecurity
  - bonding issues
  - attachment issues
- Life-changing event

Stages in the process:
- “taking in” phase: immediately after birth (24-48 hours), mom takes a passive role – requires a lot of assistance
- “taking hold” phase: 2-3 days postdelivery mom regains bodily control
- “letting go” phase: mom reestablishes her former relationships with people in her life
Psychologically

- Mood disorders
  - postpartum depression vs. “baby blues”
    - baby blues: anxiety, irritability, and tearfulness
  - postpartum depression is more severe and lasts longer than “baby blues”
    - restlessness, hopelessness, worthless, sad
    - postpartum depression can become debilitating

Father Adaptation

- Fear
  - “he’s so small; I don’t want to hold him; I can’t take her anywhere; what if she cries?”

- Engrossment
  - total intense interest and absorption of the new dad role

Stages of the process of role adaption for dads:

- Expectation
  - preconceived ideas of what fatherhood will entail
  - unaware of dramatic changes to occur
- Eye opener
- Reality
  - occurs when the father/partner realize their expectations are not reality
  - Many want to have more input in care of baby, but do not know what to do about those feelings or how to do the care
  - Transition to mastery
    - last stage where the decision is made to take control and act as half of the parental team
    - see it as added a member to the family

Social Supports

- It is up to nursing to know what resources the family needs
  - breast pump
  - lactation consultant referral
  - physician follow-up
  - if the baby is in NICU (neonatal intensive care unit), there are support groups

Cultural Variations

- African American
- Amish
- Filipino
- Japanese
- Chinese
- Mexican
- Native American
- Muslim

Drawing the Line

- Number of family members
- Non-bathing
- Only food from home

Maternal Nutrition

- Fluids are crucial, especially water
- Variety of foods
  - healthy foods
  - avoid fatty foods
  - avoid fad diets to “get back into shape”
  - avoid alcohol, drugs, and tobacco
Breast Feeding Mothers

- Need excess calories
- Recommended calories: +500 calories/day
- Protein: +20 g/day (grams per day)
- Calcium: +400 mg/day (milligrams per day)
- Fluids: 2-3 quarts of fluid per day (milk, water, juice)
  - avoid sodas
- Be aware of foods that affect the infant (gas producing foods, alcohol, drugs)
- Exclusive breast feeding is optimal for the development and growth of the infant’s first year of life
- Show all mothers/infants how to breast feed within the first 30 minutes of life (if the infant is healthy)
- If the infant is full-term and healthy, only offer breast milk
- Encourage breast feeding on demand (every 2 hours)
- Do not allow pacifiers to be given
- Caution family to keep visitors to a minimum so that routine is established
- Assist the mother in various positioning techniques to encourage latch
- Unwrap the infant if the temperature is safe to stimulate
- Express a little milk prior to latch
- Have dad/significant other step in to do other tasks for infant care

Engorgement

- Signs/symptoms
  - swelling
  - redness
  - heat
  - pain
  - difficult to get the baby to latch/difficult for the infant to breathe
- Prevention of engorgement
  - frequent feedings
  - warm showers
  - hot/cold compresses
  - cabbage leaves, pumping, massage

Discovery

- New family members discover how everyone fits within the family unit
- Changes role – now has “big brother,” “second son,” or “baby of the family”

Physical Aspects of the Newborn

- Circulatory system switches from placental to pulmonary gas exchange for the fetal newborn
- When the umbilical cord is clamped, the infant takes its first breath
- Lungs start to function, thus blood is now returned to the heart
- Foramen ovale closes with a decrease in the right-sided heart pressures
  - a decrease in the pulmonary vascular resistance is now noted
- The heart rate is 120-180 bpm right after birth, but will decrease to 120-130 bpm (increase will be noted at times of crying or distress)
**Physical Aspects of the Newborn**

- Blood volume depends upon the amount that is transferred from the placenta at the time of birth before the cord is cut
  - 80-85 ml/kg (milliliters per kilogram) of body weight for a full-term infant is the norm
- Blood components
  - RBCs are large but few in the newborn
    - gradually, these will switch
- Respiratory system originates from the first gasp
  - when the infant goes from placental fluid to air, the surfactant in the infant’s lungs prevents the alveoli from collapsing
- Respiratory rate is usually 30-60 depending upon the activity of the newborn
- Body temperature ranges from 97.9-99.7°F, but it must be watched
  - thermoregulation is the balance the infant needs to stop heat loss and create heat production
  - an essential element to the newborn’s health is the ability to maintain body temperature
- Heat loss is a predisposition of infants due to thin skin, limited muscle activity, limited fat stores, large body surface area, etc.
- Conduction involves the transfer of heat/cold from a surface touching the infant (mother’s skin or a cold crib/scale)
- Convection involves the flow of heat from the body to cooler surroundings
  - keep the newborn away from drafty areas

**Physical Aspects of the Newborn**

- Evaporation involves heat loss that occurs with birth
  - it is crucial to towel dry baby immediately
  - also with bathing, dry instantly and cover
- Radiation involves the loss of body heat
  - if the infant is near a window but inside a crib, it will lose heat
- Overheating with radiant warmers
  - must have a temperature probe on
- Hepatic function at birth, the infant’s body assumes control of the liver
- Gastrointestinal system adaptations occur with the capacity to swallow, digest, metabolize, and absorb nutrition directly after birth
  - remember the gut starts off sterile
- Stomach and digestion occur within hours of birth, but the stomach does not have the capacity to stretch – so often food fed comes back up
  - this resolves in a day or so
- Bowel elimination occurs initially with the passing of meconium
  - meconium is amniotic fluid passing out of the infant
  - the more stool the infant passes, the lower the bilirubin levels will be
- Renal system is noted with the first void which occurs usually immediately after birth
Immune system begins early in gestation
- immune system in an infant is considered immature and runs the risk of catching an infection
- hand washing and isolation from crowds should be a good safe practice

Immune system
- natural immunity does not require previous exposure to microorganisms or antigen to operate effectively (intact skin, digestive enzymes, etc.)
- acquired immunity: development of circulating antibodies or formation of activated lymphocytes designed to destroy foreign invaders

Integumentary system
- consists of skin which is the infant’s largest organ
- provides a protective barrier, but is very thin

Sensory system
- hearing is developed
  - infants react in utero to mother’s voice
- hearing tests are performed in the hospital prior to discharge
- taste can be distinguished between sweet and sour at 72 hours old
- smell is able to distinguish its own mother
- touch is sensitive to pain
- vision is incomplete at birth
  - 20/140 would be visual acuity at first

Reactivity
- from birth to 2 hours old
- alert, moving, and may appear hungry
- “rooting”

Responsiveness
- 30-120 minutes after birth
- sleep stage or decrease in activity

Second stage of reactivity
- lasts 2-8 hours
- heart and respiratory rate increase
- peristalsis increases
- may see passage of meconium

Vital signs
- 97-99°F temperature
- 110-160 heart rate
- 30-60 respirations

Skin condition
- color
- skin variations
- vernix caseosa
- stork bites
- milia
- mongolian spots
- erythema toxicum
- harlequin sign
- nevus flammeus
- nevus vasculosus
Physical Assessment of the Newborn: The Head

- Molding
  - elongating shape of the fetal head to accommodate the passage through the birth canal
  - seen in vaginal births
- Caput succedaneum is localized edema on the scalp that occurs from the pressure of the birth process
  - edema dissolves in about 3 days
- Cephalhematoma is located effusion of blood beneath periosteum of the skull
  - due to the disruption of vessels at birthing after the prolonged labor or use of obstetrical instruments (vacuum or forceps)

Physical Assessment of the Newborn: The Face

- Facial symmetry
- Nose is checked for patency and drainage
- Mouth is checked for teeth and cleft palate/lip
- Eyes
- Neck clavicles

Physical Assessment of the Newborn: The Body

- Abdomen
- Genitalia
  - redness
  - discharge
  - descended testes
- Extremities

Newborn Reflexes

- Ortolani and Barlow maneuvers are used to determine hip dysplasia
- Sucking
  - touch the lip/mouth
- Moro
  - startle reflex
- Tonic neck
  - baby’s arm lifts on the same side the neck is turned toward
- Rooting
  - stroke cheek
- Babinski’ stroke lateral sole of the foot
  - toes should fan out
  - disappears at one year of age
- Palmar grasps
  - grasps fingers
  - if attempt to move infant’s hand should tighten
- Planter grasp
  - toes curl into the finger
- Spinal

Measurement of the Newborn

- Weight is measured each day in the hospital, then at follow-up appointments with the pediatrician
- Glucometer
  - infants that do not feed well may need accuchecks
  - low birth weight infants
  - suspect behavior
Medications for the Newborn

- Vitamin K promotes blood clotting
  - usually produced by the body's intestines, but the newborn's gut is sterile at birth
- Erythromycin ophthalmic ointment
  - provides antibiotic to prevent STDs from injuring the eyes

Thermoregulation

- Infants are double-wrapped initially for temperature control
- Baths occur under the radiant warmer
- Infants must maintain greater than 97°F axillary to stay on the floor
  - if they need to have some sun time, they return to the nursery

Safety

- Some safety concerns are always CODE PINK
- Hugs™ tags
- Lock doors of the unit
- Identify who is entering
  - ask where they are going or who they are there to see
- Do not offer to hold door for any unknown individual

Cribs

- Cribs belong to the baby
- Nothing goes into the crib but the baby and hospital-placed items
- Handle items in crib minimally
- Wash hands often
  - nurses, parents, and especially visitors

Visitors

- Too many is not okay
- Sick individuals need to stay away
- Children under 12 should stay away with the exception of siblings to the baby that are healthy
- Siblings should not stay overnight in the hospital, especially if the mom has a C-section
- If mom is alone, no minor children should be in the room

NICU Babies

- When the infant must stay behind after mom is discharged
  - psychological concerns for mother
  - rooming in
  - long-term NICU admissions
    - important for the mother to know the nurses
    - important to be able to freely call and check on the infant night/day
Home
- Home should have been inspected for anticipated baby arrival
- Prepare others in the family for the arrival of the baby
- Watch for temperature variances in home
- Watch for animals in the home

Hospital Rules Remain
- Some of the hospital rules should remain in effect:
  - crib is for the baby only
  - keep the baby dry and away from cold windows
  - keep the baby away from others who are sick
  - keep track with follow-up appointments
  - watch for weather extremes
    - if it is unsafe for you to be out, it certainly is for a newborn baby

Remember…
- NEVER leave a baby alone in a car
- ALWAYS keep the infant in the car seat when driving a vehicle
- NEVER go out with the baby uncovered
  - if you are cold, the baby is cold

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