Chapter 27
Care of the Mother and Newborn

Overview of Anatomic and Physiologic Changes

- Reproductive organs
  - Uterus
    - Involution
    - Lochia: fluid waste discharges after delivery

Overview of Anatomic and Physiologic Changes (Cont.)

- Cervix/vagina/perineum
  - Cervical injuries
Overview of Anatomic and Physiologic Changes (Cont.)

- Breast
  - Estrogen stimulates the growth of milk ducts to prepare for lactation
  - The first secretion produced by the breast is colostrum
  - Prolactin is responsible for stimulating milk production in the mammary alveolar cells
  - Stimulation of nipples, particularly by the infant’s sucking, causes the release of oxytocin

- Other body systems
  - Cardiovascular
    - Blood volume is reduced to nonpregnant levels by 2-4 weeks
      - Diuresis
      - Diaphoresis
      - Blood loss in delivery
    - Cardiac output declines rapidly; patient is at risk for thrombus due to high level of platelets in the early postpartum period

- Urinary
  - Possible trauma in delivery and regional anesthesia
  - Much of the excess blood volume is eliminated through diuresis
Overview of Anatomic and Physiologic Changes (Cont.)

- Other body systems
  - Gastrointestinal
    - Appetite returns to normal
    - Gastric motility may continue to decrease, leading to constipation
    - Normal bowel elimination should return in 2-3 days
    - Decreased abdominal tone and tenderness resulting from episiotomy or hemorrhoids may make the patient reluctant to strain for a bowel movement
  - Endocrine
    - Placental hormone levels rapidly decrease after delivery
    - Estrogen and progesterone levels drop markedly following expulsion of the placenta
    - Decreased estrogen levels are associated with breast engorgement and diuresis of excess extracellular fluid that has accumulated during pregnancy
    - Prolactin is secreted only with nipple stimulation
  - Musculoskeletal
    - Abdominal muscle tone and joint stabilization occur during the 6- to 8-week period after delivery
    - Some pelvic joints may never return to their prepregnant position
    - Discomfort may be felt in the joints immediately after delivery because of the hormone relaxin
    - There may be a permanent increase in shoe size
Overview of Anatomic and Physiologic Changes (Cont.)

- Other body systems
  - Integument
    - Changes seen in pregnancy recede, with hyperpigmentation gradually disappearing after delivery
    - Hair and nail growth returns to normal and skin elasticity returns
    - Striae may not fade completely but turn silver-gray
    - Diaphoresis is common, especially at night during the first week postpartum

Transfer from the Recovery Area

- After the initial recovery period of 1 or 2 hours, the woman may be transferred to a postpartum room
- Women who have had general or regional anesthesia must be cleared from the recovery room by a member of the anesthesia care team
- In some hospitals, the baby stays with the mother wherever she goes; in others, the baby is taken to the nursery for several hours for observation

Nursing Assessment of and Intervention for the Mother

- Health perception/health management
  - Women with uncomplicated deliveries remain in the hospital a short time
  - Cesarean rarely requires more than 5-7 days
  - It is important to assess the woman’s ability to meet her own needs and those of her infant
Nursing Assessment of and Intervention for the Mother (Cont.)

- Health perception/health management
  - Parent-newborn relationships
  - Promoting parenting skills

Nursing Assessment of and Intervention for the Mother (Cont.)

- Nutritional and metabolic issues
  - Recovery stage
  - Later postpartum stage

Nursing Assessment of and Intervention for the Mother (Cont.)

- Hygiene
  - Good personal hygiene continues to be important during the postpartum stage
  - Excessive perspiration and a slight odor from discharge are common
  - Regular bathing (showers) should be encouraged
  - Sitz baths are ordered to reduce discomfort and to promote healing of the perineum
Nursing Assessment of and Intervention for the Mother (Cont.)

- Elimination
  - Recovery stage
  - Later postpartum stage

Maintenance of Safety

- Activity/exercise
  - Recovery stage (1-4 hours after delivery of the placenta)
  - Later postpartum stage

Maintenance of Safety (Cont.)

- Rest and sleep
  - Rest and sleep are important throughout the postpartum period
  - After the discomforts at the end of pregnancy, many women enjoy being able to sleep in any position desired
  - Sleep should not be disturbed unless it is necessary to protect the patient’s well-being
  - If she is breastfeeding, instruct the patient on the importance of naps and rest periods during the day to compensate for lost sleep
Reproductive issues

- Recovery stage
  - Fundus and lochia are checked every 15 minutes for the first 2 hours
  - Fundus should remain contracted, firm, and at the midline
  - A full bladder can displace the uterus and prevent contraction of the uterus
  - An atonic uterus feels soft or boggy
  - On palpation of the uterus, the amount of lochia should be observed
  - Always check under the buttocks; many times gravity causes drainage to miss the pad and pool under the patient

- Later postpartum stage
  - Postpartum checks
  - Engorgement
  - Nipples should be inspected for inflammation, fissures, or tenderness
  - Manual pumping of the breasts may be necessary in some cases
  - Benefits of breastfeeding

- Bottle-feeding is another choice
- Fundus should remain firmly contracted
- Lochia may begin to change in the first 2 days from the rubra to the serosa form
- Perineum should be approximated
- Most providers order topical anesthetics such as Tucks or Nuercainal ointment
- Hemorrhoids usually disappear quickly after delivery
Psychosocial Assessment
- Coping and stress tolerance
- Signs of potential problems
- Roles and relationships
- Self-perception
- Cognitive and perceptual issues

Nursing Process
- Nursing diagnoses for the postpartum mother
  - Fluid volume, risk for deficit
  - Infection, risk for
  - Urinary elimination, impaired
  - Constipation
  - Nutrition: less than body requirements
  - Nutrition: more than body requirements
  - Pain, acute
  - Tissue integrity, impaired
  - Sleep pattern, disturbed

Nursing Process (Cont.)
- Nursing diagnoses for the postpartum mother
  - Knowledge, deficient
  - Anxiety
  - Parenting, risk for impaired
  - Family processes, interrupted
  - Parenting, impaired
  - Self-esteem, situational low
Nursing Assessment of and Interventions for the Newborn

- Health management and health perception
  - Check identification bracelets to prevent giving the baby to the wrong mother
  - Instruct mother about handwashing when caring for the baby
  - Instruct new mother on safety practices to reduce the likelihood of injury to the infant
  - State laws require certain diagnostic tests be performed on the newborn

Overview of Anatomy and Physiology of the Normal Newborn

- Assessment immediately after delivery
  - Characteristics
    - Body size and shape
      - Head is disproportionately large for the body
      - The abdomen is prominent, with a smaller chest and narrow hips
      - Average weight: 3400 g (7 lb, 8 oz)
      - Average length: 20 inches (50 cm)
      - Head circumference: 13-14 inches (33-35.5 cm)

Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Assessment immediately after delivery
  - Characteristics
    - Vital signs
      - Respiratory rate: 30-60 breaths per minute with brief periods of apnea
      - Pulse rate: 120-160 beats per minute
      - Blood pressure: 60/40 to 80/50 mm Hg
      - Axillary temperature: 97.6° F to 98.6° F
Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Assessment immediately after delivery
  - Characteristics
    - Skin: color
      - Caucasian: pink to slightly reddish
      - African-American: pink or yellowish brown
      - Hispanic: olive tint or a slight yellow
      - Asian: rosy or yellowish tan
      - American Indian: light pink to dark reddish brown

Question 1

The postpartum period is also called:
1. involution.
2. puerperium.
3. autolysis.
4. prolactin.

Question 2

A perineal laceration that also involves the anterior rectal wall is a ______-degree laceration.
1. first
2. second
3. third
4. fourth
Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Assessment immediately after delivery
  - Characteristics
    - Skin: appearance
    - Vernix caseosa
    - Lanugo
    - Good turgor and tissue elasticity

- Assessment immediately after delivery
  - Characteristics
    - Head
      - Fontanels should be palpable
      - Head may have molding, caput succedaneum, or cephalhematoma
    - Face
      - Chin is receding; cheeks are full and round; oral cavity should be intact with a closed palate
      - Epstein’s pearls may be observed

- Assessment immediately after delivery
  - Characteristics
    - Eyes
      - Eyelids may appear edematous
      - Strabismus and nystagmus are commonly seen
      - Nearsighted
    - Ears
      - Upper insertion of the pinna should be even with the outer canthus of the eye
Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Assessment immediately after delivery
  - Characteristics
    - Umbilical cord
      - Whitish blue-gray with three vessels; may contain Wharton's jelly
    - Reflexes
      - Rooting, sucking, gag, swallow, blink, burp, hiccup, and sneeze
  - Genitals
    - Female may be edematous
    - Scrotum in the male may be enlarged and edematous, indicating a hydrocele
    - Penis should be inspected for position of the urethral meatus
  - Spine
    - Straight without curves
  - Extremities
    - Arms and hands are generally flexed against the body; both arms should move evenly
    - Legs should be the same length; hips move freely
    - Hands and feet should be assessed for syndactyly or polydactyly
Nutritional and metabolic issues

- Nutritional requirements
  - Requires approximately 120 calories per kilogram of body weight each day
  - Breast milk and prepared formulas are balanced to meet the needs of the newborn
  - Fluid needs: 140-160 mL/kg per day
  - The frequency of feeding will depend on the type of feeding

Hypothermia

- Maintenance of body temperature is a major concern when caring for a newborn
- Newborn has a large surface area and a limited amount of protective adipose tissue
- Heat is lost through radiation, evaporation, conduction, and convection

Hygiene

- Body temperature must be stabilized
- Bathing serves a number of purposes
  - Provides opportunity for complete cleansing of the infant
  - Observation of the infant’s condition
  - Promotion of comfort
  - Parent/child/family socialization
Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

● Nutritional and metabolic issues
  ➢ Hygiene
    a. Discuss the choice of cloth or disposable diapers with parents
    b. Care of the umbilical area: Avoid getting cord wet, use alcohol or other substances to promote drying and inhibit microbial growth
    c. Circumcision care: Keep clean and assess for bleeding; sterile petroleum gauze may be applied to the penis

Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

● Elimination
  ➢ Infant should void within 24 hours of delivery
  ➢ Infant usually voids small amounts of poorly concentrated urine
  ➢ Bowel elimination should occur within 24 hours of birth
  ➢ Initial stools of the newborn are odorless, black-green in color, and sticky in consistency; called meconium

Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

● Elimination
  ➢ Once the infant begins to take nourishment, the stool changes to greenish and loose
  ➢ Breastfed babies tend to pass stool frequently; it is pale yellow and sweet-smelling
  ➢ The skin of the perineum and buttocks can become irritated if waste products are left in contact for too long
Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Rest and sleep
  - Infants spend 16-20 hours per day sleeping
  - The time awake is spent crying, eating, or in quiet alertness
  - Most infants do not exceed 5 continuous hours of sleep for some months

Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Activity and exercise
  - Maintenance of a clear airway is critical
  - Suctioning may be required to remove mucus from the nose and mouth
  - Infants are obligate nose breathers; the nasal passageway must be kept open and free of mucus; a small bulb syringe is commonly used
  - Crying is the newborn’s only means of communication; it may indicate hunger, pain, or simply the need for attention

Overview of Anatomy and Physiology of the Normal Newborn (Cont.)

- Parent-child attachment
  - Initial phase characterized by strong attraction and a desire to interact
  - Without bonding, it would be difficult to maintain the energy required to meet the newborn’s needs
  - Early contact with the infant is important to establish bonding
  - Encourage early and frequent interaction between the newborn and the parents
Question 3

In an effort to prevent sudden infant death syndrome (SIDS), new mothers should be taught not to lay the baby on the:
1. abdomen.
2. floor.
3. back.
4. side.

Question 4

Which of these is not an infant quieting technique?
1. Swaddle the baby snugly in a receiving blanket.
2. Try a pacifier.
3. Place the baby in the middle of a large crib.
4. Movement such as a car ride or rocking.

Question 5

____________ is the process by which parent and child come to love and accept each other.
1. Acrocyanosis
2. Fontanelle
3. Colostrum
4. Bonding