

ACTIVE LEARNING TEMPLATE: *Basic Concept*

STUDENT NAME Lily, Stevie, Destiny, Hannah, Ryan, Kimberly

CONCEPT Preterm Assessment

REVIEW MODULE CHAPTER \_\_\_\_\_

**Related Content**

(E.G., DELEGATION, LEVELS OF PREVENTION, ADVANCE DIRECTIVES)

- Size should be long and thin and <10th percentile
- Head is normal if it occurred late and may be large
- Fontanelles may be large
- sutures
- hair is dull or sparse
- musculature is wasted in cheeks, buttocks, and thighs
- abdomen is sunken
- skin is translucent, thin, loose, dry and can be yellow from meconium
- gastric size can be normal or small
- cry should be vigorous
- may have a wide-eyed alert look
- weight color is pink to dark red
- skin is smooth and shiny
- minimal subq fat deposits, superficial blood vessels
- nails are soft and short
- lanugo and vernix present depending on gestational age
- fragile
- minimal creases on palms and soles
- skull bones are palpable
- nose is small and short
- eyes appear small and widely spaced
- ears pinna flat, will not bounce back, slow to recoil
- periodic breathing with apnea
- breasts are barely perceptible areola rises are 34 weeks
- posture is frog like position, inactive and listless
- Reflexes- suck is absent, weak or uncoordinated
- cough, gag, or swallow are weak or poorly developed
- moro, tonic neck, babinski poorly developed
- actively limited, spontaneous movement

**Underlying Principles**

- monitor continuously for small changes
- fluid overload s/sx include edema, bulging fontanelles, crackles, rales, increase in body weight, hyponatremia
- dehydration s/sx depressed fontanelles, poor skin turgor, dry mucous membranes, increased serum sodium, decrease in weight
- difficulty maintaining fluid electrolyte balance
- cold stress from conduction, convection, evaporation, radiation

**Nursing Interventions**

WHO? WHEN? WHY? HOW?

- Tactile stimulation for apnea
- For suck reflex put them to breast or give pacifier
- maintain NTE
- maintain temperature between 36.5 and 37.5
- encourage kangaroo care
- accurate I&O, blood draws, flushes, fluids
- monitor wt daily
- monitor peak and trough of nephrotoxic drugs
- monitor for s/sx of fluid overload and dehydration
- minimize insensible water losses
- decrease stimuli by covering isolette with blankets, lower lights

# ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME Courtney, Caroline, Heather, Chloe, Jaylee, Jada

DISORDER/DISEASE PROCESS Preterm Sepsis REVIEW MODULE CHAPTER \_\_\_\_\_

**Alterations in Health (Diagnosis)**  
Invasion by infections agents resulting in a disease process

**Pathophysiology Related to Client Problem**  
Septicemia- presence in blood of bacterial toxins

**Health Promotion and Disease Prevention**  
Prevention of infection- aseptic technique, handwashing, awareness of current illnesses with visitors and staff

## ASSESSMENT

**Risk Factors**  
Prolonged ROM (> 24hr)  
Prolonged hospitalized  
Invasive procedures  
IgG levels are lower the earlier the gestation birth occurs.  
Menigitis

**Expected Findings**  
Respiratory- cyanosis, grunting, apnea, retractions, nasal flaring  
CNS- seizures, listlessness, bulging fontanels, jitteriness, unstable temp- hot or cold, high-pitched/abnormal cry, hypotonia  
GI- feeding problems, vomiting, abdominal distension  
Skin- rashes  
CV/Blood- jaundice, bleeding, bradycardia, hypotension, decreased or poor perfusion.

**Laboratory Tests**  
CBC with diff  
ABG's  
CSF analysis (menigitis suspected)

**Diagnostic Procedures**  
History  
Cultures- before ABX if possible but not required

## SAFETY CONSIDERATIONS

-Individual use of equipment  
-Reverse Isolation

## PATIENT-CENTERED CARE

**Nursing Care**  
ADDRESS SUBTLE CHANGES!  
Skin care  
Thermoregulation  
Respiratory Support  
Adequate nutrition  
Accurate I&O's

**Medications**  
-Chemoprophylaxis

**Client Education**  
Strict handwashing for anyone entering NICU- no rings, badges

**Therapeutic Procedures**  
Supportive Therapies

**Interprofessional Care**  
Respiratory  
Neonatologist

**Complications**  
High Mortality- 50%

# ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME RH, NV, RD, AB, JD, IA

DISORDER/DISEASE PROCESS Small for Gestational Age (SGA) / IUGR

REVIEW MODULE CHAPTER \_\_\_\_\_

## Alterations in Health (Diagnosis)

Birth weight below the 10th percentile; birth weight < 2,500 grams.

## Pathophysiology Related to Client Problem

Symmetrical (hypoplasia): growth deficit early in gestation, all is small, decreased # of cells

Asymmetrical (late IUGR): big head/small body, # of cells normal/small cytoplasm, growth deficit late in gestation

## Health Promotion and Disease Prevention

Early prenatal care, avoidance of illicit substances, balanced diet, maternal health maintenance.

## ASSESSMENT

### Risk Factors

-> Maternal: HTN disorders, heart/lung disease, cigarette smoking, drugs, malnutrition, anemia, high altitude, low SE status -> Placental: insufficiency, abn cord insertion/ umbilical artery, infarct  
-> Fetal: intratutering infections (rubella), multi gest, congenital abnormalities

### Expected Findings

Long/thin in size, head circum <15%, widely spread sutures, large fontanels, dull/sparse hair, wasted musculature, dry/thin/loose skin, sunken ABD, thin/dry cord (possible meconium staining), small liver size, vigorous cry, wide eye/alert look

### Laboratory Tests

### Diagnostic Procedures

Fundal Checks  
Newborn Growth Chart  
Non-stress Test  
Biophysical Profiles  
Sonograms

## SAFETY CONSIDERATIONS

- \*Preventing hypothermia.
- \*Leading cause of death is perinatal asphyxia.
- \*Mortality rate greater than 10%.

## PATIENT-CENTERED CARE

### Nursing Care

Monitor weight gain, fundal height, serial sonograms, NST, and BPP during pregnancy. Prevent hypothermia in infants by maintaining NTE.

### Medications

### Client Education

Encourage breastfeeding, skin to skin, and importance of keeping infant warm.  
\*Symmetrical SGA have limited growth potential.  
\*Asymmetrical SGA catch up at 3-6 months old.

## Complications

Birth Asphyxia:  
- little labor reserve r/t chronic hypoxia  
- risk for meconium staining  
- persistent pulmonary HTN  
Hypothermia  
Polycythemia  
Hypoglycemia  
Hypocalcemia  
Hyperbilirubinemia  
PFC/PDA  
Increased metabolic activity  
Immunologic Problems  
Congenital Anomalies

### Therapeutic Procedures

Phototherapy for jaundice.

### Interprofessional Care

# ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME Team 3

DISORDER/DISEASE PROCESS LGA

REVIEW MODULE CHAPTER \_\_\_\_\_

**Alterations in Health (Diagnosis)**  
 >4000g, >90th percentile

**Pathophysiology Related to Client Problem**  
 gestational diabetes, hx of LGA babies

**Health Promotion and Disease Prevention**  
 controlled maternal blood sugar during pregnancy, induction,

## ASSESSMENT

**Risk Factors**  
 multiparity, male, infants of diabetic moms, post-term, erythroblastosis fetalis,

**Expected Findings**  
 macrosomia, possible jaundice, possible polycythemia

## SAFETY CONSIDERATIONS

trauma to mom and fetus, emergency c/s

**Laboratory Tests**  
 CBC, heel stick

**Diagnostic Procedures**  
 measurements, ultrasound, might need xray, bilirubinometer

## PATIENT-CENTERED CARE

**Nursing Care**  
 Q3hr BG checks, early feeding (within 30-1hr of life), low stress environment, thermoregulation,

**Medications**  
 Vitamin K, Hep B vaccine, erythromycin

**Client Education**  
 keep baby warm, hand hygiene, breastfeeding Q2-3hrs or on demand, monitor how long their on breast (BG 30mins post),

## Complications

birth trauma (CPD, shoulder dystocia, clavicle fx, ashyxia related brain injury, phrenic nerve palsy), hypoglycemia, polycythemia (can cause hyperbilirubinemia (bruising from trauma), rebound hypoglycemia

**Therapeutic Procedures**  
 phototherapy, gentle handling, partial exchange transfusion of plasma

**Interprofessional Care**  
 Neonatologist, pediatrician, nutritionist,

# ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME Group 3

DISORDER/DISEASE PROCESS Post term

REVIEW MODULE CHAPTER \_\_\_\_\_

**Alterations in Health (Diagnosis)**  
Any infant born after 42 weeks gestation

**Pathophysiology Related to Client Problem**  
Risk for progressive placental insufficiency

**Health Promotion and Disease Prevention**  
Induction at 40 weeks

## ASSESSMENT

**Risk Factors**  
Prior post term birth, nullparity, obesity,

**Expected Findings**  
Skull- normal, maybe big  
Skin- Dry, cracked skin  
Nails- Long, hard nails  
Sub q- Decreased sub q fat  
Meconium Staining  
Diminished amount of vernix  
No lenugo

**Laboratory Tests**  
N/A

**Diagnostic Procedures**  
Close surveillance with weekly or biweekly BPPs and NSTs

## SAFETY CONSIDERATIONS

Hazards from diagnostic procedures such as CST or Amniocentesis

Poor tolerance of labor due to decreased energy stores, intruterine asphyxia, and fetal distress (late decels, poor variability)

Increased risk meconium aspiration

Increased risk of intercranial hemorrhage, fractures

SGA r/t deteriorating exchange of aging placenta= fetal malnutrition=hypoxia=wasted appearance

## PATIENT-CENTERED CARE

**Nursing Care**  
Confirm dates  
Assess for fetal distress  
Close Surveillance  
Assess for threat to fetus, if present- C-section

**Medications**  
Oxytocin- (to induce labor)

**Client Education**  
Educate on the importance of getting an induction after 40 weeks

**Therapeutic Procedures**

**Interprofessional Care**  
Induction after 40 weeks

## Complications

Hypoglycemia  
Respiratory -intrauterine hypoxia, meconium aspiration

Thermodyregulation- cold stress, depleted sub q fat and glycogen stores, large body surface - limp posture

CNS complications - trauma from CPDm seizure activity from hypoxia, hypoglycemia

Increased incident of congenital anomalies

Increase infection from peeling/cracking skin

# ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME Jaylee, Courtney, Caroline, Chloe, Jada, Heather

DISORDER/DISEASE PROCESS Cold stress

REVIEW MODULE CHAPTER \_\_\_\_\_

**Alterations in Health (Diagnosis)**

**Pathophysiology Related to Client Problem**

- increased O2 consumption / RR
- vasoconstriction -> acidosis
- BAT metabolism -> acidosis
- \* newborns do not have capability to shiver

**Health Promotion and Disease Prevention**

maintain neutral thermal regulation

## ASSESSMENT

**Risk Factors**

- thin skin, superficial blood vessels
- minimal subcutaneous fat
- 3x surface area to body mass of an adult
- cardiac and respiratory problems, drug exposure
- Preterm: less brown fat and glycogen stores, poor muscle tone

**Expected Findings**

- body cool to touch
- bradycardia
- tachypnea
- shallow or irregular respirations
- poor feeding
- lethargy
- hypoglycemia
- cyanosis

## SAFETY CONSIDERATIONS

caution:  
rapid-rewarming causing risk for apnea

**Laboratory Tests**

blood glucose

**Diagnostic Procedures**

- Oxygen saturation
- temperature
- vital signs

## PATIENT-CENTERED CARE

**Nursing Care**

- Maintain neutral thermal environment
- prevent heat loss mechanisms
- monitor blood glucose
- rewarm slowly
- daily weights

**Medications**

**Client Education**

- evaporation- keep warm and dry
- convection- avoid open windows or AC drafts
- conduction- use a barrier with a cold surface
- radiation- be cautious of placing near a window

## Complications

acidosis  
death  
hypoglycemic shock

**Therapeutic Procedures**

- maintain a warm and calm environment
- decrease stimuli and stress
- keep swaddled
- radiant warmers
- skin to skin

**Interprofessional Care**

respiratory

ACTIVE LEARNING TEMPLATE: *Basic Concept*

STUDENT NAME Hannah, Lily, Destiny, Stevie, Ryan, Kimberly

CONCEPT Nutrition

REVIEW MODULE CHAPTER \_\_\_\_\_

**Related Content**

(E.G., DELEGATION, LEVELS OF PREVENTION, ADVANCE DIRECTIVES)

Immature GI system- small gastric capacity

Slowed gastric emptying

Lack adequate lactase= lactose intolerance and fat absorption and digestion issues

Increased RR= increased metabolic needs  
-If unmet, metabolic acidosis can occur

Impaired transfer of nutrients in third trimester

Nutritional risks:  
-Anemia  
-Rickets (deficiency in calcium and phosphorus)  
-Hypoglycemia d/t small glycogen stores in the liver

Caloric need 120-150 cal/kg/day

**Underlying Principles**

Uncordinated suck reflex; weak cough, gag, swallow

ABD easily extendable  
-Distention, feeds are not being tolerated

Start slow with feedings and titrate

Breast milk best, TPN can be used though  
-Syringe pump can be used

For bottle feeding, sit up right; support head and neck  
Keep baby awake, this is a time for work

**Nursing Interventions**

WHO? WHEN? WHY? HOW?

Non-nutritive sucking to help facilitate sucking reflex

NG/OG can be placed for feeding  
-Check residuals before feeding, add residual and subtract to get amount of feed needed

Firm and stable, high flow nipple if bottle feeding

Educate on hand expressing milk before putting baby to breast--> less work--> conserves energy

Educate parents premies are slow feeders, don't get discouraged