

Rotation: Newborn

Duration of Rotation (hours): 60 hrs/wk; 1 month

Contact Person: CCHMC Children's Chief Residents

Phone #: 636-8290 e-mail:chiefresident@cchmc.org

Address: University Hosp., 234 Goodman St., Cinti, OH 45267

Faculty oversight: Spata and various faculty

Supervision: (How it occurs): Patient rounds at University Hospital and The Christ Hospital, Delivery room at and after delivery at University Hospital and The Christ Hospital, FMC, and CCHMC-ER

RRC Requirements:

Residents **must** complete 4 months of structured experience in the care of infants, children and adolescents. The time **must** include experience in the following areas: neonates, infant care (both well baby and ill), hospitalized children, ambulatory pediatrics, emergency care of children and adolescent medicine. This may include experience gained on the Family Medicine Inpatient Service, in the emergency department, in the pediatric hospital and clinic, and experience in nursery care associated with OB experience, provided that appropriate documentation of such experience is maintained for each resident. This experience **must** involve teaching and role modeling by family medicine faculty in the care of newborns and sick children. Residents and faculty **must** provide continuity of responsibility for hospitalized infants and children from their Family Medicine Center patient panel. Residents **must** be provided instruction in the biological and psychosocial impacts on a woman and her family care of the newborn.

Core Topics:

1. Nutrition
 - a. Breastfeeding
 - b. Formula
 - c. Feeding problems
2. Hyperbilirubinemia
3. Infectious
 - a. GBS
 - b. HSV
 - c. Sepsis/Meningitis
 - d. Hep B
 - e. Syphilis
4. Newborn Exam/Ballard (including identification and mgmt/dispo of common findings including heart murmurs, sacral dimples, cleft palate, hip dysplasia, undescended testes, extra digits, ankyloglossia, abnormal fontanelles, cephalohematoma, Caput succedaneum, clavicle fracture, hypotonia).
5. Routine Newborn Anticipatory Guidance and Care
6. Respiratory distress:
 - a. TTN
 - b. RDS
 - c. Meconium Aspiration

7. Normal Rashes of the Newborn: Erythema toxicum neonatorum, neonatal acne, infantile acne, infantile acropustulosis, milia, miliaria, mongolian spots, seborrheic dermatitis, transient neonatal pustular melanosis, cutis marmorata
8. Hypoglycemia of the newborn
9. Routine Screening of the newborn
10. Male Newborn Circumcision
11. Neonatal resuscitation
12. Frenulotomy

Specific Educational Strategies:

Schedule (hours): 50 hours a week – Newborn at University Hospital

Care of newborns at TCH on Maternity Care census (varies). Includes circumcision experience.

Neonatal Resuscitation Program

Teaching Methods & Venues: Lecture, bedside rounds, NRP course, precepting of newborn patient, FMC visits, precepting inpatient newborn continuity patients at The Christ Hospital (TCH), performing neonatal resuscitation with SCN at TCH.

Evaluation Methods and timing: Monthly evaluation at close of newborn rotation, preceptor evaluations of FMC care/charting, monthly evaluation at close of OB rotation/Peds ER rotation, evaluation/passage of NRP.

Recommended Resources for the Rotation:

1. Evernote Newborn Rotation Notebook: Loaded with Articles and Handouts
2. General Newborn Exam: <http://newborns.stanford.edu/PhotoGallery/> Stanford website: picture atlas with normal & abnormal newborn exam findings, contains text explanations as well. If you study nothing else this month, this is invaluable.
3. Hyperbilirubinemia of the newborn: You WILL see this. Uptodate's article is very helpful. AAFP has helpful article: <http://www.aafp.org/afp/2008/0501/p1255.html>; Evernote from PC Rap
4. bilitool.com is option but used by many peds residents. Printing the TSB (Total Serum Bilirubin) light therapy nomogram and carrying on rounds at least the first week is useful (<http://pediatrics.aappublications.org/content/114/1/297/F3.expansion.html>).
5. Maternal GBS: AAP's new policy statement (9/2011). <http://pediatrics.aappublications.org/content/early/2011/07/28/peds.2011-1466.full.pdf> Discusses what counts as adequate treatment (generally 4hrs or more), as well as acceptable treatments for PCN-allergic mothers. And GBS Controller App (free, made by former UCFM faculty!)
6. Respiratory distress in the newborn: most commonly TTN (Transient Tachypnea of the Newborn). AAFP article: <http://www.aafp.org/afp/2007/1001/p987.html>
7. Articles provided by Newborn rotation (on CCHMC intranet, newborn tab)
8. Choriophobia (nice review of evidence as it relates to GBS and chorio)
9. Delayed Cord Clamping: Cochrane Review
10. Newborn Derm Issues of the Sick Neonate

11. The Pocket (from Children's)
12. Harriett Lane handbook
13. Internal Website: <https://tchucfm2.squarespace.com/newborn/>

Goals: (address, broad over reaching needs in a curriculum)

To provide experience in dealing with all aspects of normal newborn care.

To identify and stabilize ill newborns and arrange for referral and follow-up.

Objectives/Evaluation Tools: (written as specific measurable, outcome based statements encompassing knowledge, skills, and attitudes)

Care of the Newborn

Primary Curricular Goals

- **Patient Care:** Competently manage the normal newborn and recognize and stabilize infants who require more than routine care. Engage in discussion with families about the medical, psychosocial and family/community dynamic issues associated with a new infant. Perform appropriate screening for and provide appropriate anticipatory guidance about these issues.
- **Medical Knowledge:** Demonstrate knowledge of prenatal and perinatal risk factors, newborn physiology, management of common newborn problems, infant nutrition, family centered newborn care, and management of neonatal emergencies.
- **Interpersonal Skills and Communication:** Provide appropriate education to prepare families prior to birth and at the time of discharge of their newborn. Communicate effectively and empathetically concerning newborn problems and illnesses.
- **Practice Based Learning:** Recognize potential personal and system areas for improvement in providing care for the normal newborn and initiate appropriate interventions for achieving and evaluating those improvements.
- **Professionalism:** Act with integrity, respect, and high ethical standards towards patients and families, colleagues, and other members of the health care team involved in the care of newborns. Provide culturally effective care and education to parents about their newborn.
- **Systems Based Practice:** Effectively and efficiently use resources available to maximize newborn outcomes and minimize errors.

Care of the Newborn

GOAL: Demonstrate competence in providing care for newborns and their families in the delivery room, normal newborn nursery, and, when necessary, in the critical care nursery.

Competency: Patient Care

Skills:

1. Use a logical and appropriate clinical approach to the care of newborns, applying principles of evidence-based decision-making and problem-solving. *Intern Year*
2. Provide sensitive support to patients and their families in the delivery room and level I and II newborn nurseries. *Intern Year*
3. In the delivery room:

- a. Explain risk factors at delivery that warrant having a provider dedicated to the care of the baby in attendance. Intern Year
- b. Describe the necessary medical equipment for neonatal resuscitation and demonstrate its proper use. Intern Year
 - c. Accurately assess and manage normal and high-risk newborns immediately following delivery, including:
 - i. Assessing the need for immediate resuscitation. Intern Year
 - ii. Assigning the 1-minute, 5-minute and subsequent Apgar scores. Intern Year
 - iii. Using appropriate technique for suctioning the nose and mouth. Intern Year
 - iv. Demonstrating at least two steps to reduce radiant heat loss. Intern Year
 - v. Demonstrating bag and mask ventilation. Intern Year (NRP)
 - vi. Demonstrating intubation and ventilation. Intern Year (NRP)
 - vii. Performing cardiac compression. Intern Year (NRP).
 - viii. Demonstrating appropriate use of medications during neonatal resuscitation. Intern Year (NRP)
 - ix. Interpreting cord blood gases. Intern Year
 - x. Rapidly inspecting for signs of major malformations. Intern Year
 - d. Be Neonatal Resuscitation Program (NRP) certified. Intern Year and Third Year
 - e. For these common conditions, demonstrate delivery room assessment and management; and manage newborns independently; and list criteria for consultation or transfer to a level II or III nursery:
 - i. Meconium stained fluid Intern Year
 - ii. Respiratory depression and other common effects of maternal anesthesia, medications, or substance use/abuse Intern Year
 - iii. Complicated labor (e.g., decelerations, maternal hypertension) Intern Year
 - iv. Complicated delivery (e.g., problems with Cesarean Section, instrument-assisted deliveries, breech presentation, cord prolapse, placenta abruption, oligo- or polyhydramnios, precipitous deliveries) Intern and R2 Year
 - v. Cyanosis, respiratory distress, or heart murmur Intern and R2 Year
 - vi. Cardiorespiratory depression or abnormal blood gases Intern Year
 - b. Discuss immediate breastfeeding and early bonding between baby and family and describe how hospital routines can facilitate or impede these natural processes. Intern Year
 - c. Describe how obstetricians and non-delivering family physicians can communicate and work together as a team to improve outcome at high-risk deliveries. R2 Year

4. In the nursery:

- a. Obtain and interpret information relevant to newborn health including:
 - i. Maternal medical, prenatal and obstetric history Intern Year
 - ii. Family history Intern Year
 - iii. Results of maternal screening tests Inter Year
 - iv. Maternal medication use or substance use/abuse Inter Year
 - v. Results of prenatal ultrasound testing Intern Year

- b. Obtain environment in the infant's home. *Intern Year*
- c. Describe the rationale and use of eye prophylaxis, vitamin K1 administration, and hepatitis B vaccine and HBIG. *Intern Year*
- d. Understand and demonstrate appropriate timing for newborn exams and define the key reasons for doing the exams *Intern Year*
- e. Perform a neonatal physical examination and identify normal and abnormal findings related to:
 - i. Gestational age assessment and growth category *Intern Year*
 - ii. Vital signs and measurements *Intern Year*
 - iii. General appearance and identification of anomalies *Intern Year*
 - iv. HEENT (red reflex, palate, frenulum, skull [head size and shape, caput, cephalohematoma, suture movement], ears) *Intern Year*
 - v. Neck and clavicles *Intern Year*
 - vi. Neurologic system (symmetry, tone, reflexes, suck, behavioral state, spine) *Intern Year*
 - vii. Respiratory effort *Intern Year*
 - viii. Skin *Intern Year*
 - ix. Chest and breasts *Intern Year*
 - x. Heart *Intern Year*
 - xi. Lungs *Intern Year*
 - xii. Abdomen (including umbilical cord) *Intern Year*
 - xiii. Genitalia *Intern Year*
 - xiv. Femoral and brachial pulses *Intern Year*
 - xv. Hips *Intern Year*
 - xvi. Extremities *Intern Year*
- f. Describe normal physiologic changes in neonatal transition, signs of abnormal responses and strategies for their management. *Intern year*
- g. Recognize, describe clinical significance of, and develop a strategy to evaluate, manage and/or refer newborns with these common newborn signs and symptoms:
 - i. Large birth marks (mongolian spots, hemangiomas, port wine spots) and interpret a social history to assess the physical and psychosocial effects. *R2 Year*
 - ii. Rashes and markings secondary to birth trauma *R2 Year*
 - iii. Papular and pustular rashes (erythema toxicum, pustular melanosis, staph. pustulosis, milia). *Intern Year*
 - iv. Peripheral and central cyanosis *Intern Year*
 - v. High or low temperature *Intern Year*
 - vi. Tachypnea *Intern Year*
 - vii. Heart murmur-asymptomatic and symptomatic *R2 Year*
 - viii. Abdominal distension and masses *Intern Year*
 - ix. Two vessel umbilical cords *Intern Year*
 - x. Abnormal findings on the Barlow and Ortolani maneuver *Intern Year*
 - xi. Swollen breasts *Intern Year*
 - xii. Vaginal bleeding *Intern Year*

- xiii. Subconjunctival hemorrhages Intern Year
 - xiv. Corneal opacities or absent red reflex R2 Year
 - xv. Facial palsy R2 Year
 - xvi. Fractured clavicle R2 Year
 - xvii. Brachial plexus injury Intern Year
 - xviii. Cephalohematoma or caput Intern Year
 - xix. Ear tags, pits Intern Year
 - xx. Palate abnormalities (cleft, submucous cleft) Intern Year
 - xxi. Polydactyly Intern Year
 - xxii. Syndactyly Intern Year
 - xxiii. Plethora Intern Year
 - xxiv. Pallor Intern Year
 - xxv. Respiratory distress Intern Year
 - xxvi. Abnominal mass Intern Year
 - xxvii. Genitourinary abnormalities (ambiguous genitalia, hypospadias, undescended testicle) Intern Year
 - xxviii. Microcephaly Intern Year
 - xxix. Macrocephaly Intern Year Intern Year
 - xxx. Sacral dimple, pit, hair tuft
- h. Recognize, describe clinical significance of, and develop a strategy to evaluate, manage and/or refer newborns with the following common newborn clinical situations:
- i. Large and/or small for gestational age babies Intern Year
 - ii. Infant of a diabetic mother Intern Year
 - iii. Infant of substance abusing mother Intern Year
 - iv. Child with ABO/Rh incompatibility Intern Year
 - v. Polycythemia Intern Year
 - vi. Premature/postmature infant R2 Year
 - vii. Transient metabolic disturbances (hypoglycemia, etc.) R2 Year
 - viii. Delayed urination R2 Year
 - ix. Delayed stooling Intern Year
 - x. Vomiting feeds/bilious emesis Intern Year
 - xi. Poor/delayed suck Intern Year
 - xii. Respiratory distress with feedings Intern Year
 - xiii. Jaundice Intern Year
 - xiv. Infant with risk factor for developmental dysplasia of the hip (girl breech, +family hx) Intern Year
 - xv. Infant with abnormalities on prenatal ultrasound (abnormal renal scan, hydronephrosis, choroid- plexus cyst) R2 Year
 - xvi. Dysmorphic infant or infant with known chromosomal abnormality (e.g., trisomy 21) R2 Year
 - xvii. Multiple births (near and at term) R2 Year
 - xviii. Eye discharge Intern Year
 - xix. Abnormal newborn hearing screen results Intern Year

- xx. Infant born to a mother with a significant medical condition (lupus, seizure disorder, obstetrical condition such as HELLP syndrome) R2 Year
- i. Recognize and manage jaundice in the newborn period including:
 - i. Interpreting maternal history for factors contributing to jaundice (Rh, blood type, gestational age, infection, family history of jaundice in infants, etc.). Intern Year
 - ii. Interpreting infant's history for possible etiologies of jaundice (e.g., infrequent or ineffective feeding, poor urine or stool output, acholic stool, blood type, risk factors for infection, metabolic disease). Intern Year
 - iii. Performing a physical exam to assess for jaundice or other evidence of hepatic dysfunction (e.g., skin color, sclerae, bruising, cephalohematoma, organomegaly). Intern Year
 - iv. Demonstrating use and interpretation of transcutaneous bilirubin monitoring. Intern Year
 - v. Obtaining laboratory tests judiciously for management of the jaundiced infant (blood type/Coombs, total, fractionated bilirubin, Hct, peripheral blood smear). Intern Year
 - vi. Correctly interpreting test results to evaluate jaundice in the clinical setting. Intern Year
 - vii. Interpreting the significance of a total serum bilirubin level in the context of early discharge of newborns, with reference to normative data based on age in hours. Intern Year
 - viii. Describing indications for phototherapy and exchange transfusions. Intern Year
 - ix. Describing the use of phototherapy in both the hospital and the home and explain risks (e.g., dehydration, eye injury, and disruption of breastfeeding routines). Intern Year
 - x. Encouraging and supporting breastfeeding in the jaundiced infant. Intern Year
- j. Use and/or interpret clinical tests commonly used in Newborn Nursery setting, such as:
 - i. Physiologic monitoring (HR, RR, pulse oximetry, blood gas, Doppler BP measurement) Intern Year
 - ii. Ballard exam for gestational age assessment, premature and term infant growth curves Intern Year
 - iii. CBC, ABO typing and Coombs testing, blood glucose/glucometer, bilirubin (serum and transcutaneous), maternal cord blood antibodies Intern Year
 - iv. Radiographs of chest, abdomen, extremities, etc. R2 Year
 - v. Ultra sound of kidneys/bladder, head, hips, lower spine R2 Year
- k. Assess a newborn's nutritional status based on maternal medical and obstetrical history and infant's history (e.g., illness, feeding, stools, urination) and physical exam (e.g., weight expected for gestational age, subcutaneous fat, hydration, neurologic or oral/facial anomalies) and implement appropriate feeding plans. Intern Year
- l. Recognize and manage these conditions:
 - i. Common problems for breastfeeding infants and mothers R2 Year

- ii. Maternal use of medications that are transmitted via breast milk R2 Year
- iii. Maternal infections and risk of transmission (hepatitis B, hepatitis C, HIV) R2 Year
- iv. Preserving breastfeeding while managing jaundice Intern Year
- v. Newborn who is a poor feeder Intern Year
- vi. Feeding plans for the SGA or premature infant R2 Year
- vii. Feeding plans for neurologically depressed/abnormal newborn Intern Year
- m. Identify newborns at risk for bacterial sepsis by history, physical exam, and laboratory studies Intern Year
- n. Recognize and manage:
 - i. Newborn with signs of sepsis (e.g., fever, poor feeding, tachypnea, low temperature) Intern Year
 - ii. Infant born to mother with fever Intern Year
 - iii. Infant born to mother with a history of a perinatal infectious disease (e.g., group B strep, chlamydia, syphilis, HSV) Intern Year
 - iv. Infant born to mother with prolonged rupture of membranes Intern Year
 - v. Infant born to mother who received antibiotic during delivery Intern Year
- o. Discuss methods for screening and, where appropriate, preventive treatment of mother and infant (chlamydia, CMV, gonorrhea, group B strep, hepatitis B, hepatitis C, HSV, HIV, tuberculosis, HPV, parvovirus, rubella, syphilis, toxoplasmosis, and varicella). Intern Year
- p. Demonstrate the immediate management of infants born to mothers with abnormal prenatal screening tests Intern Year
- q. Describe current standards for newborn screening, including:
 - i. National recommendations for universal newborn hearing screening Intern Year
 - ii. State neonatal blood-screening program, including diseases screened for, timing, testing procedures and process for notification of abnormal results Intern Year
 - iii. Current recommendations for maternal Group B Streptococcus screening and the evaluation of exposed neonates Intern Year
 - iv. Appropriate use of other screening tests or protocols and their indications (e.g., blood type and Coombs, glucose, hematocrit) Intern Year
 - v. Appropriate use of testing to identify prenatal exposure to substances of abuse Intern Year
- r. Describe the rationale behind various nursery and delivery routines and how these affect the health and well-being of families and newborns (e.g., rooming in, on-demand feeding, 24 hour discharge of the newborn) Intern Year
- s. Describe appropriate care of the umbilical (Dry cord care is now recommended in the US) Intern Year
- t. Provide anticipatory guidance and prevention counseling throughout hospital stay and at time of discharge, according to recommended guidelines. Intern Year
- u. Practice accepted policies for infection reduction in the newborn nursery. Intern Year
- v. Describe the normal infant sleeping cycle Intern Year
- w. Describe the normal infant feeding cycle including both formula and breastfed infant. Intern Year

- x. Describe normal infant elimination patterns. Intern Year
- 2. Home Delivery:
 - a. Describe the care and treatment of an infant following delivery that occurred unexpectedly at home or in transit to hospital. Intern Year

Competency: Medical Knowledge

Skills:

1. Demonstrate an understanding of the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a family practitioner; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care. Intern Year
2. Demonstrate a commitment to acquiring the knowledge needed for the care of newborns in the delivery room and level I and II nurseries. Intern Year
3. Demonstrate the ability to access medical information efficiently, evaluate it critically, and apply it to newborn care appropriately. Intern Year
4. List common assessment tools and studies used by obstetricians to assess normal pregnancies and infant well-being close to term and during the labor and delivery process. R2 Year
5. Identify common and important perinatal infections. Intern Year
6. Describe common post-delivery obstetrical issues that mothers face, and how these affect their recovery and ability to care for their newborn:
 - a. C-section delivery Intern Year
 - b. Retention of placenta Intern Year
 - c. Post-partum hemorrhage Intern Year
 - d. Post-partum depression Intern Year
 - e. Post-partum infections Intern Year
 - f. Hypertension Intern Year

Competency: Interpersonal and Communication Skills

Skills:

1. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates. Intern Year
2. Provide effective patient education, including reassurance, for condition(s) common to the newborn nursery. Intern Year
3. Communicate and work effectively with staff, health professionals, specialists, referring and primary care providers to create and sustain information exchange and teamwork for patient care. Intern Year
4. Develop effective strategies for teaching students, colleagues and other professionals. R2 Year
5. Maintain accurate, legible, timely, and legally appropriate medical records for newborns (summary of maternal record, labor and delivery note, admission note, daily progress notes, consultant notes and discharge summaries). Intern Year
6. Effectively communicate with the mother's obstetrician during the hospital stay and her primary care provider prior to the infant's discharge. Intern Year
7. Communicate effectively with parents and family in a professional and caring manner that honors family values and enhances their parenting skills and confidence. Intern Year

8. Discuss care and communication issues for an infant being placed for adoption (including both birth and adoptive parents). R2 Year
9. Counsel parents about feeding choices and assess for potential risks/difficulties. Intern Year
10. Counsel and support mothers who are breastfeeding. Intern Year
11. Counsel and support mothers who are formula feeding. Intern Year
12. Counsel parents about recommendations on routine hepatitis B vaccination, including risks, benefits, alternatives, and common side effects. Intern Year
13. Counsel parents about types of jaundice (physiologic, insufficient breastfeeding, breast milk, hemolytic, etc.) , their natural history, ways to improve jaundice at home (e.g. frequent feedings, exposure to sunlight, etc.), and when to be concerned about jaundice (e.g., icterus beyond the face and chest, poor feeding, fever, irritability). Intern Year
14. Discuss priorities for anticipatory counseling, especially in face of time constraints due to "early discharge." Intern Year
15. Provide routine counseling on topics such as:
 - a. Routine follow-up appointment time (as per guidelines) Intern Year
 - b. How and when to contact the office for advice or earlier appointment. Intern Year
 - c. For infants discharged prior to 24 hours: warning signs of jaundice, infection, dehydration, and feeding problems; interaction with visiting nurse, need to do repeat newborn screening blood tests. Intern Year
 - d. Needed medical, social, and WIC services R2 Year
 - e. Normal infant behaviors related to crying, sleep, and wakefulness and how to deal with common problems (hiccups, sneezes, vaginal bleeding, breast masses/discharge, care of umbilical cord, care of penis) Intern Year
 - f. Postpartum adjustment including the need for rest and support, and the potential for postpartum "blues" (e.g., depression, anxiety, feelings of inadequacy, fear, resentment) Intern Year
 - g. Uniqueness of each infant's temperament and how to identify and respond to this Intern Year
 - h. Potential for sibling rivalry and management strategies should it occur R2 Year
 - i. Injury prevention (e.g., car seat use, crib safety, water temperature settings, smoke alarm, constant supervision of newborn with siblings or pets, sleep position, environmental exposures like cigarette smoke [TIPP]) Intern Year
 - j. Significance of increasing jaundice, feeding problems, or fever in this age group and the rapidity with which medical care should be sought Intern Year
16. Provide written discharge instructions, documentation of immunization (HBV) given, and results of hearing screen. Intern Year

Competency: Practice-based Learning and Improvement

Skills:

1. Demonstrate knowledge, skills and attitudes needed for continuous self- assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice. Intern Year

2. Use scientific methods and evidence to investigate, evaluate, and improve patient care practice in the nursery setting. Intern Year
3. Identify standardized guidelines for diagnosis and treatment of conditions common to the newborn nursery, and adapt them to the individual needs of specific patients. Intern Year
4. Identify personal learning needs, systematically organize relevant information resources for future reference, and address plans for lifelong learning about newborn care. Intern Year

Competency: Professionalism

Skills:

1. Act with integrity, respect, and high ethical standards towards patients and families, colleagues, and other members of the health care team involved in the care of newborns. Intern Year
2. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity. Intern Year
3. Demonstrate personal accountability to the well-being of patients (e.g., following-up on lab results, writing comprehensive notes, and seeking answers to patient care questions). Intern Year
4. Demonstrate a commitment to professional behavior in interactions with staff and professional colleagues. Intern Year
5. Adhere to ethical and legal principles and be sensitive to diversity. Intern Year

Competency: Systems-based Practice

Skills:

1. Demonstrate an understanding of how to practice high-quality health care and advocate for patients within the context of the health care system. R2 Year
2. Demonstrate sensitivity to the costs of clinical care in the nursery, and take steps to minimize costs without compromising quality. R2 Year
3. Recognize and advocate for families who need assistance during the hospital stay and after discharge. R2 Year
4. Recognize one's limits and those of the system; take steps to avoid medical errors. Intern Year
5. Explain the role of the family physician in the level I nursery and how it relates to the continuum of office health supervision care. R2 Year
6. Identify the role and scope of practice of general pediatricians, neonatologists, perinatologists, obstetricians, family physicians, nurse midwives, lactation consultants, primary care nurses for OB/Newborn, and social workers in relation to the normal nursery; and work collaboratively with these professionals in the care of newborns. R2 Year
7. Refer mothers to WIC and other resources for assistance with food purchase, nutrition education, and breastfeeding support equipment. R2 Year
8. List resources that can be used to supplement counseling by the physician. R2 Year

Diagnostic and screening procedures.

GOAL: Describe the following tests or procedures, including how they work and when they should be used; competently perform and interpret those commonly used in the newborn nursery.

1. Hearing screening Intern Year
2. Monitoring interpretation: pulse oximetry Intern Year

3. Radiologic interpretation: chest, extremity, abdomen, etc. R2 Year
4. Bladder catheterization Intern Year
5. Breast pump use R2 Year
6. Capillary blood collection (PKU, hct, TSH) Intern Year
7. Circumcision Intern Year
8. Conjunctival swab Intern Year

Goals and Objectives modified from http://www.academicpediatrics.org/education/education_Curricula.cfm