

**Core Requirements and Recommended Guidelines for  
Designated Regional Perinatal Centers**



**Maternal & Child Health Section  
Office of Family and Community Health  
Perinatal Health Unit  
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## **Acknowledgements**

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will focus on both documents:**

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# Preface

The State of Georgia presently has six designated Regional Perinatal Centers (RPC) strategically located across the state. Designation process is based on regional need and available funding. Regional Perinatal Centers shall comply with all the following provisions described in this document and will be subject to review by the Georgia Department of Public Health (DPH). Regional Perinatal Centers shall enter into a yearly contract with DPH to provide specific services for high-risk pregnant women and infants.

With regard to both obstetrical and neonatal services, planning and linkage development should be conducted on an area wide basis that is regionalized. The State of Georgia believes that the development conducted within each defined geographic region should be a coordinated, cooperative system of maternal and perinatal health. By mutual agreements between hospitals and perinatal providers the level of complexity of maternal and perinatal care each hospital is capable of providing is identified so as to accomplish the following objectives:

1. High quality care to all pregnant women and newborns.
2. Best utilization of intensive care facilities.
3. Assurance of reasonable cost-effectiveness.

Therefore, it is within these objectives that the **Core Requirements and Guidelines for the Designated Regional Perinatal Centers were developed**. These requirements and guidelines reflect:

1. Advances in technology and care practices.
2. Current edition of the Guidelines for Perinatal Care, AAP and ACOG.
3. Rules and Regulations for Hospitals: Office of Regulatory Services

**To assure currency of these Guidelines, DPH will review them yearly.**

# **Section I: Definition of a Regional Perinatal Center of Georgia**

Regional Perinatal Centers (RPCs) shall be designated by DPH to serve a defined geographic region to provide:

- A. Comprehensive perinatal health care services for pregnant women, their fetuses, and neonates of all risk categories. The RPC will accept patients in need of these services from its region regardless of race, creed, religion, and ability to pay or funding source.
- B. Consultation and/or transport support for patients requiring subspecialty perinatal care.
- C. Coordination and assurance of follow-up medical care for maternal and neonatal patients requiring special care.
- D. Outreach and educational support to enhance quality care in institutions involved in perinatal health care.
- E. Compilation, analysis and evaluation of perinatal data from the RPC and referring hospitals.
- F. Coordination of perinatal health care within the region.
- G. Evaluation of new methods and technologies of perinatal health.

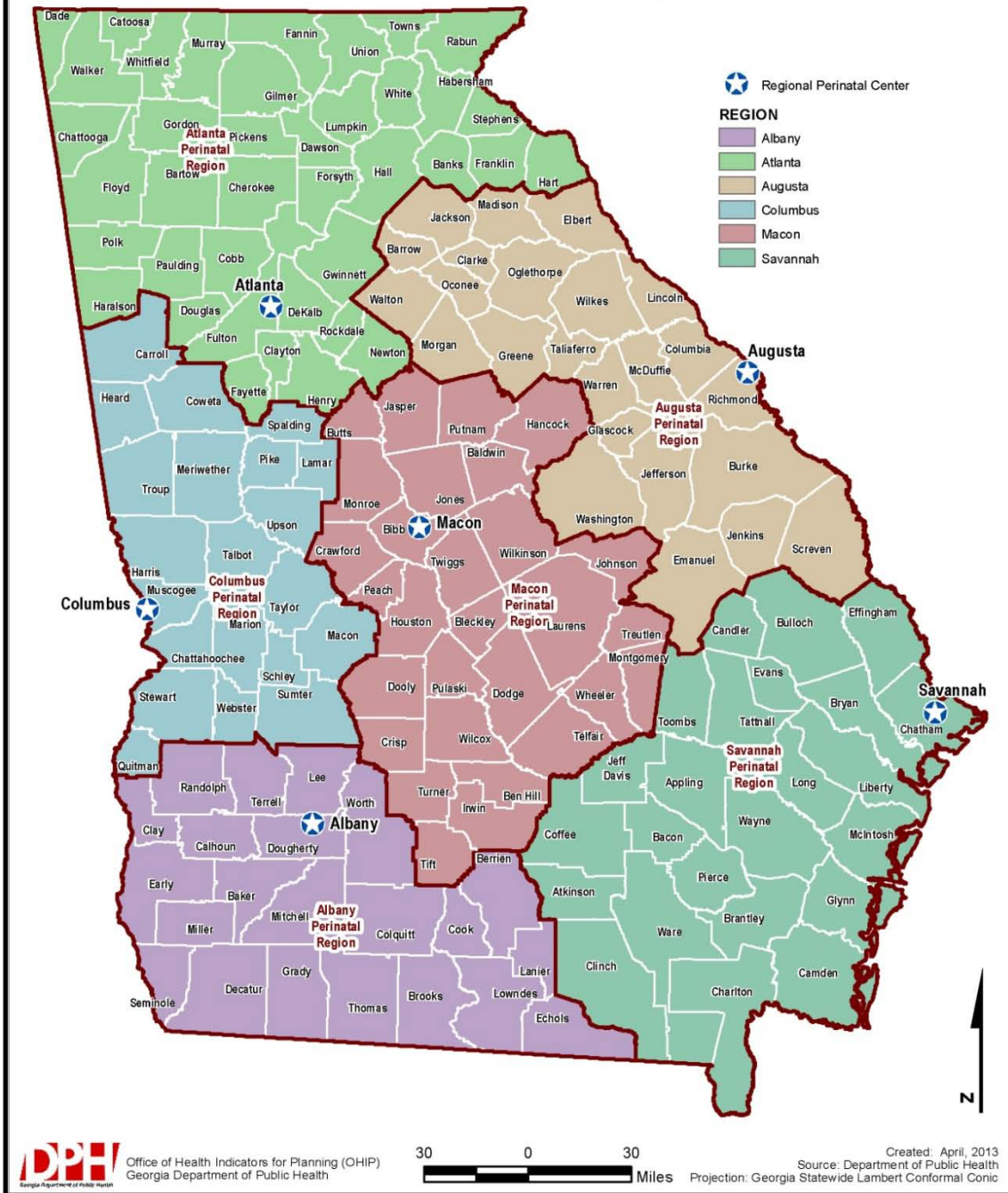
Services provided by all RPCs include:

- Prenatal care
- Intrapartum care
- Postpartum care
- Maternal transport coordination
- Neonatal care
- Consultation
- Neonatal transport
- Developmental follow-up
- Regional leadership and planning
- Coordination with and patient referral for ancillary perinatal public health services

Funding for the RPC will be allocated using an allocation formula based on volume and case-mix indices across each region. Each RPC is expected to maintain Level III (Subspecialty Care) status. In addition to the Level III capability for management of high-risk perinatal conditions, the RPC provides consultative, maternal transport coordination, outreach, neonatal transport, and support services to all facilities within the region. State funding is meant to enhance designated Level III (Subspecialty Care) hospitals and ensure access to highly trained perinatal personnel and intensive care facilities for any pregnant woman and newborn in Georgia.

An audit process has been developed and implemented to ensure compliance with contract requirements set forth by DPH. The baseline audit will be conducted within the first twelve (12) and subsequent audits be conducted every two years for each designated RPC to maintain status as a Regional Perinatal Center.

# Georgia Regional Perinatal Centers and Perinatal Regions





# Atlanta Region

Regional Perinatal Centers: Grady Memorial Hospital –Maternal/Neonatal  
Emory University Hospital Midtown -Neonatal  
Children Healthcare of Atlanta at Egleston – Neonatal

Regional Directors: Neonatal: George W. Bugg, Jr. MD, MPH  
Maternal: Jane Ellis MD, PhD

Regional Educators: Neonatal: Linda McCollum, PhD, RN-C, CNNP  
Maternal: vacant

Regional Hospitals: 37 Perinatal Hospitals-  
\*Two Children’s Hospitals

## Perinatal Hospitals

1. Atlanta Medical Center
2. Cartersville Medical Center
3. Cherokee Hospital-Northside
4. Chestatee Regional Hospital
5. Children’s Healthcare of Atlanta (CHOA) @ Egleston \*
6. Children’s Healthcare of Atlanta (CHOA) @ Scottish Rite \*
7. DeKalb Medical Center@ North Decatur
8. Emory Eastside Medical Center
9. Emory Johns Creek Hospital
10. Emory University Hospital Midtown
11. Fannin Regional Hospital
12. Floyd Medical Center
13. Gordon Hospital
14. Grady Memorial Hospital
15. Gwinnett Medical Center
16. Habersham County Medical Center
17. Hamilton Medical Center
18. Henry Medical Center
19. Hutcheson Medical Center
20. Newton Medical Center
21. North Fulton Regional Hospital
22. Northeast Georgia Medical Center
23. Northside Hospital
24. Northside Hospital- Cherokee
25. Northside Hospital - Forsyth
26. Piedmont Fayette Hospital
27. Piedmont Hospital
28. Piedmont Mountainside Medical Center
29. Rockdale Medical Center
30. South Fulton Medical Center
31. Southern Regional Medical Center
32. Stephens County Hospital
33. Ty Cobb Memorial Hospital
34. Union General Hospital
35. Wellstar Cobb Hospital
36. Wellstar Douglas Hospital
37. Wellstar Kennestone Hospital

## **Albany Region**

Regional Perinatal Center:	Phoebe Putney Memorial Hospital
Regional Directors:	Neonatal: Richard Heath, MD Maternal: Michael Edwards, MD
Regional Educators:	Neonatal: Melinda (Mindy) Spencer, RNC Maternal: Kathy Brinson
Regional Hospitals:	9 Perinatal Hospitals

### **Perinatal Hospitals**

1. Colquitt Regional Medical Center
2. Cook Medical Center
3. Donalsonville Hospital
4. Grady General Hospital
5. John D. Archbold Memorial Hospital
6. Memorial Hospital and Manor of Bainbridge
7. Phoebe Putney Memorial Hospital
8. Smith Northview Hospital
9. South Georgia Medical Center

## **Augusta Region**

Regional Perinatal Center:	Medical College of Georgia Health
Regional Directors:	Neonatal: Jatinder Bhatia, MD Maternal: Paul Browne, MD
Regional Educators:	Neonatal: Johnny Wilson, RN, BSN Maternal: Vacant
Regional Hospitals:	11 Perinatal Hospitals

### **Perinatal Hospitals**

1. Athens Regional Medical Center
2. Barrow Community Hospital
3. Burke Medical Center
4. Doctors Hospital
5. Emanuel Medical Center
6. Georgia Regents University
7. Saint Mary's Hospital of Athens
8. Trinity Hospital
9. University Hospital
10. Walton Regional Medical Center
11. Washington County Regional Medical Center

# Columbus Region

Regional Perinatal Center:	The Medical Center, Inc.
Regional Directors:	Neonatal: David H. Levine, MD Maternal: Demetrice Hill, MD
Regional Educators:	Neonatal: Karen Wald, RN Maternal: Tonia Russell, RN
Regional Hospitals:	10 Perinatal Hospitals

## Perinatal Hospitals

1. Doctor's Hospital
2. Martin Army Community Hospital
3. Piedmont Newnan Hospital
4. Spalding Regional Hospital
5. Sumter Regional Hospital
6. Tanner Medical Center – Carrollton
7. Tanner Medical Center – Villa Rica
8. The Medical Center
9. Upson Regional Medical Center
10. West Georgia Medical Center

## **Macon Region**

Regional Perinatal Center:	The Medical Center of Central Georgia
Regional Directors:	Neonatal: Mitch Rodriquez, MD Maternal: Padmashree “Champa” Woodham, MD
Regional Educators:	Neonatal: Carla Morton, MSN, APRN, CNS, NP-C, Maternal: Beth Lambertz-Guimarães, MSN, RNC-OB
Regional Hospitals:	11 Perinatal Hospitals

### **Perinatal Hospitals**

1. Coliseum Medical Center
2. Crisp Regional Hospital
3. Dodge County Hospital
4. Dorminy Medical Center
5. Fairview Park Hospital
6. Houston Medical Center
7. Irwin County Hospital
8. Oconee Regional Medical Center
9. Taylor Regional Hospital
10. The Medical Center of Central Georgia
11. Tift Regional Medical Center

# Savannah Region

Regional Perinatal Center:	Memorial Health University Medical Center
Regional Directors:	Neonatal: Linda M. Sacks, MD Maternal: Anthony Royek, MD
Regional Educators:	Neonatal: Diane Youmans, RN, MSN, C-NIC, C-NPT Maternal: Judy Layden, BSN
Regional Hospitals:	13 Perinatal Hospitals 1 Birthing Center

## Perinatal Hospitals

1. Appling Healthcare System
2. Bacon County Hospital
3. Coffee Regional Medical Center
4. East Georgia Regional Medical Center
5. Liberty Regional Medical Center
6. Mayo Clinic Health System
7. Meadows Regional Medical Center
8. Memorial Health University Medical Center
9. Southeast Georgia Healthcare System: Brunswick Campus
10. Southeast Georgia Healthcare System: Camden Campus
11. St. Joseph's/Candler Health System
12. Wayne Memorial Hospital
13. Winn Army Community Hospital

## Birthing Center

1. The Midwife Group and Birth Center of Coastal Georgia  
(**licensed birthing center**)

## **Section III: Regional Leadership**

A coordinated cooperative system of perinatal health with mutual agreements between hospitals, perinatal care providers and Public Health is essential to a functioning, effective system of care. Regional Perinatal Center Directors must play a coordinating role with other key perinatal care providers, public health district health directors, and community leaders.

Each RPC must designate a Maternal Regional Director and a Neonatal Regional Director to work together in the development and implementation of a Regional Perinatal Plan. The following responsibilities must be addressed:

1. Role in regional leadership
2. Ambulatory prenatal care for high risk mothers
3. Social services
4. Regional data
5. Neuro-developmental follow-up
6. Maternal care
7. Neonatal care
8. Outreach education
9. Maternal transport coordination
10. Neonatal transport services

### **Maternal Regional Director**

The designated Maternal Regional Director must be a board certified maternal-fetal medicine specialist. The Maternal Regional Director's responsibilities include:

1. Maintenance of guidelines for comprehensive health care services for all patients admitted to the inpatient and outpatient obstetrical service.
2. Coordination of a multidisciplinary team to serve the women admitted to the service.
3. Participation in the development of the RPC budget.
4. Participation in the evaluation and purchase of equipment.
5. Participation in planning and development of the RPC outreach education programs.
6. Supervision of maternal consults and transports in collaboration with the neonatal program.
7. Communication with regional hospitals and physicians in matters related to patient care.
8. Collaboration with public health district health directors to develop and implement a regional plan to evaluate and improve maternal care in the region.
9. Participation in DPH defined planning processes and perinatal activities.

10. Responsibility for documenting adherence to policy on Consultation and Transport Guidelines.
11. Leadership of all maternal care activities in the regional perinatal program for defined region.
12. Collaboration with neonatal services to ensure a coordinated, cooperative initiative.
13. Ensuring provision of perinatal (NPIC) data to the Georgia Department of Public Health (DPH).

## **Neonatal Regional Director**

The designated Neonatal Regional Director must be a board certified neonatologist. The Neonatal Regional Director's responsibilities include:

1. Maintenance of guidelines for comprehensive health care services for all patients admitted to the neonatal service. Planning shall include provision of care for infants born to mothers with no prenatal care.
2. Coordination of the multidisciplinary team to serve the neonates admitted to the service.
3. Participation in the development of the RPC budget.
4. Participation in the evaluation and purchase of equipment.
5. Participation in planning and development of the RPC outreach education programs.
6. Supervision of neonatal consults and transports in collaboration with the neonatal program.
7. Communication with regional hospitals and physicians in matters related to patient care.
8. Collaboration with public health district health directors to develop and implement a regional plan to evaluate and improve neonatal care in the region.
9. Participation in DPH defined planning processes and perinatal activities.
10. Responsibility for documenting adherence to policy on Consultation and Transport Guidelines
11. Leadership of all neonatal care activities in regional perinatal program for defined region.
12. Collaboration with maternal services to ensure a coordinated, cooperative initiative
13. Ensuring provision of neonatal (NPIC) data to the Georgia Department of Public Health (DPH).
14. Coordination of neonatal multidisciplinary regional activities including developmental follow-up.



## **Section IV: Prenatal Services**

### **Ambulatory Prenatal Care**

Each designated RPC will provide high risk prenatal care through consultation for high-risk conditions regardless of the woman's ability to pay. Accessibility for all patients must be addressed. Care must be overseen by a maternal-fetal medicine specialist. Because of the complexity of many cases referred to the RPC, a coordinated multidisciplinary approach is essential.

Intervention and healthcare (including diagnosis, treatment, consultation, referral and follow-up where necessary) for high-risk pregnant women will be provided.

An easily accessible 24-hour telephone consultation service staffed by qualified personnel regarding antepartum problems must be available. A process and policy for timely physician referral feedback must be in place with appropriate documentation. This process may be a consultation, co-management, or transfer of entire care based on provider capabilities and patient needs.

#### **The following must be provided or appropriate referral identified:**

- A. Prenatal care (health care visits and ancillaries)
- B. Genetic counseling and genetic laboratory services
- C. A clinical geneticist with experience and training must be available for consultation
- D. Ongoing patient health education to include but not limited to:
  - 1. Nutrition
  - 2. Breastfeeding
  - 3. Parenting
  - 4. Childbirth preparation
  - 5. Signs and symptoms of preterm labor
  - 6. Healthy life behaviors
  - 7. Safety and injury prevention during the infant's first year of life

- E. Social Services assessment and evaluation includes but is not limited to:
  - 1. Behavioral/social risk assessment
  - 2. Mental health screening and referral
  - 3. Substance abuse screening and referral (alcohol, tobacco & other drugs)
  - 4. Case management coordination and discharge planning
  
- F. Referral to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and nutritional services. Nutritionist with sufficient knowledge of prenatal dietary management should be available.
  
- G. Diagnostic laboratory with access to prompt processing and reporting to assess fetal and maternal well-being. Such services include but are not limited to:
  - 1. Prenatal laboratory services as recommended in the current edition of the **Guidelines for Perinatal Care**
  - 2. Analytic techniques for amniotic fluid analysis to include fetal lung maturity testing as well as assessment of fetal erythroblastosis
  - 3. Maternal serum antibody identification and quantification
  - 4. Availability of, or consultative arrangements for fetal echocardiography
  
- H. Antepartum fetal assessment must be available at RPC on a **24-hour** basis to include, but not limited to:
  - 1. Fetal diagnostic testing
    - a. Biophysical profile testing
    - b. Nonstress and contraction stress testing
    - c. Ultrasound testing
    - d. Amniocentesis
  
  - 2. Case management coordination, and discharge planning

## Section V: Intrapartum and Postpartum Care

The RPC must have the facilities and staff for management of pregnancies at all gestational ages. While the service and facilities provided by the hospital must meet Level III (Subspecialty Care) requirements, the most important component of care of the RPCs will be the competence, knowledge and experience of staff and the organization of the RPC. An organized system of perinatal health care to include:

### A. Medical Staff Personnel

An experienced obstetrician, preferably a maternal-fetal medicine specialist, shall be available **24-hours** a day for on-site supervision and case management for maternal patients admitted to the RPC. A maternal-fetal medicine specialist shall be available for consultation and supervision of care for patients transferred from another facility.

Specialized care for specific medical, surgical or psychiatric conditions shall be documented in the referral form. Such collaborations should be established prior to the need for it. Competent staff and appropriate equipment for maternal and fetal surveillance, diagnostic evaluation and care shall be available on a **24-hour** basis.

### B. Physical facilities must meet the current edition of the **Guidelines for Perinatal Care** Requirements and Office of Regulatory Service (ORS).

### C. Nursing Service for the Perinatal Care Area

1. A director/supervisor of OB Nursing Services should be an RN possessing a baccalaureate degree with clinical competencies in high-risk obstetric nursing care and specialty certification. Equivalent education/experience would be a graduate of an accredited RN program and with experience in obstetric nursing. Specialty certification in a related field is desirable. This person shall be responsible for the supervision of maternal-fetal nursing development and implementation of nursing policies in labor, delivery and postpartum areas, involvement in quality assurance, perinatal review and ongoing staff education.

2. Staffing ratios for care-provided

Delivery of safe and effective perinatal nursing care requires appropriately qualified registered nurses in adequate numbers to meet the needs of each patient. The number of staff and level of skill required are influenced by the scope of nursing practice and the degree of nursing responsibilities within an institution. Close evaluation of all factors involved in a specific case is essential for establishing an acceptable nurse-patient ratio. Variables, such as birth weight, gestational age, and diagnosis of patients; patient turnover; acuity of patients' conditions; patient or family educational needs; bereavement care; mixture of skills of the staff; environment; types of delivery; and use of anesthesia must be taken into account in determining appropriate nurse-patient ratios.

3. Educational services of nursing staff shall include:

- Orientation and continuing education
- Regularly scheduled multidisciplinary sessions regarding maternal and infant care

D. Additional Personnel: The inpatient care for high-risk perinatal patients requires an organized multidisciplinary approach. Care must include the following, as well as health education and translation and other services as necessary.

1. Designee whose responsibilities include the planning, development and operation of all non-medical development and operation of all non-medical aspects of the facility and its programs and services with direction from the Medical Director. These activities include the management of data and funded programs.
2. A full time licensed social worker to provide services to the families of maternal patients (See Perinatal Social Services). A registered dietitian/nutritionist who has special training in perinatal nutrition.
3. An IBCLC to direct lactation support.
4. Qualified personnel for support services such as laboratory studies, radiologic studies, ultrasound examinations, blood banking technician and infection control.
5. A maternal outreach education coordinator (See Regional Education).
6. Data Manager: A designated person will be responsible for the collection of data and entering of data into a computer system. This person should be responsible for any statistical reporting submitted to the state or National Perinatal Information Center (NPIC). This must be done in coordination with the Regional Director.
7. A maternal transport coordinator with appropriate qualifications. (See Maternal and Neonatal Transport)

E. Services for the management of unexpected complications

1. Capability to perform a cesarean delivery within a 30-minute period within the Labor and Delivery Suite.

2. Defined guidelines for the provision of obstetric anesthesia Twenty-four hour anesthesia on site supervised by board certified/board eligible anesthesiologist with skills in obstetric anesthesia.
3. Contraction Stress Test/CST (Oxytocin Challenge Test/OCT) and Non-Stress Test/NST to evaluate uteroplacental sufficiency should be available.
4. Routine laboratory services must be available **24-hours** a day within 30 minutes including rapid HIV testing.
5. Emergency clinical laboratory service in-house on a **24-hour** basis to include blood banking and transfusion services. Written policy requiring at least two units of Type O Rh negative blood be available **24-hours** a day.
6. Diagnostic ultrasound services, including portable ultrasound in the Labor and Delivery Suite for use by obstetric personnel on a **24-hour** basis.
7. Results of lung maturity studies available in **24-hours**.
8. Designated areas for intensive intrapartum and postpartum care.
9. Recovery Room / Post Anesthesia Recovery Unit (PACU) services, equipment and personnel available on **24-hour** basis.
10. Appropriate equipment and skills for cardiac arrest management and at least one in-house Advanced Cardiac Life Support (ACLS) certified individual on a **24-hour** basis.
11. Facilities, services and personnel for resuscitation, stabilization and care of the premature and/or all neonates with **24-hour** availability of neonatal services.
12. Genetic services available for evaluation of the maternal or neonatal patient.
13. Guidelines for surveillance and care of patients and medications will be used.
14. Postpartum care services including health education services for the maternal patient.
15. Risk assessment based on the perinatal and delivery course as well as psychological and socioeconomic factors should be done before the mother leaves the facility. Appropriate referrals should be made for the mother and infant.

F. Postpartum

1. Postpartum care should be provided according to established protocols which include patient preparation to care for themselves and their infants after delivery, during the hospital stay and during the newborn and infancy period.
2. The woman's physiological functioning should be accurately observed, her dependency needs met and anticipatory guidance and health education offered. A protocol for clinical observations is required.

3. Discharge planning to address coordination of appropriate referrals.
4. Specific personnel should be assigned responsibility for fully discussing with parents the complications of current pregnancy and their implications for future pregnancies.
5. A formal grief counseling program for intrapartum and immediate post-partum loss.

## **Regional Perinatal Center (RPC)**

- A. Consultation: An easily accessible **24-hour** telephone consultation service provided by qualified physician and nursing personnel regarding maternal problems. The response time after receiving an initial request for an emergency consultation should not be greater than one hour and optimally shall occur within 30 minutes. The Maternal-Fetal Medicine specialist shall be familiar with the capabilities of personnel and facilities at other RPCs in the state providing unique services in perinatal health. The RPC shall assume responsibility for locating an accessible bed appropriate to the patient's need and suggesting appropriate transportation.
- B. A system of compilation, analysis and evaluation of perinatal data in a quality assurance program to measure success in providing affordable, available and appropriate care for patients served should be in place. The components of this system include:
  1. Concurrent and retrospective monitoring of trends and problem areas. Appropriate data to be collected will include specific case outcomes, mortality data, morbidity data and rates of occurrence of specific procedures with a mechanism for comparison with accepted standards and norms for similar regions or institutions.
  2. Regularly scheduled review of perinatal outcomes and implementation of strategies to improve perinatal outcomes.
  3. Utilization review to evaluate the appropriate use of personnel, finances, equipment, facilities and length of stay.

## Section VI. Neonatal Care

The RPC must have the facilities and staff for management of newborns at all gestational ages. While the service and facilities provided by the hospital must meet Level III (Subspecialty Care) requirements, the most important component of care of the RPCs will be the competence, knowledge and experience of staff and the organization of the RPC. The RPC shall provide an organized system of neonatal health care to include:

- A. Comprehensive health care services for sick neonates provided by board certified/eligible neonatologists. Neonatologists should be available 24-hours a day, seven days a week.
- B. Consultation provided by a board certified/eligible neonatologist should be available 24-hours a day, seven days a week. The Director of Nursery Services shall assure the continuity of patient care and consultation by a qualified physician when s/he is unavailable.
- C. Subspecialty consultation appropriate to needs of the patients.
- D. Consultation and transport services on a 24-hour basis to institutions within the defined region. The RPC shall maintain an easily assessable 24-hour telephone consultation service provided by qualified physician and nursing personnel regarding neonatal problems. (See VII for Neonatal Transport Guidelines)
- E. Physical facilities must meet the requirements as stated in the current edition of the **Guidelines for Perinatal Care** and Office of Regulatory Service to include technology appropriate to the needs of intensively ill, moderately ill, and convalescing infants.
- F. A neonatal resuscitation team consisting of a least two members capable of providing a full resuscitation according to the Neonatal Resuscitation Program (NRP) shall be available at all times. Members may include physicians, nurses or respiratory therapists who are appropriately credentialed by the institution and are responsible to the attending neonatologist.
- G. A discharge planning process to coordinate home medical care, follow-up medical care of the medically fragile neonatal patient, neurodevelopment assessment of patient at risk for handicaps and referral to appropriate public health programs. The coordination of follow-up medical care and neurodevelopment assessments is to be done at the RPC or referred to the appropriate services. Follow-up coordination also involves the provision of linkages with the local boards of health using Children 1st, Health Check, WIC, Early Intervention and other community, state, and federal health programs providing services appropriate to the needs of infants.
- H. Nursing Service for the Neonatal Intensive Care
  1. A director/supervisor of Neonatal Nursing Services should be an RN possessing a baccalaureate degree with clinical competencies in high-risk neonatal nursing and specialty certification. Equivalent education/experience would be a graduate of an

accredited RN program with experience in neonatal nursing. Specialty certification in a related field is desirable. This person shall be responsible for the supervision of neonatal nursing development and implementation of nursing policies in the Level III NICU, involvement in quality assurance, involvement in perinatal review, and ongoing staff education.

2. The nursing staff should have specialty certification or advanced training and experience in the nursing management of high-risk neonates and their families. All nurses should maintain licensure as a Registered Professional Nurse (RN) in the state of Georgia. A patient care technician may be paired with an RN in the patient care areas for convalescent and/or intermediate care patients. An RN should be available on each shift for every defined patient care area (room, pod or similar unit).
3. The recommended nurse: patient ratios for neonatal care services are listed below. Additional personnel are often needed for indirect patient care activities. Individual case assessment of all factors shall be used to determine specific staffing ratios. Patient condition, educational needs of family, bereavement care, available mix of staff skills and the facility are used in setting staff ratios.

#### **NEWBORNS**

- 1:6-8 Newborns requiring only routine care
- 1:3-4 Normal mother-newborn couplet care
- 1:3-4 Newborns requiring intermediate care
- 1:1-2 Newborns requiring intensive care (depending on acuity)
- 1:1 or greater for unstable newborns requiring complex critical care

4. Staffing requirements may be increased if patients are in individual rooms. The number of staff and level of skill required are influenced by the scope of nursing practice and the degree of nursing responsibilities within an institution. Variables such as birth weight, gestational age, and diagnosis of patients; patient turnover; acuity of patients' conditions; family education needs; bereavement care; mixture of skills of the staff; and the environment must be taken into account in determining appropriate nurse-patient ratios.
5. Educational services of nursing staff shall include:
  - Orientation and continuing education
  - Regularly scheduled multidisciplinary sessions regarding the complex needs of the infant

#### **I. Personnel**

##### **Medical Staff Personnel**

1. Sufficient board certified/board eligible neonatologists shall be available to provide the services specified for RPCs. Pediatricians, neonatal nurse practitioners, residents, fellows and other medical providers may function under the direction of the neonatologist.



2. Radiologist with pediatric expertise.
3. Pathologist with competence in placental, fetal and neonatal disease must be available for consultation.
4. Anesthesiologist with pediatric expertise.
5. Surgeon with pediatric experience onsite or available for consult/transfer.
6. Pediatric subspecialty consultants or subspecialty consultants credentialed by the hospital to perform neonatal consultation in cardiology, neurology and other subspecialties.
7. Additional consultants should be available in nephrology, metabolism, endocrinology, gastroenterology-nutrition, infectious disease, pulmonology, neurology, hematology, immunology and pharmacology.
8. Subspecialty surgical consultants shall be available in cardiovascular surgery, neurosurgery, orthopedics, ophthalmology (with competence in the diagnosis of retinopathy of prematurity (ROP)) and urology. Physicians providing these services shall possess hospital credentials to provide services to neonates. It is preferable that physicians providing these services shall possess pediatric training in their subspecialty area.

#### Additional Personnel

1. Full time director/supervisor of Pediatric Respiratory Therapy shall be a registered respiratory therapist with special training and interest in neonatal care. The responsibilities include:
  - Supervision of neonatal respiratory care.
  - Assuring the clinical proficiency of the respiratory therapists providing neonatal services including in-service education.
  - Scheduling sufficient respiratory therapists to meet the needs of the neonatal patient. A minimum of two respiratory therapists for every four to eight patients on respiratory support should be in the nursery at all times with additional staff available depending on acuity needs.
2. Designee whose responsibilities include the planning, development and operations of all non-medical aspects of the facility and its program and services with direction from the Medical Director. These activities include the management of data and funding programs.
3. A full time licensed medical social worker for every 30 beds to provide services to the families of neonatal patients.
4. Pharmacy personnel with pediatric experience.

5. Occupational and/or Physical Therapists with special training and interest in neonatal medicine to include evaluation and management of neonatal feeding and swallowing disorders.
6. A registered dietitian with experience in neonatal nutrition.
7. An IBCLC dedicated to the Intensive Care Nursery.
8. A neonatal outreach education coordinator. (See Outreach Education).
9. Transport Director/Supervisor/Coordinator with appropriate qualifications shall be responsible for training, staffing and scheduling neonatal transport personnel, recommending equipment purchases for transport, and for communication of problems experienced on transport to Regional Director or Medical Director of Transport team.
10. Discharge Planning/Case Management: Shall be responsible for coordination of post-discharge medical care, screening evaluation for neuro-developmental assessments for patients at risk for handicaps and linkages with local health department and other community, state or federal health programs (public or private) providing services appropriate to the needs of infants.
11. Biomedical Engineer: Shall be responsible for medical imaging engineering that improves the ability of the medical field to research and investigate problems through various devices geared to analyze a patient. This can include X-rays, CT and MRI scans, ultrasound equipment, or electron microscopy.
12. Director/Coordinator of follow-up developmental clinic: Physician Director and Nurse Coordinator. Other responsibilities may be applicable.
13. Data Manager: A designated person will be responsible for the collection of data and entering data into a computer system. This person should be responsible for any statistical reporting submitted to the state or National Perinatal Information Center (NPIC). This must be done in coordination with the Regional Director.

## Physical Facility

The Neonatal Intensive Care Unit shall provide sufficient space and technical equipment to manage critically ill, moderately ill and convalescing patients. Refer to: “**Inpatient Perinatal Care Services**: Current edition of the **Guidelines for Perinatal Care**.”

## Laboratory and Diagnostic Services

- A. Laboratory: Clinical laboratory services shall be available in-house on a 24-hour basis. Phlebotomy technicians and/or nurses with special training in neonatal blood collection shall be available on a 24-hour basis. All chemical determinations must be done on micro volumes of blood: the remaining studies will be done on the smallest possible sample and micro techniques employed if such have been developed for a given test. The test or procedure must be the same at all times of the day. Point of care services should be encouraged.

Lab: Micro Technique for Neonates

\*Within 15 minutes.

Within 1 hour:

\*Glucose, BUN, creatinine, urinalysis, electrolytes, coagulation studies, and availability  
for type and screen program.

Within 1-6 hours:

\*CBC, platelets, other blood chemistries, blood typed and cross matched Coombs test, gram stain, magnesium, urine electrolytes and chemistries, liver functions tests.

Within 6-12 hours:

\*Hepatitis B surface antigen

Within 24-48 hours:

\* Bacterial cultures and antibiotic sensitivities, metabolic screening  
Within the hospital or facilities available

\*Viral cultures

Rapid HIV testing of the neonate

- B. Blood Bank: Experienced technicians immediately available in hospital for blood banking procedures and identification of irregular antibodies. Blood component therapy readily available
- C. Radiography/Ultrasound: Experienced radiology technicians immediately available in hospital, ultrasound on call, computerized tomography, MRI, portable x-ray equipment for emergency GI, GU or CNS studies available on a **24-hour basis**. Professional interpretation immediately available

## Section VII: Maternal and Neonatal Transport

The primary goal of regionalized perinatal care is for women and neonates at high risk to receive care in facilities that provide the required level of specialized care. Neonates born to women transported during the antepartum period have better survival rates and decreased risks of long-term sequellae than those transferred after birth. Antepartum transport avoids separation of mother and infant in the immediate postpartum period, allows mothers to communicate directly with neonatal healthcare providers and supports the goal of family-centered health care. Because all hospitals cannot provide all levels of perinatal and neonatal care, interhospital transport of pregnant women and neonates is an essential component of a regionalized perinatal system.

### Maternal Transport Guidelines

Appropriate communication will be provided to the referring physician in a manner to be designated in the RPC plan. All maternal transports should be evaluated by the RPC staff for appropriateness of transfer, quality assessment, improvement factors, and need for provider continuing education.

Maternal transport that would benefit the fetus but could seriously jeopardize the mother's well-being should be avoided. The decision to transfer a perinatal patient should be made jointly by the primary physician in conjunction with a consultant from the RPC.

Maternal transports for neonatal problems should not be accepted at the RPC if neonatal bed space is not available and will result in immediate neonatal transport. RPC, through the Maternal Regional Director, is responsible for identifying an appropriate facility.

Risk identification is critical and should be followed by development of a plan of care that specifically describes medical and psychosocial risks, as well as arrangements for referral and consultation. Risk assessment should be integrated into the educational process of all perinatal providers.

A maternal transport system depends equally on:

1. The ability of the referring hospital physician to make an accurate, timely evaluation of the degree of risk to the mother/fetus and his/her willingness to act on that assessment.
2. The availability of timely feedback on bed availability, appropriateness of transport and any stabilization recommendations by the RPC consultant.

Consultation must be available on a **24-hour** basis to institutions within the defined region. RPC's shall maintain easily accessible 24-hour telephone consultative services provided by qualified physician and nursing personnel regarding antepartum, intrapartum and postpartum problems. The call for referral may result in a telephone consultation without transfer, an outpatient referral or an inter-hospital transfer. When a transfer is indicated, the RPC consultant should expedite the process of securing a maternal/NICU bed, with notification to the referring physician and/or facility within 30 minutes of the initial call. In all cases, the following information must be documented for maternal calls:

Current gestational age and method of determination:

1. Risk of delivery/labor status.
2. Assessment of fetal well-being (Fetal Heart Rate status).
3. Status of membranes.
4. Cervical status via vaginal exam or sterile speculum exam.
5. Fetal position.
6. Maternal stability.

The decisions on mode of transportation and need for accompanying personnel must be made by a physician based on the availability of resources, patient condition and length of anticipated transport. Formal Perinatal Consultation and Transport Agreements should be in place to clearly outline the responsibilities of each facility.

Documentation should include time of all calls placed and received, as well as the name of person accepting transports. Informed consent for transfer, COBRA (Consolidated Omnibus Budget Reconciliation Act), for admission to the receiving hospital and for care should be obtained by the referring center.

The following information should accompany all maternal transports:

1. Prenatal record.
2. Inpatient record (to include):
  - Initial evaluation and flow sheet
  - Ultrasound reports
  - Amniotic fluid studies
  - Fetal Heart Rate status (or copy of FHR tracing)
  - Medication administration records
  - Laboratory reports
  - Physicians orders

## **Neonatal Transport Guidelines**

- A. The RPC assumes the responsibility of providing neonatal transport to include transport personnel, equipment and vehicles appropriate to the neonate's need.
- B. The RPC should be familiar with capabilities of personnel and facilities of the various institutions in that region and technical expertise and capabilities at other RPC's in the state providing unique services.
- C. Each RPC will have a designated neonatologist as Medical Director for transports that will be responsible for supervising and evaluating the quality of medical care provided by the transport service. In addition, reviews of all transports, continuous quality improvement (CQI) and program statistics, recertification of skills competency and reviews of patient care protocols will be the responsibility of the Regional Director or designee.

- D. Each RPC will have a Neonatal Transport Team available on a 24-hour basis either in-house or on call. The goal should be to depart within thirty minutes of request for transport if team is not on a primary run. Neonatal transport teams will use ground or air transport as appropriate related to medical determination, patient acuity, distance and vehicle availability.
- E. When there is inadequate bed space or resources for potential transport the RPC shall assume responsibility for locating an accessible bed appropriate to the patient's need and providing transport of the neonate to the appropriate level of care.
- F. The region of birth is responsible for transports out of any hospital in the region for a service not available in the region.  
**Example:** Valdosta to Augusta for heart surgery, Albany transports and back transports.

At the RPC director's discretion, a back transport may be done by the receiving Level II facility. However, a back transport across regional lines should be done only by the appropriate RPC.

- G. If transport confusion or further concerns arise; questions should be forwarded to the Perinatal Program Manager.
- H. For back transport of a baby born to a maternal transport:
1. If the maternal transport is out of region because no beds are within region, sending region back transports baby.  
**Example:** Maternal transport from Columbus to Atlanta because no neonatal beds in Columbus, Columbus does back transport.
  2. If the maternal transport occurs out of region due to mother's preference, RPC of birth does back transport.  
**Example:** Mother from Carrollton wants to be brought to Atlanta for her high-risk delivery, therefore baby back transported to Carrollton by Atlanta.
  3. Mother referred to a private hospital out of region, bypassing the RPC. Baby back transported by RPC of birth.  
**Example:** Mother referred from Carrollton to Northside in Atlanta. Atlanta does baby back transport.
  4. Mother on vacation has emergency delivery out of region. Region of residence does back transport.  
**Example:** Mother from Augusta delivers in Savannah while on vacation. Augusta transports baby back to Augusta.

### Neonatal Team Composition:

1. Each RPC will have a designated Transport Coordinator who is a registered nurse with a minimum of two years experience in neonatal nursing and in the transport of high-risk neonatal patients. The coordinator will supervise the training, staffing and scheduling, education and clinical performance of the specialty transport team. Additional responsibilities include data collection related to transports, recommending equipment purchases for transport and communicating problems experienced on transport to the RPC Medical Director or Medical Director of the transport team.
2. The team will meet the guidelines for neonatal critical care transports.
3. The neonatal transport RN will serve as team leader for all neonatal transports.
4. Additional team member(s) shall include a respiratory therapist trained in airway management of the neonate.
5. The number of team members will be approved by the pilot in case of air transports.
6. The neonatologist will be available for consultation throughout the transport process.

### Entry Qualifications and Performance Levels:

1. The neonatal transport team nurses will hold an RN degree or equivalent, be licensed in the State of Georgia and have a minimum of 18 months of experience (preferably 24 months) in their specialty area.
2. Registered respiratory therapists will be licensed by the State of Georgia and have appropriate clinical and theoretical knowledge of mechanical ventilation as applied to neonates with a minimum of 18 months (preferably 24 months) of neonatal experience.
3. The transport team members must be proficient in the following minimum skills as they relate to the care of high-risk infants:
  - Physical assessment of the newborn
  - Basic x-ray interpretation
  - Airway management including endotracheal intubation, bag and mask ventilation and assisted ventilation (either RN or RT)
  - Needle thoracentesis (either RN or RT)
  - Peripheral intravenous access and therapy (RN)
  - Radial or other peripheral arterial puncture (either RN or RT)
  - Good interpersonal communication skills
  - Critical thinking skills
  - Leadership skills
  - Maintain Neonatal Resuscitation Program (NRP) provider status
  - Compliance with and knowledge of transport policies and protocols

## Equipment and Supplies

The goal is to standardize equipment used. Transport units providing moderate or high-risk ground or air neonatal services will provide ALS care and have available ALS equipment and supplies.

Each RPC must be licensed as a Neonatal Transport Service by the State of Georgia according to the Rules and Regulations of the Department of Public Health Chapter 290-5-30-08 “**Licensure of Neonatal Transport Services.**”

## Policies and Procedures

To ensure optimal care of patients at high risk, the following components should be part of the regional referral transport program:

- Formal transport plans for mothers and infants with receiving hospitals that are established by facilities that provide lower levels of care
- A method of risk identification and assessment of problems that are expected to benefit from consultation and transport
- Assessment of the perinatal capabilities and determination of conditions necessitating consultation, referral, transfer, and return transfer of each participating hospital
- Resource management to maximize efficiency, effectiveness, and safety
- Adequate financial and personnel support
- A reliable, accurate, and comprehensive communication system between participating hospitals and transport teams
- Determination of responsibility for each of these functions



## **Section VIII: Regional Education**

### **Philosophy Statement**

#### **Outreach Education in Georgia**

Outreach education is designed for the healthcare personnel providing care to mothers and infants in each region. RPCs will provide an annual training plan to DPH that will ensure appropriate training throughout the region to maintain proficiency in each area of expertise. The training plan will be developed based on a standardized need assessment process developed with DPH.

The training plan will establish the foundation for continuing education coordinated or provided by designated outreach educators. Planned learning experiences designed to sustain and expand the knowledge, skills and aptitudes of perinatal health care providers specific to their field of interest or expertise will be offered at a variety of sites to best meet the needs of the learners. Such education will be based on medical and nursing concepts, principles, practice theories and/or research. Knowledge and skills obtained may be applied either immediately or in future practice.

Neonatal and maternal-fetal physician/nurse teams are essential members of the perinatal outreach education program. Other professionals (i.e. social worker, respiratory therapist or nutritionist) may also be included on the team. Each member of the team has responsibility to teach, consult and support the function of the community professional as needed.

In addition to assessment of learning needs, planning, implementing and evaluating educational opportunities, the responsibilities of each outreach educator include data collection and utilization of data collected to enhance education; identification of additional learning needs; prepare and provide reports requested by DPH; and serve as a liaison between DPH, RPC administrative leadership, community hospitals, local boards of health and professional healthcare providers.

In addition, the Regional Perinatal Education Coordinators from the RPCs should meet with DPH staff on a regular basis (at least twice per year) to provide adequate opportunities for communication between the RPC's and DPH. This should assist them in maintaining standards and continuity of communication with the community professionals throughout the state.

# Guidelines for Outreach Education in Georgia

Each RPC will have a minimum of one Obstetrical Outreach Education Coordinator and one Neonatal Outreach Education Coordinator. Their qualifications should include demonstrated competence in teaching and training. They must be nurses with Level III (subspecialty) clinical skills in their area of expertise and preferably with specialty certification. The educators knowledge base and educational skills should be continuously updated with current changes in perinatal health. Regional responsibilities will be the focus of the job responsibility. Time commitment to in-house responsibilities will not exceed ten percent of their time.

- A. Annual Educational Needs Assessment: Assessment of needs to be accomplished through collecting data from institutional surveys (phone, mail, electronic correspondence and/or chart audit), on site facility assessments and review of transport or other outcome data.
  - 1. Regional Perinatal Education Coordinators will be responsible for performing the Annual Educational Needs Assessments.
  - 2. Hospitals with delivery services and birthing centers in the region including the RPC, will participate in such annual educational needs assessment, and will receive a report of findings.
  - 3. An educational needs assessment may be performed for other perinatal care providers as requested or as indicated by data collection.
  
- B. Planning and implementation will involve establishment of annual goals and objectives.
  - 1. Each RPC shall develop general goals and objectives for their program for the year.
  - 2. Each RPC shall develop specific goals for each hospital based on that hospital's educational needs assessment.
  - 3. Each RPC shall plan other continuing educational programs consistent with their general goals and objectives for the year.
  - 4. Goals and objectives shall be submitted to the Georgia Department of Public Health (DPH) **by September 5th of each year.**

### C. Education

1. Offer educational opportunities to each hospital per year. Education should be specific for the level of care of the recipients. Examples of educational opportunities include NRP, electronic fetal monitoring, and newborn stabilization.
2. Offer continuing outreach education courses at the RPC, which provide the opportunity for participation by personnel from referral hospitals.
3. Assist regional providers through the utilization of various media and learning tools, maintaining a lending library or assisting in the purchase of resource materials.
4. Education should be provided to hospitals within the designated region in Georgia. Educational requests from hospitals outside the region must be referred to and coordinated with the Director and Outreach Education Coordinator from the specific region.
5. Outreach Education Coordinators will work with the state and communities to improve the quality of perinatal care.

### D. Communication

1. Provide open lines of communication between the RPC and referral hospitals. This may include telephone or electronic communication, fax or written materials, facility visits and other meetings.

### E. Evaluation

1. Periodic evaluation of specific programs, i.e. Neonatal Resuscitation Program, and comparison of annual assessments, looking for trends and changes related to outreach education programs.
2. Statistical and Data Comparison:  
The statewide Perinatal Outreach Education Coordinators, in collaboration with DPH, will develop a tool, which is uniform and reflective of data statewide.

### F. Reporting

Quarterly reporting is required to DPH. This report should include the following:

1. Educational activities provided by the designated Regional Perinatal Education Coordinators.
2. Educational sessions provided by other sources coordinated by the designated Regional Perinatal Education Coordinators.
3. Other outreach activities that support providers in the designated region.

## **Section IX: Developmental Follow-Up**

### **Post Discharge Evaluation for at Risk Infants Provided by Regional Perinatal Centers**

Each Regional Perinatal Center will conduct a clinic that provides services to accomplish the mission as outlined below:

A. Mission:

1. Provide periodic neuro-developmental assessments on a timely basis.
2. Confirm the presence of a medical home.
3. Evaluate the management of conditions stemming from the perinatal period.
4. Determine support service needs and facilitate appropriate referrals (i.e. EI, CMS, GA Pines, etc.).
5. Collect uniform neuro-developmental outcome data for the identified population.

B. Criteria for attendance at clinic:

1. Infants with birth weight < 1250 grams.
2. Infants with a gestational age < 30 weeks.
3. Infant at increased risk for neurological problems (i.e. babies with hypoxic ischemic encephalopathy, severe hyperbilirubinemia, or a history of seizure activity, etc.).
4. Infants who may benefit from clinic services in the opinion of the discharging neonatologists.

C. Patients served:

1. All infants delivered at or referred to the RPC who meet the above criteria should be scheduled for a clinic visit prior to their discharge.
2. Additionally all infants who meet the above criteria born within the perinatal region of the RPC are encouraged to attend.
3. When an infant receives services in more than one RPC, the patient will be followed by the RPC Clinic selected by the family. The RPC selected is encouraged to inform other interested centers of follow up data required by their programs.

D. Personnel:

The clinic shall have a physician director whose responsibilities include the supervision of operational and medical services, the quality of services, appointments system and scheduling.

1. Personnel staffing the clinic:

- Clerical staff (may be provided by other team members)
- Physician
- Registered nurse
- Physical therapist and/or occupational therapist
- Personnel qualified to administer neuro-developmental test
- Nutritionist (for evaluation of children < two years corrected age)

2. Staff available to attend:

- Neonatal Social Worker

E. Neuro-developmental assessment

1. Corrected age 6-15 months: Bayley Scale of Infant and Toddler Development Third Edition Screening Test or “complete test”.
2. Corrected age 18-30 months: Bayley Scales of Infant and Toddler Development Third Edition (evaluation done at least 9 months after the 9-15 month evaluation).

F. Evaluation Schedule

1. Patients are enrolled by one year of age and are evaluated yearly. Patients should be followed for a minimum of two years.

G. Communication

1. Communication with primary care physician, consultants, and involved programs should be provided following every visit.
2. The clinic is encouraged to provide the parents with a written report of findings and recommendations following formal neuro-developmental testing.
3. Periodic meetings involving the clinic core team and involved programs (programs include: Babies Can't Wait Early Intervention, Children 1<sup>st</sup>, Children's Medical Services and, school based early intervention) are to be conducted as needed and at least annually.

## I. Data Collection

### 1. Purpose

- Document clinical outcomes - Benchmark with other RPCs, state and national (Appendix I and II).
- Document and track clinical process – Disease/Cohort Specific Outcomes (Appendix III).
- Document clinic interventions (Appendix IV).

### 2. Data base of necessity should be flexible and a continuous process requiring periodic review. The selection of data should be reviewed annually by the State office and RPC Directors and disseminated to the Centers in amended appendices in a timely fashion:

- Appendix I: Admission Data
- Appendix II: Clinic Follow-up Data
- Appendix III: Clinic Process Data
- Appendix IV. Clinic Intervention

## **Section X. Perinatal Social Work Services**

Perinatal social work services shall be available to all mothers and infants who meet high-risk criteria, with a minimum of assessment provided to all. Consultation shall be available on a **24-hour** basis and may be initiated by any member of the multidisciplinary team.

### **Principle/Introduction**

Every obstetric setting should have social work services as an integral part of the health care delivery system. These services must be available to the obstetric patient and her family, as part of the interdisciplinary team, which provides perinatal care at the health facility, and in the community. The services are aimed at assisting adjustment to pregnancy, maximizing the family's potential for optimal growth and development, and identifying situations which are at risk for psychological problems and complications during the perinatal period. Services should seek to alleviate the stress which accompanies high-risk pregnancy by educating families about the nature of their circumstances, assisting with the grief work following diagnosis of a compromised fetus or fetal death and establishing supporting networks in the community for on-going/follow-up services.

Every obstetric setting shall maintain a written plan for the provision of specialized social work services. The social worker to provide service shall have a master's degree in social work (MSW) from a school accredited by the Council of Social Work Education (CSWE). Services may be provided by a social worker who holds a bachelor's degree from an undergraduate school of social work accredited by the CSWE and has established a consultative and/or supervisory relationship with an MSW.

Every NICU should have social work services as an integral part of the health care delivery system. These services must be available to the infants and their families, as well as to the NICU staff and to professionals who will come into contact with the families around on-going/follow-up services. The services are aimed at alleviating the stress of hospitalization, maximizing the potential for optimal growth and development, and maintain gains made via an effective network of services.

### **Standards for Social Work Services in the Newborn Intensive Care Unit (NICU)**

Every NICU shall maintain a written plan for the provision of specialized social work services. This plan shall be developed by a qualified (MSW) social worker and it shall include clearly defined responsibilities and functions. The social worker to provide service shall have a MSW. Services may be provided by a social worker who holds a bachelor's degree from an undergraduate school of social work accredited by the Council on Social Work Education.

- Each family with an infant in the NICU shall be offered social work services, in recognition of the fact that the hospitalization/early separation creates a high-risk for child neglect/abuse, failure to thrive and other chronic problems. Preventive efforts shall include attention to the teaching of parenting skills.
- The NICU social worker shall have the responsibility, and the freedom, to find cases. Social work participation shall not be dependent upon or limited to referrals.
- The NICU social worker shall function as an integral part of the health care delivery team. Complete social work services shall include input around decision-making and policy-formulation for the NICU.
- Adequate budget allocation shall ensure a reasonable social worker/patient ratio no more than 30:1) as well as an environment conducive to therapeutic intervention; the NICU social worker must be able to provide a private place in which families can respond to their situations and express their concerns.
- The NICU social worker shall document involvement with the family in the medical record when provided. Documentation shall include the social worker's observation, assessment, and development of a care plan. Documentation shall be limited to information essential to the over-all health care plan and shall protect patient privacy.
- The plan for the provision of social work services shall contain an accountability mechanism related to clinical and administrative issues. At a minimum, it shall include procedures for evaluating job performance and program effectiveness.
- The NICU social worker shall act as the family's advocate, in procuring benefits and services which they are entitled to receive. The social worker shall take responsibility for being knowledgeable about and aligned in a working relationship with the auxiliary service providers.
- Direct services to families shall include information sharing aimed at the family's adaptation to the unique stresses of the NICU environment. The NICU social worker shall facilitate communication between families and medical staffs of the obstetrics unit/referral hospital and the NICU.



## **Core Requirements**

1. Maternal Social Worker
2. Neonatal Social Worker

Each RPC will provide Maternal and Neonatal Social Service coverage to all mothers and infants that meet high-risk criteria.

1. Each social worker will participate in the quality assurance process, such as morbidity/mortality review, education and perinatal committee.

## **Plan**

Each Regional Perinatal Center shall have a written plan for:

1. Social service consultation initiated by any member of the multidisciplinary team for any at risk patient, on a 24-hour basis.
2. The continuing education of the social worker.
3. The provision and evaluation of maternal and neonatal services.

## **Section XI. Data**

National Perinatal Information Center, Providence, RI, is the designated data collection agent for this contract period. Regional Centers are responsible for quarterly data collection as outlined in contract.

## **Section XII: Regional Perinatal Planning Process**

The Regional Perinatal Centers will work collaboratively with DPH and the local boards of health in regional perinatal planning efforts as requested. This will include but not limited to:

- A. Attendance and participation at State and local meetings as requested.
- B. Provision of subject matter expertise as needed.

Collection, analysis and dissemination of significant community trends/issues derived from public health data with DPH and the district health directors, clinical coordinators and epidemiologists.

- C. Based on data and review of best practices, work with DPH and the local boards of health to identify and implement potential solutions/strategies to perinatal health problem/issues.

# Appendix A

## Perinatal Consultation and Transport Guidelines

Every hospital with perinatal services shall have a written policy regarding consultation for pregnant women and neonates, and the transport of pregnant women and neonates to the appropriate level of care.

### Such policy shall provide:

- a) Medical criteria for consultation and transport.
- b) Mechanism for transport services.
- c) Identification of hospitals(s) to which consultation and transport may be made with documentation and mutual consent between the participating institutions.

Each Regional Perinatal Center shall be responsible for documenting the presence of this policy in hospitals within its region and report the presence of this documentation to the appropriate office in the Georgia Department of Public Health.

## Suggested Parameters for Implementing Guidelines for Neonatal/Maternal Transport

### **I. The appropriate medical staff of each hospital will develop medical criteria for consultation and referral of pregnant women and neonates.**

Transport should be considered when the resources immediately available to the maternal, fetal or neonatal patient are not considered to be adequate to deal with the patient's actual or anticipated condition. There should be mutual agreement between obstetric and pediatric personnel in each hospital to assure internal consistency. The level of obstetric care should not exceed the level of care for the newborn in a single institution. The criteria developed by each hospital for consult and referral should serve as a guide to support the physician's assessment in a specific case and are not intended to describe the standard of care.

Exceptions from the criteria are acceptable in those instances where qualified medical persons determine such an exception is appropriate and the basis for such determination is documented in the patient's medical record. Medical conditions of the pregnant woman, fetus and the newborn, which may indicate consultation or referral with a receiving hospital, are noted in Appendix I.

It is emphasized that the criteria for consultation and referral are based on the availability of facilities, equipment, and personnel appropriate to manage that patient at the receiving hospital. The criteria developed therefore for each perinatal hospital will be unique to that hospital. The maternal and neonatal directors of the designated Regional Perinatal Center regardless of the hospitals will make these criteria available for review and documentation involved in the referrals.

**II. Each hospital should develop an identifiable mechanism for transporting the perinatal patient.**

The transport policy should address **a)** pre-transport patient stabilization; **b)** coordination of appropriate communication between the referring and receiving physicians; **c)** identification of the appropriate transport services; and, **d)** initiation of the transport services. All policies must comply with Emergency Medical Treatment and Active Labor Act (COBRA).

**III. Each hospital should develop consultation and transport agreements.**

These agreements may be completed under a letter of mutual consent between the referring and receiving hospitals. A sample written letter of agreement is provided in Appendix II.

A referring hospital's personnel may develop transport agreements with more than one receiving hospital. The selection of the receiving hospital is at the discretion of the personnel of the referring hospital. It is suggested that the most important determinant in the selection process should be the presence of available and accessible care at the receiving hospital appropriate to the patient's need. The presence of an agreement between a referring and receiving hospital does not mandate that an individual patient of necessity be transported to that particular hospital. Each Regional Perinatal Center shall be responsible for documenting the presence of this policy in hospitals within its region and report this documentation to the appropriate office in the Georgia Department of Public Health (DPH).

**IV. These policies should be reviewed every three years or as the capabilities of the involved facilities change. These changes should be communicated to the Regional Perinatal Center (RPC).**

**V. Assistance in implementing these guidelines is available by contacting personnel at the Regional Perinatal Centers and may be found in the current edition of the Guidelines for Perinatal Care, published by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists.**

**American Academy of Pediatrics  
141 Northwest Point Boulevard  
Elk Grove Village, IL 60009-0927**

**American College of Obstetricians and Gynecologists  
409 12<sup>th</sup> Street, SW Washington, DC 20090-6920**

# Appendix B

## Suggested Medical Criteria to Consider when Determining the Need for Consultation or Transport of the Perinatal Patient

The following list of medical criteria is to be considered when determining the need for consultation or transport. It is recognized that each situation is unique and nothing can substitute for the individual physician's evaluation and judgment. These criteria are offered as a guide to support the development of consultation and transport criteria for an individual hospital.

### I. Maternal Conditions

#### A. Obstetrical Conditions

1. Premature rupture of the membranes (between 20 and 34 weeks)
2. Preterm labor (between 20 and 34 weeks)
3. Severe preeclampsia, eclampsia, or other hypertensive complications
4. Multiple gestation
5. Third trimester vaginal bleeding (20 to 34 weeks)

#### B. Medical Conditions

1. Serious infection
2. Severe cardiovascular disease including poorly controlled chronic hypertension
3. Poorly controlled diabetes mellitus
4. Endocrine disorder including hyperthyroidism
5. Renal disease with deteriorating function or increasing hypertension
6. Drug overdose or addiction
7. Acute and chronic liver disease
8. Cancer in pregnancy
9. Neurological disorder (cerebral aneurysms, hemorrhage, etc.)

10. Collagen vascular disease
11. Maternal pulmonary disease
12. Coagulopathy
13. Maternal pulmonary disease complicated by pulmonary insufficiency

**C. Surgical Complications**

1. Trauma requiring intensive care for surgical correction or requiring a procedure that may result in the onset of premature labor
2. Acute abdominal emergency

**II. Fetal Conditions**

- A. Need for antenatal fetal evaluation when there is a question about the fetal condition or welfare
- B. Congenital anomalies that may require surgery
- C. Complicated antenatal genetic problems
- D. Isoimmunization with or without hydrops
- E. Intrauterine growth restriction, severe with oligohydramnios

**III. Neonatal Conditions**

- A. Preterm infant at less than 33-34 weeks or less than 1800-2000 grams
- B. Persistent respiratory distress
- C. Respiratory failure from any cause
- D. Conditions requiring subspecialty consultations, special diagnostic procedures or surgery
- E. Cardiac disorder requiring special diagnostic procedures or surgery
- F. Suspected sepsis, meningitis or other serious neonatal infections
- G. Hypoglycemia
- H. Seizures refractory to usual treatment

- I. Persistent sequelae of hypoxemia with evidence of multisystem involvement
- J. Hemolytic disease, if exchange transfusion is required
- K. Drug withdrawal



# Appendix C: Admission Data

## 1. Track all infants enrolled:

- a. Center code
- b. Name, medical record number, date of birth
- c. Mothers name
- d. Mothers county of residence
- e. Mothers zip code
- f. Birth certificate number
- g. Estimated gestational age at birth
- h. Birth weight (gm), length (cm), head circumference (cm)
- i. Hospital of birth
- j. Length of stay
- k. Transferred from other NICU
- l. Singleton
- m. Multiples - number

## 2. Medical diagnosis:

- a. Major diagnosis (es) prompting enrollment in the follow-up clinic
- b. Neuroimaging Results
  - i. Normal
  - ii. Abnormal
    - (a). IVH, grade (highest grade on serial studies)
    - (b). Hydrocephalus
      - 1) IVH
      - 2) Shunt
    - (c). Cerebral atrophy
    - (d). Porencephaly/cyst
    - (e). PVL
    - (f). Other
- c. ROP Examination
  - i. Normal
  - ii. Abnormal
    - (a). Stage
    - (b). Laser surgery
- d. Hearing Screen
  - i. Pass
  - ii. Referred
    - (a). Unilateral
    - (b). Bilateral

- iii. Hearing impaired (diagnosed)
  - (a). Yes/No
  - (b). Unilateral
  - (c). Bilateral
- iv. Normal (0-14dB HL)
- v. Abnormal ( $\geq 15$  dB HL)

e. Broncho Pulmonary Dysplasia (BPD).

- i. Yes/No
- ii. Severity – assessed at 36 weeks post menstrual age or discharge, whichever comes first
  - Mild: breathing room air.
  - Moderate: need for  $< 30\%$  oxygen
  - Severe: need for  $> 30\%$  oxygen and/or positive pressure (PPV or NCPAP).

**3. Nutritional Status:**

- a. Discharge weight (percentile), length (percentile), head circumference (percentile)
- b. Acquired neonatal intestinal disease
  - i. Medical bowel disease (greater than or equal to Bell Stage 2)
  - ii. Surgical bowel disease
    - (a). Necrotizing Enterocolitis
    - (b). Spontaneous Intestinal Perforation

# Appendix C1: Clinic Follow-up Data

## 1. Date of visit:

- a. Attended clinic — yes/no
- b. Date of visit

## 2. Growth and Nutrition: Plot by corrected age for less than 24 months and thereafter by chronological age

- a. Weight/percentile
- b. Length/percentile
- c. Head circumference/percentile

## 3. Developmental/Cognitive Evaluation:

- a. Corrected Age 6-15 months – Bayley Scales of Infant and Toddler Development Third Edition — Screening Test or “complete test”
- b. Corrected Age 18-30 months – Bayley Scales of Infant and Toddler Development Third Edition

## 4. Neurological Evaluation:

- a. Motor Evaluation
  - i. Normal
  - ii. Abnormal
    - (a) Cerebral Palsy
    - (b) Other
- b. Tone Abnormality
  - i. Hypertonicity
  - ii. Hypotonicity
- c. Other

## 5. Vision:

- a. Normal.
- b. Abnormal defined as impaired vision
  - i. Unilateral
  - ii. Bilateral
- c. Severity.
  - i. Some vision
  - ii. Glasses
  - iii. Legally blind
  - iv. No light perception

**6. Hearing:**

- a. Normal (0-14dB HL)
- b. Abnormal  $\geq$ (15 dB HL)
  - i. Unilateral
  - ii. Bilateral
- c. Severity.
  - i. Minimal (15-25 dB HL)
  - ii. Mild (26 – 40 dB HL)
  - iii. Moderate (41 – 55 dB HL)
  - iv. Severe (71-90 dB HL)
  - v. Profound (>90 dB HL)
- d. Date of identification of hearing loss
- e. Date of Intervention.

**7. Neurological Imaging-new findings:**

- a. Hydrocephalus
  - i. Shunt
  - ii. No shunt
  - iii. Primary diagnosis necessitating admission
- b. Surgery
  - i. Cardiac
  - ii. G – Tube
  - iii. Tracheostomy
  - iv. CNS shunt revision
  - v. Orthopedic
- c. Respiratory
  - i. BPD
  - ii. Apnea
  - iii. Infection
  - iv. Asthma /RAD
- d. GI
  - i. Failure to thrive
  - ii. GERD
  - iii. Infection
  - iv. Other

**8. Medical status:**

- a. Rehospitalization since last visit
  - i. No
  - ii. Yes
  - iii. Primary diagnosis necessitating admission

- b. Disposition
  - i. Follow up appointment
  - ii. Discharged
  - iii. Transfer to other Developmental Clinic
  - iv. Lost to follow up
  - v. Death
    - (a). Date of death: \_\_\_\_\_
    - (b). Primary cause: \_\_\_\_\_

## Appendix C2 – Clinic Process Data

1. Number of patients scheduled per quarter
2. Number of patients seen per quarter
3. Reason for no follow-up
  - a. Declined
  - b. Moved
  - c. Social issues
    - i. Work
    - ii. Transportation
    - iii. Other
  - d. Services received elsewhere
  - e. Death
  - f. Patient not traceable
  - g. Other

## **Appendix C3 — Clinic Intervention**

### **1. Medical Referrals**

- a. Enroll in medical home
- b. Subspecialist
- c. Developmental service referral (e.g. OT, PT, S&L evaluation, etc.)
- d. Other

### **2. Altered Medical Care During Visit**

- a. Hospital admission
- b. Medication / immunization
- c. Nutrition change
- d. Other

### **3. Agency Referral**

- a. Children First
- b. Babies Can't Wait
- c. WIC
- d. Children's Medical Service
- e. GA Pines
- f. Preschool Education Program (3-5 yr old)
- g. Head Start
- h. Other

### **4. Social Service**

- a. Facilitate enrollment with medical payers
- b. DFAC
- c. Other

### **5. Other**

# Appendix D

## Suggested Written Agreement

In accordance with the **Perinatal Consultation/Transport Guidelines: Georgia, 1999**, (receiving hospital) agrees to accept on a case-by-case basis appropriate neonatal/maternal transport from (name of sending hospital). Appropriate transfers include but are not limited to those which:

1. (Name of the sending hospital) has provided treatment within its capacity to minimize the risk to the health of the patient and the unborn child.
2. (Name of the receiving hospital) has available space and appropriate personnel to treat the condition and the physician has agreed to accept the transfer. The appropriate hospital transfer record will be completed per policy prior to discharge including the name of the accepting physician.
3. Information has been given to (name of receiving hospital) regarding the patient's emergency condition, including observations, preliminary diagnosis, test results and treatment provided.
4. The transfer is affected through appropriate personnel and transportation equipment.
5. (Receiving Hospital) shall meet all requirements according to the Joint Commission state, and federal regulatory agencies.

### SENDING HOSPITAL

### RECEIVING HOSPITAL

\_\_\_\_\_  
CEO/President      Date

\_\_\_\_\_  
CEO/President      Date

\_\_\_\_\_  
Obstetric Physician      Date

\_\_\_\_\_  
Obstetric Physician      Date

\_\_\_\_\_  
Pediatric Physician      Date

\_\_\_\_\_  
Pediatric Physician      Date



# **Appendix E**

## **Status of Compliance**

Each Regional Perinatal Center will complete a Status of Compliance Evaluation form upon request. Request for areas of exemption will be evaluated and time frame for compliance given by DPH.

# Appendix E1

## Status of Compliance with Core Requirements Evaluation Form

	Meets Requirements	
	<u>Yes</u>	<u>No</u>
1. Contract for Regional Services completed with DPH.	_____	_____
2. Regional Perinatal Plan completed for this contract period.	_____	_____
3. Neonatal Regional Director designated with appropriate credentials.	_____	_____
4. Maternal Regional Director with appropriate credentials.	_____	_____
5. Ambulatory high-risk prenatal services in place meeting all outlined criteria in Section V.	_____	_____
6. Intrapartum and postpartum care services provided meeting all outlined criteria in Section VI.	_____	_____
7. 24-hour consultation service provided with appropriate staff and policy and procedure in place to meet outlined criteria in Section VI.	_____	_____
8. Policy and procedures in place for compilation, analysis and evaluation of perinatal data for regional center.	_____	_____
9. Neonatal Services provided meeting all outlined criteria in Section VII.	_____	_____
10. Maternal and neonatal transport services in place to meet all outlined criteria in Section VIII.	_____	_____
11. Neonatal and maternal outreach educator in place with appropriate credentials and understanding of responsibilities.	_____	_____