THE MARYLAND PERINATAL SYSTEM STANDARDS

Revised November 2013

Recommendations of the Perinatal Clinical Advisory Committee

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THE MARYLAND PERINATAL SYSTEM STANDARDS
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STANDARD	TITLE	SUMMARY
I	Organization	Refers to the administration of a hospital perinatal program
II	Obstetrical Unit Capabilities	Refers to the resources of equipment, supplies, and personnel needed for the delivery unit within the hospital
III	Neonatal Unit Capabilities	Refers to the resources of equipment, supplies, and personnel needed for the neonatal units within the hospital
IV	Obstetrical Personnel	Describes the roles, responsibilities, and availability of obstetrical personnel in the perinatal program
V	Pediatric Personnel	Describes the roles, responsibilities, and availability of pediatric personnel in the perinatal program
VI	Other Personnel	Describes the roles, responsibilities, and availability of other personnel in the perinatal program
VII	Laboratory	Refers to the resources of equipment, supplies, and personnel needed for the laboratory unit within the hospital
VIII	Diagnostic Imaging Capabilities	Refers to the resources of equipment, supplies, and personnel needed for diagnostic imaging capabilities within the hospital
IX	Equipment	Refers to the availability of specific equipment needed for the perinatal program
X	Medications	Refers to the availability of specific medications needed for the perinatal program
XI	Education Programs	Refers to the need for education for all health care providers involved in providing perinatal care and to the roles and responsibilities of the hospitals in education

XII	Performance Improvement	Describes the performance improvement process that is required for hospital perinatal programs
XIII	Policies and Protocols	Identifies the administrative and medical policies and protocols that shall be in place for a perinatal program

LIST OF DEFINITIONS

I Level I hospitals have perinatal programs that provide basic care to pregnant women and infants, as described by these standards. These hospitals provide delivery room and well newborn nursery care for physiologically stable infants ≥ 35 weeks gestation. Other than emergency stabilization pending transport, the neonatal services do not provide positive pressure ventilatory support. Board-certified pediatricians or family medicine physicians have programmatic responsibility for these services. These neonatal services do not provide pediatric subspecialty or emergent neonatal surgical specialty services. Maternal care is limited to gestations of ≥35 weeks that are maternal risk appropriate. Board-certified physicians or active candidates for board-certification in obstetrics/gynecology or family medicine with advanced training and privileges for obstetrical care with a formal arrangement with a physician board-certified or an active candidate for board-certification in obstetrics/gynecology have programmatic responsibility for obstetrical services. These hospitals do not receive primary infant or maternal referrals.

II Level II hospitals have perinatal programs that provide specialty care to pregnant women and infants, as described by these standards. These hospitals provide delivery room and acute specialized care for moderately ill infants ≥ 1500 grams and ≥ 32 weeks gestation with problems that are expected to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis. Board-certified neonatal-perinatal medicine subspecialists have programmatic responsibility for the neonatal services. The neonatal services (special care nurseries) provide mechanical ventilation for up to 24 hours and/or continuous positive airway pressure. The neonatal services may provide limited pediatric subspecialty services. They do not provide emergent neonatal surgical specialty services. Maternal care is limited to term and preterm gestations of ≥ 32 weeks that are maternal risk appropriate. Board-certified obstetricians have responsibility for programmatic management of obstetrical services. These hospitals do not receive primary infant or maternal referrals.

III Level III hospitals have perinatal programs that provide subspecialty care for pregnant women and infants, as described by these standards. These hospitals provide acute delivery room and neonatal intensive care unit (NICU) care for infants of all birth weights and gestational ages. Board-certified neonatal-perinatal medicine subspecialists have programmatic responsibility for neonatal services. These services offer continuous availability of neonatologists. The neonatal services provide sustained life support with multiple modes of neonatal ventilation that may include advanced respiratory support, such as high frequency ventilation. In addition, inhaled nitric oxide may or may not be used. A full range of pediatric medical subspecialists, pediatric surgical specialists, pediatric anesthesiologists, and pediatric ophthalmologists are readily accessible on site or by prearranged consultative agreement at a closely related institution. Neonatal care capabilities include advanced imaging, with interpretation on an urgent basis, including computed tomography, magnetic resonance imaging, and echocardiography. Maternal care spans the range of normal term gestation care to the

management of extreme prematurity and moderately complex maternal complications. Board-certified obstetricians have programmatic responsibility for obstetrical services. Board-certified maternal-fetal medicine specialists have programmatic responsibility for high-risk obstetrical services. Level III perinatal hospitals accept risk-appropriate maternal and neonatal transports.

IV Level IV hospitals have perinatal programs that provide comprehensive subspecialty obstetrical and neonatal care services, as described by these standards. These hospitals provide acute delivery room and NICU care for infants of all birth weights and gestational ages, including those with complex and critical illness. Board-certified neonatal-perinatal medicine subspecialists have programmatic responsibility for neonatal services. These services offer continuous availability of neonatologists. Advanced modes of neonatal ventilation and life-support are provided, including high frequency ventilation and nitric oxide, and extracorporeal membrane oxygenation (ECMO) may be provided. These neonatal services provide a full range of pediatric medical subspecialists, pediatric surgical specialists and subspecialists, pediatric anesthesiologists, and pediatric ophthalmologists continuously available. These neonatal services have the capability to provide surgical repair of complex congenital or acquired conditions. Maternal care spans the range of normal term gestation care to that of highly complex or critically ill mothers. In addition, the obstetrical services include management of fetuses who are extremely premature or have complex problems that render significant risk of preterm delivery and postnatal complications. Board-certified maternal-fetal medicine subspecialists have programmatic responsibility for the services and are continuously available. Level IV perinatal hospitals accept maternal and neonatal transports. In collaboration with the Department of Health and Mental Hygiene (DHMH) and the Maryland Institute for Emergency Medical Services Systems (MIEMSS), the Level IV hospitals are expected to take leadership roles in organization and provision of maternal and neonatal issues including, but not limited to, patient transport, outreach education, and professional training.

Board-certified: a physician certified by an American Board of Medical Specialties Member Board, or the equivalent.

Continuously available: a resource available at all times.

Dedicated: a resource assigned to or for the exclusive use by a unit and not shared with any other unit.

Immediately available: a resource available as soon as it is requested.

In-house: physically present in the hospital.

Programmatic responsibility: the writing, review and maintenance of practice guidelines, policies and procedures; development of operating budget (in collaboration with hospital administration and other program directors); evaluation and guiding of the purchase of equipment; planning, development and coordinating of educational programs (in-hospital and/or outreach as applicable); participation in the evaluation of perinatal care; and participation in perinatal quality improvement and patient safety activities.

Readily available: a resource available for use a short time after it is requested.

30 minutes: in-house within thirty (30) minutes under normal driving conditions which include, but are not limited to, weather, traffic, and other circumstances that may be beyond the individual's control.

E Essential requirement for level of perinatal center

O Optional requirement for level of perinatal center

NA Not Applicable

NOTE: More details regarding the content of care for each perinatal level of care are contained in the *Guidelines for Perinatal Care, 7th Edition*, American Academy of Pediatrics and American College of Obstetricians and Gynecologists, 2012.

THE MARYLAND PERINATAL SYSTEM STANDARDS
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		I	II	III	IV
STANDARD I. ORGANIZATION					
1.1	The hospital's Board of Directors, administration, and medical and nursing staff shall demonstrate commitment to its specific level of perinatal center designation and to the care of perinatal patients. This commitment shall be demonstrated by:				
	a) A Board resolution that the hospital agrees to meet the Maryland Perinatal System Standards for its specific level of designation and assures that all perinatal patients shall receive medical care commensurate with that designation	E	E	E	E
	b) Submission of patient care data to the Maryland Department of Health and Mental Hygiene (DHMH) and the Maryland Institute for Emergency Medical Services Systems (MIEMSS) for system and quality management	E	E	E	E
	c) A Board resolution, bylaws, contracts, and budgets, indicating the hospital's commitment to the financial, human, and physical resources and to the infrastructure that are necessary to support the hospital's level of designation.	E	E	E	E
1.2	The hospital shall be licensed by the Maryland Department of Health and Mental Hygiene (DHMH) as an acute care hospital.	E	E	E	E
1.3	The hospital shall be accredited by The Joint Commission.	E	E	E	E

		I	II	III	IV
1.4	The hospital shall have a certificate of need (CON) issued by the Maryland Health Care Commission (MHCC) for its neonatal intensive care unit and/or approval from the Health Services Cost Review Commission (HSCRC) for a neonatal intensive care unit cost center.	NA	NA	E	E
1.5	The hospital shall obtain and maintain current equipment and technology, as described in these standards, to support optimal perinatal care for the level of the hospital's perinatal center designation.	E	E	E	E
1.6	If maternal or neonatal air transports are accepted, then the hospital shall have a heliport, helipad, or access to a helicopter landing site near the hospital.	NA	NA	E	E
1.7	The hospital shall provide specialized maternal and neonatal transport capability and have extensive statewide perinatal educational outreach programs in both specialties in collaboration with MIEMSS and DHMH.	NA	NA	O	E
STANDARD II.	**OBSTETRICAL UNIT CAPABILITIES**				
2.1	The hospital shall demonstrate its capability of providing uncomplicated and complicated obstetrical care through written standards, protocols, or guidelines, including those for the following:				
	a) unexpected obstetrical care problems	E	E	E	E
	b) fetal monitoring, including internal scalp electrode monitoring	E	E	E	E

		I	II	III	IV
	c) initiating a cesarean delivery within 30 minutes of the decision to deliver	E	E	E	E
	d) selection and management of obstetrical patients at a maternal risk level appropriate to its capability	E	E	E	E
	e) management of all obstetrical patients	NA	NA	NA	E
2.2	The hospital shall be capable of providing critical care services appropriate for obstetrical patients, as demonstrated by having a critical care unit and a board-certified critical care specialist as an active member of the medical staff.	NA	O	E	E
2.3	The hospital shall have a written plan for initiating maternal transports to an appropriate level.	E	E	E	E
2.4	A written protocol for the acceptance of maternal transports shall be in place.	NA	NA	E	E
STANDARD III. NEONATAL UNIT CAPABILITIES					
3.1	The hospital shall demonstrate its capability of providing uncomplicated and complicated neonatal care through written standards, protocols, or guidelines, including those for the following:				
	a) resuscitation and stabilization of the neonate according to the current American Academy of Pediatrics/American Heart Association (AAP/AHA) *Neonatal Resuscitation Program* (NRP) guidelines	E	E	E	E
	b) selection and management of neonatal patients at a neonatal risk level appropriate to its capability	E	E	E	E

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c) management of all neonatal patients, including those requiring advanced modes of neonatal ventilation and life-support, pediatric subspecialty services, and pediatric specialty and subspecialty surgical services	NA	NA	NA	E
STANDARD IV. OBSTETRICAL PERSONNEL				
LEADERSHIP				
4.1 A physician board-certified or an active candidate for board-certification in obstetrics/gynecology or family medicine with advanced training and privileges for obstetrical care with a formal arrangement with a physician board-certified or an active candidate for board-certification in obstetrics/gynecology shall be a member of the medical staff and have programmatic responsibility for obstetrical services.	E	NA	NA	NA
4.2 A physician board-certified in obstetrics/gynecology shall be a member of the medical staff and have programmatic responsibility for obstetrical services.	O	E	E	E
4.3 A physician (or physicians) board-certified or an active candidate for board-certification in maternal-fetal medicine shall be a member of the medical staff and have programmatic responsibility for high-risk obstetrical services.	NA	O	E	E
COVERAGE FOR URGENT OBSTETRICAL ISSUES				
4.4 A hospital without a physician board-certified in maternal-fetal medicine on the hospital staff shall have a written agreement with a consultant who is board-certified or an active candidate for board-certification in maternal-fetal medicine to be available 24 hours a day.	E	E	NA	NA

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4.5	The hospital shall have a maternal-fetal medicine physician on the medical staff, in active practice and, if needed, in-house within 30 minutes.	O	O	E	E
4.6	A physician with obstetrical privileges or certified nurse-midwife with obstetrical privileges shall be readily available to the delivery area when a patient is in active labor.	E	NA	NA	NA
4.7	A physician board-certified or an active candidate for board-certification in obstetrics/gynecology or family medicine with obstetrical privileges shall be readily available to the delivery area when a patient is in active labor.	O	E	NA	NA
4.8	A physician board-certified or an active candidate for board-certification in obstetrics/gynecology shall be present in-house 24 hours a day and immediately available to the delivery area when a patient is in active labor.	O	O	E	E
4.9	A physician with obstetrical privileges or a certified nurse-midwife with obstetrical privileges shall be present at all deliveries.	E	E	E	E
4.10	A physician board-certified or an active candidate for board-certification in anesthesiology shall be a member of the medical staff and have programmatic responsibility for obstetrical anesthesia services.	E	E	E	E

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STANDARD V.	**PEDIATRIC PERSONNEL**				
LEADERSHIP					
5.1	A physician board-certified in pediatrics or family medicine shall be a member of the medical staff, have privileges for neonatal care, and have programmatic responsibility for neonatal unit services. For hospitals without a physician board-certified in pediatrics, there shall be a written agreement which provides consultation with a board-certified pediatrician 24 hours a day.	E	NA	NA	NA
5.2	A physician board-certified in neonatal-perinatal medicine shall be a member of the medical staff and have programmatic responsibility for neonatal services.	NA	E	E	E
COVERAGE FOR URGENT NEONATAL ISSUES					
5.3	For hospitals without a physician board-certified in neonatal-perinatal medicine on staff, there shall be a written agreement which provides access to consultation with physicians board-certified in neonatal-perinatal medicine 24 hours a day.	E	NA	NA	NA
5.4	NRP trained professional(s) with experience in acute care of the depressed newborn and skilled in neonatal endotracheal intubation and resuscitation shall be immediately available to the delivery and neonatal units.	E	E	E	E
5.5	A physician who has completed postgraduate pediatric training, a nurse practitioner or physician assistant with privileges for neonatal care appropriate to the level of the nursery shall be immediately available when an infant requires services including, but not limited to, $FiO2 > 40\%$, assisted ventilation, or cardiovascular support.	NA	E	NA	NA

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5.6	A physician who has completed postgraduate pediatric training, a nurse practitioner or physician assistant with privileges for neonatal care appropriate to the level of the nursery shall be present in-house 24 hours a day and assigned to the delivery area and neonatal units and not shared with other units in the hospital.	NA	O	E	E
5.7	A physician board-certified or an active candidate for board certification in neonatal-perinatal medicine, if needed, shall be available to be present in-house within 30 minutes.	NA	O	E	E
NEONATAL SUBSPECIALTY CARE					
5.8	The hospital shall have written consultation and referral agreements in place with pediatric cardiology, pediatric surgery, and ophthalmology. The hospital shall have an organized program for the monitoring, treatment, and follow-up of retinopathy of prematurity.	O	E	NA	NA
5.9	The hospital shall have on staff an ophthalmologist with experience in neonatal retinal examination and an organized program for the monitoring, treatment, and follow-up of retinopathy of prematurity.	NA	O	E	E
5.10	The hospital shall have the following pediatric subspecialists on staff, in active practice and, if needed, in-house within 30 minutes: cardiology, neurology, and pediatric general surgery.	NA	O	E	E
5.11	The hospital shall have on staff, in active practice and, if needed, in-house within 30 minutes, the following pediatric subspecialties: endocrinology, gastroenterology, genetics, hematology, nephrology, and pulmonology.	NA	O	O	E

		I	II	III	IV
5.12	The hospital shall have on staff, in active practice and, if needed, in-house within 30 minutes, pediatric general surgeons and the following pediatric surgical subspecialties: cardiothoracic surgery, neurosurgery, ophthalmology, orthopedic surgery, plastic surgery.	NA	O	O	E
STANDARD VI. OTHER PERSONNEL					
6.1	A physician board-certified or an active candidate for board-certification in anesthesiology or a nurse-anesthetist shall be available so that cesarean delivery may be initiated per hospital protocol as stated in Standard 2.1c.	E	E	E	E
6.2	A physician board-certified or an active candidate for board-certification in anesthesiology or a nurse-anesthetist shall be readily available to the delivery area when a patient is in active labor.	O	E	NA	NA
6.3	A physician board-certified or an active candidate for board-certification in anesthesiology shall be present in-house 24 hours a day, readily available to the delivery area.	O	O	E	E
6.4	If the hospital performs neonatal surgery, then a board-certified anesthesiologist with experience in neonatal anesthesia shall be present for the surgery.	NA	NA	E	E
6.5	The hospital shall have a physician on the medical staff with privileges for providing critical interventional radiology services for:				
	a) obstetrical patients	O	O	E	E
	b) neonatal patients	NA	NA	O	E

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6.6	The hospital shall have obstetrical and neonatal diagnostic imaging available 24 hours a day, with interpretation by physicians with experience in maternal and/or neonatal disease and its complications.	E	E	E	E
6.7	The hospital shall have on staff a registered dietician or other health care professional with knowledge of and experience in the management of obstetrical and neonatal parenteral/enteral nutrition.	O	O	E	E
6.8	The hospital shall have at least one full-time equivalent International Board Certified Lactation Consultant(s) who shall have programmatic responsibility for lactation support services which shall include education and training of additional hospital staff members in order to ensure availability of lactation support seven days per week.	E	E	E	E
6.9	The hospital shall have a licensed social worker with a Master's degree (either an LGSW, Licensed Graduate Social Worker, or an LCSW, Licensed Certified Social Worker) and experience in psychosocial assessment and intervention with women and their families readily available to the perinatal service.	E	NA	NA	NA
6.10	The hospital shall have a licensed social worker with a Master's degree (either an LGSW, Licensed Graduate Social Worker, or an LCSW, Licensed Certified Social Worker) and experience in psychosocial assessment and intervention with women and their families dedicated to the perinatal service.	O	E	E	E

		I	II	III	IV
6.11	The hospital shall have a licensed social worker with a Master's degree (either an LGSW, Licensed Graduate Social Worker, or an LCSW, Licensed Certified Social Worker) and experience in psychosocial assessment and intervention with women and their families dedicated to the NICU.	NA	NA	E	E
6.12	The hospital shall have respiratory therapists skilled in neonatal ventilator management:				
	a) readily available when an infant is receiving or anticipated to need assisted ventilation	NA	E	NA	NA
	b) present in-house 24 hours a day	NA	O	E	NA
	c) dedicated to the NICU 24 hours a day	NA	NA	O	E
6.13	The hospital shall have at least one occupational or physical therapist with neonatal expertise.	NA	O	E	E
6.14	The hospital shall have at least one individual skilled in evaluation and management of neonatal feeding and swallowing disorders such as a speech-language pathologist.	NA	O	E	E
6.15	The hospital shall have genetic diagnostic and counseling services or written consultation and referral agreement(s) for these services in place.	E	E	E	E
6.16	The hospital shall have a pediatric neurodevelopmental follow-up program or written referral agreement(s) for neurodevelopmental follow-up.	O	O	E	E

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6.17	The hospital perinatal program shall have on its administrative staff a registered nurse with a Master's or higher degree in nursing or a health-related field and experience in high-risk obstetrical and/or neonatal nursing who shall have programmatic responsibility for the obstetrical and neonatal nursing services.	E	E	E	E
6.18	The hospital perinatal program shall have on its staff a registered nurse with a Master's or higher degree in nursing and experience in high-risk obstetrical and/or neonatal nursing responsible for staff education.	E	E	E	E
6.19	The hospital perinatal service shall have: a) A registered nurse skilled in the recognition and nursing management of complications of labor and delivery readily available if needed to the labor and delivery unit 24 hours a day. b) A registered nurse skilled in the recognition and management of complications in women and newborns readily available to the obstetrical unit 24 hours a day. c) A registered nurse with demonstrated training and experience in the assessment, evaluation and care of patients in labor present at all deliveries. d) A registered nurse with demonstrated training and experience in the assessment, evaluation, and care of newborns readily available to the neonatal unit 24 hours a day.	E	E	E	E
6.20	A hospital perinatal program that performs neonatal surgery shall have nurses on staff with special expertise in perioperative management of neonates.	NA	NA	E	E

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6.21	The hospital shall have a written plan to address registered nurse/patient ratios recommended in the current *Guidelines For Perinatal Care* and AWHONN Guidelines.	E	E	E	E
STANDARD VII. LABORATORY					
7.1	The programmatic leaders of the perinatal service in conjunction with the hospital laboratory shall establish laboratory processing and reporting times to ensure that these are appropriate for samples drawn from obstetrical and neonatal patients with specific consideration for the acuity of the patient and the integrity of the samples.	E	E	E	E
7.2	The hospital laboratory shall demonstrate the capability to immediately receive, process, and report urgent/emergent obstetrical and neonatal laboratory requests.	E	E	E	E
7.3	The hospital laboratory shall have a process in place to report critical values to the obstetrical and neonatal services.	E	E	E	E
7.4	Laboratory results from standard maternal antepartum testing shall be available to the providers caring for the mother and the neonate prior to discharge. If test results are not available or if testing was not performed prior to admission, such testing shall be performed during the hospitalization of the mother and results shall be available prior to discharge of the newborn.	E	E	E	E
7.5	The hospital shall have the capacity to conduct rapid HIV testing 24 hours a day.	E	E	E	E

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7.6	The hospital shall have available the equipment and trained personnel to perform newborn hearing screening prior to discharge on all infants born at or transferred to the institution and report screening results as required by COMAR 10.11.02	E	E	E	E
7.7	The hospital shall have available the equipment and trained personnel to perform critical congenital heart disease screening prior to discharge on all infants born at or transferred to the institution and report screening results as required by COMAR 10.52.15.	E	E	E	E
7.8	Blood bank technicians shall be present in-house 24 hours a day.	E	E	E	E
7.9	The hospital shall have access to molecular, cytogenic, and biochemical genetic testing.	E	E	E	E
STANDARD VIII.	**DIAGNOSTIC IMAGING CAPABILITIES**				
8.1	The hospital shall have the capability of providing emergency ultrasound imaging and interpretation for obstetrical patients 24 hours a day	E	E	E	E
8.2	The hospital shall have the capability of providing portable x-ray imaging and interpretation for neonatal patients 24 hours a day.	E	E	E	E
8.3	The hospital shall have the capability of providing portable head ultrasound and interpretation for neonatal patients.	O	E	E	E

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8.4	The hospital shall have the capability on campus of providing computerized tomography (CT) and magnetic resonance imaging (MRI).	O	O	E	E
8.5	Neonatal echocardiography equipment and experienced technician shall be available on campus as needed with interpretation by a pediatric cardiologist.	O	O	E	E
8.6	The hospital shall have a pediatric cardiac catheterization laboratory and appropriate staff.	NA	NA	O	E
8.7	The hospital shall have the capability of providing interventional radiology services for:				
	a) obstetrical patients	O	O	E	E
	b) neonatal patients	NA	NA	O	E
STANDARD IX. EQUIPMENT					
9.1	The hospital shall have all of the following equipment and supplies immediately available for existing patients and for the next potential patient:	E	E	E	E
	a) O2 analyzer, stethoscope, intravenous infusion pumps				
	b) radiant heated bed in delivery room and available in the neonatal units				
	c) oxygen hood with humidity				
	d) bag and masks and/or T-piece resuscitator capable of delivering a controlled concentration of oxygen to the infant				
	e) orotracheal tubes				

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f) aspiration equipment g) laryngoscope h) umbilical vessel catheters and insertion tray i) cardiac monitor j) pulse oximeter k) phototherapy unit l) doppler blood pressure for neonates m) cardioversion/defibrillation capability for mothers and neonates n) resuscitation equipment for mothers o) resuscitation equipment for neonates including equipment outlined in the current NRP p) individual oxygen, air, and suction outlets for mothers and neonates q) emergency call system for both obstetrical and neonatal units as well as an emergency communication system among units				
9.2 The hospital shall have a neonatal stabilization bed set up and equipment available at all times for an emergency admission.	E	E	E	E
9.3 The hospital shall have fetal diagnostic testing and monitoring equipment for:				
a) fetal heart rate monitoring	E	E	E	E
b) ultrasound examinations	E	E	E	E
c) amniocentesis	O	O	E	E
9.4 The hospital shall have the capability to monitor neonatal intra-arterial pressure.	O	E	E	E

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9.5	The hospital shall have the capability on campus of providing laser coagulation for retinopathy of prematurity.	NA	O	E	E
9.6	The hospital shall have the capability on campus of providing a full range of invasive maternal monitoring including central venous pressure and arterial pressure monitoring.	NA	O	E	E
9.7	The hospital shall have appropriate equipment (including back-up equipment) for neonatal respiratory care as well as protocols for the use and maintenance of the equipment as required by its level of neonatal care.	E	E	E	E
9.8	The hospital shall have the capability of providing advanced ventilatory support for neonates of all birth weights.	NA	NA	O	E
9.9	The hospital shall have the capability of providing continuing therapeutic hypothermia.	NA	NA	O	E
STANDARD X.	MEDICATIONS				
10.1	Emergency medications, as listed in the current NRP guidelines, shall be present in the delivery area and neonatal units.	E	E	E	E

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10.2 The following medications shall be immediately available to the neonatal units:				
a) Antibiotics, anticonvulsants, and emergency cardiovascular drugs	E	E	E	E
b) Surfactant, prostaglandin E1	O	E	E	E
10.3 All emergency resuscitation medications to initiate and maintain resuscitation, in accordance with Advanced Cardiac Life Support (ACLS) guidelines of the American Heart Association, shall be present in the delivery area.	E	E	E	E
10.4 The following medications shall be in the delivery area:	E	E	E	E
a) Oxytocin (Pitocin)				
b) Methylergonovine (Methergine)				
c) 15-methyl prostaglandin F2 (Prostin)				
d) Misoprostol (Cytotec)				
e) Carboprost tromethamine (Hemabate)				
STANDARD XI. EDUCATION PROGRAMS				
11.1 The hospital shall have identified minimum competencies for perinatal clinical staff, not otherwise credentialed, that are assessed prior to independent practice and on a regular basis thereafter.	E	E	E	E
11.2 The hospital shall provide continuing education programs for physicians, nurses, and allied health personnel on staff concerning the treatment and care of obstetrical and neonatal patients.	E	E	E	E

	I	II	III	IV
11.3 A hospital that accepts maternal or neonatal primary transports shall provide the following to the referring hospital/providers: a) Guidance on indications for consultation and referral of patients at high risk b) Information about the accepting hospital's response times and clinical capabilities c) Information about alternative sources for specialized care not provided by the accepting hospital d) Guidance on the pre-transport stabilization of patients e) Feedback on the pre-transport and post-transport care of patients	NA	NA	E	E
STANDARD XII. PERFORMANCE IMPROVEMENT				
12.1 The hospital shall have a multi-disciplinary continuous quality improvement program for improving maternal and neonatal health outcomes that includes initiatives to promote patient safety including safe medication practices, Universal Protocol to prevent surgical error, and educational programs to improve communication and team work.	E	E	E	E
12.2 The hospital shall conduct internal perinatal case reviews which include all maternal, intrapartum fetal, and neonatal deaths, as well as all maternal and neonatal transports.	E	E	E	E
12.3 The hospital shall utilize a multidisciplinary forum to conduct quarterly performance reviews of the perinatal program. This review shall include a review of trends, all deaths, all transfers, all very low birth weight infants, problem identification and solution, issues identified from the quality management process, and systems issues.	E	E	E	E

		I	II	III	IV
12.4	The hospital shall participate with the Department of Health and Mental Hygiene and local health department Fetal and Infant Mortality Review and Maternal Mortality Review programs.	E	E	E	E
12.5	The hospital shall participate in the collaborative collection and assessment of data with the Department of Health and Mental Hygiene and/or the Maryland Institute for Emergency Medical Services Systems for the purpose of improving perinatal health outcomes.	E	E	E	E
12.6	The hospital shall maintain membership in the Vermont Oxford Network.	O	O	E	E
STANDARD XIII. POLICIES AND PROTOCOLS					
13.1	The hospital shall have written policies and protocols for the initial stabilization and continuing care of all obstetrical and neonatal patients appropriate to the level of care rendered at its facility.	E	E	E	E
13.2	The hospital shall have maternal and neonatal resuscitation protocols.	E	E	E	E
13.3	The hospital medical staff credentialing process shall include documentation of competency to perform obstetrical and neonatal invasive procedures appropriate to its designated level of care.	E	E	E	E
13.4	The hospital shall have written guidelines for accepting or transferring mothers or neonates as "back transports" including criteria for accepting the patient and patient information on the required continuing care.	E	E	E	E

		I	II	III	IV
13.5	The hospital shall have a licensed neonatal transport service or written agreement with a licensed neonatal transport service.	E	E	E	E
13.6	The hospital shall have policies that allow families (including siblings) to be together in the hospital following the birth of an infant and that promote parental involvement in the care of the neonate including those in the NICU.	E	E	E	E
13.7	The hospital shall have a policy to eliminate deliveries by induction of labor or by cesarean section prior to 39 weeks gestation without a medical indication. The hospital shall have a systematic internal review process to evaluate any occurrences and a plan for corrective action.	E	E	E	E
13.8	The hospital shall have a written protocol to respond to massive obstetrical hemorrhage, including a plan to maximize accuracy in determining blood loss.	E	E	E	E