641—150.6(135,77GA,ch1221) Level I hospitals.

150.6(1) *Definition.* Level I hospitals provide basic inpatient care for pregnant women and newborns without complications; manage perinatal emergencies, including neonatal resuscitation; provide leadership in early risk identification before and after birth; seek consultation or referral for high-risk patients; and provide public and professional education.

150.6(2) *Functions.* Level I hospitals have a family-centered philosophy. Parents have reasonable access to their newborns 24 hours a day within all functional units and are encouraged to participate in the care of their newborns. Generally, parents can be with their newborns in the mother's room. Noninfectious siblings may visit in the mother's room or in a designated space.

Level I hospitals have the capability to:

a. Provide surveillance and care of all patients admitted to the obstetric service with an established triage system for identifying high-risk patients who should be transferred to a facility that provides Level II or higher care, prior to delivery;

b. Provide proper detection and supportive care of unanticipated maternal-fetal problems that occur during labor and delivery;

c. Perform emergency Cesarean sections as soon as possible after the decision to do the operation has been made;

d. Provide transfusions of blood and fresh frozen plasma on a 24-hour basis;

e. Provide anesthesia, pharmacy, radiology, respiratory support, electronic fetal heart-rate monitoring, and laboratory services on a 24-hour basis;

f. Provide care of postpartum conditions;

g. Evaluate the condition of healthy neonates and their continuing care until discharge;

h. Resuscitate all neonates using the neonatal resuscitation program guidelines as published by the American Heart Association/American Academy of Pediatrics;

i. Stabilize all neonates including unexpectedly small or sick neonates before transfer;

j. Consult and arrange transfers in conjunction with the obstetrician, pediatrician or neonatologist at the referral center;

k. Maintain a nursery for normal-term or near-term newborns.

150.6(3) *Physical facilities.* Physical facilities for perinatal care in hospitals should be conducive to care that meets the normal physiologic and psychosocial needs of mothers, neonates, fathers, and families. Special facilities should be available when deviations from the norm require uninterrupted physiologic, biochemical, and clinical observations of patients throughout the perinatal period. Labor, delivery, and newborn care facilities should be located contiguously.

The following recommendations are intended as general guidelines and are meant to be flexible enough to meet local needs. It is recognized that individual limitations of physical facilities for perinatal care may impede strict adherence to the recommendations. Furthermore, not all hospitals will have all the functional units described. Provisions for individual units should be consistent within the framework of a regionalized perinatal care system and the state and local public health regulations.

a. *Obstetric functional units.*

(1) Labor. Areas used for women in labor are equipped with the following components:

1. Adequate space for support persons, personnel, and equipment;
2. Adequate ventilation and temperature control;
3. A labor or birthing bed;
4. A storage area for the patient's clothing and personal belongings;
5. Adjustable lighting that is pleasant for the patient and adequate for examinations;
6. An emergency signal and an intercommunication system;
7. A sphygmomanometer and stethoscope;
8. Mechanical infusion equipment;
9. Fetal monitoring equipment;
10. Oxygen and suction outlets;
11. Access to at least one shower for use by labor patients; and
12. Storage facilities for supplies and equipment.

(2) Delivery.

1. Delivery rooms should be close to the labor rooms in order to afford easy access and to provide privacy to women in labor. A waiting area for families should be adjacent to the delivery suite, and restrooms should be located nearby.

2. Traditional delivery rooms and Cesarean birth rooms are similar in design to operating rooms. Vaginal deliveries can be performed in either room, whereas Cesarean birth rooms are designed especially for that purpose and are thus larger. Each type of birthing room is well lighted and environmentally controlled to prevent chilling of the mother and neonate.

3. It is desirable that Cesarean deliveries be performed in the obstetric unit; however, if this is not possible due to cost and space, equipment for neonatal stabilization and resuscitation, as described herein under 150.6(3)*"b"*(1), is available during delivery.

4. Each delivery room is maintained as a separate unit with the following equipment and supplies necessary for normal delivery and for the management of complications:

- Delivery/operating table that allows variation in position for delivery;
- Instrument table and solution basin stand;
- Instruments and equipment for vaginal delivery, repair of laceration, Cesarean delivery, and the management of obstetric emergencies;
- Solutions and equipment for the intravenous administration of fluids;
- Equipment for administration of all types of anesthesia, including equipment for emergency resuscitation of the mother;
- Individual oxygen, air, and suction outlets for mother and neonate;
- An emergency call system;
- Mirrors for patients to observe the birth;
- Wall clock with a second hand;
- Equipment for fetal heart rate monitoring; and
- Scrub sinks with controls strategically placed to allow observation of the patient.

5. 5. Trays containing drugs and equipment necessary for emergency treatment of both mother and neonate are kept in the delivery room area. Equipment necessary for the treatment of cardiac arrest is easily accessible.

(3) Postpartum care. The postpartum unit is flexible enough to permit comfortable accommodation of patients when the patient census is at its peak and use of beds for alternate functions when the patient census is low. Ideally, single-occupancy rooms should be provided; however, not more than two patients should share one room. If possible, each room in the postpartum unit should have its own toilet and hand-washing facilities. When this is not possible and it is necessary for patients to use common facilities, patients should be able to reach them without entering a general corridor. When the newborn rooms-in with the mother, the room should have hand-washing facilities, a mobile bassinet unit, and supplies necessary for the care of the newborn.

(4) Combined units (labor/delivery/recovery or labor/delivery/recovery/postpartum room).

1. Comprehensive obstetric and neonatal care can be provided to the low-risk and the high-risk parturient and infant and the family in a single room. A homelike, family-centered environment with the capability for providing high-risk care is a key design criterion for both the labor/delivery/recovery (LDR) and labor/delivery/recovery/postpartum (LDRP) rooms. Each room is equipped for all types of delivery except Cesarean deliveries or those that may require general anesthesia.

2. During the labor, delivery, and recovery phases, care can be provided in an LDR room or can be extended to include the postpartum period in an LDRP room.

3. Nurses providing care in combined units are knowledgeable in antepartum care, labor and delivery, postpartum care, and neonatal care, making the use of staff cost-effective and increasing the continuity and quality of care.

b. Neonatal functional units.

(1) Resuscitation/stabilization.

1. A resuscitation and stabilization bed should be available in the immediate area of delivery for those neonates who require it. Contingent upon their condition, neonates are moved from this area to

the nursery for admission and stabilization and possible transfer to a Level II regional center or Level III center.

2. The resuscitation area contains the following items:

- Overhead source of radiant heat that can be regulated based on the infant's temperature; radiant warmers with accommodations for X-ray capabilities are recommended;
- Thin resuscitation/examination mattress that allows access on three sides;
- Wall clock;
- Equipment and medications as recommended by the neonatal resuscitation program. This includes a laryngoscope with infant-sized blades, endotracheal tubes, and resuscitation (breathing) bags with masks for full-term and preterm neonates;
- Oxygen, compressed air and suction sources that are separate from those for the mother;
- Equipment for examination, immediate care, and identification of the neonate.

3. The resuscitation area is usually within the delivery room, although it may be in a designated, contiguous, separate room. If resuscitation takes place in the delivery room, the area is large enough to ensure that the resuscitation of the neonate can be achieved without interference with or from the ongoing care of the mother. Following stabilization of the neonate, the newborn's vital signs must be maintained (e.g., by using prewarmed blankets). The room temperature is kept at a level higher than that customary for patient rooms or operating suites. Qualified nursing staff is available to assess the newborn during this period.

(2) Admission/observation (transitional care stabilization).

1. The admission/observation area is for careful assessment of the neonate's condition during the first 24 hours after birth (i.e., during the period of physiologic adjustment to extrauterine life). This assessment may take place within one or more functional areas (e.g., the room in which the mother is recovering, the LDRP room, the newborn nursery, or a separate admission/observation area). In some hospitals, the newborn nursery is the primary area for transitional care, both for neonates born within the hospital and for those born outside the hospital.

2. The admission/observation area should be near the delivery/Cesarean birth room. If it is part of the maternal recovery area, which is preferable, physical separation of the mother and newborn during this period can be avoided.

3. The capacity of the admission/observation area depends on the size of the delivery service and the duration of close observation. The admission/observation area is well lighted, has a wall clock, and contains emergency resuscitation equipment similar to that in the designated resuscitation area.

4. The physicians' and registered nurses' assessments of the neonate's condition determine the subsequent level of care. Most neonates are transferred from the admission/observation area to the newborn nursery or to the postpartum area for rooming-in. Some neonates may require transfer to another facility. Consultation with a pediatrician or neonatologist and possible referral to a hospital offering a higher level of care should be initiated for infants with respiratory distress or those infants requiring oxygen therapy for more than two hours.

(3) Newborn nursery. Routine care of apparently normal full-term neonates who have demonstrated successful adaptation to extrauterine life may be provided either in the newborn nursery or in the area where the mother is receiving postpartum care. The nursery should be relatively close to the postpartum area. The newborn nursery is well lighted, has a large wall clock, and is equipped for emergency resuscitation.

150.6(4) *Medical personnel.*

a. The obstetric/newborn care area is under the supervision of a board-eligible or board-certified obstetrician-gynecologist, pediatrician or a physician with special interest and experience in obstetrics or pediatrics.

b. Adequate anesthesia coverage by a qualified anesthesia provider is available in a timely fashion for emergency situations on a 24-hour-a-day, 7-day-a-week basis.

c. For Cesarean sections or if neonatal problems are anticipated during vaginal delivery, a second physician or attendant who is skilled in resuscitation and care of the neonate should be in attendance.

150.6(5) *Nursing personnel.* Nurses assigned to the obstetrical/neonatal service demonstrate competency in the care of the mother and infant.

a. *Staffing.* Registered nurses assigned to the obstetrical/neonatal service must be licensed to practice in Iowa, complete an obstetrical or neonatal orientation and demonstrate obstetrical or neonatal competencies as defined by each hospital. At least one of these registered nurses must be available at all times. The primary responsibility of the registered nurse is the delivery of nursing care and departmental organization.

b. *Labor/delivery/immediate postpartum/newborn.*

(1) A registered nurse is responsible for the admission assessment of the gravida in labor, as well as continuing assessment and support of the mother and fetus during labor, delivery and the early postpartum period.

(2) A registered nurse is responsible for the admission assessment of the newborn, as well as continuing assessment during the stabilization period.

(3) Licensed practical nurses, nursing assistants and other appropriate technical personnel may assist in the care of the gravida in labor, but should be under the direct supervision of the registered nurse.

c. *Later postpartum period/newborn care.*

(1) Nursing care of the mother and newborn is directed and supervised by a registered nurse. A licensed practical nurse may provide care for patients without complications.

(2) Nurses have a supporting and teaching role in assisting mothers to care for their infants. This should be recognized and fostered.

150.6(6) *Outreach education.* Level I hospitals should assume an active role in the development and coordination of wellness and preventive programs concerning maternal/child health at the community level (e.g., programs on family planning, family-life education, parenting, breast feeding, cessation of smoking).

150.6(7) *Allied health personnel and services.* Level I hospitals have available, but are not limited to, the following allied health personnel and services:

a. Registered dietitian with knowledge of maternal and neonatal nutrition management;

b. Social worker;

c. Bioengineer-safety and environmental control;

d. Pharmacy;

e. Radiology;

f. Laboratory;

g. Pathology.

150.6(8) *Infection control.*

a. Each hospital establishes written policies and procedures for assessing the health of personnel assigned to the perinatal care services and those who have significant contact with the newborn. This includes restricting their contact with patients when necessary. These policies and procedures include screening for tuberculosis and rubella. Routine culturing of specimens obtained from personnel is not useful, although selective culturing may be of value when a pattern of infection is suspected.

b. No special or separate isolation facilities are required for neonates born at home or in transit to the hospital. Detailed descriptions of the isolation categories and requirements should be available in each hospital's infection control manual.

150.6(9) *Newborn safety.* The protection of infants is the responsibility of all personnel in a facility. Infants are to be transported in a bassinet or stroller and should never be carried. Infants are transported one at a time and are never grouped in a hallway without direct supervision. Infants should always be within the sight and supervision of staff, the mother, or other family members or friends designated by the mother. Each hospital has a policy established that addresses strategies to promote infant safety.

150.6(10) *Maternal-fetal transport.* Maternal-fetal transport is an essential component of modern perinatal care. All facilities in the state providing obstetrics need to be familiar with their own resources and capabilities in dealing with obstetrical and neonatal complications. In most instances, maternal-fetal transport is preferable to neonatal transport. Each hospital, when transporting or accepting a transport,

needs a system in place to facilitate a smooth transition of care in the most expeditious manner possible. The majority of maternal-fetal transports can be carried out by ground transportation. It is important for ambulance services to be equipped for maternal-fetal transport and have appropriately trained staff.