

**641—150.9(135) Levels of neonatal care.** The levels of neonatal care include basic neonatal care Level I, specialty care Level II, and subspecialty intensive care Level III and Level IV. The levels reflect the overall evidence for risk-appropriate care through the availability of appropriate functional criteria, physical facilities, medical and nursing personnel, outreach education, allied health personnel and services, infection control, newborn or neonatal safety, neonatal transport and quality improvement.

**150.9(1) Level I neonatal care hospital.**

*a. Provider of basic neonatal care.* A Level I neonatal care hospital provides a basic level of care to neonates without complications. A Level I neonatal care hospital has the following capabilities:

- (1) To provide neonatal resuscitation at every delivery.
- (2) To evaluate and provide postnatal care to stable term newborn infants.
- (3) To stabilize and provide care for infants born at 35 to 37 weeks' gestation who remain physiologically stable.

(4) To stabilize newborn infants who are ill and those born at less than 35 weeks' gestation until transfer to a higher level of care.

(5) To provide leadership in early risk identification before and after birth.

(6) To seek consultation or referral for high-risk neonates.

(7) To provide public and professional education.

*b. Functions.* A Level I neonatal care hospital has 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, a newborn can be with its parents in the mother's room.

*c. Physical facilities.* A Level I neonatal care hospital will maintain a nursery for normal-term or late preterm neonates.

*d. Medical personnel.* At a Level I neonatal care hospital, neonatal care is under the supervision of one of the following:

- (1) A board-eligible or board-certified neonatologist,
- (2) A pediatrician,
- (3) A family medicine physician,
- (4) A board-eligible or board-certified advanced registered nurse practitioner, or
- (5) A physician assistant.

*e. Nursing personnel.* At a Level I neonatal care hospital, a registered nurse assigned to the neonatal service has nursing orientation to and demonstrates competency in the care of a neonate.

*f. Outreach education.* A Level I neonatal care hospital will assume an active role in the development and coordination of wellness and preventive programs concerning neonatal and child health at the community level, including parenting, breastfeeding, and cessation of smoking.

*g. Allied health personnel and services.* A Level I neonatal care hospital will have available, at a minimum, the following allied health personnel and services:

- (1) Dietitian with knowledge of maternal and neonatal nutrition management,
- (2) Social worker,
- (3) Bioengineer-safety and environmental control,
- (4) Pharmacy,
- (5) Radiology,
- (6) Laboratory,
- (7) Pathology, and
- (8) Chaplain, spiritual support.

*h. Infection control.*

(1) Each Level I neonatal care hospital will establish written policies and procedures for assessing the health of personnel assigned to the perinatal care services and of those who have significant contact with the newborn. The policies and procedures will include restricting contact with patients when necessary and screening per department recommendations for health care providers. Routine culturing of specimens obtained from personnel is not useful, although selective culturing may be of value when a pattern of infection is suspected.

(2) No special or separate isolation facility is required for neonates born at home or in transit to the hospital. Detailed descriptions of the isolation categories and requirements will be available in each hospital's infection control manual.

*i. Newborn safety.* At a Level I neonatal care hospital, the protection of newborns is the responsibility of all personnel in the neonatal care hospital. Newborns will always be within the sight and supervision of hospital staff, the mother, or other family members or friends designated by the mother. Each neonatal care hospital has a policy established that addresses strategies to promote newborn safety.

**150.9(2) Level II neonatal care hospital.**

*a. Provider of specialty care.* In addition to meeting the requirements for care and services as a Level I neonatal care hospital, a Level II neonatal care hospital will:

- (1) Provide management of certain high-risk neonates with selected complications.
- (2) Have a board-certified or board-eligible neonatologist(s) or a board-certified or board-eligible pediatrician(s) on staff, one of whom directs the special care nursery.

*b. Functions.* In addition to performing the functions of a Level I neonatal care hospital, a Level II neonatal care hospital will have the capability to:

- (1) At a minimum, manage neonates of greater than or equal to 32 weeks' gestation and weighing greater than or equal to 1,500 grams who have physiological immaturity or who are moderately ill with problems that are expected to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis and, for neonates of 32 weeks' gestation and weighing less than 1,500 grams, recommend consultation with a higher-level facility by prearranged consultative agreement.
- (2) Provide mechanical ventilation for a brief duration (less than 24 hours).
- (3) Provide continuous positive airway pressure as needed (less than 24 hours).
- (4) Stabilize infants born before 32 weeks and weighing less than 1,500 grams until transfer to a Level III or Level IV neonatal care hospital.
- (5) Provide care for infants convalescing after intensive care.

*c. Physical facilities.* In addition to having the physical facilities of a Level I neonatal care hospital, a Level II neonatal care hospital will have:

- (1) A special care nursery (a special area designated for the care of sick neonates),
- (2) A mechanical ventilator,
- (3) A portable X-ray machine,
- (4) A laboratory with a blood gas analyzer,
- (5) Physiologic monitoring equipment, and
- (6) A pharmacy.

*d. Medical personnel.* In addition to having the medical personnel of a Level I neonatal care hospital, a Level II neonatal care hospital will:

- (1) Be under the co-direction/supervision of a board-eligible or board-certified neonatologist or pediatrician.
- (2) Have a neonatologist or pediatrician on staff. Other provider types that may be utilized include a pediatric hospitalist, a neonatal nurse practitioner or pediatric nurse practitioner or a physician assistant with appropriate training.
- (3) Have allied medical specialists in various disciplines on staff, including specialists in internal medicine, radiology, and pathology.

*e. Nursing personnel.* In addition to having the nursing personnel of a Level I neonatal care hospital, a Level II neonatal care hospital has nursing orientation to and demonstrates competency in the care of sick neonates.

*f. Outreach education.* A Level II neonatal care hospital has the same responsibility for outreach education as that of a Level I neonatal care hospital.

*g. Allied health personnel and services.* In addition to having the allied health personnel and services of a Level I neonatal care hospital, a Level II neonatal care hospital has:

- (1) Respiratory therapists,
- (2) Certified laboratory technicians/blood gas technicians, and
- (3) X-ray technologists and ultrasound technicians with neonatal/perinatal experience.

*h. Infection control.* A Level II neonatal care hospital has the same infection control guidelines as those for a Level I neonatal care hospital.

*i. Neonatal safety.* A Level II neonatal care hospital has the same requirements for newborn safety as those for a Level I neonatal care hospital.

*j. Neonatal transport.* In addition to having the Level I neonatal care hospital capabilities for neonatal transport, a Level II neonatal care hospital is expected to accept patient referrals when appropriate. A critical function of providers at a Level II neonatal care hospital is to communicate with the providers at a Level I neonatal care hospital in deciding whether a particular patient should be transported to the Level II neonatal care hospital. Careful assessment of the hospital's capabilities for perinatal management will be critical in these decisions. This information will need to be disseminated among the hospital staff. Providers of obstetric care need to know the critical gestational age limitations for their particular nursery. Below this gestational age, maternal-fetal transport should be utilized if delivery is anticipated and the circumstances permit.

*k. Perinatal care committee.*

(1) A Level II neonatal care hospital must maintain a perinatal care committee. Members of this committee will represent, at a minimum, the fields of:

1. Obstetrics,
2. Pediatrics,
3. Family practice,
4. Nursing,
5. Administration,
6. Laboratory,
7. Respiratory therapy,
8. Anesthesia, and
9. Social services.

(2) Responsibilities of the perinatal care committee include the following:

1. To develop policies for the unit, including provisions to ensure adequate patient care by qualified providers.

2. To conduct a meeting, at least semiannually, to resolve problems related to the unit.

3. To review educational activities conducted by the unit.

4. To serve as a general liaison between the various groups represented on the committee.

**150.9(3) Level III neonatal care hospital.**

*a. Provider of subspecialty intensive care.* In addition to providing the care and services of a Level II neonatal care hospital, a Level III neonatal care hospital will manage high-risk neonates, including infants born at less than 32 weeks or weighing less than 1,500 grams. High-risk neonates requiring surgical intervention or pediatric subspecialty should go to a Level IV neonatal care hospital.

*b. Functions.* In addition to performing the functions of a Level II neonatal care hospital, a Level III neonatal care hospital will have the capability to:

(1) Provide sustained life support.

(2) Provide comprehensive care for infants born at less than 32 weeks and weighing less than 1,500 grams and infants born at all gestations and birth weights who have critical illness.

(3) Provide an organized program for monitoring treatment and follow-up of retinopathy of prematurity.

(4) Maintain a prearranged consultative agreement with a higher-level hospital within the Level III neonatal care hospital's referral area.

(5) Transfer a surgical patient within approximately two hours from the time the referral call is made until arrival at the referral hospital.

(6) Provide follow-up care for high-risk newborns.

*c. Physical facilities.* In addition to having the physical facilities of a Level II neonatal care hospital, a Level III neonatal care hospital:

(1) Has a neonatal intensive care unit with continuously available personnel, including a neonatologist, neonatal nurses and respiratory therapists to provide life support for as long as necessary.

(2) Provides a full range of respiratory support that includes invasive mechanical ventilation and may include high-frequency ventilation or inhaled nitric oxide or both.

(3) Performs advanced imaging, with interpretation on an urgent basis, including computed tomography, magnetic resonance imaging, and echocardiography.

(4) Maintains a neonatal transport team for the regional area served.

*d. Medical personnel.* In addition to having the medical personnel of a Level II neonatal care hospital, a Level III neonatal care hospital will:

(1) Have a medical director of the neonatal intensive care unit who is a full-time, board-eligible or board-certified neonatologist.

(2) Provide prompt and readily available access to the following, either on site or by prearranged consultative agreement. Using telemedicine technology or telephone consultation, a prearranged consultation can be performed from a distant location by:

1. Pediatric medical subspecialists,
2. A pediatric surgical specialist,
3. A pediatric anesthesiologist, and
4. A pediatric ophthalmologist.

(3) Have a neonatologist on the premises when an unstable critically ill infant is in the Level III neonatal care hospital.

*e. Nursing personnel.* A Level III neonatal care hospital has the same requirements for nursing personnel as those of a Level II neonatal care hospital.

*f. Outreach education.* Outreach education is provided to each hospital in the referral area at least once per year. This outreach education can be achieved by one or more of the following:

- (1) Sponsoring an annual conference.
- (2) Visiting a Level I neonatal care hospital and a Level II neonatal care hospital.
- (3) Providing educational programs and materials for the staff members of the Level I and Level II neonatal care hospitals.

*g. Allied health personnel and services.* In addition to having the allied health personnel and services of a Level II neonatal care hospital, a Level III neonatal care hospital has:

(1) X-ray technologists and ultrasound technicians with neonatal/perinatal experience, available on a 24-hour basis.

(2) Social work services with social workers assigned specifically to the neonatal units.

*h. Infection control.* A Level III neonatal care hospital has the same infection control guidelines as those of a Level I neonatal care hospital.

*i. Neonatal safety.* A Level III neonatal care hospital has the same requirements for newborn safety as those for a Level I neonatal care hospital.

*j. Neonatal transport.* In addition to having the Level II neonatal care hospital transport capabilities, a Level III neonatal care hospital is capable of providing neonatal transport with crews who have demonstrated competence in neonatal resuscitation and stabilization. Important decisions to be made jointly will include:

- (1) The appropriateness of transport.
- (2) The best mode of transportation.
- (3) The need for additional personnel accompanying the transport.
- (4) The appropriate medical management to initiate prior to transport.

*k. Perinatal care committee.* A Level III neonatal care hospital shall maintain a perinatal care committee that meets the same criteria as those for a Level II neonatal care hospital.

**150.9(4) Level IV neonatal care hospital.**

*a. Provider of subspecialty intensive care.* In addition to providing the level-of-care services of a Level III neonatal care hospital, a Level IV neonatal care hospital manages higher-risk neonates. The differentiating factor between a Level III neonatal care hospital and a Level IV neonatal care hospital is primarily one of having additional professional staff with considerable experience in the care of the most complex and critically ill infants and having the ability to provide surgical repair of complex congenital or acquired conditions.

*b. Physical facilities.* In addition to having the physical facilities of a Level III neonatal care hospital, a Level IV neonatal care hospital has more equipment, more extensive physical facilities and will serve a more complicated patient population.

*c. Medical personnel.* In addition to having the medical personnel of a Level III neonatal care hospital, a Level IV neonatal care hospital will:

(1) Have a medical director of the neonatal intensive care unit who is a full-time, board-certified neonatologist.

(2) Have anesthesia providers on staff with special training or experience in pediatric anesthesia.

(3) Maintain a full range of pediatric medical subspecialists and pediatric surgical subspecialists at the site.

(4) Have the subspecialist physicians immediately available to the Level IV neonatal care hospital.

(5) Have a neonatologist on the premises when an unstable critically ill infant is in the Level IV neonatal care hospital.

*d. Nursing personnel.* A Level IV neonatal care hospital has the same requirements for nursing personnel as those for a Level II neonatal care hospital.

*e. Outreach education.* A Level IV neonatal care hospital has the same responsibilities for outreach education as those for a Level III neonatal care hospital.

*f. Allied health personnel and services.* A Level IV neonatal care hospital has the same level of allied health personnel and services as that of a Level III neonatal care hospital.

*g. Infection control.* A Level IV neonatal care hospital has the same infection control guidelines as those for a Level I neonatal care hospital.

*h. Neonatal safety.* A Level IV neonatal care hospital has the same requirements for neonatal safety as those for a Level I neonatal care hospital.

*i. Neonatal transport.* In addition to meeting the neonatal transport requirements of a Level III neonatal care hospital, a Level IV neonatal care hospital is capable of providing ground and air transportation with crews who have demonstrated competencies in neonatal resuscitation and stabilization.

*j. Perinatal care committee.* In addition to maintaining a perinatal care committee that meets the same criteria as those for a Level II neonatal care hospital, a Level IV neonatal care hospital maintains a perinatal care committee that has additional representation by surgical specialties. The Level IV neonatal care hospital's perinatal care committee will maintain and analyze data on long-term outcomes to evaluate the effectiveness of the delivery of perinatal health care services.

This rule is intended to implement Iowa Code section 135.11(27).

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