Pediatric Emergency Care Facilities Standards for the State of Delaware

Background

In 1997 Delaware received its first grant to plan development of a program to improve emergency medical care for children. From 1998-2006 the focus of grant activities was on injury prevention and the pre-hospital environment. During this time the federal government passed the Government Performance and Results Act. As a result, government agencies are held accountable for achieving goals and objectives. This affects the Emergency Medical Services for Children (EMSC) program in Delaware since in previous funding cycles states could identify their own individual priorities. However, this made it difficult for program administrators at the federal level to measure how the program made a difference on the national level. With all states working on the same Performance Measures the program will now be able to easily determine EMSC progress made in state EMS systems.

To identify the best Performance Measures for the EMSC program, in 2005 the EMSC National Resource Center formed a consensus group that convened in Silver Springs, Maryland. The group was comprised of expert physicians, nurses, administrators, paramedics and emergency medical technicians who worked to identify components of successful EMSC programs across the country. With assistance from the Lewin Group, the National Resource Center and the Health Resources and Services Administration issued and approved a set of EMSC Performance Measures that serve as the roadmap for all EMSC state Partnership grantees in the 56 states and territories.

In July 2007, the state EMSC Advisory Committee convened a group of clinical experts in emergency care that included active practicing physicians and nurses from all eight hospitals in Delaware.

This Pediatric Emergency Care Facility Standards document was developed by the following Delaware clinical emergency care experts:

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The group relied upon documents and regulations adopted in other states such as California, Illinois and Tennessee. The purpose of having pediatric standards for our emergency departments is to take the first step in organizing a system of emergency care for children in Delaware. Outcomes have improved for the citizens in Delaware as a result of trauma system implementation. Our intent is to do the same for children. We have a system in place that provides organized pediatric trauma care at the state level, but we lack a system for pediatric medical care.

The group included all levels of emergency departments as these standards were developed. We recognize that the availability of services and smooth and timely interfacility transfers will be key components of the system. It was also noted that the standards were developed to improve pediatric care and services and encourage all facilities to participate. We want every facility and freestanding emergency center to be part of the emergency care system for children. This is an opportunity to recognize our commitment to pediatric care. Please use this document as a guide to providing pediatric emergency services in Delaware.

STANDARDS FOR DELAWARE PEDIATRIC EMERGENCY CARE FACILITIES

Definitions

1. AAP – American Academy of Pediatrics
2. ACEP – American College of Emergency Physicians
3. ACS – American College of Surgeons
4. ACLS – Advanced Cardiac Life Support
5. APLS – Advanced Pediatric Life Support
6. CME – Continuing Medical Education
7. CPR – Cardiopulmonary Resuscitation
8. Department – refers to the Department of Health and Social Services
9. Division – refers to the Delaware Division of Public Health
10. D – Desired in hospital or in licensed emergency care facility
11. E – Essential in hospital or in licensed emergency care facility
12. ECG – Electrocardiogram
13. ED – Emergency Department
14. EMS – Emergency Medical Services
15. EMSC – Emergency Medical Services for Children
16. ENA – Emergency Nurses Association
17. ENPC – Emergency Nursing Pediatric Course
18. FTE-Full time equivalent
19. ICP – Intracranial pressure
20. IV – Intravenous
21. IM – Intramuscular
22. OR – Operating Room
23. PA – Physician's Assistant
24. PALS – Pediatric Advanced Life Support
25. PECF – Pediatric Emergency Care Facility – Facilities that provide emergency services and are classified according to their ability to manage and/or stabilize neonates, infants and children (through age 12 at a minimum) in an emergency. The classifications are:
    a. Level I – The most comprehensive level of care. The facility will be capable of providing comprehensive specialized pediatric medical and surgical care to all acutely ill and injured children. The center will be responsible for serving as a regional referral center for the specialized care of pediatric patients or in special circumstances provide safe and timely transfer of children to other facilities for specialized care.

b. Level II – The facility will have a defined separate pediatric inpatient service and a department of pediatrics within the medical staff structure. A Level II Facility will have a PICU as defined by the American Academy of Pediatrics. A Level II facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients, including the management of airway, breathing, circulation and disability, and will also provide ongoing inpatient care or appropriate transfer to a definitive care facility. Pediatric patients will arrive via EMS or private vehicle. The facility may accept appropriate referrals of pediatric patients from Level III and Level IV Pediatric Facilities as part of prearranged triage, transfer and transport agreements.

c. Level III – The facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients, including the management of airway, breathing and circulation, and will have limited capabilities for the management of minor pediatric inpatient problems. The facility may accept appropriate referrals of pediatric patients from Level IV Pediatric Facilities as part of prearranged triage, transfer and transport agreements.

d. Level IV – The facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients, including the management of airway, breathing and circulation, and providing an appropriate transfer to a definitive care facility. A Level IV facility will not accept pediatric transfers from another medical facility and will not have any pediatric inpatient admission capability.

26. Pediatric Nursing Coordinator – Registered Nurse assigned to coordinate and manage PECF issues
27. Pediatric Physician Coordinator – Physician assigned to coordinate and manage PECF issues
28. PICU – Pediatric Intensive Care Unit – Found in American Academy of Pediatrics Guidelines
29. PI-Performance Improvement and move above
30. RN – Registered Nurse
31. RRT – Registered Respiratory Therapist
32. Trauma Registry – A central registry comprised of injury information supplied by designated trauma centers for the purpose of allowing the Trauma System Committee to analyze data and conduct special studies regarding the causes and consequences of traumatic injury.

PEDIATRIC EMERGENCY CARE FACILITY (PECF) LEVEL I

The most comprehensive level of care. The facility will be capable of providing comprehensive specialized pediatric medical and surgical care to all acutely ill and injured children. The center will be responsible for serving as a regional referral center for the specialized care of pediatric patients or in special circumstances provide safe and timely transfer of children to other facilities for specialized care.

Procedure

The facility will, on a voluntary basis, determine that it wishes to serve as a Level I PECF. An application for Level I will be completed by facility authorized representatives.

1. The application will be signed by the facility Chief Executive Officer, the Physician Director of the Emergency Department, the Nurse Director or Manager, the Pediatric Nurse Coordinator and the Pediatric Physician Coordinator of the emergency department.
2. The application will be submitted to the Office of EMS/Division of Public Health through a traceable means. If it is hand delivered obtain a receipt from Office of EMS staff.
3. The application will be reviewed by the Office of EMS and brief feedback provided prior to scheduling a site visit.
4. The facility will receive a written report of site visit with either a letter of recognition or a list of areas for improvement with information on steps that can be taken to receive the letter of recognition.

Administration

1. Facility administration at a Level I PECF will assure that the following is provided to the citizens and visitors of Delaware:
    a. Properly trained personnel to provide the services expected at the designated Level I PECF.
    b. The financial resources to provide the emergency department or the pediatric emergency department with the equipment necessary to provide the level of services at the designated Level I PECF.
    c. Facilities designed for easy access and appropriate care of pediatric patients at a designated Level I PECF.
    d. Access to emergency care for all urgent and emergent pediatric patients regardless of financial status.
    e. Participation in a network of pediatric emergency care services to:
        i. Provide appropriate transfer and support;
        ii. Refer seriously and critically ill patients and special needs patients to an appropriate facility and;
        iii. Support agreements to receive or transfer patients appropriately.

f. A collaborative environment with Emergency Medical Services and Emergency Medical Services for Children systems to educate pre-hospital personnel, nurses and physicians regarding pediatric emergency care.

g. Participation in data collection to assure that the quality indicators established by EMSC are monitored.

h. Provision of data to the State Trauma System Quality Evaluation Committee until an EMSC Quality Committee is formally established with necessary confidentiality protection in place.

i. Communication with pre-hospital care and transport.

j. Public education regarding access to pediatric emergency care, injury prevention, first aid and cardiopulmonary resuscitation.

k. A system for tracking transfers in and out of the facility.

l. Incorporation into the hospital's existing internal quality assessment and improvement program and process for review at a minimum the following pediatric issues and indicators:

    i. Deaths;

    ii. Cardiac or respiratory arrests;

    iii. Patients that require intubation or vasopressors;

    iv. Admissions within 72 hours after being discharged from the emergency department;

    v. Surgery within 72 hours after being discharged from the emergency department;

    vi. Transfers out.

2. A Level I facility will also:

    a. Provide guidance or offer insight to local and state agencies for Emergency Medical Services and Emergency Medical Services for Children in organizing and implementing a network for providing pediatric emergency care within a defined region within the state that:

        i. Provides transfer and transport agreements with other classifications of facilities;

        ii. Provides transport services when needed for receiving critically ill or injured patients within the state network;

        iii. Serves as a resource to participating Delaware hospitals (this includes phone transmitted and or other communicated guidance on how to provide pediatric medical care);

        iv. Provides indirect (off-line) consultation, support and education to Delaware pre-hospital systems and supports the efforts of Delaware and Delaware pre-hospital committees;

        v. Provides medical support to assure quality direct (on-line) medical control for all pre-hospital systems within Delaware;

        vi. Organizes and implements a network of educational support that:

            1. Trains instructors to teach pediatric pre-hospital, nursing and physician-level pediatric emergency care;

2. Supports Emergency Medical Service agencies and Emergency Medical Services leaders in maintaining a Delaware network of pediatric pre-hospital provider education and training;
3. Disseminates new information and assists in maintenance of pediatric emergency skills;
4. Provides input into updates standards of care protocols for pediatric emergency care;
5. Assures that emergency departments and pediatric intensive care units within the facility will participate in pediatric education for emergency medical service providers, emergency departments and the public;
6. Provides public education and promotes family-centered care in relation to policies, programs and environments for children treated in emergency departments.

3. Assist in organizing and providing support for regional, state and national data collection efforts for EMSC:
    a. Defines the population served;
    b. Maintains and monitors pediatric specific quality indicators;
    c. Includes injury and illness epidemiology;
    d. Includes trauma/illness registry (this will include severity, site, mechanism and classification of injury/illness, plus demographic information, outcomes and transport information);
    e. Is available to answer questions for clinical research; and
    f. Supports active institutional and collaborative state research
4. Organize a structured statewide quality assessment and improvement program with the assistance and support of State Emergency Medical Services and EMSC agencies that allows ongoing review and:
    a. Provides feedback, quality review and information to all participating facilities, emergency medical services and transport systems, and appropriate state agencies as requested;
    b. Develops quality indicators for the review of pediatric care which are linked to periodic continuing education and reviewed at all participating institutions;
    c. Evaluates the emergency services provided for children for emphasis on family-centered philosophy of care, family participation in care, family support during emergency visits and transfers and family information and decision-making.
5. Have an organized pediatric training program for staff physicians, nurses, allied health personnel, community physicians and pre-hospital providers;
6. Have a pediatric intensive care unit and emergency department (ED) in which the staff train healthcare professionals in aspects of pediatric emergency and critical care. In addition, staff workers in the pediatric intensive care unit and ED will routinely attend or participate in regional and national meetings with course content pertinent to pediatric emergency and critical care medicine.

Admissions, Discharges and Transfers

1. A Level I will support Level II, Level III and Level IV facilities within the state by having triage and transfer agreements to receive appropriate patients as a part of the state pediatric care network.
2. A Level I will have a defined separate pediatric inpatient service with a department of pediatrics within the medical staff structure.
3. A Level I will:
    a. Assist with the provision of the state pre-hospital direct medical control for pediatric patients when requested.
    b. Promote a state network of direct medical control by facilities within the region by working closely with the State of Delaware Emergency Medical Services Medical Director to create and maintain:
        i. Standards for pre-hospital care;
        ii. Triage and transfer guidelines;
        iii. Quality indicators for pre-hospital care.
    c. Accept all patients from a defined region who require specialized care not available at Level II – IV hospitals within the state through:
        i. Prearranged transfer agreements that network facilities within the state to provide appropriate inter-emergency department triage and transfer to assure optimum care for seriously and critically ill or injured pediatric patients; and
        ii. Prearranged transfer agreements for patients needing specialized care not available at the Level I.
    d. Assure accessibility of a pediatric transport service that:
        i. Is available to all participating facilities;
        ii. Provides a network for transport of appropriate patients from all state of Delaware hospitals to the Level I or to an alternative facility when necessary;
        iii. Transports children to the most appropriate facility in the state for care;
        iv. Provide 24-hour consultation to all levels II through IV facilities for issues regarding:
            1. Emergency care and stabilization;
            2. Triage and transfer;
            3. Transport.

Participating Hospital Functions

Medical Services

1. In a Level I PECF a Pediatric Physician Coordinator for pediatric emergency medicine is appointed by the ED Medical Director. A dedicated FTE (fulltime equivalent) is not required.
2. The Pediatric Physician Coordinator must have the following qualifications:

a. Meets the qualifications for credentialing by the Hospital as a specialist in emergency medicine or pediatric emergency medicine.
b. Maintains competency in pediatric emergency care.
c. The Pediatric Physician Coordinator may be a staff physician who is currently assigned other roles in the ED, or may be shared through formal consultation agreements with professional resources from facilities capable of providing definitive pediatric care. A dedicated FTE is not required.

3. The Pediatric Physician Coordinator will:
    a. Promote and verify adequate skill and knowledge of ED staff physicians in the emergency care and resuscitation of infants and children.
    b. Participate in ED pediatric quality improvement (QI), performance improvement (PI), patient safety and clinical care activities.
    c. Assist with development and periodic review of ED medications, equipment, supplies, policies, and procedures.
    d. Serve as liaison/coordinator to appropriate in-hospital and out-of-hospital pediatric care committees in the community.
    e. Serve as liaison/coordinator to EMS agencies; primary care providers; health insurers; and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
    f. Facilitate pediatric emergency education for ED health care providers and out-of hospital providers affiliated with the ED.
    g. Assure that emergency physicians demonstrate competency in providing care to children of all ages, neonate through adolescence.
    h. Ensure pediatric needs are addressed in hospital disaster/emergency preparedness plans.
4. A Level I will have a pediatric emergency physician in-house 24 hours per day, 7 days per week. The emergency department physician will be competent in the care of pediatric emergencies including:
    a. The recognition and management of shock and respiratory failure,
    b. The stabilization of pediatric trauma patients,
    c. Advanced airway skills (intubation, needle thoracostomy),
    d. Vascular access skills (including intraosseous needle insertion),
    e. Thorough screening neurologic assessment, and
    f. Interpretation of physical signs and laboratory values in an age-appropriate manner.

For physicians not board-certified/admissible by the American Board of Emergency Medicine, successful completion of Pediatric Advanced Life Support (PALS) or a comparable course approved by the Director of Public Health and the EMSC Advisory Committee is required. The American Academy of Pediatrics and American College of Emergency Physician's Advanced Pediatric Life Support (APLS) or a similar course approved by the Director of Public and the EMSC Advisory Committee can be utilized to demonstrate clinical capability.

A pediatrician or family practitioner, surgeon with trauma experience, anesthetist/anesthesiologist, and radiologist will be promptly available 24 hours per day.

5. In a Level I the emergency department medical director will be board certified in pediatric emergency medicine. The medical director will work with administration to assure highly skilled pediatric emergency physician coverage.
6. A Level I will have 24 hour ED coverage by physicians who are board certified in emergency medicine, and preferably board certified, board eligible, or fellows (second year level or above) in pediatric emergency medicine. All physicians in pediatric emergency medicine will participate on at least an in annual basis in continuing medical education activities relevant to pediatric emergency care.
7. In a Level I the pediatric intensive care unit (PICU) will have an appointed medical director. The medical director of the PICU will meet one of the following criteria:
    a. Board certified or board eligible in pediatrics and board-certified or in the process of certification in pediatric critical care medicine;
    b. Board certified in anesthesiology with practice limited to infants and children with special qualifications (as defined by the American Board of anesthesiology) in critical care medicine;
    c. Board certified in pediatric surgery with added qualifications (as defined by the American Board of Surgery) in surgical critical care medicine. The pediatric intensive care unit medical director will achieve certification within five years of initial acceptance into the certification process for critical care medicine (board certified or eligible).
8. The PICU will have a least one physician of minimum postgraduate year two level available to the pediatric intensive care units in-house 24 hours per day. All physicians in pediatric critical care will participate in annual continuing medical education relevant to pediatric intensive care medicine.
9. Specialist consultants will be board certified or board admissible and actively seeking certification in disciplines in which a specialty exists. A Level I will be staffed with specialist consultants with pediatric subspecialty training.

Nursing Services

1. A Pediatric Nursing Coordinator for pediatric emergency care is appointed by the ED Nursing Director. A dedicated FTE is not required.
2. The Pediatric Nursing Coordinator must have the following qualifications:
    a. Is a Registered Nurse (RN) and has special interest, knowledge and skill in the emergency medical care of children as demonstrated by training, clinical experience, or focused continuing nursing education.
    b. Maintains competency in pediatric emergency care.
    c. Is credentialed and has competency verification per facility policies and guidelines to provide care to children of all ages.

The Pediatric Nursing Coordinator may be a staff nurse who is currently assigned other roles in the ED, such as Clinical Nurse Specialist. There is not an FTE requirement.

3. The Pediatric Nursing Coordinator will:
    a. Facilitate ED pediatric PI activities.
    b. Serve as liaison to appropriate in-hospital and out-of-hospital pediatric care committees.
    c. Serve as liaison to inpatient nursing as well as to a definitive care facility, a regional pediatric referral hospital and trauma center, EMS agencies, primary care providers, health insurers and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
    d. Facilitate along with facility-based educational activities, ED nursing continuing education in pediatrics and assure specific elements are included in orientation for new staff members.
    e. Assure that emergency nurses demonstrate competency in providing care to children of all ages, neonate through adolescence.
    f. Promote pediatric disaster preparedness for the ED.
    g. Provide assistance and support for pediatric education of out-of-hospital providers affiliated with the ED.
    h. Assure the availability of pediatric equipment and medications.
4. In a Level I at least one RN and/or NP will be physically present 24 hours per day, seven days per week, and capable of recognizing and managing shock and respiratory failure and stabilizing pediatric trauma patients; including early recognition and stabilization of problems that may lead to shock and respiratory failure. At least one ED registered nurse per shift will have successfully completed the American Heart Association Pediatric Advanced Life Support (PALS) course. The Emergency Nurses Association Emergency Nursing Pediatric Course (ENPC) is also recommended. The RN on duty must have demonstrated clinical competency in pediatric emergency care. Documentation of current expiration date for the above courses will be maintained by the facility and available upon request.

Facility Structure and Equipment

1. A Level I will have a pediatric intensive care unit (PICU).
2. A Level I will be designated as a pediatric trauma center. A Level I may fulfill this requirement by having written transfer agreements with another Level I that meets the State's criteria for Level I trauma or an Adult Level I trauma center within the same region.
3. Emergency staff in all facilities will be able to provide information on patient encounters to the patient's primary medical provider through telephone contact at the time of encounter, or by providing the patient with a copy of the medical record to take to the physician. Follow-up visits will be arranged or recommended with the primary care provider whenever necessary.
4. An emergency cart or other systems to organize supplies including resuscitation equipment, drugs, printed pediatric drug doses and pediatric reference materials must be readily available. Equipment, supplies, trays,

and medications will be easily accessible, labeled and logically organized. Antidotes necessary for a specific geographic area should be determined through consultation with a poison control center. If the listed medications are not kept in the emergency department, they should be kept well organized and together in a location easily accessible and close to the emergency department.

PEDIATRIC EMERGENCY CARE FACILITY (PECF) LEVEL II

The facility will have a defined separate pediatric inpatient service and a department of pediatrics within the medical staff structure. A Level II facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients, including the management of airway, breathing, circulation and disability, and will also provide ongoing inpatient care or appropriate transfer to a definitive care facility. The facility may accept appropriate referrals of pediatric patients from Level III and Level IV Pediatric Emergency Care Facilities as part of prearranged triage, transfer and transport agreements.

Procedure

The hospital will, on a voluntary basis, determine that it will serve as the Level II PECF. An application for Level II will be completed by the hospital authorized representatives.

1. The application will be signed by the facility Chief Executive Officer, the Physician Director of the Emergency Department, the Nurse Director or Manager, the Pediatric Nurse Coordinator and the Pediatric Physician Coordinator of the emergency department.
2. The application will be submitted to the Office of EMS/Division of Public Health through a traceable means. If it is hand delivered obtain a receipt from Office of EMS staff.
3. The application will be reviewed by the Office of EMS and brief feedback provided prior to scheduling a site visit.
4. The facility will receive a written report of site visit with either a letter of recognition or a list of areas for improvement with information on steps that can be taken to receive the letter of recognition.

Administration

1. Facility administration at a Level II PECF will assure that the following is provided to the visitors and citizens of Delaware:
    a. Properly trained personnel to provide the services expected at the designated Level II PECF.
    b. The financial resources to provide the emergency department or the pediatric emergency department with the equipment necessary to provide the level of services at the designated Level II PECF.
    c. Facilities designed for easy access and appropriate care of pediatric patients at a designated Level II PECF.
    d. Access to emergency care for all urgent and emergent pediatric patients regardless of financial status.
    e. Participation in a network of pediatric emergency care services within the state to:
        i. Provide appropriate transfer and transport;
        ii. Refer seriously and critically ill patients and special needs patients to an appropriate facility; and

iii. Support agreements to receive or transfer patients appropriately.

f. Participation in data collection to assure that the quality indicators established by EMSC are monitored.

g. Provision of data to the State Trauma System Quality Evaluation Committee until an EMSC Quality Committee is formally established with necessary confidentiality protection in place.

h. Communication with pre-hospital care and transport.

i. Public education regarding access to pediatric emergency care, injury prevention, first aid and cardiopulmonary resuscitation.

j. A system for tracking transfers in and out of the facility.

k. Incorporation into the facility's existing internal quality assessment and improvement program and process a review of the following pediatric issues and indicators:

i. Deaths;

ii. Cardiac or respiratory arrests;

iii. Patients that require intubation or vasopressors;

iv. Admissions within 72 hours after being discharged from the emergency department;

v. Surgery within 72 hours after being discharged from the emergency department;

vi. Transfers out.

2. A Level II facility will also:

a. Participate in a structured statewide quality assessment and improvement program with the assistance and support of State EMS and EMSC agencies that allows ongoing system review and:

i. Provides feedback, quality review and information to all participating facilities, emergency medical services and transport systems, and appropriate state agencies as requested;

ii. Develops quality indicators for the review of pediatric care which are linked to periodic continuing education and reviewed at all participating institutions;

iii. Evaluates the emergency services provided for children for emphasis on family-centered philosophy of care, family participation in care, family support during emergency visits and transfers and family information and decision making.

iv. Makes data available to the State Trauma Quality Committee until an EMSC Quality Committee is formally established with necessary confidentiality protections in place.

v. Reviews system issues such as transfer and transport agreements and services, on and off-line medical direction, prehospital and public education, and data collection.

b. Have an organized pediatric training program by and for staff physicians, nurses, allied health personnel, community physicians and pre-hospital providers.

Admissions, Discharges and Transfers

1. A Level II will support Level I, Level III and Level IV within the state by having triage and transfer agreements to send and to receive appropriate patients as a part of the state pediatric care network.
2. A Level II will have a defined separate pediatric inpatient service with a department of pediatrics within the medical staff structure.
3. A Level II will:
    a. Assist with the provision of the state pre-hospital direct medical control for pediatric patients when requested.
    b. Promote a state network of direct medical control by hospitals within the region by working closely with the State of Delaware EMS Medical Director to create and maintain:
        i. Standards for pre-hospital care;
        ii. Triage and transfer guidelines;
        iii. Quality indicators for pre-hospital care.
    c. Accept all patients from a defined region who require specialized care not available at Level III – IV facilities within the state through:
        i. Prearranged transfer agreements that network hospitals within the state to provide appropriate inter-emergency department triage and transfer to assure optimum care for seriously and critically ill or injured pediatric patients;
        ii. Prearranged transfer agreements for patients needing specialized care not available at the Level II.
4. Level II will be capable of providing resuscitation, stabilization and timely triage for all pediatric patients and, when appropriate, transfer of patients to a higher level facility. Level II is responsible for having appropriate transfer agreements to assure that all pediatric patients receive timely emergency care at the most appropriate pediatric facility available. Each facility will have transfer agreements with a Level I Facility for pediatric transfer and consultation.
5. A Level II will support the Level III and Level IV within the state by having triage and transfer agreements to receive appropriate patients as a part of the state pediatric care network.

Participating Hospital Functions

Medical Services

1. A Pediatric Physician Coordinator for pediatric emergency medicine is appointed by the ED Medical Director. A dedicated FTE is not required.
2. The Pediatric Physician Coordinator has the following qualifications:
    a. Meets the qualifications for credentialing by the facility as a specialist in emergency medicine or pediatric emergency medicine.

b. Has special interest, knowledge, and skill in emergency medical care of children as demonstrated by training, clinical experience, or focused continuing medical education.
c. Maintains competency in pediatric emergency care.

The Pediatric Physician Coordinator may be a staff physician who is currently assigned other roles in the ED. A dedicated FTE is not required.

3. The Pediatric Physician Coordinator will:
    a. Promote and verify adequate skill and knowledge of ED staff physicians in the emergency care and resuscitation of infants and children.
    b. Oversee ED pediatric performance improvement (PI), patient safety, and clinical care activities.
    c. Assist with development and periodic review of ED medications, equipment, supplies, policies and procedures.
    d. Serve as liaison/coordinator to appropriate in-hospital and out-of-hospital pediatric care committees in the community.
    e. Serve as liaison/coordinator to a definitive care facility, which includes a regional pediatric referral hospital and trauma center; EMS agencies; primary care providers; health insurers; and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
    f. Facilitate pediatric emergency education for ED health care providers and out-of-hospital providers affiliated with the ED.
    g. Assure that physicians demonstrate competency in providing care to children of all ages, neonate through adolescence.
    h. Ensure pediatric needs are addressed in hospital disaster/emergency preparedness plans.
4. A Level II will have an emergency physician in-house 24 hours per day, 7 days per week. The emergency department physician will be competent in the care of pediatric emergencies including:
    a. Recognition and management of shock and respiratory failure
    b. Stabilization of pediatric trauma patients,
    c. Advanced airway skills (intubation, needle thoracostomy),
    d. Vascular access skills (including intraosseous needle insertion),
    e. Thorough screening neurologic assessment, and
    f. Interpretation of physical signs and laboratory values in an age-appropriate manner.

For physicians not board-certified/admissible by the American Board of Emergency Medicine, successful completion of Pediatric Advanced Life Support (PALS) or a comparable course approved by the Director of Public Health and the EMSC Advisory Committee is required. The American Academy of Pediatrics and American College of Emergency Physician's Advanced Pediatric Life Support (APLS) or a similar course approved by the Director of Public and the EMSC Advisory Committee can be utilized to demonstrate clinical capability.

A pediatrician or family practitioner, surgeon with trauma experience, anesthetist/anesthesiologist, and radiologist will be promptly available 24 hours per day.

5. A Level II will have an emergency department medical director who is board certified. The physician director will work with administration to assure physician coverage that is highly skilled in emergency medicine and pediatric emergencies.
6. A Level II will have 24 hour ED coverage by physicians who are board certified in emergency medicine or board eligible. All Physicians in emergency medicine will participate on at least an annual basis in continuing medical education activities relevant to pediatric emergency care.
7. In a Level II the PICU will have an appointed medical director. Medical directors of the PICU will meet one of the following criteria:
    a. Board certified or board eligible in pediatrics and board-certified or in the process of certification in pediatric critical care medicine;
    b. Board certified in anesthesiology with practice limited to infants and children with special qualifications (as defined by the American Board of anesthesiology) in critical care medicine;
    c. Board certified in pediatric surgery with added qualifications (as defined by the American Board of Surgery) in surgical critical care medicine. The pediatric intensive care unit medical director will achieve certification within five years of initial acceptance into the certification process for critical care medicine (board-certified or eligible).
8. The PICU medical director will name qualified substitutes to fulfill his or her duties during absences. The pediatric intensive care unit medical director or designated substitute will have the institutional authority to consult on the care of all pediatric intensive care unit patients when indicated. He or she may serve as the attending physician on all, some, or none of the patients in the unit.

Nursing Services

1. A Pediatric Nursing Coordinator for pediatric emergency care is appointed by the ED Nursing Director. A dedicated FTE is not required.
2. The Pediatric Nursing Coordinator must have the following qualifications:
    a. Is a registered Nurse (RN) and has special interest, knowledge and skill in the emergency medical care of children as demonstrated by training, clinical experience, or focused continuing nursing education.
    b. Maintains competency in pediatric emergency care.
    c. Is credentialed and has competency verification per facility policies and guidelines to provide care to children of all ages.

The Pediatric Nursing Coordinator may be a staff nurse who is currently assigned other roles in the ED, such as Clinical Nurse Specialist. A dedicated FTE is not required.

3. The Pediatric Nursing Coordinator will:

a. Facilitate ED pediatric PI activities.
b. Serve as liaison to appropriate in-hospital and out-of-hospital pediatric care committees.
c. Serve as liaison to inpatient nursing as well as to a definitive care hospital, a regional pediatric referral hospital and trauma center, EMS agencies, primary care providers, health insurers and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
d. Facilitate along with facility-based educational activities, ED nursing continuing education in pediatrics and assure specific elements are included in orientation for new staff members.
e. Assure that emergency nurses demonstrate competency in providing care to children of all ages, neonate through adolescence.
f. Promote pediatric disaster preparedness for the ED.
g. Provide assistance and support for pediatric education of out-of-hospital providers affiliated with the ED.
h. Assure the availability of pediatric equipment and medications.
i. The Pediatric Nursing Coordinator should have protected time for the program to implement and maintain the standards and goals.

4. In a Level II at least one RN and/or NP will be physically present 24 hours per day, seven days per week, and capable of recognizing and managing shock and respiratory failure and stabilizing pediatric trauma patients; including early recognition and stabilization of problems that may lead to shock and respiratory failure. At least one ED registered nurse per shift will have successfully completed the American Heart Association Pediatric Advanced Life Support (PALS) course. The Emergency Nurses Association Emergency Nursing Pediatric Course (ENPC) is also recommended. The RN on duty must have demonstrated clinical competency in pediatric emergency care. Documentation of current expiration date for the above courses will be maintained by the facility and available upon request.

Facility Structure and Equipment

1. A Level II will have a PICU
2. An emergency cart or other systems to organize supplies including resuscitation equipment, drugs, printed pediatric drug doses and pediatric reference materials must be readily available. Equipment, supplies, trays, and medications will be easily accessible, labeled and logically organized. Antidotes necessary for a specific geographic area should be determined through consultation with a poison control center. If the listed medications are not kept in the emergency department, they should be kept well organized and together in a location easily accessible and close to the emergency department.
3. Emergency staff in all facilities will be able to provide information on patient encounters to the patient's primary medical provider through telephone contact at the time of encounter, or by providing the patient with a copy of the medical record to take to the physician. Follow-up visits will be arranged or recommended with the primary care provider whenever necessary.

PEDIATRIC EMERGENCY CARE FACILITY (PECF) LEVEL III

The facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients, including management of airway, breathing, and circulation and disability. A Level III may also will have limited capability for the management of pediatric inpatients. The facility may accept appropriate referrals of pediatric patients from Level IV Pediatric Facilities as part of prearranged triage, transfer and transport agreements.

Procedure

The facility will, on a voluntary basis, determine that it will serve as a Level III PECF. An application for Level III will be completed by the facility authorized representatives.

1. The application will be signed by the facility Chief Executive Officer, the Physician Director of the Emergency Department, the Nurse Director or Manager, the Pediatric Nurse Coordinator and the Pediatric Physician Coordinator of the emergency department.
2. The application will be submitted to the Office of EMS/Division of Public Health through a traceable means. If it is hand delivered obtain a receipt from Office of EMS staff.
3. The application will be reviewed by the Office of EMS and brief feedback provided prior to scheduling a site visit.
4. The facility will receive a written report of site visit with either a letter of recognition or a list of areas for improvement with information on steps that can be taken to receive the letter of recognition.

Administration

1. Facility administration at a Level III PECF will assure that the following is provided to the visitors and citizens of Delaware:
    a. Properly trained personnel to provide the services expected at the designated Level III PECF.
    b. The financial resources to provide the emergency department or the pediatric emergency department with the equipment necessary to provide the level of services at the designated Level III PECF.
    c. Facilities designed for easy access and appropriate care of pediatric patients at a designated Level III PECF.
    d. Access to emergency care for all urgent and emergent pediatric patients regardless of financial status.
    e. Participation in a network of pediatric emergency care services within the state to:
        i. Provide appropriate transfer and transport;
        ii. Refer seriously and critically ill patients and special needs patients to an appropriate facility; and
        iii. support agreements to receive or transfer patients appropriately.

f. Participation in data collection to assure that the quality indicators established by EMSC are monitored.
g. Provision of data to the State Trauma System Quality Evaluation Committee until an EMSC Quality Committee is formally established with necessary confidentiality protection in place.
h. Communication with pre-hospital care and transport.
i. Public education regarding access to pediatric emergency care, injury prevention, first aid and cardiopulmonary resuscitation.
j. A system for tracking transfers out of the facility.
k. Incorporation into the facility's existing internal quality assessment and improvement program and process a review of the following pediatric issues and indicators:
    i. Deaths;
    ii. Cardiac or respiratory arrests;
    iii. Patients that require intubation or vasopressors;
    iv. Admissions within 72 hours after being discharged from the emergency department;
    v. Surgery within 72 hours after being discharged from the emergency department;
    vi. Transfers out.

2. A Level III facility will also:
    a. Participate in a structured statewide quality assessment and improvement program with the assistance and support of State EMS and EMSC agencies that allows ongoing system review and:
        i. Provides feedback, quality review and information to all participating facilities, emergency medical services and transport systems, and appropriate state agencies as requested;
        ii. Develops quality indicators for the review of pediatric care which are linked to periodic continuing education and reviewed at all participating institutions;
        iii. Evaluates the emergency services provided for children for emphasis on family-centered philosophy of care, family participation in care, family support during emergency visits and transfers and family information and decision making.
        iv. Makes data available to the State Trauma Quality Committee until an EMSC Quality Committee is formally established with necessary confidentiality protections in place.
        v. Reviews system issues such as transfer and transport agreements and services, on and off-line medical direction, pre-hospital and public education, and data collection.
    b. Facilitate an organized pediatric training program by and for staff physicians, nurses, allied health personnel.

Admissions, Discharges and Transfers

1. A Level III will support Level I, Level II and Level IV within the state by having triage and transfer agreements to send and to receive appropriate patients as a part of the state pediatric care network.

2. A Level III will:
    a. Assist with the provision of the state pre-hospital direct medical control for pediatric patients when requested
    b. Promote a state network of direct medical control by facilities within the region by working closely with the State of Delaware EMS Medical Director to create and maintain:
        i. Standards for pre-hospital care;
        ii. Triage and transfer guidelines;
        iii. Quality indicators for pre-hospital care.
3. A Level III will be capable of providing resuscitation, stabilization and timely triage for all pediatric patients and, when appropriate, transfer of patients to a higher level facility. Level III is responsible for having appropriate transfer agreements to assure that all pediatric patients receive timely emergency care at the most appropriate pediatric facility available. Each facility will have transfer agreements with a Level I Facility for pediatric transfer and consultation.
4. A Level III will support the Level IV's within the state by having triage and transfer agreements to receive appropriate patients as a part of the state pediatric care network.

Participating Facility Functions

Medical Services

1. A Pediatric Physician Coordinator for emergency medicine is appointed by the ED Medical Director. A dedicated FTE is not required.
2. The Pediatric Physician Coordinator has the following qualifications:
    a. Meets the qualifications for credentialing by the facility as a specialist in emergency medicine or pediatric emergency medicine. It is recognized that physicians in these specialties may not always be available in some communities; in these areas the Pediatric Physician Coordinator must meet the qualifications for credentialing by the facility as a specialist in pediatrics, or family medicine and demonstrate, through experience or continuing education, competence in the care of children in emergency settings including resuscitation.
    b. Has special interest, knowledge, and skill in emergency medical care of children as demonstrated by training, clinical experience, or focused continuing medical education.
    c. Maintains competency in pediatric emergency care.

The Pediatric Physician Coordinator may be a staff physician who is currently assigned other roles in the ED. A dedicated FTE is not required.

3. The Pediatric Physician Coordinator will:
    a. Promote and verify adequate skill and knowledge of ED staff physicians in the emergency care and resuscitation of infants and children.
    b. Oversee ED pediatric PI, patient safety, and clinical care activities.

c. Assist with development and periodic review of ED medications, equipment, supplies, policies and procedures.
d. Serve as liaison/coordinator to appropriate in-hospital and out-of-hospital pediatric care committees in the community.
e. Serve as liaison/coordinator to a definitive care facility, which includes a regional pediatric referral facility and trauma center; EMS agencies; primary care providers; health insurers; and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
f. Facilitate pediatric emergency education for ED health care providers and out-of-hospital providers affiliated with the ED.
g. Assure that physicians demonstrate competency in providing care to children of all ages, neonate through adolescence.
h. Ensure pediatric needs are addressed in hospital disaster/emergency preparedness plans.
i. The Pediatric Physician Coordinator should have protected time to fulfill their roles and responsibilities for the program.

4. A Level III will have an emergency physician in-house 24 hours per day, 7 days per week. The Emergency Department physician will be competent in the care of pediatric emergencies including;
    a. Recognition and management of shock and respiratory failure,
    b. Stabilization of pediatric trauma patients,
    c. Advanced airway skills (intubation, needle thoracostomy),
    d. Vascular access skills (including intraosseous needle insertion),
    e. Thorough screening neurologic assessments interpretation of physical signs and laboratory values in an age-appropriate manner

For physicians not board-certified/admissible by the American Board of Emergency Medicine, successful completion of Pediatric Advanced Life Support (PALS) or a comparable course approved by the Director of Public Health and the EMSC Advisory Committee is required. The American Academy of Pediatrics and American College of Emergency Physician's Advanced Pediatric Life Support (APLS) or a similar course approved by the Director of Public and the EMSC Advisory Committee can be utilized to demonstrate clinical capability.

A pediatrician or family practitioner, surgeon with trauma experience, anesthetist/anesthesiologist, and radiologist will be promptly available 24 hours per day.

5. A Level III will have an emergency department medical director who is board certified. The physician director will work with administration to assure physician coverage that is highly skilled in emergency medicine and/or pediatric emergencies.
6. A Level III will have 24 hour ED coverage by physicians who are board certified in emergency medicine or board eligible. All physicians in emergency medicine will participate in annual continuing medical education activities relevant to pediatric emergency care.

Nursing Services

1. A Pediatric Nursing Coordinator for pediatric emergency care is appointed by the ED Nursing Director or Manager. A dedicated FTE is not required.
2. The Pediatric Nursing Coordinator must have the following qualifications:
    a. Is a registered Nurse (RN) and has special interest, knowledge and skill in the emergency medical care of children as demonstrated by training, clinical experience, or focused continuing nursing education.
    b. Maintains competency in pediatric emergency care.
    c. Is credentialed and has competency verification per facility policies and guidelines to provide care to children of all ages.

The Pediatric Nursing Coordinator may be a staff nurse who is currently assigned other roles in the ED, such as Clinical Nurse Specialist. A dedicated FTE is not required.

3. The Pediatric Nursing Coordinator will:
    a. Facilitate ED pediatric PI activities.
    b. Serve as liaison to appropriate in-hospital and out-of-hospital pediatric care committees.
    c. Serve as liaison to inpatient nursing as well as to a definitive care facility, a regional pediatric referral facility and trauma center, EMS agencies, primary care providers, health insurers, and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
    d. Facilitate ED nursing continuing education in pediatrics and assure pediatric specific elements are included in orientation for new staff members.
    e. Assure that emergency nurses demonstrate competency in providing care to children of all ages, neonate through adolescence.
    f. Promote pediatric disaster preparedness for the ED.
    g. Provide assistance and support for pediatric education of providers affiliated with the ED.
    h. Assure the availability of pediatric equipment and medications.
4. In Level III at least one RN and/or NP will be physically present 24 hours per day, seven days per week and capable of recognizing and managing shock and respiratory failure and stabilizing pediatric trauma patients, including early recognition and stabilization of problems that may lead to shock and respiratory failure. At least one ED registered nurse per shift will have successfully completed the American Heart Association Pediatric Advanced Life Support (PALS) course. The Emergency Nurses Association Emergency Nursing Pediatric Course (ENPC) is also recommended. The RN on duty must have demonstrated clinical competency in pediatric emergency care. Documentation of current expiration date for the above courses will be maintained by the facility and available upon request.

Facility Structure and Equipment

1. An emergency cart or other systems to organize supplies including resuscitation equipment, drugs, printed pediatric drug doses and pediatric reference materials must be readily available. Equipment, supplies, trays and medications will be easily accessible labeled and logically organized. Antidotes necessary for a specific geographic area should be determined through consultation with a poison control center. If the listed medications are not kept in the emergency department, they should be kept will organized and together in a location easily accessible and close to the emergency department.
2. Emergency staff in all facilities will be able to provide information on patient encounters to the patient's primary medical provider through telephone contact at the time of encounter, or by providing the patient with a copy of the medical record to take to the physician. Follow-up visits will be arranged or recommended with the primary care provider whenever necessary.

PEDIATRIC EMERGENCY CARE FACILITY (PECF) LEVEL IV

The facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients, including the management of airway, breathing, circulation and disability. A Level IV will facilitate an appropriate transfer to a definitive care facility. A Level IV Facility will be able to accept pediatric patients from physician offices, medical aid units or extended care facilities, but will not have pediatric inpatient admission capability.

Procedure

The facility will, on a voluntary basis, determine that it will serve as the Level IV PECF. An application for Level IV will be completed by the facility authorized representatives.

1. The application will be signed by the facility Chief Executive Officer, the Physician Director of the Emergency Department, the Nurse Director or Manager, the Pediatric Nurse Coordinator and the Pediatric Physician Coordinator of the emergency department.
2. The application will be submitted to the Office of EMS/Division of Public Health through a traceable means. If it is hand delivered obtain a receipt from Office of EMS staff.
3. The application will be reviewed by the Office of EMS and brief feedback provided prior to scheduling a site visit.
4. The facility will receive a written report of site visit with either a letter of recognition or a list of areas for improvement with information on steps that can be taken to receive the letter of recognition.

Administration

1. Facility administration at a Level IV PECF will assure that the following is provided to the citizens and visitors of Delaware:
    a. Properly trained personnel to provide the services expected at the designated Level IV PECF.
    b. The financial resources to provide the emergency department or the pediatric emergency department with the equipment necessary to provide the level of services at the designated Level IV PECF.
    c. Facilities designed for easy access and appropriate care of pediatric patients at a designated Level IV PECF.
    d. Access to emergency care for all urgent and emergent pediatric patients regardless of financial status.
    e. Participation in a network of pediatric emergency care services within the state to:
        i. Facilitate appropriate transfer and transport of pediatric patients;

ii. Refer seriously and critically ill patients and special needs patients to an appropriate facility; and
iii. Maintain appropriate pediatric transfer agreements.

f. Participation in data collection to assure that the quality indicators established by EMSC are monitored.
g. Provision of data to the State Trauma System Quality Evaluation Committee until an EMSC Quality Committee is formally established with necessary confidentiality protections in place.
h. Communication with pre-hospital care and transport.
i. Incorporation into the freestanding emergency care facility's existing quality assessment and improvement program, a review of the following pediatric issues and indicators:
    i. Deaths;
    ii. Cardiac or respiratory arrests;
    iii. Patients that require intubation or vasopressors;
    iv. Admissions within 48 hours after being discharged from the emergency department;
    v. Surgery within 48 hours after being discharged from the emergency department;
    vi. Transfers out.

3. A Level IV facility will also:
    a. Participate in a structured statewide quality assessment and improvement program with the assistance and support of State Emergency Medical Services and Emergency Medical Services for Children agencies that allows ongoing system review and:
        i. Provides feedback, quality review and information to all participating facilities, emergency medical services and transport systems, and appropriate state agencies as requested;
        ii. Develops quality indicators for the review of pediatric care which are linked to periodic continuing education and reviewed at all participating institutions;
        iii. Evaluates the emergency services provided for children for emphasis on family-centered philosophy of care, family participation in care, family support during emergency visits and transfers and family information and decision making.
        iv. Makes data available to the State Trauma Quality Committee until an EMSC Quality Committee is formally established with necessary confidentiality protections in place.
        v. Reviews system issues such as transfer and transport agreements and services, on and off-line medical direction, pre-hospital and public education, and data collection.

Admissions, Discharges and Transfers

1. A Level IV will support Level I, Level II and Level III within the state by having triage and transfer agreements to send appropriate patients as a part of the state pediatric care network.

2. Level IV will be capable of providing resuscitation, stabilization and timely triage for all pediatric patients and, when appropriate, transfer of patients to a higher level facility. Level IVs are responsible for having appropriate transfer agreements to assure that all pediatric patients receive timely emergency care at the most appropriate pediatric facility available.

Participating Facility Functions

Medical Services

1. A Pediatric Physician Coordinator for pediatric emergency medicine is appointed by the ED Medical Director. A dedicated FTE is not required.
2. The Pediatric Physician Coordinator has the following qualifications:
    a. Meets the qualifications for credentialing by the facility as a specialist in emergency medicine or pediatric emergency medicine. It is recognized that physicians in these specialties may not always be available in some communities; in these areas the Pediatric Physician Coordinator must meet the qualifications for credentialing by the facility as a specialist in pediatrics, or family medicine and demonstrate through experience or continuing education, competence in the care of children in emergency settings including resuscitation.
    b. Has special interest, knowledge, and skill in emergency medical care of children as demonstrated by training, clinical experience, or focused continuing medical education.
    c. Maintains competency in pediatric emergency care.

The Pediatric Physician Coordinator may be a staff physician who is currently assigned other roles in the ED or may be shared within the same hospital system. A dedicated FTE is not required.

3. The Pediatric Physician Coordinator will:
    a. Promote and verify adequate skill and knowledge of ED staff physicians in the emergency care and resuscitation of infants and children.
    b. Oversee ED pediatric PI, patient safety, and clinical care activities.
    c. Assist with development and periodic review of ED medications, equipment, supplies, policies and procedures.
    d. Serve as liaison/coordinator to pre-hospital pediatric care committees in the community.
    e. Serve as liaison/coordinator to a definitive care facility, which includes a regional pediatric referral facility and trauma center; EMS agencies; primary care providers; health insurers; and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
    f. Assure that physicians demonstrate competency in providing care to children of all ages, neonate through adolescence.
    g. Ensure pediatric needs are addressed in facility disaster/emergency preparedness plans.

4. A Level IV will have an emergency physician with pediatric expertise in-house 24 hours per day, 7 days per week. The emergency department physician will be competent in the care of pediatric emergencies including:
    a. Recognition and management of shock and respiratory failure,
    b. Stabilization of pediatric trauma patients,
    c. Advanced airway skills (intubation, needle thoracostomy),
    d. Vascular access skills (including intraosseous needle insertion), performance of
    e. Thorough screening neurologic assessments, and
    f. Interpretation of physical signs and laboratory values in an age-appropriate manner

For physicians not board-certified/admissible by the American Board of Emergency Medicine, successful completion of Pediatric Advanced Life Support (PALS) or a comparable course approved by the Director of Public Health and the EMSC Advisory Committee is required. The American Academy of Pediatrics and American College of Emergency Physician's Advanced Pediatric Life Support (APLS) or a similar course approved by the Director of Public and the EMSC Advisory Committee can be utilized to demonstrate clinical capability.

5. A Level IV will have an emergency department medical director who is board certified. The physician director will work with administration to assure physician coverage that is highly skilled in emergency medicine and/or pediatric emergencies.
6. All providers working in the Emergency Department will participate in annual continuing medical education activities relevant to pediatric emergency care.

Nursing Services

1. A Pediatric Nursing Coordinator for pediatric emergency care is appointed by the ED Nursing Director or Manager. A dedicated FTE is not required.
2. The Pediatric Nursing Coordinator must have the following qualifications:
    a. Is a registered Nurse (RN) and has special interest, knowledge and skill in the emergency medical care of children as demonstrated by training, clinical experience, or focused continuing nursing education.
    b. Maintains competency in pediatric emergency care.
    c. Is credentialed and has competency verification per facility policies and guidelines to provide care to children of all ages.

The Pediatric Nursing Coordinator may be a staff nurse who is currently assigned other roles in the ED, such as Clinical Nurse Specialist. A dedicated FTE is not required

3. The Pediatric Nursing Coordinator will:
    a. Facilitate ED pediatric PI activities.
    b. Serve as liaison to appropriate in-hospital and out-of-hospital pediatric care committees.

c. Serve as liaison to inpatient nursing as well as to a definitive care facility, a regional pediatric referral hospital and trauma center, EMS agencies, primary care providers, health insurers, and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.
d. Facilitate ED nursing continuing education in pediatrics and assure pediatric specific elements are included in orientation for new staff members.
e. Assure that emergency nurses demonstrate competency in providing care to children of all ages, neonate through adolescence.
f. Promote pediatric disaster preparedness for the ED.
g. Provide support for pediatric education of pre-hospital providers affiliated with the ED.
h. Assure the availability of pediatric equipment and medications.

3. In Level IV at least one RN and/or NP will be physically present 24 hours per day, seven days per week, and capable of recognizing and managing shock and respiratory failure and stabilizing pediatric trauma patients, including early recognition and stabilization of problems that may lead to shock and respiratory failure. At least one ED registered nurse per shift will have successfully completed the American Heart Association Pediatric Advanced Life Support (PALS) course. The Emergency Nurses Association Emergency Nursing Pediatric Course (ENPC) is also recommended. The RN on duty must have demonstrated clinical competency in pediatric emergency care. Documentation of current expiration date for the above courses will be maintained by the facility and available upon request.

Facility Structure and Equipment

An emergency cart or other system to organize supplies including resuscitation equipment, drugs, printed pediatric drug doses, and pediatric reference materials must be readily available. Equipment, supplies, trays and medications will be easily accessible, labeled and logically organized. Antidotes necessary for a specific geographic area should be determined through consultation with a poison control center. If the listed medications are not kept in the emergency department, they should be kept will organized and together in a location easily accessible and close to the ED.

1. A Level IV will not hold pediatric patients for greater than a 23 hour period unless a State of Emergency is declared by the Governor.
2. An emergency cart or other systems to organize supplies including resuscitation equipment, drugs, printed pediatric drug doses and pediatric reference materials must be readily available. Equipment, supplies, trays and medications will be easily accessible labeled and logically organized. Antidotes necessary for a specific geographic area should be determined through consultation with a poison control center. If the listed medications are not kept in the emergency department, they should be kept will organized and together in a location easily accessible and close to the emergency department.

3. Emergency staff in all facilities will be able to provide information on patient encounters to the patient's primary medical provider. Follow-up visits will be arranged or recommended with the primary care provider whenever necessary.

Table 1 provides a summary for emergency care facilities for each level of pediatric health care. Personnel, equipment, policies and procedures at each designation or level are described as either essential within the facility (E) or desired (D). If an item is not required it is marked (NR) or not applicable (N/A).

Table 1

PEDIATRIC EMERGENCY CARE FACILITIES				
1. PERSONNEL	FACILITY DESIGNATION LEVEL			
	I	**II**	**III**	**IV**
Physician with pediatric emergency care experience on duty 24/7	E	E	E	E
RN with pediatric training	E	E	E	E
Respiratory Therapist	E	E	E	NR
Trauma Coordinator	E	E	NR	NR
Nurse Educator	E	E	D	NR
Trauma team* (Available in less than 1 hour)	E	E	E	NR
Pediatric Physician Coordinator	E	E	E	E
Pediatric Nurse Coordinator	E	E	E	E
Social Services	E	E	E	NR
Child Abuse support services	E	E	E	D
Child life services	E	D	D	NR
On-line medical control for pre-hospital	E	E	E	E
Respiratory care	E	E	E	D
Pediatric Critical Care Committee	E	NR	NR	NR
Pediatric Trauma Committee	E	E	D	NR

Special Consultants (*Available in less than 1 hour)[1]	**I**	**II**	**III**	**IV**
Pediatrician* available in < 1 hour	E	E	D	D
Radiologist	E	E	E	D
Anesthesiologist* available in < 1 hour	E	E	E	D
Cardiologist	E	D	NR	NR
Critical Care Physician (on site)	E	D	NR	NR
Nephrologist	E	D	NR	NR
Hematologist/oncologist	E	D	NR	NR
Endocrinologist	E	D	NR	NR
Gastroenterologist	E	D	NR	NR
Neurologist	E	D	NR	NR
Pulmonologist	E	D	NR	NR
Psychiatrist/Psychologist	E	D	NR	NR
Infectious Disease Physician	E	D	NR	NR

Surgical Specialists (*Available in less than 1 hour)	**I**	**II**	**III**	**IV**
Anesthesia and surgical suite promptly available	E	E	D	NR
Secondary surgeon	E	E	E	D
Pediatric surgeon* same as above	E	D	NR	NR
Neurosurgeon	E	D	NR	NR
Orthopedic surgeon	E	D	D	NR
Otolaryngologist	E	D	NR	NR
Urologist	E	D	NR	NR
Plastic surgeon	E	D	NR	NR
Oral/maxillofacial surgeon	E	D	NR	NR
Gynecologist	E	D	NR	NR
Microvascular surgeon (transfer agreement if not available)	D	D	NR	NR
Hand surgeon (transfer agreement if not available)	D	D	NR	NR
Ophthalmologist	E	D	NR	NR
Cardiac surgeon[2]	E	D	NR	NR
Pathologist	D	D	NR	NR
Pediatric Dentist	E	D	NR	NR
Intensivist onsite	E	D	NR	NR

Rehabilitation Program	**I**	**II**	**III**	**IV**
Physical Therapy	E	D	NR	NR
Physical Medicine/Rehabilitation Physician	E	D	NR	NR
Occupational Therapy	E	D	NR	NR
Speech Therapy	E	D	NR	NR
Special Education	E	D	NR	NR

2. POLICIES, PROCEDURES, AND PROTOCOLS	**I**	**II**	**III**	**IV**
Illness and injury triage	E	E	E	E
Pediatric patient assessment and reassessment	E	E	E	E
Documentation of pediatric vital signs	E	E	E	E
Immunization Assessment	E	E	E	E
Pediatric Pain Assessment and Management	E	E	E	E
Sedation and Analgesia for Procedures, including medical imaging	E	E	E	E
Informed consent for procedures, treatments (when parent/guardian is not present)	E	E	E	E
Social and mental health evaluations	E	E	E	D
Physical and/or chemical restraint of patients	E	E	E	E
Child maltreatment and sexual assault	E	E	E	E
Death of the Child in the ED	E	E	E	E
Do-not-resuscitate orders	E	E	E	E
Family centered care policies, including but not limited to:				
▪ Involving families in patient care decision making and in medication safety processes	E	E	E	E
▪ Consideration of family presence during all aspects of emergency care, including resuscitation	E	E	E	E
▪ Education of the patient, family, and regular caregivers	E	E	E	E
▪ Discharge planning and instruction	E	E	E	E
▪ Identifying bereavement counseling resources	E	E	E	E
Communication system with the patient's medical home or primary health care provider	E	E	E	D
Medical imaging policies that address appropriate dosing for studies consistent with as low as reasonably achievable (ALARA) principles	E	E	E	E
All-hazard disaster preparedness plan that includes pediatric specific components	E	E	E	E

3. EQUIPMENT	**I**	**II**	**III**	**IV**
EMS communication equipment	E	E	E	E
Organized emergency cart/bag	E	E	E	E
Printed or electronically available drug doses/length-based resuscitation tape	E	E	E	E
Scale (with weight in kilograms)	E	E	E	E
Resuscitation board	E	E	E	E
Warming device for infants	E	E	E	E
Warming device for children	E	E	E	E
Pediatric restraint equipment (to use for painful or difficult procedures)	E	E	E	D
Portable radiography	E	E	E	E
Slit lamp	E	E	E	E
Neonatal/infant incubators	E	E	D	NR
Phototherapy equipment	E	E	D	NR
Pacemaker capability internal	E	E	D	NR
Pacemaker capability external	E	E	E	E
Thermal control for patient and/or resuscitation room	E	E	E	D
Age appropriate pain scale assessment tools	E	E	E	E

Monitoring Equipment	**I**	**II**	**III**	**IV**
Electrocardiography monitor/defibrillator with pediatric paddles or pads and hard copy capabilities	E	E	E	E
Cardiopulmonary monitor with pediatric and hard copy capability, visible/audible alarms, routine testing and maintenance	E	E	E	E
Pulse oximeter (neonatal, adult, and pediatric probes)	E	E	E	E
Blood pressure cuffs (neonate, infant, child, adult, and thigh)	E	E	E	E
Rectal thermometer probe (28 degrees – 42 degrees, Celsius)	E	E	E	E
Otoscope, ophthalmoscope, stethoscope	E	E	E	E
Doppler ultrasound device	E	E	E	E
Non-invasive blood pressure monitoring (infant, child, and adult)	E	E	E	E
Continuous end-tidal CO_2 monitor	E	E	D	D
End-tidal CO_2 detector	E	E	E	E
Monitor for central venous pressure, arterial lines, temperature	E	E	D	NR
Monitor for pulmonary arterial pressure and intracranial pressure	E	D	D	NR
Transportable monitor	E	E	E	E

Airway and ventilation equipment and supplies	**I**	**II**	**III**	**IV**
Bag-valve-mask device (infant size: 450 mL; adult size 1000 mL) with oxygen reservoir. Self inflating	E	E	E	E
Neonatal, infant, child, and adult masks to fit bag mask device	E	E	E	E
Oropharyngeal airways (sizes 0 – 5) 1 of each	E	E	E	E
Oxygen delivery device with flow meter	E	E	E	E
Clear oxygen masks (standard and non-rebreathing) for neonatal, infant, child, and adult	E	E	E	E
Nasal cannula (infant, child, and adult)	E	E	E	E
Suction devices – catheters (6 – 14 fr) and yankauer-tip/suction equipment	E	E	E	E
Nasopharyngeal airways (infant, child, and adult)	E	E	E	E
Nasogastric tubes (sizes 6 – 18 fr)	E	E	E	E
Laryngoscope handles (pediatric and adult)	E	E	E	E
Laryngoscope blades:				
▪ Curved 2, 3	E	E	E	E
▪ Straight or Miller 0, 1, 2, and 3	E	E	E	E
Endotracheal tubes:				
▪ Uncuffed (2.5 – 3.0)	E	E	E	E
▪ Cuffed (3.5 – 8.0)	E	E	E	E
Stylets for endotracheal tubes (infant, child, and adult)	E	E	E	E
Feeding tubes (5fr and 8fr)	E	E	E	D
Lubricant (water soluble)	E	E	E	E
Magill forceps (pediatric and adult)	E	E	E	E
Peak flow meters	E	E	E	E
Inhalation therapy equipment - Nebulizer	E	E	E	E
Tracheostomy tubes (2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm)	E	E	E	E
Chest tubes:				
▪ Infant (10fr – 12fr)	E	E	E	E
▪ Child (16fr – 24fr)	E	E	E	E
▪ Adult (28fr – 40fr)	E	E	E	E
Oxygen blender	E	E	D	NR
Pediatric endoscopes and bronchoscopes available	E	E	NR	NR
Respired gas humidifiers and bronchoscopes available	E	D	NR	NR
Pediatric ventilators	E	E	D	NR
Difficult airway kit, alternate airway device	E	E	E	E
Laryngeal Mask Airways (size 1, 1.5, 2, 2.5, 3, 4, 5)	E	E	E	E

Vascular Access Equipment and Supplies	**I**	**II**	**III**	**IV**
Arm boards (infant, child, and adult sizes)	E	E	E	E

Butterfly needles (19 – 25 gauge)	E	E	E	E
Catheter for intravenous lines (14 -24 gauge)	E	E	E	E
Needles (18 – 27 gauge)	E	E	E	E
Intraosseous (IO) needles or device (pediatric and adult sizes)	E	E	E	E
IV pressure bags for IO infusions	E	E	E	E
Umbilical vessel catheters (3.5fr and 5.0fr) and cannulation tray	E	E	E	D
IV administration sets with calibrated chambers and extension tubing	E	E	E	E
Extension tubing, stopcocks, T-connectors	E	E	E	E
Infusion device, able to regulate rate and volume of solution	E	E	E	E
IV Solutions: Normal saline, dextrose 5%, and dextrose 10%	E	E	E	E
Central venous access kit, (4.0 – 7.0fr)	E	E	E	D
IV fluid/blood warmer	E	E	E	D
Blood gas kits	E	E	E	E
Rapid infuser	E	E	D	D

Specialized Pediatric Trays	**I**	**II**	**III**	**IV**
Lumbar puncture kit including:				
▪ Neonatal (22 gauge 1 ½ inch)	E	E	E	E
▪ Pediatric (22 gauge 2 ½ inch)	E	E	E	E
▪ Adult (18 – 22 gauge 3 ½ inch)	E	E	E	E
Urinary catheterization kits	E	E	E	E
Foley catheters (sizes 6 – 22 fr)	E	E	E	D
Resuscitative thoracotomy tray	E	E	D	NR
Tracheostomy tray	E	E	D	D
Needle cricothyrotomy set	E	E	E	D
Intracranial pressure monitor tray	E	D	D	NR
Newborn delivery kit (including umbilical clamps, scissors, bulb syringe, towel, and blanket)	E	E	E	E
Shunt tap kit	E	D	D	NR
Compartment pressure testing equipment	E	D	D	NR
Incision and Drainage (I & D) tray	E	E	E	E
Epistaxis tray or supplies and equipment	E	E	E	E
Dental tray or supplies and equipment	E	E	E	D
Plastics tray or supplies and equipment	E	E	E	D
Thoracostomy tray	E	D	D	D

Fracture Management Devices	**I**	**II**	**III**	**IV**
Spinal stabilization equipment for pediatric and adult patients	E	E	E	E
Spine board (child and adult)	E	E	E	E
Extremity splints	E	E	E	E
Femur splints (child and adult)	E	E	E	E

Medication Classes	**I**	**II**	**III**	**IV**
Analgesics	E	E	E	E
Antibiotics/antimicrobial agents	E	E	E	E
Anticonvulsants	E	E	E	E
Antidotes and activated charcoal	E	E	E	D
Antiemetic agents	E	E	E	E
Antihypertensive agents	E	E	E	E
Antipyretics	E	E	E	E
Bronchodilators	E	E	E	E
Corticosteroids	E	E	E	E
All current PALS medications	E	E	E	E
Rapid sequence intubation medications	E	E	E	E
Sedatives and anti-anxiety medications	E	E	E	E
Inotropic agents	E	E	E	E
Vasopressor agents	E	E	E	E

Vaccines	E	E	E	E

4. FACILITIES				
Emergency Department	**I**	**II**	**III**	**IV**
One identified area with capacity and equipment for pediatric resuscitation	E	E	E	D
Access to two or more carts or bags with capacity and equipment to resuscitate medical/surgical and trauma pediatric patients	E	E	E	E
Access to helicopter landing site within stretcher transport distance	E	E	E	D

Support services	**I**	**II**	**III**	**IV**
Pediatric inpatient care beds	E	E	D	NA
Pediatric intensive care unit	E	E	NR	NA

Operating Room	**I**	**II**	**III**	**IV**
Operating room team available 24/7	E	E	D	N/A
One RN physically present in OR 24/7	E	E	D	N/A
Second operating room available and staffed (within 30 minutes)	E	D	D	N/A
Thermal control equipment	E	E	D	N/A
X-ray capability (including C-arm)	E	E	E*	N/A
Endoscopes (all varieties)	E	D	D	N/A
Craniotomy equipment (including ICP monitoring equipment)	E	D	NR	N/A
Invasive and non-invasive monitoring equipment	E	E	E*	N/A
Ventilation equipment	E	E	E	N/A
Pediatric airway control equipment	E	E	E*	N/A
Defibrillator, monitor, (including internal and external paddles)	E	E	E*	N/A
Laparotomy tray	E	E	D	N/A
Thoracotomy tray and chest retractors (of appropriate size)	E	E	D	N/A
Synthetic grafts (all sizes)	E	D	NR	N/A
Spinal and neck immobilization equipment - surgical halo	E	D	NR	N/A
Fracture table with pediatric capability	E	D	NR	N/A
Auto-transfusion equipment with pediatric capability	E	E	D	N/A
Pediatric drug dosage reference	E	E	E*	N/A
Tracheostomy tubes (neonatal through adolescent)	E	E	E*	N/A
Recovery Room	**I**	**II**	**III**	**IV**
RNs and other essential personnel on call 24 hours/day	E	E	E*	N/A
Staff competent in the post-anesthesia care of the pediatric patient	E	E	E*	N/A
Airway control equipment	E	E	E*	N/A
Thermal control equipment to ambient room temperature	E	E	E*	N/A
Radiant warmer	E	E	E*	N/A
Blood warmer	E	E	E*	N/A
Resuscitation cart	E	E	E*	N/A
Immediate access to sterile surgical supplies for emergency	E	E	E*	N/A
Pediatric drug dosage reference	E	E	E*	N/A
(E* If surgery performed on pediatric patients)				

Laboratory services	**I**	**II**	**III**	**IV**
Hematology	E	E	E	E
Chemistry	E	E	E	E
Drug levels/toxicology	E	E	D	D
Microbiology	E	E	E	D
Blood bank	E	E	E	D
Arterial blood gases	E	E	E	E
Bedside blood glucose monitoring/testing	E	E	E	E
Bedside blood gas testing	E	E	D	D

Medical Imaging	**I**	**II**	**III**	**IV**
Radiology (24 hours per day)	E	E	E	E
Computed tomography scan (24 hours per day)	E	E	E	D
Ultrasound (available 24 hours per day)	E	E	E	D
Magnetic resonance imaging (on call 24 hours per day)	E	E	D	NR
Nuclear medicine (on call 24 hours per day)	E	D	D	NR
Fluoroscopy/contrast studies (on call 24 hours per day)	E	E	D	NR
Access to Angiography (on call 24 hours per day)	E	E	D	NR

Other	**I**	**II**	**III**	**IV**
Pediatric echocardiography	E	D	NR	NR
Pediatric cardiac catheterization	E	NR	NR	NR
Electroencephalography	E	D	D	NR
Access to:				
▪ Poison Control Center	E	E	E	E
▪ Hemodialysis capability/transfer agreement	E	E	E	D
▪ Rehabilitation medicine/transfer agreement	E	E	E	N/A
Acute spinal cord injury management capability or transfer agreement	E	E	E	E

5. ACCESS, TRIAGE, TRANSFER, AND TRANSPORT	**I**	**II**	**III**	**IV**
Pre-hospital Care Report receiving process	E	E	E	E
Transfer agreements for:				
▪ In-patient pediatric care if not provided within the institution	N/A	N/A	E	E
▪ ICU pediatric care	N/A	E	E	E
▪ Major trauma care	E	E	E	E
▪ Burn care	E	E	E	E
▪ Hemodialysis	E	E	E	E
▪ Spinal injury care	E	E	E	E
▪ Rehabilitation care	E	E	E	E
Hyperbaric oxygen chamber policy and procedure for transfer agreement	E	E	E	E
Accept all critically ill patients from lower-level facilities within the state	E	E	D	N/A
Access to a pediatric transport team	E	E	E	E

6. EDUCATION, TRAINING RESEARCH, AND QUALITY ASSESSMENT AND IMPROVEMENT				
Education and Training	**I**	**II**	**III**	**IV**
Public education, injury prevention	E	E	D	D
Assure staff training in resuscitation and stabilization (or a similar course approved by the Director of Public Health and/or by the EMSC Advisory Committee)	E	E	E	E
Current CPR certification for all nurses and respiratory therapists	E	E	E	E
Annual Pediatric Mock Codes	E	E	E	E
Ongoing pediatric continuing education for physicians, nurses and respiratory therapists from the ED	E	E	E	E
Offer educational resources for training all levels of health professionals within the state	E	D	NR	NR

Research	**I**	**II**	**III**	**IV**
Support state EMSC and Level I Care Center research efforts and data collection	E	E	E	E
Participate in and/or maintain trauma registry	E	E	E	D

Participate in regional pediatric critical care education	E	D	D	D

Quality Assessment and Improvement	**I**	**II**	**III**	**IV**
Structured PI program with indicators and periodic review	E	E	E	E
Participate in regional quality review by EMSC and/or local EMS agency	E	E	E	E

7. ADMINISTRATIVE SUPPORT AND HOSPITAL COMMITMENT	**I**	**II**	**III**	**IV**
Make available clinical resources for training pre-hospital personnel	E	D	D	NR
Provide emergency care and stabilization for all pediatric patients	E	E	E	E
Support networking education/training for health care professionals	E	E	E	E
Participate in pediatric emergency care network	E	E	E	E
Assure availability of:				
▪ Social services	E	E	E	D
▪ Child abuse support services	E	E	E	D
▪ Child life services	E	D	NR	NR
▪ On-line medical control for pre-hospital	E	E	E	D
▪ Respiratory care	E	E	E	D
▪ Pediatric Critical Care Committee	E	D	NR	NR
▪ Pediatric Trauma Committee	E	D	NR	NR
▪ Child development services	E	E	D	NR

[1] All Medical specialists should have pediatric expertise as evidenced by board certification, fellowship training or demonstrated commitment and continuing medical education in their subspecialty area.

[2] Or substituted by a current signed transfer agreement with an institution with cardiothoracic surgery and cardiopulmonary bypass capability.