

CHAPTER 33P
CERTIFICATE OF NEED: DESIGNATION
OF TRAUMA CENTERS LEVEL I
AND LEVEL II

Authority

N.J.S.A. 26:2H-1 et seq.

Source and Effective Date

R.1995 d.328, effective June 19, 1995.
 See: 27 N.J.R. 1350(a), 27 N.J.R. 2396(b).

Executive Order No. 66(1978) Expiration Date

Chapter 33P, Certificate of Need: Designation of Trauma Centers,
 Level I and Level II, expires on June 19, 1997.

Historical Note

A former Chapter 33P, Certificate of Need: Designation of Trauma
 Centers Level I and Level II, expired on March 19, 1995.

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SUBCHAPTER 1. GENERAL PROVISIONS

8:33P-1.1 Scope and purpose

The purpose of this chapter is to establish criteria and standards for review of certificate of need applications from hospitals applying to be designated as Level I or Level II trauma centers and to specify the personnel, equipment, organization, and other resources required for hospitals to qualify for, and operate as, specialized trauma centers.

8:33P-1.2 Definitions

The following words and terms, as used in this chapter, shall have the following meanings unless the context clearly indicates otherwise.

“Advanced life support” means an advanced level of prehospital, interhospital, and emergency service care which includes basic life support functions, cardiac monitoring, cardiac defibrillation, telemetered electrocardiography, intravenous therapy, administration of specific medications, drugs and solutions, use of adjunctive ventilation devices, trauma care, and other techniques and procedures authorized by the Commissioner.

“Basic life support” means a level of prehospital care which includes patient stabilization, airway clearance, external closed chest cardiopulmonary resuscitation, control of hemorrhage, initial wound care, fracture stabilization, victim extrication, and other techniques and procedures authorized by the Commissioner, and contained in the most recent curriculum of the Emergency Medical Technician—Ambulance: National Standard Curriculum, U.S. Department of Transportation—National Highway Traffic Safety Administration, available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

“Department” means the New Jersey State Department of Health.

“Desirable” applies to a criterion or standard which is not mandated or required for a trauma center but is suggested, compliance with which may be considered in competitive review of certificate of need applications.

"Emergency medical technician" (EMT) means an individual who has completed a course of instruction and who has been issued certification by the Commissioner to provide basic life support services, in accordance with the standards contained in the most recent curriculum of the Emergency Medical Technician—Ambulance: National Standard curriculum, U.S. Department of Transportation—National Highway Traffic Safety Administration, available from the U.S. Printing Office, Washington, D.C. 20402.

"Essential" applies to a criterion or standard, compliance with which is mandated or required for trauma center designation.

"Health care facility" means a facility so defined in the Health Care Facilities Planning Act, N.J.S.A. 26:2H-1 et seq.

"In-hospital" means present at all times and immediately available to the trauma center. On call personnel are not considered to be in-hospital.

"Injury severity score" means the score calculated in accordance with the Abbreviated Injury Scale, 1985 revision, prepared by the Committee on Injury Scaling of the American Association for Automotive Medicine, Morton Grove, Illinois. "Medical control" means direction by a hospital-based physician of basic and/or advanced life support services delivered in the field by authorized personnel from a licensed emergency room.

"Mobile intensive care paramedic" means a person trained in advanced life support services.

"Mobile intensive care unit" (MICU) means a specialized emergency medical service vehicle staffed by mobile intensive care paramedics or mobile intensive care nurses trained in advanced life support nursing and operated for the provision of advanced life support services under the direction of an authorized hospital.

"On call" means that personnel are responsible for attendance at the trauma center when their presence is required, in accordance with an on call roster. "Promptly available" means that personnel can be attending patients at the trauma center within a maximum of 30 minutes from the time they are called.

"Trauma" means a physical wound or injury. For purposes of this chapter, "major trauma" refers to a wound or injury which is sufficiently serious or severe to be treated at a Level I or Level II trauma center, as measured by whether it is immediately life-threatening; the presence of injuries to multiple systems; Injury Severity Score or other trauma scoring systems; and/or the application of appropriate trauma triage decision criteria.

8:33P-1.3 Advertising and marketing of trauma services

Only a hospital which has been designated by the Department of Health as a Level I or Level II Trauma Center may use the terms "Trauma Center", "Trauma Service", "Trauma Unit", "Trauma Facility", "Trauma Program", "Trauma Hospital" or any similar terms in advertising or marketing materials, or may in any other way hold itself out to the public as providing trauma treatment or services of the type offered by Level I or Level II Trauma Centers, as described in this chapter.

SUBCHAPTER 2. CRITERIA FOR PLANNING AND CERTIFICATE OF NEED REVIEW

8:33P-2.1 Submission dates for certificate of need applications

(a) Applications for designation as a Level I or a Level II trauma center shall be competitively reviewed at each level pursuant to batching procedures set forth in N.J.A.C. 8:33-1.5. The following schedule shall apply for the submission of certificate of need applications for trauma center designation during calendar years 1990 and 1991:

Deadlines for Submission	Cycle Begins
March 1, 1990 [†]	April 15, 1990 [†]
April 1, 1990 [†]	May 15, 1990 [†]
July 1, 1991	August 15, 1991

[†] For one time only, applications for designation as a Level I Trauma Center in EMS Region II as shown in Appendix A, which is identical to HSA Region IV as shown in Appendix B, shall be submitted on March 1, 1990 rather than April 1, 1990. Level II applications shall be submitted on April 1, 1990.

(b) Beginning in calendar year 1992, the schedule shall be:

Deadlines for Submission	Cycle Begins
April 1	May 15
October 1	November 15

Amended by R.1991 d.290, effective June 17, 1991.

See: 23 N.J.R. 822(a), 23 N.J.R. 1938(a).

Submission deadline for 1991 extended to July 1.

8:33P-2.2 Types of applications

(a) The application for a trauma center certificate of need shall specify whether the applicant seeks designation as:

1. A Level I Trauma Center only;
2. A Level II Trauma Center only; or
3. A Level I Trauma Center, but also seeks designation as a Level II Trauma Center if it is not designated as a Level I Trauma Center.

(b) Applications shall identify a single hospital and single site for the trauma center.

8:33P-2.3 Availability of hospital resources

(a) Applicants for designation at either Level I or Level II shall demonstrate that they will have the following resources available 24 hours a day, seven days a week, as further specified for each Level in N.J.A.C. 8:33P-3 through 5, as soon as possible after certificate of need approval, but in no case later than 12 months after such approval:

1. A general surgeon;
2. A neurosurgeon;
3. An anesthesiologist;
4. Radiology equipment and personnel;
5. A clinical laboratory; and
6. An operating room equipped and staffed and available at all times for trauma cases.

(b) The availability of the resources specified in (a) above shall be documented during this period to the Health Systems Agency in the area and to the Department of Health.

(c) Applicants for designation at either Level I or Level II shall also demonstrate that they have developed the written protocols and policies described in N.J.A.C. 8:33P-5.3(b)1 through 7 as soon as possible after certificate of need approval, but in no case later than 12 months after such approval. These protocols and policies shall be documented during this period to the Health Systems Agency in the area and to the Department of Health.

8:33P-2.4 Need criteria

(a) There is a need for one Level I trauma center in each of the three EMS regions shown on the map in Appendix A, incorporated herein by reference. No certificate of need application shall be accepted from any EMS region with an existing designated Level I trauma center.

(b) The need for Level II trauma centers shall be calculated as follows: The total number of trauma centers, including both Level I and Level II centers, needed in each of the four HSA regions shown in Appendix B, incorporated herein by reference, shall be equal to the total population for the region, according to the most recent Department of Labor estimates, divided by one million (1,000,000), rounded to the nearest whole number. Any currently designated trauma centers in the region, either Level I or Level II, shall be subtracted from this total to determine net need for Level II trauma centers in each HSA region.

(c) Where the Commissioner of Health finds compelling evidence that factors unique to a service area create access deprivations in certain regions which require him or her to exceed the need criteria specified in (b) above, in order to accommodate the public need for timely access to trauma

care, he or she may approve additional Level II trauma centers in specific regions where applicants satisfy the remaining requirements of this chapter, including minimum volume requirements as well as clinical and quality assurance requirements; provided that the total number of Level II trauma centers designated in the State does not exceed seven. Any applicant for an additional Level II trauma center shall request in writing a waiver from the need criteria in (b) above, which request shall be recommended for approval or denial in writing by the HSA (or Local Advisory Board, if designated) for the area. In the review of the waiver request, the applicant shall present, and the HSA (LAB) and the Commissioner shall consider, specific evidence regarding access problems, including, but not limited to, the following:

1. Travel times from the proposed Level II trauma center area, compared to travel times to trauma centers in other geographic areas in the State, for EMS transport of major trauma victims by ground or air to other designated trauma centers outside the area;
2. Other EMS services already available in the area;
3. The incidence of major trauma within the area;
4. The potential adverse impact on patient volume at previously designated trauma centers; and
5. Cost of implementation and operation.

(d) Within 24 months of the first designation of Level II trauma centers subsequent to the adoption of this chapter, the Department of Health shall develop a State Health Plan element on trauma services, which shall include data analysis and a revised need methodology.

Amended by R.1991 d.290, effective June 17, 1991.

See: 23 N.J.R. 822(a), 23 N.J.R. 1938(a).

Exception to need criteria added at new (c); old (c) recodified as (d).

8:33P-2.5 Minimum volume requirements

(a) Applicants shall submit data on their current volume of major trauma cases and project a volume of major trauma cases of at least 350 per year for Level II centers and at least 600 per year for Level I centers by the end of the second full year after designation. In making these projections, the applicants shall take the following into account:

1. Current trauma volume, particularly for those trauma patients with an Injury Severity Score of 10 or greater;
2. Service area covered, with regard to population and proximity to other hospitals treating trauma cases;
3. Patterns in the service area of motor vehicle transportation and accidents; and
4. Patterns of seasonal and transient population in the service area.

8:33P-2.6 Geographic access

Applicants shall address the accessibility of their trauma center to emergency transport vehicles via ground and air transportation routes.

8:33P-2.7 Letters of support

Applicants shall submit to the Department any letters of support from pre-hospital advanced life support and basic life support providers in their service areas.

8:33P-2.8 Competitive review criteria

(a) If the number of applications for designation as a Level I or Level II trauma center in an EMS or HSA region exceeds the number calculated according to the method described in N.J.A.C. 8:33P-2.4, the applications shall be competitively reviewed according to the following factors, in addition to the criteria in N.J.A.C. 8:33P-3 through 5:

1. Existence, size, and experience of accredited surgical residency program;
2. Medical and nursing staff credentials, experience, and qualifications specific to treatment of major trauma cases, particularly surgical trauma cases;
3. Current and projected volumes of major trauma cases treated, in particular those with Injury Severity Scores of 10 or greater;
4. Geographic location and accessibility to major transportation routes;
5. Support or endorsement from the Health Systems Agency, other hospitals, and advanced life support and basic life support providers;
6. Most cost effectiveness in terms of operating costs;
7. Implementation and availability, in the shortest period of time, of the following resources 24 hours a day, seven days a week, as further specified for each Level in N.J.A.C. 8:33P-3 through 5:
 - i. A general surgeon;
 - ii. A neurosurgeon;
 - iii. An anesthesiologist;
 - iv. Radiology equipment and personnel;
 - v. A clinical laboratory; and
 - vi. An operating room equipped and staffed and available at all times for trauma cases;
8. Development, in the shortest period of time, of the written protocols and policies described in N.J.A.C. 8:33P-5.3(b)1 through 7; and
9. Availability of acute hemodialysis capability in-house, as a first preference, or through an Interhospital Outreach Program (IHOP), as a second preference.

8:33P-2.9 Compliance by designated trauma centers

(a) After designation, Level I and Level II trauma centers shall have the burden of demonstrating to the Department of Health full and continuing compliance with all applicable "essential" Level I or Level II criteria, including the minimum volume requirement, according to a process specified by the Department of Health. Designated Trauma Centers shall be first evaluated for compliance no later than 24 months after initial designation.

(b) The process for evaluation of compliance referred to in (a) above shall be adopted by the Department of Health within 18 months after the first designations made after adoption of this chapter.

(c) Hospitals which are found by the Department of Health to be out of compliance with the requirements of this chapter shall be subject to certificate of need, licensure, and reimbursement sanctions, including termination of designation as a trauma center.

SUBCHAPTER 3. HOSPITAL ORGANIZATION**8:33P-3.1 Trauma service**

(a) Except as otherwise noted, the following are essential for both Level I and Level II:

1. Specified delineation of privileges for the trauma service shall be made by the medical staff Credentialing Committee;
2. The trauma team shall be organized and directed by a general surgeon expert in and committed to care of the injured. All patients with multiple-systems or major injury shall be initially evaluated by the trauma team. The surgeon who will be responsible for overall care of a patient (the team leader) shall be identified as such within the institution. A team approach is required for optimal care of patients with multiple-system injuries;
3. There shall be an individual who is identified and accountable for operation of the trauma service and who shall be qualified to serve in the capacity. The standards for this individual are:
 - i. Evidence of clinical qualifications, including:
 - (1) Educational preparation, by Continuing Medical Education (CME) documentation or fellowship;
 - (2) Experience in traumatology; and
 - (3) Board certification in surgery;
 - ii. Evidence of continuing medical education that is trauma related, which shall include 100 hours of continuing medical education (CME) credit in the prior two-year period for Level I and 70 hours of CME credit in the prior two-year period for Level II;

iii. Participation in the development of trauma care systems on a local, regional, state, or national level (essential for Level I, desirable for Level II).

iv. Educational involvement, such as:

(1) The Advanced Trauma Life Support (ATLS) course;

(2) Teaching at the undergraduate, graduate, and/or postgraduate levels; and

(3) Training programs within the department of surgery;

v. Participation in clinical, epidemiological, or basic research in trauma and publication of the results; and

vi. Evidence of active participation in the resuscitation or surgery, or both, of multisystem trauma patients;

vii. The provision of a written job description and organizational chart defining the relationship between the trauma service director and other hospital services; and

4. There shall be evidence of a structured method for monitoring and evaluating trauma patients throughout their hospital stay. Such plan shall show evidence of interface and collaboration between nursing management responsible for the trauma nursing service and the physician management responsible for the trauma service.

8:33P-3.2 Surgery departments/divisions/services/sections

(a) Surgery departments/divisions/services/sections shall be staffed by qualified specialists in the following specialties:

1. Essential for both Level I and Level II:

i. Orthopaedic Surgery;

ii. General Surgery; and

iii. Neurologic Surgery.

2. Essential for Level I; desirable for Level II:

i. Plastic/Maxillofacial Surgery;

ii. Urologic Surgery;

iii. Obstetrics-Gynecologic Surgery;

iv. Ophthalmic Surgery;

v. Cardiothoracic Surgery;

vi. Pediatric Surgery; and

vii. Otorhinolaryngologic Surgery; and

3. Desirable for both Level I and Level II:

i. Oral Surgery—Dental.

8:33P-3.3 Emergency department/division/service/section

The emergency department staff, including the emergency department physician, shall function to insure immediate

access and appropriate care to the trauma patient. The emergency department physician should function as a designated member of the trauma team and the relationship between emergency department physicians and other participants of the trauma team shall be established on a local level, consistent with resources but adhering to established standards and ensuring optimal care. A working relationship, directed toward the goal of patient care, shall be established in-hospital as well as with other hospitals that refer patients to the Level I or Level II trauma center.

8:33P-3.4 Surgical specialties availability

(a) The following qualified specialists shall be available in-hospital 24 hours a day, as an essential requirement for both Level I and Level II:

1. General Surgery. This requirement shall be fulfilled by attending surgeons credentialed in trauma care by the institution and capable of assessing emergent situations; and

2. Neurologic Surgery. An attending neurosurgeon shall be promptly available to the trauma service. The in-hospital requirement may be fulfilled by an in-hospital neurosurgeon or a surgeon who has special competence (as judged by the Chief of Neurosurgery) in the care of patients with neural trauma, and who is capable of initiating measures directed at stabilizing the patient and initiating diagnostic procedures.

(b) For Level II trauma centers, but not for Level I, the requirements specified in (a) above may be fulfilled by senior residents (Post-Graduate Year 4 or Post-Graduate Year 5) in the hospital's accredited surgical training program capable of assessing emergent situations in their specific specialties, providing surgical treatment immediately, and providing control and surgical leadership to the trauma team. Whenever a senior resident is used to fulfill the availability requirement, a staff specialist shall be on call and promptly available.

(c) The following qualified specialists shall be on call and promptly available from inside or outside the hospital as follows:

1. Essential for both Level I and Level II:

i. Orthopaedic Surgery;

ii. Plastic/Maxillofacial Surgery;

iii. Urologic Surgery;

iv. Ophthalmic Surgery;

v. Otorhinolaryngologic Surgery; and

vi. Thoracic Surgery; and

2. Essential for Level I; desirable for Level II:

i. Obstetrics-Gynecologic Surgery;

ii. Oral Surgery—Dental;

- iii. Microsurgery capabilities;
- iv. Hand Surgery;
- v. Cardiac Surgery; and
- vi. Pediatric Surgery

3. Desirable for Level I:

- i. Neuroradiology.

8:33P-3.5 Non-surgical specialties availability

(a) The following qualified non-surgical specialists shall be available in-hospital 24 hours a day, as an essential requirement for both Level I and Level II, as follows:

1. Emergency Medicine. A specialist in emergency medicine shall be available 24 hours a day. This requirement may be fulfilled by senior level emergency medicine residents in the hospital's accredited training program who are capable of assessing emergency situations in trauma patients and who are capable of directing and providing for indicated treatment. When residents are used to fulfill this requirement, a staff specialist shall be immediately informed and promptly available.

2. Anesthesiology:

i. For Level I, this requirement shall be fulfilled by an attending anesthesiologist capable of assessing emergent situations in trauma patients and providing for any indicated treatment.

ii. For Level II, this requirement may be fulfilled by an anesthesiology resident in the hospital's accredited training program or certified nurse anesthetist (CRNA) capable of assessing emergent situations in trauma patients and providing for any indicated treatment. When an anesthesiology resident or CRNA is used to fulfill this requirement, the staff anesthesiologist on call shall be advised and promptly available.

(b) The following qualified non-surgical specialists shall be on call and promptly available from inside or outside the hospital as follows:

1. Essential for both Level I and Level II:

- i. Cardiology;
- ii. Hematology;
- iii. Internal Medicine;
- iv. Nephrology;
- v. Pathology;
- vi. Pediatrics; and
- vii. Radiology; and

2. Essential for Level I; desirable for Level II:

- i. Psychiatry;
- ii. Infectious diseases;
- iii. Chest medicine; and
- iv. Gastroenterology; and

SUBCHAPTER 4. SPECIAL
FACILITIES/RESOURCES/CAPABILITIES

8:33P-4.1 Emergency department (ED)

(a) The following emergency department (ED) personnel and equipment are essential for both Level I and Level II:

1. A designated physician director with experience in emergency medicine and appropriate qualifications, such as completion of an Advanced Trauma Life Support (ATLS) course or board certification in emergency medicine;

2. A physician with special competence in care of the critically injured who is a designated member of the trauma team and physically present in the ED 24 hours a day;

3. RNs, LPNs, and nurses' aides in adequate numbers; and

4. Equipment for resuscitation and to provide life support for the critically injured or seriously injured, which shall include, but not be limited to:

i. Airway control and ventilation equipment including laryngoscopes and endotracheal tubes of all sizes, bag-mask resuscitator, pocket masks, oxygen, and mechanical ventilator;

ii. Suction devices;

iii. Electrocardiograph-oscilloscope-defibrillator;

iv. Apparatus to establish central venous pressure monitoring;

v. All standard intravenous fluids and administration devices, including intravenous catheters;

vi. Sterile surgical sets for procedures standard for ED, such as thoracostomy and cut-down;

vii. Gastric lavage equipment;

viii. Drugs and supplies necessary for emergency care;

ix. X-ray capability, 24-hour coverage by in-hospital technician;

x. Two-way radio lined with vehicles of emergency transport system; and

xi. Skeletal traction device for cervical injuries.

8:33P-4.2 Intensive care units (ICUs) for trauma patients

(a) ICUs may be separate specialty units or surgical ICU's. The following are essential for ICUs in both Level I and Level II:

1. A designated medical director;
2. A physician on duty in ICU 24 hours a day, or immediately available from in-hospital, who is not the emergency department physician;
3. A nurse-patient minimum ratio of 1:2 on each shift;
4. Immediate access to clinical laboratory services; and
5. Equipment as follows:
 - i. Airway control and ventilation devices;
 - ii. Oxygen source with concentration controls;
 - iii. Cardiac output monitoring;
 - iv. Temporary transvenous pacemaker;
 - v. Electrocardiograph-oscilloscope-defibrillator;
 - vi. Cardiac output monitoring;
 - vii. Electronic pressure monitoring;
 - viii. Mechanical ventilator-respirators;
 - ix. Patient weighing devices;
 - x. Pulmonary function measuring devices;
 - xi. Temperature control devices;
 - xii. Drugs, intravenous fluids, and supplies; and
 - xiii. Intracranial pressure monitoring devices.

8:33P-4.3 Postanesthetic recovery room

A postanesthetic recovery room shall be essential for both Level I and Level II. The room shall be staffed by registered nurses and other essential personnel 24 hours a day. The room shall contain appropriate monitoring and resuscitation equipment. A surgical intensive care unit shall be considered to fulfill the requirement for a postanesthetic recovery room.

8:33P-4.4 Acute hemodialysis capability

(a) Full in-house acute hemodialysis capability shall be essential for Level I.

(b) Acute hemodialysis capability shall be essential for Level II, in accordance with the following preferences:

1. First preference: full in-house capability;
2. Second preference: inter-hospital outreach program (IHOP);
3. Third preference: transfer agreement with a Level I or Level II trauma center with full acute hemodialysis

capability, including clinically appropriate criteria for safe transfer of trauma patients who also need acute hemodialysis.

8:33P-4.5 Organized burn care

(a) The following are essential for both Level I and Level II:

1. There shall be an organized burn unit or center staffed by physicians and nursing personnel trained in burn care. In facilities that cannot provide for a burn unit or center within the institution, there shall be a written and signed transfer agreement between the institution and a nearby burn unit or center;
2. The burn unit or center shall be properly staffed and equipped for care to the extensively burned patient; and
3. The burn unit or center shall have a designated physician director who has had specialized training in burn therapy or equivalent experience in burn care.

8:33P-4.6 Acute spinal cord/head injury management

(a) A team approach to the initial care and continued management of the acute spinal cord injury victim shall exist and shall include active participation for members of rehabilitation services.

(b) In circumstances where another hospital in the region is a spinal cord/head injury center, a written and signed transfer agreement with the hospital shall be prepared.

8:33P-4.7 Perinatal services

As an essential requirement for both Level I and Level II, any trauma center which is not itself designated as a Level III or Level IIA perinatal center shall have a written transfer agreement with a New Jersey hospital designated as a Level III perinatal center, with clinically appropriate criteria for safe transfer of trauma patients who also need specialized perinatal or neonatal services.

8:33P-4.8 Radiological special capabilities

(a) The following radiological special capabilities are essential for both Level I and Level II:

1. Angiography of all types; and
2. In-hospital computerized tomography, with technician who is available in-hospital 24 hours a day.

(b) The following radiological special capabilities are essential for Level I and desirable for Level II:

1. Sonography; and
2. Nuclear scanning.

8:33P-4.9 Rehabilitation medicine

(a) The following are essential for both Level I and Level II:

1. The applicant shall provide documentation that the rehabilitation potential of each trauma patient will be assessed by a psychiatrist and that a written rehabilitation plan of care will be implemented by the applicant in accordance with the patient's needs;

2. The applicant shall provide documentation that a multi-disciplinary trauma team, including a social worker or discharge planner, will develop and implement a discharge plan for each trauma patient; and

3. To assure continuity of care for trauma patients who may require inpatient comprehensive rehabilitation, as it is defined in N.J.A.C. 8:33M-1.2, applicants which are not themselves licensed rehabilitation hospitals shall submit documentation of existing or anticipated transfer agreements with licensed rehabilitation hospitals located throughout the proposed service area.

8:33P-4.10 Social services

(a) Social work staff shall intervene with the patient, patient's family, significant others, community, and members of the interdisciplinary team and/or hospital staff, as indicated, providing diagnostic, therapeutic and concrete services.

(b) There shall be documentation in the patient's record of the social work services provided.

SUBCHAPTER 5. OTHER REQUIREMENTS**8:33P-5.1 Operating suite special requirements**

(a) The following equipment-instrumentation shall be required for both Level I and Level II:

1. An operating room, adequately staffed, in-hospital. Both the operating room and the staff shall be immediately available 24 hours a day;

2. Thermal control equipment:

- i. For patients; and
- ii. For blood.

3. X-ray capability;

4. Endoscopes, all varieties;

5. A craniotome; and

6. Monitoring equipment.

(b) The following equipment-instrumentation is essential for Level I and desirable for Level II:

1. Cardiopulmonary bypass capability; and

2. An operating microscope.

8:33P-5.2 Clinical laboratory service

(a) The following clinical laboratory services shall be available 24 hours a day, as an essential requirement for both Level I and Level II:

1. Standard analyses of blood, urine, and other body fluids;

2. Blood typing and cross-matching;

3. Coagulation studies;

4. Comprehensive blood bank or access to a community central blood bank and adequate hospital storage facilities;

5. Blood gases and pH determinations;

6. Serum and urine osmolality;

7. Microbiology; and

8. Drug and alcohol screening.

8:33P-5.3 Quality assurance

(a) Level I and Level II trauma centers shall have organized quality assurance programs (Level II programs shall be coordinated with the regional Level I center) which shall include the following:

1. A special audit for all trauma deaths and other specified cases;

2. A morbidity and mortality review;

3. A multidisciplinary trauma conference;

4. A medical nursing audit, utilization review, and tissue review; and

5. A trauma registry review, as follows:

i. A registry shall be maintained of all major trauma admissions with pertinent treatment and outcome data, as determined by the New Jersey State Department of Health, Office of Emergency Medical Services. The registry shall be based at the Level I centers, and all Level II centers shall participate; and

ii. The trauma registry shall include, at a minimum:

(1) Severity of injury, including the probability of death;

(2) Anatomic site(s) of injury (injuries);

(3) Nature of injury (injuries);

(4) Mechanism of injury;

(5) Classification of patient injuries, including subgroups;

(6) Demographic information as to age, sex, and other factors;

(7) Appropriate injury severity scores and/or trauma scores, as determined by the Department of Health at various points in the patient's treatment;

(8) Information on the patient's length of stay, including length of stay in the trauma ICU, and step-down units, and regular patient areas; and

(9) Outcome;

iii. All data and statistics in the registry shall be reviewed for completeness by the trauma center staff and missing information supplied before final analysis is begun; and

iv. An analysis shall be made of data collected, with the resulting findings and conclusions sent monthly to the New Jersey State Department of Health, Office of Emergency Medical Services; and

6. A review of prehospital and regional systems of trauma care.

(b) The hospital shall provide written protocols and policies to support a systematic and comprehensive approach to the care of trauma patients with the following identified requirements:

1. Trauma patient triage protocols;
2. Trauma team response protocols;
3. Trauma patient resuscitation and stabilization protocols;
4. Operating room protocols for support of the trauma team with explicit recognition to the priority given to trauma patients;
5. Trauma patient transport protocols, both for emergency department to the operating room, and from one hospital to another;
6. A special audit for trauma deaths at least every month;
7. A morbidity review and cost-of-care review monthly; and
8. For a Level II center, a transfer agreement with the regional Level I trauma center.

8:33P-5.4 Outreach program

The outreach program shall be based at the Level I centers, and Level II centers shall cooperate in its implementation. The program shall include telephone and on-site consultations with physicians of the community and outlying areas. The Level I trauma center shall serve as a resource on outreach programs for all Level II trauma centers and providers of EMS services in its region.

8:33P-5.5 Public education

Both Level I and Level II centers shall provide education regarding injury prevention in the home and industry, and

on the highways and athletic fields; standard first-aid; and problems confronting the public, the medical profession, and hospitals regarding optimal care for the injured.

8:33P-5.6 Trauma research program

The Level I centers shall conduct a trauma research program, including analysis of trauma registry data, in which the Level II centers shall participate.

8:33P-5.7 Training program

(a) Both Level I and Level II centers shall provide formal programs in continuing education, with the Level II programs provided in cooperation with the Level I center, for:

1. Staff physicians;
2. Nurses;
3. Allied health personnel, such as emergency medical technicians and paramedics;
4. Community physicians; and
5. Community nurses, including registered and licensed practical nurses.

8:33P-5.8 Nursing requirements

(a) The following nursing requirements in (b) through (i) shall be essential for both Level I and Level II.

(b) The hospital shall define the roles of the nursing team members and their areas of responsibility, accountability, and authority.

(c) The hospital shall designate an individual as the trauma nurse coordinator.

(d) The trauma nurse coordinator shall be responsible for monitoring the quality of care given by the nursing staff as the trauma patient moves through the hospital system.

(e) The trauma nurse coordinator shall have the responsibility to monitor and promote all trauma related activities associated with patient care.

(f) The trauma plan for the nursing department shall include:

1. The ability to immediately mobilize qualified nursing resources from inpatient areas for initial multiple resuscitation efforts; and
2. A defined and structured role for the trauma nurse coordinator or the nurse administrator responsible for the overall coordination and integration of the trauma service.

(g) The standards for the individual who shall be designated the trauma nurse coordinator are:

1. Evidence of qualification, including:

- i. Educational preparation;
- ii. Certification; and
- iii. Experience;

2. Evidence of continuing education related to trauma care and the trauma system;

3. Participation in the development of trauma care systems on a local, regional, state, or national level;

4. Documentation of participation as either program coordinator, consultant, or as a faculty member, in trauma education activities comparable to the Advanced Trauma Life Support (ATLS) course which are separate from the institution's in-hospital trauma education program and which offer evidence of the application of the trauma nursing activities; and

5. Participation in trauma research either through promoting or coordinating such research.

(h) There shall be a written job description and organizational chart defining the relationship between the trauma nurse coordinator and other hospital services.

(i) There shall be evidence of the participation of the trauma nurse coordinator in establishing programs to influence the nursing care of the trauma patient.

8:33P-5.9 Participation in regional EMS and trauma systems

(a) Level I and Level II trauma centers shall establish working relationships with each other, as well as with basic and advanced life support and emergency transportation providers, community hospitals and other elements of the regional trauma network, with Level I centers taking the lead.

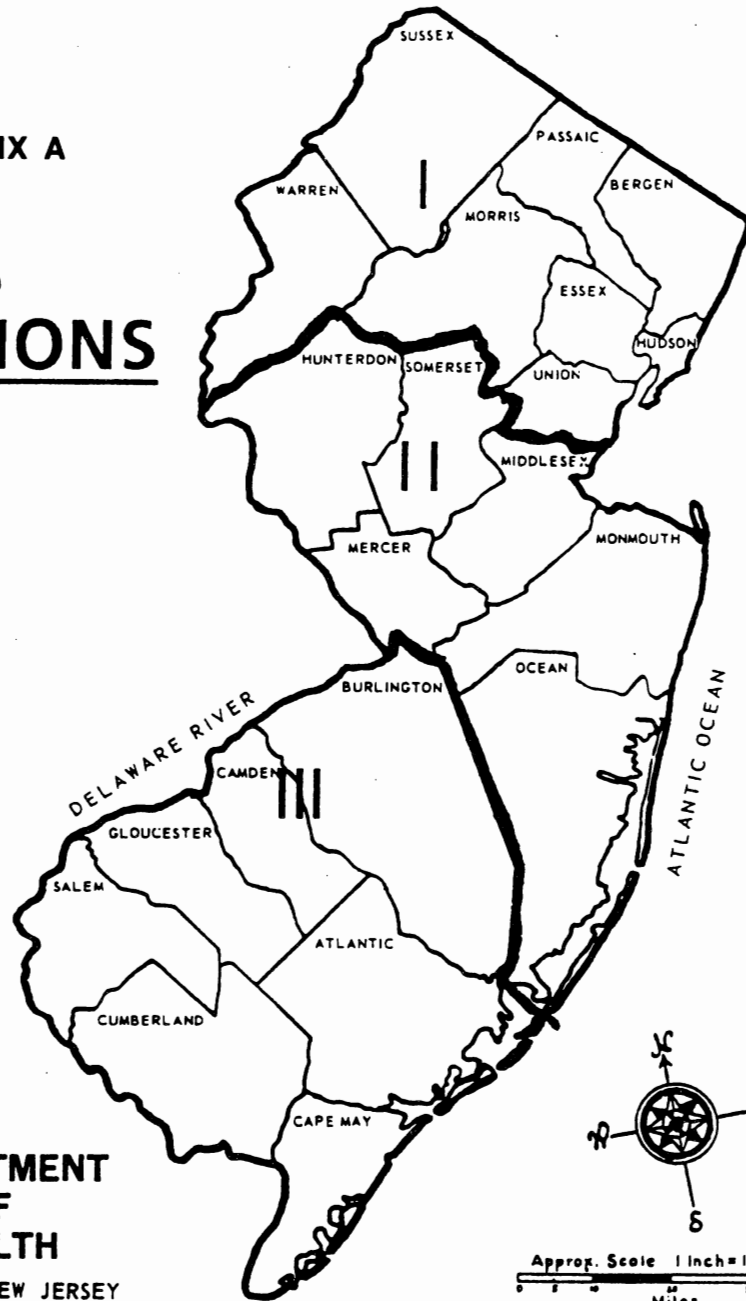
(b) Both Level I and Level II centers shall document active involvement in the local and regional emergency medical services (EMS) systems. This involvement can be demonstrated by:

1. Providing joint educational programs with other institutions, including instruction in the equipment, supplies, and drugs specific to the major trauma patient;
2. Providing on-line medical control; and
3. Assisting in the development of regional policies, procedures and protocols.

APPENDIX A

APPENDIX A

**EMS
REGIONS**



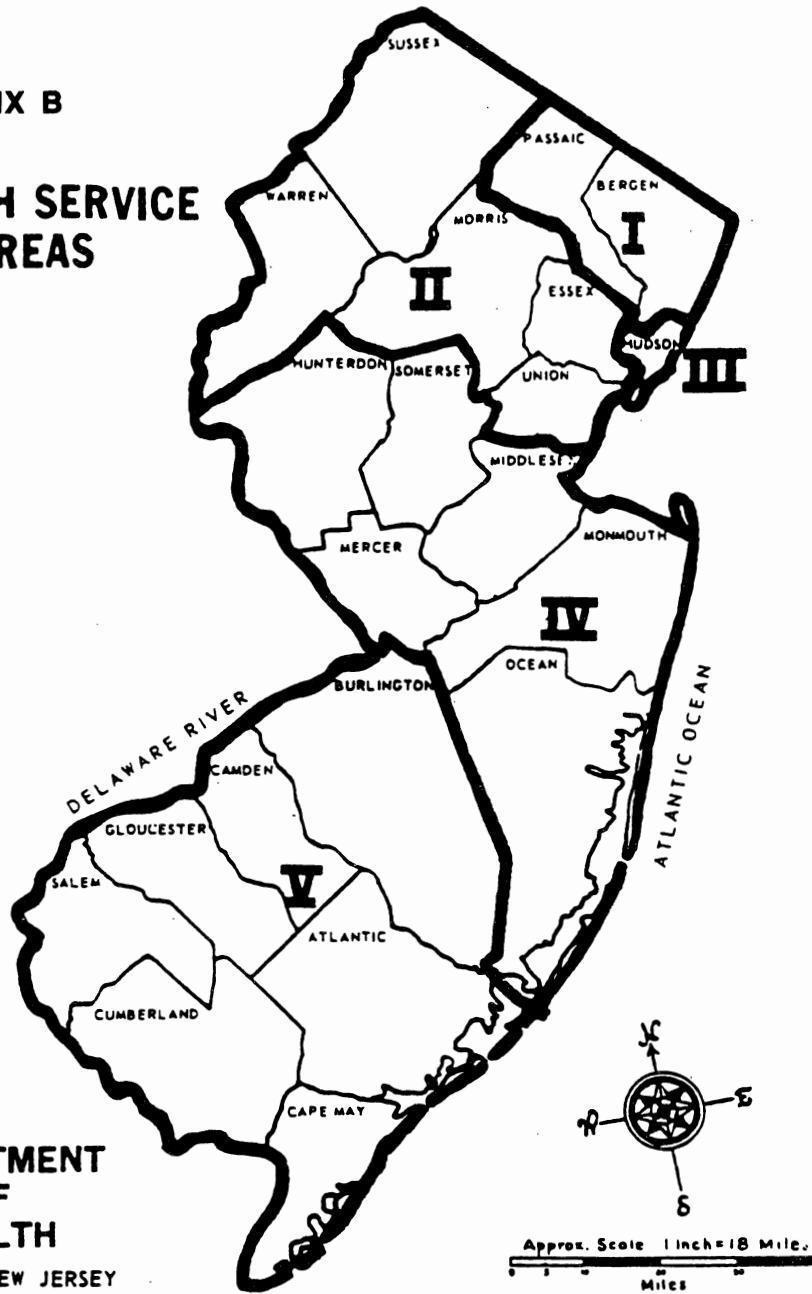
DEPARTMENT
OF
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STATE OF NEW JERSEY

Approx. Scale 1 Inch = 18 Miles
Miles

APPENDIX B

APPENDIX B

HEALTH SERVICE
AREAS



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