Emergency Department Planning and Resource Guidelines


The purpose of this policy is to provide an outline of, as well as references concerning the resources and planning needed to meet the emergency medical care needs of the individual and the community.

Emergency departments* must possess the staff and resources necessary to evaluate all individuals presenting to the emergency department (ED). Emergency departments must also be able to provide or arrange treatment necessary to attempt to stabilize emergency patients who are found to have an emergency medical condition. Because of the unscheduled and episodic nature of health emergencies and acute illnesses, experienced and qualified physician, nursing, and ancillary personnel must be available 24 hours a day to serve those needs.

Emergency departments also provide treatment for individuals whose health needs are not of an emergency nature, but for whom EDs may be the only accessible or timely entry point into the broader health care system. Accessing an ED for care is an option exercised by patients seeking quality and service availability.

The American College of Emergency Physicians (ACEP) believes that:
- Emergency medical care must be available to all members of the public.1
- Access to appropriate emergency medical and nursing care must be unrestricted.
- A smooth continuum should exist among prehospital providers, ED providers, and providers of definitive follow-up care.2
- Evaluation, management, and treatment of patients must be appropriate and expedient.3
- Resources should exist in the ED to accommodate each patient from the time of arrival through evaluation, decision making, treatment, and disposition.
- EDs should have policies and plans to provide effective administration, staffing, facility design, equipment, medication, and ancillary services.
- The emergency physician, emergency nurse, and additional medical team members are the core components of the emergency medical care system. These ED personnel must establish effective working relationships with other health care providers and entities with whom they must interact. These include emergency medical services (EMS) providers, ancillary hospital personnel, other physicians, and other health care and social services resources.

**Policy sections include:**
1. Resources and Planning
   A. Responsibilities and Public Expectations
   B. Necessary Elements
      1. Administration
      2. Staffing
      3. Facility
      4. Equipment and Supplies (See also Figure 1)18
      5. Pharmacologic/Therapeutic Drugs and Agents (See also Figure 2)
      6. Ancillary Services (See also Figures 3 and 4)
   C. Relationships and Responsibilities

2. Figures
   A. Suggested Equipment and Supplies for EDs
   B. Suggested Pharmacological/Therapeutic Drugs for EDs
   C. Radiological, Imaging, and other Diagnostic Services
   D. Suggested Laboratory Capabilities

*Where appropriate in this document, the term “chair or chief of the department of emergency medicine” may be substituted for the title “medical director of the emergency department.”
The equipment, instruments, and supplies listed below are only suggested. Each of the items should be located in or immediately available to the area noted. This list does not include routine medical/surgical supplies such as adhesive bandages, gauze pads, and suture material. Nor does it include routine office items such as paper, desks, paper clips, and chairs.

**Entire Department**
- Central station monitoring capability
- Physiological monitors
- Blood flow detectors
- Defibrillator with monitor and battery
- Thermometers
- Pulse oximetry
- Nurse-call system for patient use
- Portable suction regulator
- Infusion pumps to include blood pumps
- IV poles
- Bag-valve-mask respiratory and adult and pediatric size mask
- Portable oxygen tanks
- Blood/Fluid warmer and tubing
- Nasogastric suction supplies
- Nebulizer
- Gastric lavage supplies, including large-lumen tubes and bite blocks
- Urinary catheters, including straight catheters, Foley catheters, Coude catheters, filiforms and followers, and appropriate collection equipment
- Intraosseous needles
- Lumbar puncture sets (adult and pediatric)
- Blanket warmer
- Tonometer
- Slit lamp
- Wheel chairs
- Medication dispensing system with lock capabilities
- Separately wrapped instruments (specifics will vary by department)
- Availability of light microscopy for emergency procedures
- Weight scales (adult and infant)
- Tape measure
- Ear irrigation and cerumen removal equipment
- Vascular Doppler
- Anoscope
- Adult and Pediatric “code” cart
- Suture or minor surgical procedure sets (generic)
- Portable sonogram equipment
- EKG machine
- Point of care testing
- X-ray view box and hot light
- Film boxes for holding x-rays
- Chart rack
- Computer system
- Internet capabilities
- Patient tracking system
- Radio or other device for communication with ambulances
- Patient discharge instruction system
- Patient registration system/Information services
- Intradepartmental staff communication system-pagers, mobile phones
- ED charting system for physician, nursing, and attending physician documentation equipment
- Reference materials including toxicology resource information
- Personal protective equipment-gloves, eye goggles, face mask, gowns, head and foot covers
- Linen (pillows, towels, wash cloths, gowns, blankets)
- Patient belongings or clothing bag
- Security needs—including restraints and wand-type or free standing metal detectors as indicated
- Equipment for adequate housekeeping

**General Examination Rooms**
- Examination tables or stretchers appropriate to the area.
  (For any area in which seriously ill patients are managed, a stretcher with capability for changes in position, attached IV poles, and a holder for portable oxygen tank should be used. Pelvic tables for GYN examinations.)
- Step stool
- Chair/stool for emergency staff
- Seating for family members or visitors
- Adequate lighting, including procedure lights as indicated
- Cabinets
- Adequate sinks for hand-washing, including dispensers for germicidal soap and paper towels
- Wall-mounted oxygen supplies and equipment, including nasal cannulas, face masks, and venturi masks.
- Wall-mounted suction capability, including both tracheal cannulas and larger cannulas
- Wall-mounted or portable otoscope/ophthalmoscope
- Sphygmomanometer/stethoscope
- Oral and nasal airways
- Televisions
- Reading material for patients
- Biohazard-disposal receptacles, including for sharps
- Garbage receptacles for non-contaminated materials

**Resuscitation Room**
All items listed for general examination rooms plus:
- Adult and Pediatric “code” cart to include appropriate medication charts
- Capability for direct communication with nursing station, preferably hands free

**Figure 1.** Suggested equipment and supplies for EDs.
The ED medical director should have oversight over all aspects of the practice of emergency medicine in an ED.

d. All new staff members working in an ED should receive a formal orientation program that addresses the mission of the institution, standard operating procedures of the ED, and the responsibilities of each member of the ED staff.

e. All emergency care personnel must maintain and enhance their professional knowledge and skills, with the goal of providing optimal care to patients.

Fig. 1 (continued).

Radiography equipment
Radiographic view boxes and hot light
Airways needs
Bag-valve-mask respirator (adult, pediatric, and infant)
Cricothyroidotomy instruments and supplies
Endotracheal tubes, size 2.5 to 8.5 mm
Fiberoptic laryngoscope
Laryngoscopes, straight and curved blades and stylets
Laryngoscopic mirror and supplies
Laryngeal Mask Airway (LMA)
Oral and nasal airways
Tracheostomy instrument and supplies
Breathing
BiPAP Ventilation System
Closed-chest drainage device
Chest tube instruments and supplies
Emergency thoracotomy instruments and supplies
End-tidal CO2 monitor
Nebulizer
Peak flow meter
Pulse oximetry
Volume cycle ventilator
Circulation
Automatic physiological monitor, noninvasive
Blood/fluid infusion pumps and tubing
Blood/fluid warmers
Cardiac compression board
Central venous catheter setups/kits
Central venous pressure monitoring equipment
Cutdown instruments and supplies
Intravenous needles
IV catheters, sets, tubing, poles
Monitor/defibrillator with pediatric paddles, internal paddles, appropriate pads and other supplies
Pericardiocentesis instruments
Temporary external pacemaker
Transvenous and/or transthoracic pacemaker setup and supplies
12-Lead ECG machine

Trauma and miscellaneous resuscitation
Blood salvage/autotransfusion device
Emergency obstetric instruments and supplies
Hypothermia thermometer
Infant warming equipment
Peritoneal lavage instruments and supplies
Pneumatic antishock garment, as indicated
Spine stabilization equipment to include cervical collars, short and long boards
Warming/cooling blanket

Other Special Rooms
All items listed for general examination rooms plus:

Orthopedic
Cast cutter
Cast and splint application supplies and equipment
Cast spreader
Crutches
Extremity-splinting devices including traction splinting and fixation pins/wires and corresponding instruments and supplies
Halo traction or Gardner-Wells/Trippe-Wells traction
Radiograph view and hot light
Suture instrument and supplies
Traction equipment, including hanging weights and finger traps
Eye/ENT
Eye chart
Ophthalmic tonometry device (applanation, Schiotz, or other)
Other ophthalmic supplies as indicated, including eye spud, rust ring remover, cobalt blue light
Slit lamp
Ear irrigation and cerumen removal equipment
Epistaxis instrument and supplies, including balloon posterior packs
Frazier suction tips
Headlight
Laryngoscopic mirror
Plastic suture instruments and supplies
OB-GYN
Fetal Doppler and ultrasound equipment
Obstetrics/Gynecology examination light
Vaginal specula in pediatric through adult sizes
Sexual assault evidence-collection kits (as appropriate)
Suture material

Miscellaneous
Nitrous Oxide equipment
The duties and responsibilities of physicians, nurses, and ancillary staff members in the ED must be defined in writing. The ED quality assurance program should provide for the evaluation and monitoring of each member of the emergency care team at regular intervals.

In accordance with applicable laws, regulations, and standards, the triage and screening of each patient who enters the facility seeking care must be performed by a physician, or by a specially trained registered nurse, nurse practitioner, or physician assistant, in accordance with the Emergency Medical Treatment and Labor Act (EMTALA)\(^4\) policies delineated in the medical staff bylaws or by the hospital board of trustees. Policy guidelines should be developed collaboratively by the medical director of emergency services and the director of emergency nursing.

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**Figure 2.** Suggested pharmacological/therapeutic drugs for EDs.
h. Immediate evaluation and stabilization, to the degree reasonably possible, must be available for each patient who presents with an emergency medical condition.

i. The emergency physician is responsible for the medical care provided in the ED. This includes the medical evaluation, diagnosis, and recommended treatment and disposition of the emergency patient, as well as the direction and coordination of all other care provided to the patient. Medical care responsibility for a particular patient in the ED may be transferred to another physician if said responsibility has been assumed unambiguously. A registered nurse is responsible for the nursing care of each emergency patient to include assessment, planning, and evaluation of response to interventions.

j. The ED must maintain a control register or “log” identifying each individual who presents to the facility seeking emergency care.

k. A legible and appropriate medical record must be established for every individual who presents for emergency care. This record must be retained as required by law and should remain promptly available to the emergency staff when needed.

2. Staffing

a. Appropriately educated and qualified emergency care professionals, including a physician and a registered nurse, shall staff the ED during all hours of operation.

b. An emergency medical director shall direct the medical care provided in the ED. The medical director of the ED should:

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The specific services available and the timelines of availability of these services for emergency patients in an individual hospital’s ED should be determined by the medical director of the ED in collaboration with the directors of the diagnostic services and other appropriate individuals.

The following should be readily available 24 hours a day for emergency patients:

Standard radiologic studies of bony and soft-tissue structures including, but not limited to
- Cross-table lateral views of spine with full series to follow
- Portable chest radiographs for acutely ill patients and for verification of placement of endotracheal tube, central line, or chest tube
- Soft-tissue views of the neck
- Soft-tissue views of subcutaneous tissues to rule out the presence of foreign body
- Standard chest radiographs, abdominal series, etc

Pulmonary services
- Arterial blood gas determination
- Peak flow determination
- Pulse oximetry

Fetal monitoring (nonstress test)/uterine monitoring

Cardiovascular services
- Doppler studies
- 12-Lead ECGs and rhythm strips

Emergency ultrasound services for the diagnosis of obstetric/gynecologic, cardiac and hemodynamic problems and other urgent conditions.

The following services should be available on an urgent basis, provided by staff in the hospital or by staff to be called in to respond within a reasonable period of time:

Nuclear medicine
- Ventilation-perfusion lung scans
- Other scintigraphy for trauma and other conditions

Radiographic
- Arteriography/venography
- Computed tomography
- Dye-contrast studies (intravenous pyelography, gastrointestinal contrast, etc)

Vascular/flow studies including impedance plethysmography

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Figure 3. Radiologic, imaging, and other diagnostic services.
Be certified by the American Board of Emergency Medicine, the American Osteopathic Board of Medicine or possess comparable qualifications as established through the privilege delineation policy.5

Possess competence in management and administration of the clinical services in an ED.

Be a voting member of the executive committee of the hospital’s medical staff.

Be knowledgeable about EMS operations and the regional EMS network.

Be responsible for assessing and making recommendations to the hospital’s credentialing body related to the qualifications of emergency physicians with respect to the clinical privileges granted to them.

Ensure that the emergency staff is adequately qualified and appropriately educated.

c. All physicians who staff the ED, including the medical director, should be subject to the hospital’s customary credentialing process and must be members of the hospital medical staff with clinical privileges in emergency medicine.5 Emergency physicians should have the same rights, privileges, and responsibilities as any other member of the medical staff, as outlined in the organized medical staff’s various categories of medical staff membership.6
d. Each physician should be individually credentialed by the hospital medical staff department in accordance with criteria contained in ACEPs policy on physician credentialing.5 All emergency physicians who practice in an ED must possess training, experience, and

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Figure 4. Suggested laboratory capabilities.

<table>
<thead>
<tr>
<th>Category</th>
<th>Tests</th>
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<tbody>
<tr>
<td>Blood bank</td>
<td>Type and cross-matching capabilities</td>
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<tr>
<td>Chemistry</td>
<td>Ammonia</td>
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<td></td>
<td>Amylase</td>
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<td></td>
<td>Anticonvulsant and other therapeutic drug levels</td>
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<td>Arterial blood gases</td>
<td>Glucose (blood and CSF)</td>
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<td>Bilirubin (total and direct)</td>
<td>Liver-function enzymes (ALT, AST, alkaline phosphatase)</td>
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<tr>
<td>Calcium</td>
<td>Methemoglobin</td>
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<td>Carboxyhemoglobin</td>
<td>Osmolality</td>
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<td>Cardiac isoenzymes (including creatine kinase-MB)</td>
<td>Protein (CSF)</td>
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<tr>
<td>Chloride (blood and cerebrospinal fluid [CSF])</td>
<td>Serum magnesium</td>
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<tr>
<td>Hematology</td>
<td>Cell count and differential (blood, CSF, and joint fluid analysis)</td>
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<td></td>
<td>Coagulation studies</td>
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<td></td>
<td>Erythrocyte sedimentation rate</td>
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<tr>
<td>Microbiology</td>
<td>Acid fast smear/staining</td>
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<td></td>
<td>Chlamydia testing</td>
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<td></td>
<td>Counterimmune electrophoresis for bacterial identification</td>
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<td></td>
<td>Gram staining and culture/sensitivities</td>
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<tr>
<td>Other</td>
<td>Hepatitis screening</td>
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<td>HIV screening</td>
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<td></td>
<td>Joint fluid and CSF analysis</td>
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<td>Toxicology screening and drug levels</td>
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</table>
competence in emergency medicine sufficient to evaluate and initially manage and treat all patients who seek emergency care, consistent with the physician’s delineated clinical privileges.

e. The nursing care provided in the ED shall be directed by a registered nurse. The director of emergency nursing services should:

● Demonstrate evidence of substantial education, experience, and competence in emergency nursing. The Certified Emergency Nurse (CEN) credential is an excellent benchmark.

● Show evidence of competence in management and administration of the clinical services in an ED.

● Ensure that the nursing and support staff are appropriately educated and qualified. Each nurse working in the ED should:

● Provide evidence of adequate previous ED or critical care experience or have completed an emergency care education program. The CEN credential is an excellent benchmark.

● Demonstrate evidence of the knowledge and skills necessary to deliver nursing care in accordance with the Standards of Emergency Nursing Practice.

f. The medical director of the ED and the director of emergency nursing must assess staffing needs on a regular basis. Patient census, injury/illness severity, arrival time, and availability of ancillary services and support staff are factors to be considered in the evaluation of emergency scheduling and staffing needs. Staffing patterns should accommodate the potential for the unexpected arrival of additional critically ill or injured patients. A plan should exist for the provision of additional nursing, mid-level practitioners, and physician support in times of acute overload or disaster.

3. Facility

a. The ED should be designed to provide a safe environment in which to render care and should enable convenient access for all individuals who present for care.

b. The ED should be designed to protect, to the maximum extent reasonably possible consistent with medical necessity, the right of the patient to visual and auditory privacy.

c. Radiological, imaging, and other diagnostic services such as those outlined in Figure 3 must be available within a reasonable period of time for individuals who require these services.

d. Laboratory services such as those outlined in Figure 4 must be available within a reasonable period of time for the provision of appropriate diagnostic tests for individuals who require these services.

e. Appropriate signs consistent with the applicable regulations and laws should indicate the direction of the ED from major thoroughfares and whether the facility is designated as a specialized emergency care center.

f. Adequate provisions for the safety of the ED staff, patients, and visitors must be designed and implemented.

4. Equipment and Supplies

a. Equipment and supplies must be of high quality and should be appropriate to the reasonable needs of all patients anticipated by the ED.

b. Necessary equipment and supplies such as those outlined in Figure 1 must be immediately available in the facility at all times.

c. Evidence of the proper functioning of all reusable direct patient care medical equipment must be documented at regular intervals.

5. Pharmacologic/Therapeutic Drugs and Agents

Necessary drugs and agents such as those outlined in Figure 2 must be immediately available. A mechanism must exist to identify and replace all drugs before their expiration dates.

6. Ancillary Services

a. Lab
b. Radiology
c. Anesthesia
d. Respiratory Therapy
e. Electrocardiography

C. Relationships and Responsibilities

1. Responsibilities for the Continuity of Patient Care

Emergency care begins in the prehospital setting, continues in the ED, and concludes when responsibility for the patient is transferred to another physician or the patient is discharged. To promote optimal care of emergency patients, this transfer of responsibility should be accomplished in an effective, orderly, and predictable manner. This section describes the relationships that should exist between facilities and providers for proper continuity of care.

a. Prehospital Setting

● Prehospital emergency care should be provided consistent with the ACEP policy, “Medical Direction of Emergency Medical Services.”

● EDs must be a designated part of the EMS and community disaster plans and must have roles defined by the local EMS/disaster coordinating body. Protocols and procedures should be in place defining the EDs interface with the EMS system.

● Patients should be transported to the nearest appropriate ED in accordance with applicable laws, regulations, and guidelines.

● When ambulance services are used to transport patients to an ED, a communication system such as a two-way radio, cellular phone, or other appropriate means should be available to permit...
notice of arrival or advance information concerning critically ill or injured patients.

- Transport personnel should provide complete written clinical documentation of all prehospital care provided to the patient. A copy of the document should be immediately available on transfer of care to the staff of the ED and should be included in the patient’s permanent emergency medical record.

b. Emergency Facility

- ED personnel must be familiar with medical care protocols used by the prehospital providers in their community.
- All individuals with potentially lethal or disabling illnesses or injuries or other potential emergency medical conditions who present or are brought to the facility must be evaluated promptly. Appropriate measures must be initiated to stabilize and manage these patients.

c. Patient Disposition

- Appropriately qualified physicians who will accept responsibility for the care of patients must be identified in advance by the hospital and its medical staff for patients requiring admission or transfer to an inpatient bed or observation/holding unit. Consistent with applicable laws and regulations, the hospital and its medical staff must provide to the ED a list of appropriate on-call specialists who are required to respond to assist in the care of emergency patients within reasonable established time limits.
- Patients admitted or transferred to an observation/holding unit should be managed in a manner consistent with guidelines specified in ACEP’s related policies.
- Appropriately qualified physicians or other appropriate and qualified health care professionals practicing within the scope of their licensure who will accept follow-up responsibility for patients discharged from the ED should be identified in advance by the hospital and its medical staff.
- The hospital and its medical staff must provide the ED with a list of appropriate on-call specialists or other appropriate referral services who will render follow-up services to ED patients within a reasonable period of time after discharge.
- All patients discharged or transferred from an ED must have specific, printed, or legibly written aftercare instructions.

d. Transfer

- When patient transfer is indicated, the emergency facility must have a written plan for transferring patients in a vehicle with appropriate patient care capabilities, including life support (e.g., ambulance, advanced life support, basic life support, fixed-wing, rotor). When necessary, means should be available to provide nursing or physician staffing of transfer vehicles. Medical records necessary for ongoing care must accompany the patient; if these are not available at the time of transfer, they must be expeditiously provided to the receiving facility (e.g., by fax transmission).
- Patients with potentially lethal or disabling conditions or other emergency medical conditions must not be transferred from an emergency facility unless appropriate evaluation and stabilization procedures have been initiated within the capability of the facility. Transfer of patients to a facility with a greater capability and resources should be arranged as necessary.
- All transfers must comply with local, state, and federal laws and be consistent with ACEP policies related to patient transfer.

REFERENCES

Immunization of Adults and Children in the Emergency Department


The American College of Emergency Physicians (ACEP) recognizes that vaccine-preventable infectious diseases have a significant effect on the health of adults and children. Many adults and children at risk for such diseases use the emergency department (ED) as their primary source of health care. ACEP is concerned those individuals at risk for these diseases are often not appropriately immunized and that EDs may be called upon to play a more prominent role in the event of an emerging (or biothreat) outbreak. To promote the health and well-being of the population, ACEP thus supports the following principles.

- All health care personnel should be encouraged to receive yearly influenza immunization.
- EDs should establish relationships with public health clinics, managed health care organizations, and private physicians to ensure the rapid referral of undervaccinated patients.
- In cases of outbreaks or epidemics of vaccine-preventable diseases (including emerging infections and biothreats), emergency physicians should assist health care facilities in partnering with public health agencies to develop and implement mass vaccination strategies.
- For immunizations provided in the emergency department, all applicable laws, regulations, policies, standards, and requirements should be followed.


IMAGES IN EMERGENCY MEDICINE
(continued from p. 681)

DIAGNOSIS:
Fingertip burns from a crack pipe. Burned fingertips are a telltale injury from smoking crack cocaine because crack is often smoked in noninsulated glass or metal pipes. Handling these hot pipes, nicknamed “stems” or “blasters,” often leads to thermal injuries of fingertips and even lips. The suspicion for cocaine in this patient was confirmed by finding a glass crack pipe (Figure 2) in her belongings and later a urine toxicology report positive for cocaine.

Cocaine intoxication can change the evaluation and treatment of ED patients, such as those presenting with altered mental status, chest pain, or fevers. A careful examination of patients’ fingertips for burns may provide the only initial toxicologic clue for cocaine use.