

3.XX.X Burn Centers General Information

A. Definition

A burn center provides comprehensive, multi-disciplinary, multi-specialty care, including surgical procedures, to children with severe burns as per Burn Center Referral Criteria, section D.

B. General Requirements and Approval Procedure

1. The burn center shall be located in a California Children's Services (CCS) approved facility.
2. The burn center facility shall have been in continuous operation for at least six months prior to approval by the State CCS Program.
3. The burn center shall operate as a functional identifiable team and/or provide care in the inpatient and outpatient departments of the hospital. The identified core team is responsible for the coordination of all aspects of patient evaluation and for the development of plan of care.
4. Changes in professional staff whose qualifications are included in these standards shall be reported to Systems of Care Division (SCD)/CCS Program within thirty days of the change. A current center directory including all core team members and designated consultants shall be submitted to CCS annually. This list shall be accompanied by a copy of the most current hospital license. Updates and annual submissions shall be done by following the instructions at:

<http://www.dhcs.ca.gov/formsandpubs/forms/Forms/ChildMedSvcForms/dhcs4507.pdf>

5. Professional staff providing care to CCS children shall be paneled according to the standards for panel participation established by the State CCS program. Refer to the following website for specific requirements and forms DHCS 4514 and DHCS 4515.

Physician and Podiatrist:

<http://www.dhcs.ca.gov/formsandpubs/forms/Forms/ChildMedSvcForms/dhcs4514.pdf>

Allied Health Professionals:

<http://www.dhcs.ca.gov/formsandpubs/forms/Forms/ChildMedSvcForms/dhcs4515.pdf>

6. Centers interested in participating in the State CCS Program should request an electronic application from the CCS Facility Mailbox at:

CCSFacilityReview@dhcs.ca.gov
7. Centers whose application meets general and staffing requirements will be scheduled for a site visit by the State CCS Program Review Team.
8. Approval shall be based on compliance with CCS Provider Standards for burn centers and upon site review of procedures, services provided, patient chart review, the demonstration of community need, and patient outcome data.
9. The following types of approval actions may be taken by the State CCS Program:
 - a. Full Approval is granted when all CCS Provider Standards for burn center are met.
 - b. Provisional Approval may be granted when all CCS Provider Standards for burn centers are met, however, additional documentation is required by the State CCS Program. This type of approval may not exceed one year.
 - c. Conditional Approval for a period not to exceed six months may be granted when there are readily remediable discrepancies with program standards. The hospital must present a written plan for achieving compliance with program standards, a plan must be approved by the State CCS Program. If the discrepancies are not corrected within the time frame specified by the State CCS Program, approval shall be terminated.
 - d. Denial is based upon failure of the hospital to meet the State CCS Provider Standards.

10. The burn center shall be subject to re-evaluation at no less than five year intervals and more often if indicated. Re-evaluation may include a paper review and/or site visit.

11. General guidelines for CCS Outpatient Special Care Center (SCC) Services are found in N.L. 01-0108.

<http://www.dhcs.ca.gov/services/ccs/Documents/ccsnl010108.pdf>

C. Guideline for the Operation of Burn Centers

The guidelines, developed in partnership with the American Burn Association (ABA), define the burn care system, organizational structure, personnel, program, and physical facility involved in establishing the eligibility of a hospital to be identified as a burn center. Trauma centers that do not have a burn center within the same hospital should establish communication and collaboration with a regional burn center and assess, stabilize, and arrange safe transport for seriously burned patients. Assessment should follow Advanced Burn Life Support® (ABLS®) and Advanced Trauma Life Support® (ATLS®) guidelines.

1. The burn center should be contacted and the potential necessity for transfer discussed with the senior burn surgeon. In the absence of other injuries, the condition of burn patients usually is easily stabilized, and patients can withstand early long-distance transport with resuscitation en route.
2. Trauma centers that refer burn patients to a designated burn center must have in place written transfer agreements with the referral burn center.
3. It should be the responsibility of the trauma center and the burn center director to keep the transfer agreement current. Collaborative arrangements for the transfer of patients from other hospital units, such as a trauma unit or a surgical intensive care unit, should include protocols for transfer and acceptance.

D. Burn Center Referral Criteria

A burn center may treat adults, children, or both. Burn injuries that should be referred to a burn center include the following:

1. Partial-thickness burns of greater than 10 percent of the total body surface area.
2. Burns that involve the face, hands, feet, genitalia, perineum, or major joints.

3. Third-degree burns in any age group.
4. Electrical burns, including lightning injury.
5. Chemical burns.
6. Inhalation injury.
7. Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality.
8. Burns and concomitant trauma (such as fractures) when the burn injury poses the greatest risk of morbidity or mortality. If the trauma poses the greater immediate risk, the patient's condition may be stabilized initially in a trauma center before transfer to a burn center. Physician judgment will be necessary in such situations and should be in concert with the regional medical control plan and triage protocols.
9. Burns in children; children with burns should be transferred to a burn center verified to treat children. In the absence of a regional pediatric burn center, an adult burn center may serve as a second option for the management of pediatric burns.
10. Burn injury in patients who will require special social, emotional, or rehabilitative intervention.

E. Burn Care System

The burn center interfaces with regional trauma centers to coordinate care of patients with multiple injuries and to develop regional educational programs, disaster planning, and advocacy efforts.

1. The burn center has an identifiable medical and administrative commitment to the care of the patient with burns.
2. The burn center has written guidelines for the triage, treatment, and transfer of burned patients from other facilities.
3. The burn center hospital is currently accredited by The Joint Commission or equivalent.

F. Pre-Hospital Care

1. The burn center maintains access to an EMS system for the transport of patients with burns from referral sources within the service area.

2. The burn center offers input into the performance improvement of pre-hospital care of burn patients.
3. The burn center has a written Mass Casualty Disaster plan for the triage and treatment of those patients burned in a mass casualty incident occurring within its service area.
4. The Mass Casualty Disaster plan is reviewed and updated as needed and on an annual basis by EMS representatives and the burn center director.
5. The burn center offers input into the performance improvement of pre-hospital care of burn patients.

G. Organizational Infrastructure

1. Documentation of Policies and Procedures
 - a. The burn center maintains an organizational chart of personnel within the burn center and the hospital.
 - b. The burn center maintains an appropriate policy and procedure manual that is reviewed regularly with appropriate documentation by the burn center director and the nurse manager.
 - c. The policy and procedure manual must contain policies addressing the following:
 - 1) Administration of the burn center.
 - 2) Staffing of the burn center.
 - 3) Criteria for admission to the burn center by the burn services.
 - 4) Use of burn center beds by other medical or surgical services.
 - 5) Criteria for discharge and follow-up care.
 - 6) Availability of beds and the transfer of burn patients to other medical or surgical units within the hospital.
 - 7) Care of patients with burns in areas of the burn center hospital other than the burn center.
2. Burn Program

The burn center hospital must formally establish and maintain an organized burn program that is responsible for coordinating the care of burned patients.

3. Consistency of Protocol and Reporting

- a. The burn center participates in the ABA's National Burn Repository and submits data every year.
- b. The burn center database includes all patients who are admitted to the burn center hospital for burn care.

4. Admission and Census Levels for the Burn Center Hospital

- a. The burn center must admit an average of 100 or more patients annually with acute burn injuries averaged over 3 years.
- b. The burn center must maintain an average daily census of 3 or more patients with acute burn injuries.

5. Medical Personnel Administrative Responsibility

- a. Creation of policies and procedures within the burn center specifying all aspects of care for burned patients.
- b. Ensuring that all burn center providers conform to the burn center's locally established policies and procedures.
- c. All physicians (and physician extenders) participating in the burn service are credentialed by the hospital medical staff credentialing process and are approved by the burn center director.
- d. All physicians (and physician extenders) who are routinely responsible for the care of burn patients conform to burn center criteria documenting appropriate training, patient care experience, continuing medical education, and commitment to the care of the burned patient.

6. Qualifications and Activities of the Burn Center Director

- a. The burn center director is a CCS-Paneled licensed surgeon (MD or DO) with board certification by American Board of Surgery or American Board of Plastic Surgery (or equivalent for international burn centers in which case a surgeon must co-manage the Center).
- b. The burn center director has completed a one-year fellowship in burn treatment and/or has experience in the care of patients with acute burn

injuries for two or more years during the previous five years.

- c. The burn center director has current ABLIS (or equivalent) training.
- d. The burn center Director has directed the total burn care of 50 or more acutely burned patients annually over a three-year period.
- e. The burn center Director demonstrates ongoing involvement in burn-related research, community education, continuing medical education, prevention efforts, and local regional or national burn advocacy.

7. Responsibilities of the Burn Center Director

The responsibilities of the burn center director must include, but not limited to, the following:

- a. Creation of policies and procedures within the burn center specifying all aspects of care for burned patients;
- b. Coordination with regional EMS authorities regarding triage and transport of burn patients;
- c. Communications on a regular basis with referring physicians regarding patients who have been transferred;
- d. Direction of burn center administrative functions;
- e. Direction and active participation in the burn center Quality & Process Improvement Programs; and
- f. Development and active participation in internal and external continuing medical education programs in the care and prevention of burn injuries.

8. Qualifications and Activities of Attending Staff Surgeons

- a. All physicians (and physician extenders) participating in the burn service are credentialed by the hospital medical staff credentialing process, are approved by the burn center director, and are CCS-Paneled providers.
- b. Attending staff burn surgeons are licensed surgeons with board certification by American Board of Surgery, American Board of Plastic Surgery, or equivalent based on review by Verification Committee.
- c. Attending staff burn surgeons have demonstrated expertise in burn treatment as evidenced by completion of a one-year fellowship in burn

treatment or by two or more years of mentored experience in the management of patients with acute burn injuries.

- d. Each attending staff surgeon must participate in continuing medical education in burn treatment.
- e. Burn staff (including nursing, therapy, social work, and medical staff) is provided with a minimum of one regional, national or international burn-related continuing education opportunity annually.
- f. Each attending staff surgeon has participated, including primary decision-making, in the care of 35 or more acutely burned patients annually.

9. Burn Service Coverage

- a. The burn center maintains an on call schedule for residents, qualified healthcare professionals, and attending staff surgeons for continuous responsibility of burn patients.
- b. Assigned burn center medical staff is available on a 24-hour basis.
- c. The following specialty consultants must be available for consultation:
 - 1) General surgery
 - 2) Cardiothoracic surgery
 - 3) Neurological surgery
 - 4) Obstetrics/gynecology
 - 5) Ophthalmology
 - 6) Anesthesiology
 - 7) Pediatrics
 - 8) Orthopedic surgery
 - 9) Otolaryngology
 - 10) Plastic surgery
 - 11) Urology

- 12) Pulmonary
- 13) Radiology
- 14) Nephrology
- 15) Psychiatry
- 16) Cardiology
- 17) Gastroenterology
- 18) Hematology
- 19) Neurology
- 20) Pathology
- 21) Infectious disease

10. Nursing Personnel

a. Nurse Manager

There is a CCS-Paneled registered Nurse Manager with a baccalaureate or higher degree who is administratively responsible for the burn center.

- 1) The Nurse Manager has at least two or more years of experience in acute burn care.
- 2) The Nurse Manager has six months or more managerial experience.

b. Nursing Staff

- 1) A patient care system is employed to determine daily nurse staffing needs for patients in the burn center.
- 2) There is a competency-based burn nursing educational program for all nurses assigned to the burn center.
- 3) A burn center orientation and ongoing continuing education program documents staff competencies specific to age appropriate care and

treatment of burn patients, including critical care, wound care, and rehabilitation.

11. Rehabilitation Personnel

a. General

A comprehensive rehabilitation program is designed for burned patients within 24 hours of admission.

b. Rehabilitation Personnel

- 1) Physical and occupational therapists in the burn center are appropriately licensed in their specific disciplines.
- 2) Therapy staffing is based upon burn center inpatient and outpatient activity with at least one designated full-time equivalent (FTE) burn physical therapist and one occupational therapist but more depending on center volume (1 FTE / 6 patients).
- 3) If a therapist is not permanently assigned to the burn center for inpatients and outpatients, one must be assigned for a period of no less than 1 year.
- 4) Burn therapists receive orientation and regular supervision from individuals with at least one year of experience in the treatment of burn patients.
- 5) There is a competency-based burn therapy orientation program for all therapists assigned to the burn center.

12. Other Personnel

a. Physician Extenders

Appropriately credentialed physician extenders may be used as members of the burn team. These individuals may include, but are not limited to, physician assistants, surgical assistants, and nurse practitioners.

b. Social Workers

Social service consultation is available to the burn service 7 days per

week and on an as needed basis in off hours.

c. Nutritional Services Personnel

A dietitian with adequate critical care and burn experience is available on a daily basis for consultation.

d. Pharmacy Personnel

Pharmacist with adequate critical care and burn experience is available on a 24-hour basis.

e. Respiratory Care Services Personnel

Respiratory therapists are available for the assessment and management of patients on the burn service on a continuous basis.

f. Clinical Psychiatry or Psychology Personnel

A psychiatrist or clinical psychologist should be available for consultation by the burn service.

H. Performance Improvement Program

1. Policies and Procedures

- a. A multidisciplinary burn center committee oversees the performance improvement program, meets at least quarterly and is integrated into the hospital quality improvement (QI) structure.
- b. The burn center director is responsible for the risk adjusted performance improvement program.
- c. A multidisciplinary burn center committee oversees the performance improvement program, meets at least quarterly and is integrated into the hospital QI structure.
- d. Sufficient QI documentation is available to verify problems, identify opportunities for improvement, resolve the problem and provide loop-closure.
- e. The morbidity and mortality conferences:

- 1) Are held at least monthly.
 - 2) Include specialist peer staff members other than those practicing in the burn center.
 - 3) Include discussion of all life-threatening complications and deaths with classification according to level of concern and preventability.
 - 4) Are attended by practitioners (hospitalists, intensivists, qualified healthcare professionals, etc.) involved in the direct care of the burn patients who participate in at least 50% of the morbidity and mortality conferences.
- f. Sentinel events are discussed in a timely manner at multidisciplinary intensive reviews during which time a non-involved peer leads a discussion with all involved parties and areas for improvement and loop closure are identified.

2. Weekly Patient Care Conferences

Multidisciplinary patient care conferences are held and documented at least weekly.

3. Audit

The burn service conducts audits of their benchmarked outcomes data (using available resources such as NBR, UHC, NHSN, or CMS) at least quarterly.

I. Other Programs

1. Educational Programs

- a. The burn center offers regional education related to emergency and inpatient burn care such as that included the ABA Advanced Burn Life Support course.
- b. For centers that have residents involved in care of the burn patients an orientation program is provided for new residents.
- c. Burn staff (including nursing, therapy, social work and medical staff) are

provided with a minimum of one regional, national or international burn-related continuing education opportunity annually.

2. Infection Control Program

The burn center has policies for infection control with regular monitoring for hospital-acquired infections, multidrug resistant organisms, and compliance.

3. Continuity of Care Program

The burn center must provide the following services:

- a. A child life/recreational therapist is available for children cared for in the unit (for Pediatric Burn Centers).
- b. Patient and family education in rehabilitation programs.
- c. Support for family members or other significant persons.
- d. Coordinated discharge planning and transition of care to the outpatient status.
- e. Brief psychological screening / intervention.
- f. Evaluation of patient development status.
- g. Access to vocational counseling.
- h. Access to appropriate rehabilitation.
- i. Access to reconstructive surgery.

4. Burn Prevention Program

- a. The burn center staff participates regularly in public burn outreach programs.
- b. Burn center staff is involved in local, regional national or international prevention outreach efforts.

5. Research Program

The burn center multidisciplinary staff is involved in research (including basic

science, clinical, industry sponsored, QI, multi-center) and presents posters or oral presentations at hospital based, regional national or international meetings.

J. Configuration and Equipment

1. Configuration

- a. The burn center hospital maintains a specialized unit dedicated to acute burn care.
- b. 80% of admissions to the center must constitute acute burn injuries; for centers with numbers less than 100 admissions per year (including observation status patients) the center can consider that 5 new patient outpatients equates to 1 inpatient.
- c. The burn center has designated ICU capable beds.

2. Equipment

The following equipment must be available in the burn center:

- a. Weight measurement devices
- b. Temperature control devices for the patient and for intravenous fluids and blood products
- c. Intensive care monitors
- d. Cardiac emergency carts with age-appropriate equipment

K. Other Services

Renal dialysis, radiological services, including computed tomography scanning, and clinical laboratory services are available 24 hours per day.

L. Operating Suites

The burn center has timely access to operating rooms available 24 hours a day.

M. Emergency Service

The emergency department has written protocols mutually developed with the burn service for the care of acutely burned patients.

N. Allograft Use

The burn center hospital's policies and procedures regarding the use of allograft tissues are in compliance with all federal, state, and The Joint Commission (or equivalent) requirements, and, when feasible and appropriate, with standards of the American Association of Tissue Banks (or equivalent).