

**AMERICAN COLLEGE OF EMERGENCY PHYSICIANS
CRUISE SHIP MEDICINE SECTION (CSMS)**

CRUISE SHIP HEALTHCARE GUIDELINES

January 2012

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INTRODUCTION:

The specific medical needs of a cruise ship are dependent on variables such as: ship size, itinerary, anticipated patient mix, anticipated number of patients' visits, etc. These factors may modify the applicability of these guidelines especially with regards to staffing, medications, equipment and supplies. Medical care on board cruise ships would be enhanced by ensuring they have:

GUIDELINE 1: MEDICAL FACILITY

- 1.1 Contains adequate space for diagnosis and treatment of patients with 360° patient accessibility around all beds and stretchers
- 1.2 Has adequate space for storage
- 1.3 Examination, treatment and inpatient areas adequate for the size of the ship.
- 1.4 One examination / stabilization room
- 1.5 One ICU room
- 1.6 Minimum number inpatient beds of one bed per 1000 passengers and crew
- 1.7 Isolation room or the capability to provide isolation of patients
- 1.8 Accessible by wheelchairs and stretchers
- 1.9 Wheelchair accessible toilet on all new builds delivered after January 1, 1997
- 1.10 A contingency medical plan defining:
 - 1.10.1 One or more locations on the ship that should:
 - 1.10.1.1 be in a different fire zone from the primary medical facility
 - 1.10.1.2 be easily accessible
 - 1.10.1.3 have lighting and power supply on the emergency system
 - 1.10.2 Portable medical equipment and supplies including:
 - 1.10.2.1 Documentation and planning material
 - 1.10.2.2 Airway equipment, oxygen and supplies
 - 1.10.2.3 IV Fluids and supplies
 - 1.10.2.4 Immobilization equipment and supplies
 - 1.10.2.5 Diagnostic and laboratory supplies
 - 1.10.2.6 Dressings
 - 1.10.2.7 Treatment – medications and supplies

- 1.10.2.8 Defibrillator and supplies
- 1.10.2.9 Medical waste and personal protective equipment
- 1.10.3 Communication equipment for each member of the medical staff
- 1.10.4 A clear procedure in case the primary medical facility cannot be used
- 1.10.5 Crew assigned to assist the medical staff

GUIDELINE 2: STAFF

- 2.1 Medical staff (physicians and registered nurses) on call 24 hours per day while at sea.
- 2.2 Qualifications and experience: Medical staff who have undergone a credentialing process to verify the following:
 - 2.2.1 Physicians and nurses hold current full registration and valid licensure
 - 2.2.2 Three years of post-graduate / post-registration experience in general and emergency medicine OR
 - 2.2.3 Board certification in:
 - 2.2.3.1 Emergency Medicine or
 - 2.2.3.2 Family Medicine or
 - 2.2.3.3 Internal Medicine
- 2.3 Certifications
 - 2.3.1 All medical staff certified in advanced life support such as ACLS, ALS, or an equivalent
- 2.4 Skills:
 - 2.4.1 All Medical staff with a competent skill level in emergency cardiovascular care
 - 2.4.2 Physicians with minor surgical, orthopedic and procedural skills including suturing, and fracture/dislocation management
 - 2.4.3 Physicians with procedural sedation skills.

- 2.5 Language: Medical staff that is fluent in the official language of the cruise line, the ship and that of most passengers

GUIDELINE 3: CLINICAL PRACTICE

- 3.1 Medical operations manual as required by international safety management code
- 3.2 Appropriate medical staff orientation to the medical facility
- 3.3 Code team is trained and updated regularly
- 3.4 Mock code and contingency medical plan drills on a recurrent basis and as recommended by ship's physician
- 3.5 Emergency preparedness plan as required by the international safety management code
- 3.6 Internal and external audits

GUIDELINE 4: DOCUMENTATION

- 4.1 A medical record and communication system that provides:
 - 4.1.1 Well organized, legible and consistent documentation of all medical care
 - 4.1.2 Patient confidentiality. All patient medical records should be regarded as strictly confidential medical information and should not be accessible to non-medical personnel without the express written consent of the patient except as necessary to maintain safety on board or ashore, or to comply with any legal requirements to review, report or log the information.

GUIDELINE 5: EQUIPMENT

- 5.1 Airway equipment - bag valve mask, LMA , laryngoscopes, ET tubes, stylet, lubricant, portable suction equipment
- 5.2 Two cardiac monitors
- 5.3 Two defibrillators, one of which should be a portable automated external defibrillator (AED)
- 5.4 External cardiac pacing capability

- 5.5 Electrocardiograph (EKG)
- 5.6 Electronic infusion device
- 5.7 Pulse oximeter
- 5.8 Nebulizer
- 5.9 Automatic or manual respiratory support equipment
- 5.10 Oxygen (including portable oxygen)
- 5.11 Wheelchair
- 5.12 Stair chair and stretcher
- 5.13 Refrigerator and Freezer
- 5.14 Long and short back boards with cervical spine immobilization capabilities
- 5.15 Trauma supplies
- 5.16 Basic laboratory capabilities:
 - 5.16.1 Hemoglobin, hematocrit, urinalysis, pregnancy tests, blood glucose
 - 5.16.2 Laboratory equipment must undergo all quality control programs as recommended by the manufacturer.
- 5.17 Maintenance for all medical equipment as recommended by manufacturer

GUIDELINE 6: PHARMACY

- 6.1 Emergency medications for management of common medical emergencies, which include:
 - 6.1.1 Gastrointestinal system medications
 - 6.1.2 Cardiovascular system medications
 - 6.1.3.1 Sufficient quantities of advanced cardiac life support medications, in accordance with current international ACLS guidelines, for the management of two complex cardiopulmonary arrests
 - 6.1.3.2 Thrombolytic medications sufficient for two patients

- 6.1.3 Respiratory system medications
- 6.1.4 Central nervous system medications
- 6.1.5 Infectious disease medications
- 6.1.6 Endocrine system medications
- 6.1.7 Obstetrics, gynecology and urinary tract disorder medications
- 6.1.8 Musculoskeletal and joint disease medications
- 6.1.9 Eye medications
- 6.1.10 Ear, nose and oropharynx medications
- 6.1.11 Skin disease medications
- 6.1.12 Vaccines
- 6.1.13 Anesthesia medications

GUIDELINE 7: INFECTION CONTROL

- 7.1 A TB screening program every two (biannually) years for all medical personnel

GUIDELINE 8: IMAGING

- 8.1 X-ray imaging capabilities.

GUIDELINE 9: MEDICO-LEGAL PRACTICE

- 9.1 Each ship should carry a minimum of two sexual assault evidence collection kits
- 9.2 Ships that fall under the jurisdiction of the Cruise Vessel Security and Safety Act (CVSSA) of 2010 includes all vessels with 250 or more passengers on an international voyage that embarks or debarks in a U.S. port. The CVSSA mandates that ships must:
 - 9.2.1 Have a physician or nurse meet the guidelines established by the American College of Emergency Physicians relating to the treatment and care of victims of sexual assault including the use of sexual assault evidence collection kits.

9.2.2 Carry sufficient stock of post exposure prophylaxis (PEP) anti-retroviral and antibacterial medications to prevent the transmission of HIV and other sexually transmitted diseases.

9.2.3 Prepare, provide to the patient, and maintain written documentation of the findings of such examination that is signed by the patient.

9.2.4 Provide the patient free and immediate access to a telephone, internet accessible computer and contact information for law enforcement, National Sexual Assault Hotline, the nearest consulate or embassy, and the Coast Guard. This information must be maintained within the Medical Facility or elsewhere on the ship.

9.3 Pregnant passengers and crew who have entered the 24th week of estimated fetal gestational age at any time during the cruise should not be eligible to sail with the ship.

GUIDELINE 10: PATIENT FEEDBACK

10.1 A process whereby passengers prior to embarkation are requested to provide pertinent information regarding medical needs that may require medical care on board.