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Thomas A. Gionis

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PARADOX ON THE HIGH SEAS: EVASIVE STANDARDS OF MEDICAL CARE – DUTY WITHOUT STANDARDS OF CARE; A CALL FOR THE INTERNATIONAL REGULATION OF MARITIME HEALTHCARE ABOARD SHIPS

THOMAS A. GIONIS*

INTRODUCTION

THE SHOCKING INADEQUACY OF MARITIME HEALTHCARE

James Curtis, a fifty-nine-year old business man from Maryland, collapsed in a restroom of the Carnival Cruise line ship Sensation. Taken to the infirmary and hooked up to an IV and a breathing tube, Curtis complained about stomach pains without effect on medical personnel. Curtis died six hours later of blood loss due to an abdominal rupture.¹

Similarly, Margaret DiBari was diagnosed by a ship's doctor with bronchitis, despite her complaints of chest pains. Later, doctors ashore discovered she had a heart attack; she suffered another attack in intensive care, and died.²

This Comment explores the international community's failure to regulate the delivery of medical healthcare aboard ship to passengers, crew, or seafarers. It considers specific healthcare regulatory compliance standards through private accreditation, and further proposes the formation of an international healthcare regulatory agency.

This introduction considers the present condition of

* M.D., Medical University of South Carolina (1975); M.B.A. Pepperdine University, Graduate School of Business (1992); M.H.A., Seton Hall University, Center for Public Service (2000); J.D. Candidate, June 2002. I would like to thank Mr. Michael Seng, Professor of Law, The John Marshall Law School, Chicago, Illinois, for his profound wisdom, guidance and critique in respect to the development of this Comment.

1. West Coast Sailors Newsletter, *Medical Neglect Reported in Foreign-Flag Cruise Ships*, at <http://www.Sailors.org/WCS/November99/medicalneglect.html> (last visited Sept. 12, 2000) [hereinafter *Medical Neglect*].

2. *Id.* ¶ 3.

healthcare delivery aboard ships along with the magnitude of the problem. Part I discusses the nature and type of maritime medical conditions encountered aboard ship. This Part comprehensively considers the medical and legal epidemiology of shipboard injuries and illness revealing the shocking inadequacy of medical care aboard ships. Part II considers whether there is a duty to care for individuals aboard ship. This Part analyzes the medical treatment of passengers or crewmembers aboard ship. The analysis reveals that the lack of existing international law or regulation in maritime health care does not abrogate the duty to care for both passengers and crew. Additionally, this Part discusses the degree of care required to satisfy requisite duties and to whom the duty of care is owed. Part III calls for the establishment of international maritime standards for medical care aboard ship in respect to both the maritime healthcare facility and the medical and non-medical personnel who participate in administering the medical care. Specifically, this Part calls for the formation of an international maritime healthcare regulatory compliance agency through private accreditation. Lastly, Part IV reemphasizes the current problems with medical care aboard ship and summarizes the proposal for broad standards of applicability.

A. *What is the Present Condition of Healthcare Delivery Aboard Ships?*

The mistreatment of people aboard ship, whether passengers or crew, is not rare, and persists as a modern embarrassment to all nations that are involved in international maritime commerce. Many passengers and seafarers would undoubtedly be surprised to discover that there are *no* international standards for medical care on passenger cruise ships (or any other type of ship), nor is there even a requirement that a physician be on board.³ In fact *no* international agency regulates maritime infirmary facilities, equipment, or requires a standard of training for cruise ship

3. *Cruise-Ship Health Care: Prescription for Trouble*, 15 CONSUMER REP. TRAVEL LETTER, Apr. 4, 1999, at 1, 6 [hereinafter *Cruise-Ship Health Care*]. See Bradley S. Feuer, *Cruise Ship Medical Facilities: Caveat Emptor*, 84 J. FLA. MED. ASS'N. 461, 461 (1997) (stating that “[n]o minimum standards or inspections for cruise ship medical personnel or facilities currently exist”). See also *Medical Neglect*, *supra* note 1, at ¶ 4 (asserting that “shipboard doctors have degrees from foreign medical schools and lack the minimum training to practice in American hospitals”). “Cruise ship hiring practices are neither consistent nor regulated, and most cruise lines do not review a doctor’s work.” *Id.* “Although [ninety] percent of cruise ship passengers are American, most cruise ships fly flags-of-convenience that do not require compliance with even the most basic medical standards.” *Id.* ¶ 5. Under international maritime law “a shipowner has no responsibility to provide medical care under the law of the sea.” *Id.*

doctors.⁴ Although a doctor aboard ship may have excellent training and skills “there is *no uniformity* in the standards, so you just don’t know” what kind of medical care you might receive.⁵ Because of the lack of medical regulation and certification of cruise ships and their medical staff, U.S. citizens often receive medical care substantially less than the expected normal community standard.⁶

Consequently, and not surprisingly, a well-known legal scholar in maritime law, Professor Martin J. Norris, has noted that, “with the increased prominence of the cruise trade, there has been a marked change in the number of passenger personal injury cases.”⁷ The increased prominence of the cruise industry has indeed blossomed into a major industry that seriously impacts the U.S. economy.⁸ But what has happened to the responsibility of

4. *Cruise-Ship Health Care*, *supra* note 3, at 6.

5. See *id.* at 7 (emphasis added) (quoting Charles Willis, Director of the International Medical Graduate Services unit of the American Medical Association (AMA)). See also Wes Young, *New Horizons: Emergency Medicine at Sea*, 21 ANNALS OF EMERGENCY MED. 1463, 1463 (1992) (noting that even where cruiseliners have a medical department, the qualifications of staff, emergency medical equipment, and supplies are “notoriously inconsistent between cruise lines”); Richard H. Fitzgerald, *Medical Facilities and Needs Aboard a Cruise Ship: Points to Ponder Before an Ocean Cruise*, 79 SOUTHERN MED. J. 1413, 1413 (1986) (stating that “[a]lthough physicians and nurses are present, there is no standard [for changing] competency”).

6. *Cruise-Ship Health Care*, *supra* note 3, at 8.

7. 1 MARTIN J. NORRIS, *THE LAW OF MARITIME PERSONAL INJURIES* Preface (4th ed. 1990). See also Young, *supra* note 5, at 1463 (stating that “[g]overnments and international agencies spend considerable resources to ensure quality operations in customs, sanitation, and seaworthiness but virtually nothing on shipboard medical services”).

8. *Public Information News Release*, at <http://www.iccl.org/publicinfo/release10.html> (last visited Feb 10, 1999); The International Council of Cruise Lines (ICCL), Arlington, Va., Oct. 7, 1999. The International Council of Cruise Lines (ICCL) commissioned PricewaterhouseCoopers (PWC) and Wharton Economic Forecasting Associates (WEFA) to examine the total impact of the North American cruise industry upon the U.S. economy. *Id.* ¶ 1. This study revealed that the direct spending of cruise lines and their passengers on goods and services produced in the U.S. in 1997 was approximately 6.6 billion dollars, and the total economic impact of the cruise lines, their passengers, and their U.S. suppliers in 1997 was about 11.6 billion dollars. *Id.* ¶ 1, 3. These expenditures represented a generation of about 176,433 jobs in the U.S. economy. *Id.* ¶ 3. Virtually every segment of the U.S. economy is impacted by the cruise industry, but specifically it has been noted that the impact was as follows: airline transportation, \$1.8 billion; transportation services, \$1.2 billion; business services, \$1.0 billion; energy, \$988 million; financial services, \$698 million, and food and beverage, \$607 million. *The Cruise Ship Industry: A Partner in America’s Economic Growth*, at <http://www.iccl.org/publicinfo/economic.html> (last visited July 9, 2000).

PWC and WEFA forecasted the growth potential for the passenger cruise line industry for 1998 through 2002. *Id.* During this period, the industry plans to introduce forty-one new cruise line passenger vessels,

caring for passengers and crew commensurate with such expansive growth in industry? Has this responsibility been almost totally ignored?

It appears that the responsibility for passenger and crew care aboard ship has, in fact, nearly been ignored.⁹ This conclusion is partly based upon the astonishingly inadequate maritime healthcare that is delivered aboard maritime vessels. In order to assess the present state of medical affairs aboard maritime vessels, and to propose the international regulation of onboard maritime health care, this Comment considers the extent to which the existing inadequacies risk the welfare and lives of travelers and crew.

The shocking inadequacy of medical care aboard ships was well noted in a 1996 ship survey by Feuer and Prager, that evaluated both medical facilities and medical staff onboard eleven passenger cruise liners.¹⁰ The Feuer and Prager study made the following findings: (1) 27% of doctors were not certified in advanced cardiac life support;¹¹ (2) 27% of nurses were not certified

representing a 43% increase in passenger-carrying capacity (more than twice the rate of growth in capacity experienced by the industry over the previous five years). *Id.* See Table 3, *infra*, summarizing forecasted cruise line industry growth.

TABLE 3: SUMMARY OF FORECASTED CRUISE INDUSTRY IMPACT ON NORTH AMERICAN ECONOMY

	1997	2002	Percent Change
Direct U.S. Spending	\$6.6 billion	\$10.6 billion	61%
Total U.S. Spending	\$11.6 billion	\$18.3 billion	58%
Total U.S. Jobs	176,433 jobs	273,200 jobs	55%

Public Information News Release, supra note 8, at 1.

9. It is the author's opinion that the responsibility for human care is not differentiated by mode of travel or occupation. It should be equal for passengers, crew, or seafarers. Similarly, whether the situs of care is a cruiseliner, oil tanker, cargo ship, or fishing vessel should not be determinative of care quality.

10. Bradley S. Feuer & Richard A. Prager, *A Survey of Maritime Medical Facilities on Cruise Ships*, 25 CRITICAL CARE MED. A46, A46 (1997).

11. *Id.* Advanced cardiac life support (ACLS) is a specialized educational and skills training program sponsored by the American Heart Association and various affiliated certified training centers, where medical professionals are trained in all aspects of cardiac life support and are required to pass a written and skills examination prior to successfully obtaining ACLS certification. RICHARD O. CUMMINS, TEXTBOOK OF ADVANCED CARDIAC LIFE SUPPORT 16-5 (1994). ACLS certification is typically a condition precedent for a physician to work in a hospital emergency room as an emergency physician on call. *Id.* at v.

Prager, an author of the ship survey referenced *infra*, has personal experience with the inadequacy of ship medicine. *Cruise-Ship Health Care, supra* note 3, at 8. Prager's father died on a cruise ship in 1993 during a Panama Canal cruise. *Id.* The ship's doctor attempted to resuscitate Prager's

in advanced cardiac life support;¹² (3) 54% of doctors were not certified in advanced trauma life support;¹³ (4) 72% of nurses were not certified in advanced trauma life support;¹⁴ (5) 72% of the surveyed ships did not have a floor-mounted X-ray machine;¹⁵ (6)

father without a defibrillator, which amounted to using basic life support, as would a layman. *Id.* Prager's family sued the cruise line and settled out of court. *Id.*

12. Feuer & Prager, *supra* note 10, at A46. ACLS certification is typically a condition precedent for a nurse to work in a hospital emergency room as a registered emergency nurse or to work in any critical care division of a hospital. CUMMINS, *supra* note 11, at v.

13. Feuer & Prager, *supra* note 10, at A46. Advanced Trauma Life Support (ATLS) is a specialized educational and skills training program sponsored by the American College of Surgeons, and affiliated certified training centers. AMERICAN COLLEGE OF SURGEONS, ADVANCED TRAUMA LIFE SUPPORT FOR PHYSICIANS iii (5th ed. 1993) [hereinafter ACS]. Medical professionals are trained in all aspects of trauma life support and are required to pass a written and skills examination prior to successfully obtaining ATLS certification. *Id.* Specific competency in a Surgical Trauma Procedures Skill Station must be mastered prior to ATLS certification demonstrating competent ability to perform various emergency surgical procedures. *Id.* Specific emergency surgical procedures which must be mastered by the trainee include: (a) pericardiocentesis (drainage of area surrounding the heart), (b) cricothyroidotomy (emergency surgical airway), (c) emergency thoracotomy (emergency opening of the chest cavity), (d) femoral venous cutdown (surgical exposure of a major vein for fluid resuscitation purposes), (e) cardiac repair (open repair of penetrating cardiac injuries), (f) diagnostic peritoneal lavage (catheter placement and lavage of abdominal cavity for purposes of detecting internal hemorrhage), (g) subclavian and internal jugular central line placement (emergency catheterization of major vessels for the treatment of shock), (h) tube thoracostomy (placement of a decompression tube into a chest cavity for emergency decompression purposes), (i) thoracentesis (placement of a decompression needle into a chest cavity for emergency decompression purposes), (j) vascular cut down (surgical dissection and access to a peripheral vein for purposes of emergency fluid resuscitation in shock). *Id.* at 10. Additionally, competency must be demonstrated in skills sessions designed to test the healthcare professional's knowledge in radiologic evaluation of spinal trauma, radiologic evaluation of thoracic trauma, management of shock, management of head trauma, and management of extremity trauma and management of hemorrhagic and non-hemorrhagic shock. *Id.* at 10, 39, 61, 69, 95, 107, 127, 135, 155, 185, 205, 211, 241, 479. ATLS certification is typically a condition precedent to working in a hospital emergency room as an on-call physician. *Id.* at 16.

14. Feuer & Prager, *supra* note 10, at A46. ATLS education and certification is also commonly a condition precedent for nurses to work in a hospital emergency room or to work in any emergency critical care evacuation delivery system (emergency air evacuation, etc.). ACS, *supra* note 13, at 414-15.

15. Feuer & Prager, *supra* note 10, at A46. The quality of floor mounted X-ray machines are superior to portable X-ray machines. PETER ROSEN ET AL., 1 EMERGENCY MEDICINE, CONCEPTS AND CLINICAL PRACTICE 283-284 (4th ed. 1992). These machines ensure the accurate delineation, determination, and diagnosis of bony fractures and dislocations of either the spine or extremities. *Id.* Portable X-ray machines are not permitted to serve as the sole method of

45% of the surveyed ships had no mechanical ventilators for patient support in case of respiratory or cardiac arrest;¹⁶ (7) 63% of ships surveyed had no oxygen oximeters;¹⁷ (8) 9% of ships surveyed had no electrocardiographic (EKG) equipment;¹⁸ (9) 45% of the surveyed ships had no external cardiac pacemakers;¹⁹ (10) 63% of the surveyed ships had no laboratory facilities for blood tests needed to diagnose heart attacks;²⁰ (11) 36% the ships surveyed had no thrombolytic agents used in treating heart attacks or strokes;²¹ (12) there was a general lack of quality-assurance checks to ensure that all medical equipment and devices were in working

emergency radiographic analysis because they do not satisfy the standard of care necessary for the definitive diagnosis and management of acute traumatic fractures or dislocations. *Id.* Prager himself took a cruise and visited the ship's infirmary just to inspect the medical facilities. *Cruise-Ship Health Care*, *supra* note 3, at 7. His inspection revealed that the ship had X-ray equipment, but no member of the medical staff knew how to use it! *Id.*

16. Feuer & Prager, *supra* note 10, at A46. Mechanical ventilators are required for the short and long-term management of complete cardiac or pulmonary arrest, insufficiency, or failure. JUDITH E. TINTINALLI ET AL., *EMERGENCY MED., A COMPLETE STUDY GUIDE* 19 (3d ed. 1992).

17. Feuer & Prager, *supra* note 10, at A46. Oximeters measure the flow and quantity of oxygen being delivered to a patient. CUMMINS, *supra* note 11, at 11-5.

18. Feuer & Prager, *supra* note 10, at A46. Electrocardiographic equipment, commonly known as "EKG" or "ECG" machines, produce a graphic recording of the electrical forces produced by the heart. CUMMINS, *supra* note 11, at 3-1, 3-2. The EKG is used to monitor abnormal cardiac arrhythmias, rate and electrical changes occurring in the heart typically with cardiac ischemic (low blood flow) states, or myocardial infarction (heart attack). *Id.* Without an EKG machine, a health care professional is not able to properly diagnose, treat, and manage, angina, cardiac arrest, or cardiac arrhythmia, especially where more sophisticated cardiac enzyme chemical analysis is not available for diagnosis of myocardial infarction. *Id.* Serial recordings of EKGs may be essential in the proper diagnosis and management of acute myocardial infarction. TINTINALLI, *supra* note 16, at 202.

19. Feuer & Prager, *supra* note 10, at A46. External cardiac pacemakers are placed over a patient's heart to electronically stimulate the heart to beat. CUMMINS, *supra* note 11, at 5-1. It is used in cases of cardiac blockage that often leads to cardiac arrest. *Id.* at 5-1, 5-2. Without the device, a health care professional may not be able to keep a patient's heart beating long enough to receive definitive cardiac care. *Id.*

20. Feuer & Prager, *supra* note 10, at A46. Modern treatment of cardiac ischemia, cardiac arrhythmia, and myocardial infarction require routine blood tests known as cardiac enzymes to be performed for the accurate diagnosis, treatment, and management of these conditions. TINTINALLI, *supra* note 16, at 203. The tests are also important in providing prognostic and diagnostic information. *Id.*

21. Feuer & Prager, *supra* note 10, at A46. Thrombolytic agents, commonly called "clot dissolvers" or "blood thinners," are utilized for the early treatment and management of cardiac ischemia, myocardial infarction, cardiac arrest, and cerebrovascular insufficiency (stroke). LAWRENCE M. TIERNEY, JR. ET AL., *CURRENT MEDICAL DIAGNOSIS & TREATMENT* 1999 375 (38th ed. 1999).

order;²² (13) 36% of ships did not have a system in place for nurse or physician peer review;²³ (14) 18% of nurses had no credentials in critical care or emergency care;²⁴ (15) 45% of doctors were not board certified in their areas of practice;²⁵ (16) 36% of cruise lines had no shoreside medical departments for support;²⁶ and (17) a lack of onboard emergency medical equipment and laboratory facilities.²⁷ The Feuer and Prager survey results are not atypical.²⁸

22. Feuer & Prager, *supra* note 10, at A46. Quality-assurance checks are vitally important to ensure that life-saving equipment is in safe working condition.

23. *Id.* Peer review for maritime health care nurses and physicians improves patient health care by allowing professionals to openly discuss and learn from their mistakes. ANTHONY R. KOVNER & STEVEN A. JONES, JONES AND KOVNER'S HEALTH CARE DELIVERY IN THE UNITED STATES 375 (6th ed. 1999). The process of peer review is so vital that it is generally recognized as a required process for determining medical staff privileges. JONATHAN P. TOMES, MEDICAL STAFF PRIVILEGES AND PEER REVIEW 13, 63-68 (1994). Further, peer review is often subject to federal and state immunity provisions. *Id.*

24. Feuer & Prager, *supra* note 10, at A46. Lack of proper certification precludes a registered nurse from specializing in any critical care or emergency department of a hospital. JOHN R. GRIFFITH, THE WELL-MANAGED HEALTH CARE ORGANIZATION 402 (4th ed. 1999). *See also* BARRY R. FURROW ET AL., HEALTH LAW 69 (1995) (stating that: "[n]ursing practice acts parallel the medical practice acts in establishing entry requirements, disciplinary grounds and procedures, and definitions of the scope of practice of nursing. The legal issues relating to entry requirements and professional discipline in nursing do not differ from those applicable to medicine").

25. Feuer & Prager, *supra* note 10, at A46. *See* GRIFFITH, *supra* note 24, at 298-300 (discussing physician credentials, review, and specialty certification). *See also* FURROW, *supra* note 24, at 390-97 (noting that the health care standards typically are conducted by "certification"). Further, "board certified" (or "board eligible") indicates that the health care professional has undergone a standardized internship and residency program, generally of several years duration, that generally represents a progressive graduated-tier level advancement in medical education and training. *Id.*

26. Feuer & Prager, *supra* note 10, at A46. Because the practice of medicine aboard ship generally occurs in remote areas, access to medical consultation is critical for the diagnosis, care, and management of ill or injured patients aboard ship. Feuer, *supra* note 3, at 461.

27. It is axiomatic that immediate availability of medical equipment and laboratory procedures are of vital importance in assuring that an ill or injured patient has the best opportunity for receiving a proper diagnosis and treatment.

28. One cruise ship physician noted similar findings while caring for the passengers and crew on two cruise ships totaling approximately 1,400 passengers and 800 crew. Letter from Wayne C. Draper, MD, to the Editor, *Cruise Ship Medicine*, 26 ANNALS OF EMERGENCY MED. 761, 761 (1995). During the cruises, Dr. Draper discovered the following:

(a) Medical equipment was old, unreliable, or missing. *Id.* One ship had a cardiac defibrillator with only twenty-minute battery life. *Id.* A cardiac defibrillator is required for cardiac emergencies and is a standard part of the advanced cardiac life support protocols. CUMMINS, *supra* note 11, at 1-3. Although no set time limits are established for the continuance of

B. What is the Magnitude of the Inadequacy of Healthcare Aboard Ships?

One way to better appreciate the magnitude of the threat and the inadequacy of international maritime healthcare aboard ships is to view it in light of the increased growth of the maritime industry correlating with the increased incidences of maritime medical encounters.²⁹ First, in the cruise line industry, it is

cardiopulmonary resuscitation, such resuscitation may be carried on for prolonged periods. *Id.* at 1-25. Accordingly, twenty-minute battery life is woefully inadequate and presents a grave danger to patients requiring longer critical care monitoring.

(b) One ship had no long cervical board for neck protection in trauma cases. Draper, *supra* note 28, at 761. Cervical collars and protection boards are part of the advanced trauma life support. ACS, *supra* note 13, at 193. Where a patient has undergone trauma of any nature, the cervical spine must be protected at all times from undue movement. *Id.* Movement of the head and cervical spine may cause permanent neurological injury. *Id.*

(c) Bag-valve oxygen masks were found to be of poor quality. Draper, *supra* note 28, at 761. Bag-valve masks are typically used in the administration of anesthetic or pulmonary services to maintain pulmonary function. CUMMINS, *supra* note 11, at 2-8, 2-9. The bag-valve apparatus contains a self-inflating bag and a non-breathing valve permitting the proper and sufficient exchange of expired air and oxygen administration. *Id.* at 2-8. Respiratory and cardiopulmonary functions are severely compromised if the valve functions improperly. *Id.* at 2-9.

(d) Medications and medical supplies were outdated. Draper, *supra* note 28, at 761.

(e) Aspirin and Tylenol were lacking. *Id.* Simple aspirin is a mainstay in the treatment and management of cardiac ischemia. TINTINALLI, *supra* note 16, at 209. It is believed that aspirin may lessen the occurrence or intra vascular clot formation. *Id.*

(f) On both ships the emergency medications were missing or expired. Draper, *supra* note 28, at 761.

(g) One ship had no chest tubes. *Id.* Chest tubes are vitally important to sustain human life during chest trauma (e.g. collapsed lung or chest tension). ACS, *supra* note 13, at 113-24.

(h) Each ship had only twelve liters of emergency fluids for resuscitation. Draper, *supra* note 28, at 761. Emergency medical fluids are given intravenously to patients who are in some form of shock, hypertension, or dehydration, and are maintained on a continuous basis in the post-resuscitation of those patients for hours or days. CUMMINS, *supra* note 11, at 6-1. The insufficiency of emergency intravenous fluid administration lessens the chances of passenger-patient survival. *Id.* Dr. Draper also noted that he had only one litre of fluid remaining at the end of his last voyage and the cruiseliner was scheduled to depart without re-supplying. Draper, *supra* note 28, at 761.

(i) Despite Dr. Draper's efforts to inform the responsible parties of the medical equipment deficiencies onboard the ship, "no action was taken." *Id.* Health care regulatory compliance measures can be implemented to limit the non-response of central maritime vessel medical operations and thereby lessen the risk to passengers, crew, and seafarers.

29. Although this Part concentrates on cruise line passenger growth, similarities in growth exist in the seafarer industry. For instance, the growth

estimated that the total number of North American passenger boardings in 1997 was 5.5 million and the number of worldwide passenger boardings was 9 million.³⁰ The worldwide passenger boardings represent approximately a 73% percent increase since 1990.³¹ Current figures estimate that in the United States, approximately 95 ships carry just over five million U.S. passengers per year.³² During the year 2000, approximately 6.4 million people undertook passage on a cruise liner.³³ Because approximately 5% of cruise ship passengers are expected to seek medical attention while on board, this would translate to an estimate of as many as 320,000 passengers seeking medical attention per year.³⁴ Furthermore, approximately 704,000 passengers aboard cruise ships are expected to have potentially serious or life-threatening medical conditions by the end of 2000.³⁵ These numbers are astonishing as they indicate the need for tremendous medical expertise and healthcare resource on board to care for such a critical patient demand.

Second, the International Council of Cruise lines (ICCL)

of the mariner industry (e.g., cargo, shipping, mariners, etc.) is already estimated to be "well over a million seafarers." Stanislaw Tomaszunas, *Health Care for Seafarers*, 351 THE LANCET 1148, 1148 (1998). Also, Mr. William A. O'Neil, Secretary-General of the International Maritime Organization (IMO), has reported that,

[a]s . . . trade across the oceans will rise – and so will the demand for ships to carry it. As the developing countries reach maturity they will need more food, more raw materials for their expanding industries, more fuel to satisfy their increasing energy needs and, on the other hand, they will also have more goods to export. This means that shipping will play an even more important role, because ships will remain the best, most economical and most environmentally friendly means of transport.

William A. O'Neil, *World Maritime Day 1999, A Message from Mr. William A. O'Neil Secretary-General of the International Maritime Organization*, 3 INT'L MAR. ORG. NEWS 16, 16 (1999) (providing statistics evidencing tremendous maritime growth). The United States remains the world's largest trading nation, accounting for approximately 20% of the world's ocean trade. Robert H. Pouch, *The U.S. Merchant Marine and Maritime Industry in Review*, PROCEEDINGS 104, 105 (1999).

30. *Public Information News Release*, *supra* note 8, at 1; Feuer & Prager, *supra* note 10, at A46.

31. *Public Information News Release*, *supra* note 8, at 1.

32. *Id.*

33. Telephone interview with Ms. Molly McPherson, Director of Public and Media Relations, International Council of Cruise Lines, Arlington, Va. (April 9, 2001).

34. *Cruise-Ship Health Care*, *supra* note 3, at 6.

35. *Id.*; Feuer, *supra* note 3, at 461. See also Dwight E. Peake M.D. et al., *Descriptive Epidemiology of Injury and Illness Among Cruise Ship Passangers* 33 ANNALS EMERGENCY MED. 67, 67 (1999) (noting the findings of a retrospective descriptive study where eleven percent of passengers had a serious or potentially life-threatening condition).

commissioned PricewaterhouseCoopers (PwC) and Wharton Economic Forecasting Associates (WEFA) to forecast the growth potential for the U.S. passenger cruise line industry for the time period of 1997 to 2002.³⁶ During this period, there are plans to introduce 41 new cruise line passenger vessels, representing a 43% increase in passenger-carrying capacity.³⁷ Estimated growth in the cruise line industry suggests that by the end of 2002 approximately 9,152,000 people will cruise annually.³⁸

Thus, the number of cruise line passengers needing medical care will increase from the current estimate of 320,000 to approximately 457,600 by the end of 2000.³⁹ Similarly, the cruise line population will increase from 704,000 to 1,006,720 per year, by the end of 2002.⁴⁰

I. WHAT IS THE NATURE AND TYPE OF MARITIME MEDICAL CONDITIONS ENCOUNTERED ABOARD SHIP?

Part I comprehensively lays the foundation for a solution by considering the medical and legal epidemiology of shipboard injuries and illnesses.

A. Medical Epidemiology of Maritime Medical Conditions

This Comment, after considering the inadequacy of medical care aboard ships and noting the increasing incidence of shipboard injuries, now turns toward the nature and type of medical conditions offered. The medical epidemiological literature concerning maritime injuries or illnesses occurring aboard ship is sparse. Perhaps this is because there is little international attention regarding the recordation or analysis of maritime injuries, or to the maritime healthcare standards that ought to be observed by medical personnel during a voyage.⁴¹ Further, there is no international agency regulating maritime healthcare aboard ship.⁴² Lastly, although maritime insurance carriers maintain injury and illness data, such data is not readily available to the

36. *Public Information News Release*, *supra* note 8, at 1.

37. *See id.* (projecting more than twice the rate of growth in capacity experienced by the industry since 1997).

38. *Id.*

39. *Id.*

40. *See Peake*, *supra* note 35, at 67 (basing calculations on the 11% incidence of serious or potentially life-threatening conditions).

41. This lack of attention to medical care and attention is equally true for passengers or seamen.

42. *Cruise-Ship Health Care*, *supra* note 3, at 6. "Many passengers would be surprised to discover that there are no international standards for medical care on passenger cruise ships – not even one requiring that a physician be on board." *Id.* Additionally, "[n]o international agency regulates the infirmary facilities or equipment, or requires a standard of training for cruise-ship doctors. . ." *Id.*

public.⁴³

Notwithstanding sparse records, the nature and type of medical conditions occurring aboard ship may be evidenced through data from national governmental agencies (e.g., United States Coast Guard (USCG)) and medical centers (where all types of medical conditions are present irrespective of the type of the ship they occurred upon). Another method of evaluation considers the extent and seriousness of maritime pharmaceutical intervention occurring aboard ship,⁴⁴ the occurrence of death at

43. For instance, Lloyd's Maritime Information Services, Inc., a division of Lloyd's Insurance, London, UK, provides the availability of information regarding shipping accidents from two databases, Lloyd's Register of Shipping and LLP Limited; both provide information about world commercial shipping fleets of vessels of 100 gross tonnage and above. Letter from Lorraine Parsons, Americas Sales Manager, Lloyd's Maritime Information Services, Inc., to Thomas A. Gionis, M.D., M.B.A., Chairman, International Board of Maritime Health Care (October 31, 2000) (on file with the John Marshall Law School Law Review). However, no specific passenger-crew-seafarer-patient data is collected, maintained, or is available about the type and nature of medical injury or illness occurring aboard ship. *Id.* Similarly, there is no known database in the European Union that monitors ship injuries or illnesses. Interview with Professor Konstantinos Gizakis, Chairman, Department of Maritime Studies, University of Piraeus, Piraeus, Greece (November 21, 2000). This is also true in respect to the United States, as discussed in the part of this article entitled, United States Coast Guard Injury Data, *supra*.

44. James Scott et al., *Maritime Medicine*, 15 EMERGENCY CLINICS OF NORTH AMERICA 241, 242 (1997). For instance, a George Washington study considered the type of pharmaceutical intervention required in the treatment and management of various conditions encountered aboard ship. *Id.* The study noted that pharmaceutical intervention was required in approximately 90% of all patient visits to the maritime sickbay. *Id.* at 242, 243. *See also* Table 4, *infra* (listing the type of medications frequently prescribed). Specifically, intramuscular or intravenous injections are frequently required for pain relief. *Id.* at 243. In that regard, analgesics (27%) and antibiotics (25%) were the two most commonly prescribed medications. *Id.* Other commonly prescribed medications included gastrointestinal (10%), cardiovascular (6%), and respiratory (3%). Scott, *supra* note 44, at 243. Ophthalmologic, psychiatric, and dermatological medications were prescribed 2% of the time and no medications were prescribed in 11% of sickbay cases. *Id.*

TABLE 4. PHARMACEUTICAL INTERVENTION

Medication Category	Number (n=1468)	%
Analgesics	395	27
Antibiotics	372	25
None	157	11
Gastrointestinal	149	10
Miscellaneous	98	7
Cardiovascular	83	6
Intravenous	76	5
Respiratory	49	3
Ophthalmologic	35	2

sea,⁴⁵ and the incidence of emergency medical evacuation from a

Psychiatric	30	2
Dermatologic	24	2

Id.

It is especially important to appreciate that in maritime health care, where a physician is *not* on board, prescription medication may be administered *without* the direct involvement of any physician or medical expert, and may in fact be administered by non-medical personnel such as the Ship's Captain or First Mate.

45. The seriousness of the nature of the medical conditions occurring at sea is indicative of the death rate. In one report of 1700 cases of medical illness and injury aboard ship, death was reported in 18 individuals. Scott, *supra* note 44, at 245 (citing W.E. Woodward, *Illness and Injury in Mariners*, PROCEEDINGS OF THE 1995 INT'L SYMPOSIUM ON MAR. HEALTH (1995)). Mariner deaths at sea are commonly due to acute traumatic conditions. *Id.* In one study of Polish seafarers, 85% of 109 deaths occurring at sea were caused by acute injury, accidents, drowning, suicides, and "unsolved disappearances." *Id.* (citing Bogdan Jaremin et al., *Causes and Circumstances of Deaths of Polish Seafarers During Sea Voyages*, PROCEEDINGS OF THE 1995 INT'L SYMPOSIUM ON MAR. HEALTH (1995)). Similarly, a Chinese study found that accidents or inhalation of hydrogen sulfide fumes caused 69% of deaths occurring at sea. *Id.* (citing C.L. Wang, *Survey of Deaths and Accidents for Fishing Ships*, PROCEEDINGS OF THE 1995 INT'L SYMPOSIUM ON MAR. HEALTH (1995)).

From an occupational health perspective, the ship is considered to be one of the most dangerous workplaces. Bogdan Jaremin et al., *Death at Sea: Certain Factors Responsible for Occupational Hazard in Polish Seamen and Deep-Sea Fishermen*, 10 INT'L. J. OCCUPATIONAL MED. ENVTL. HEALTH 405, 412 (1997). In a study of 113,260 seamen and seafarers of a shipping company and two fishing enterprises, 148 fatalities (109 seamen and 39 fishermen) occurred between 1985-94. *Id.* at 405. When mean annual rates of mortality (130.6) and fatal accidents (67.8) per 100,000 employees were compared to on-shore job mortality rates, the high sea occupations had a higher mortality rate. *Id.* In fact, fisherman mortality rates were higher than seafarers, and risk of death was greater over the age of 40. *Id.* at 412.

Most on-shore deaths are internally caused while off-shore deaths are externally caused (e.g., traumatic injuries, poisoning, sea catastrophes, and disappearance). *Id.* at 405. It is especially important to note that cardiac failure was diagnosed *before* the voyage ever began in 1/3 of the seamen and seafarers who died at sea. *Id.* Additionally, various characteristics of seamen and seafarer death occurring on the high seas were identified including: (1) open sea deaths; (2) cabin solitude; (3) emergency medical evacuation impossibility; (4) limited access to qualified medical assistance; (5) poor life-saving facilities aboard ship and (6) difficult communication. *Id.* Adverse work conditions, navigation, and adverse weather conditions further complicate the hazardous conditions associated with seamen and seafarer death at sea. *Id.* A study of Danish merchant ships confirmed the maritime workplace as a high-risk environment requiring thorough medical attention. Henrik L. Hansen, *Surveillance of Deaths on Board Danish Merchant Ships, 1986-93: Implications for Prevention* 53 OCCUPATIONAL ENVTL. MED. 269, 269 (1996). A review of 147 maritime deaths occurring between 1986-1993 revealed that 50% were due to traumatic injuries. *Id.* at 270. The most common medical conditions causing natural death were various cardiovascular and infectious diseases. *Id.* A disturbing contributing factor for death included "poor medical care on board and poor medical advice from doctors

ship.⁴⁶

1. United States Coast Guard Injury Data

The United States Coast Guard (USCG) records injuries that are reported to or discovered by them. Those records are generally limited to injuries or illnesses occurring on ships that: (1) are registered in the United States; or (2) are within the jurisdictional

ashore." *Id.* at 269. Medical advice was either "insufficient" or never sought at all. *Id.* The maritime incidence of accidents was 11.5 times higher than on-shore accidents. *Id.* Alcohol and self-intoxication contributed to death in twelve of eighteen fatal injuries occurring during off-duty hours. *Id.* This study concluded that "[m]edical training of ships' officers providing medical care on board and specific training of doctors giving medical advise to ships should be improved to meet the needs." *Id.* at 269.

46. The incidence of medically necessitated evacuation or ship diversion is also reflective of the seriousness and nature of medical injury and illness occurring at sea. In one study of 150 consecutive cases of maritime conditions occurring at sea, the medical evacuation rate was approximately 9% and unscheduled ship diversion was approximately 7%. Thomas M. Hall et al., *Basic Elements of Maritime Health Care*, 26 J. OF OCCUPATIONAL MED. 202, 204 (1984). One author noted that twelve patients required disembarkation after surveying cruise passengers requiring emergency disembarkation during thirty-five short package cruises. W. HARTMUT G. GOETHE ET AL., HANDBOOK OF NAUTICAL MED. 372 (1984) [hereinafter NAUTICAL MED.] (citing J. W. Carter, *Shipboard Medicine on Package Cruises*. BRIT. MED. J. 553, 556 (1972)). The medical cause of emergency ship disembarkation on short package cruises is illustrated in Table 5, *infra*.

TABLE 5: EMERGENCY MEDICAL CAUSES OF DISEMBARKATION

Medical Condition	Number
Myocardial infarction	4
Perforated stomach ulcers	2
Melena	1
Hematemesis	1
Pneumonia	1
Hypercalcemia	1
Cerebrovascular accident	1
Attempted suicide/ Aspiration of vomitus	1

The most common types of medical conditions necessitating disembarkation includes heart attacks and perforated ulcers. *Id.* Other medical conditions requiring disembarkation include lower and upper gastrointestinal bleeding, serious lung infection, elevated blood calcium level, stroke, and attempted suicide from the inhalation of gastric contents. *Id.*

When disembarkation is required because of inadequate onboard medical services, travelers are expected to pay for emergency medical evacuation at the time services are rendered. E-mail from Ms. Laura Ownes, President, Unicard Travel Association, to Thomas A. Gionis, MD, MBA, Chairman, American Board of Health Care Law and Medicine (Oct. 11, 2000, 12:29:52 CST) (on file with author). Costs for emergency medical evacuation may range between \$10,000 to \$60,000 when a medically equipped air ambulance is utilized. *Id.* Thus, emergency medical evacuation insurance is an international travel necessity. *Id.* However, most risk management travel insurance companies do not cover the full costs of emergency evacuation. *Id.*

reach of the USCG, and where (1) the USCG learns of such injury or illness; or (2) the ship's administration voluntarily reports the infirmity to the USCG.⁴⁷ In recording these injuries, the USCG often does not note or analyze with exact specificity the nature and type of injury or illness.⁴⁸ Rather, the USCG pays closer attention to the type of vessel on which the injury occurred.⁴⁹

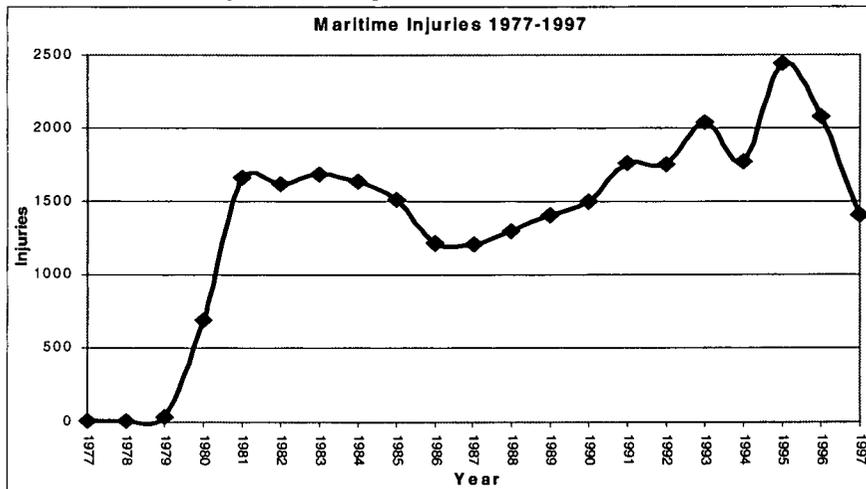
Although data from the USCG does provide lists of injuries occurring between 1977 and 1997,⁵⁰ it provides no information about how it compiles its injury data. During the period between 1977 to 1997, approximately 28,737 maritime injuries were reported to the USCG.⁵¹ From 1977 to 1986, approximately

47. Douglas Frantz, *Cruise Lines Reap Profit From Favors in Law*, N.Y. TIMES, Feb. 19, 1999, at A1 (noting that cruise lines registered in foreign nations "do not observe [this] nation's labor laws, minimum wage laws, and many environmental and safety regulations").

48. Actual data provided to this author by the Office of the Commandant, Commandant Robert Kramek, United States Coast Guard, in July 1998, are on file in the office of The John Marshall Law Review, Chicago, Illinois.

49. The information and data obtained from the United States Coast Guard, on file at The John Marshall Law Review, Chicago, Illinois, indicates passenger vessel, tugboat, freight vessel, tanker, tonnage, etc.

50. Interview with Mr. Robert Kramek, Commandant, United States Coast Guard (USCG), through e-mail and personal communication (July, 1998).



51. From the data-listing obtained directly from the USCG, this author formulated the following accounting of maritime injuries occurring for each year, for the period of 1977 to 1997:

TOTAL MARITIME INJURIES

1977	6
1978	9
1979	35
1980	693
1981	1661
1982	1624

10,079⁵² total injuries, or approximately 1,008 injuries per year (84 injuries per month) were reported, while, from 1987 to 1997, approximately 18,658 total injuries, or approximately 1,696 injuries per year (141 injuries per month) were reported to USCG.⁵³ This represents approximately a 40% increase in injuries between the two periods.

2. Receiving Medical Center Maritime Conditions Data

The perspective of a receiving medical center is informative in considering the nature and type of medical conditions occurring at sea. For instance, the George Washington Medical Center conducted a study of 700 medical conditions on a variety of maritime vessels.⁵⁴ The study analyzed the incidences of various medical and traumatic disorders, medications used in the treatment, and management of those disorders.⁵⁵ As referenced in Table 1, *infra*, the most common medical conditions encountered at the medical center were acute traumatic injuries, commonly affecting the musculoskeletal system (28%).⁵⁶

TABLE 1: EMERGENCY MEDICAL OCCURRENCES AT SEA⁵⁷

Medical Category	Number (n=700)	%
Trauma/Musculoskeletal	200	28

1983	1682
1984	1639
1985	1511
1986	1219
1987	1206
1988	1301
1989	1408
1990	1496
1991	1756
1992	1750
1993	2043
1994	1767
1995	2445
1996	2082
1997	1404

52. It is this author's belief that the low injury rate reported in years from 1977-1980 are likely due to incomplete reporting since these were the initial time periods that the data was collected.

53. Actual injury data was received during an interview with Mr. Robert Kramek, Commandant, United States Coast Guard (USCG), through e-mail and personal communication (July, 1998).

54. Scott, *supra* note 44, at 241.

55. *Id.* at 242.

56. *Id.* (charting the number of emergency medical occurrences at sea).

57. *Id.*

Infectious	165	23
Gastrointestinal	126	18
Cardiovascular	57	8
Ophthalmologic	48	6
Dental	37	5
Psychiatric	27	3
Miscellaneous	67	9

3. Types of Ships

The type of ship may also be a factor in understanding the incidence, nature, type, and management of illness and injuries occurring aboard ship. Some maritime vessels are more subject to injuries to passengers and seafarers than others.⁵⁸ For instance, fishing trawlers and similar ships known in the fishing industry as “floating factories” are considered “high risk vessels.”⁵⁹ Because shipping via cargo tankers and sailing vessels involve strenuous and oftentimes dangerous activities, there is an increased incidence of acute traumatic musculoskeletal injuries aboard such ships.⁶⁰

a. Single Cruise Ship Maritime Medical Data Analysis

In considering the nature and type of maritime medical conditions occurring at sea, the perspective from a single cruise ship is also informative.⁶¹ Such an analysis must consider both passengers and crew.⁶² One study of a single 103-day worldwide voyage evaluated the medical conditions that caused passengers or

58. *Id.*

59. Scott, *supra* note 44, at 242. See also Stanislaw Tomaszunas et al., *Diseases and Work-Related Injuries in Polish Seafarers and Conditions of Their Work on Foreign-Flag Ships*, 48 BULL. INST. OF MAR. & TROPICAL MED., GDYNIA 49, 49-58 (1997), where, in a survey conducted between 1994-1996 among Polish seafarers employed on foreign-flag ships, about 7.8% of respondents complained that the safety and health of work on their ship was unsatisfactory, or conditions of work “endangered their health and life.” *Id.* at 49. This study noted a morbidity rate of 176.8 per 1,000 men per year and an accident rate of 114.5 per 1,000 per year. *Id.* See also Stanislaw Tomaszunas, *Work-Related Accidents and Injuries in Baltic Fishermen*, 43 BULL. INST. OF MAR. & TROPICAL MED., GDYNIA 43, 43-49 (1992), where a nine-year study revealed that both fatal and non-fatal injuries of Baltic fishermen employed on medium-size and small fishing vessels occurred much more frequently than with deep-sea fishermen employed on large ocean-going trawler-factory ships. *Id.* at 43.

60. Scott, *supra* note 44, at 242.

61. Eilif Dahl, *Anatomy of a World Cruise*, J. TRAVEL MED. September 1999, at 168-71.

62. *Id.* at 168 (noting that the cruiseliner studied was from Crystal Cruises, Los Angeles, California).

crew to seek aid in a ship's medical facility.⁶³ The cruise liner carried 694 passengers with a median age of sixty-six years and 540 crew with a median age of thirty years.⁶⁴ A total of 3,033 people sought medical consultation during the voyage (1,537 crew, 1,496 passengers), or approximately 206 consultations per week.⁶⁵ Additionally, 982 diagnostic procedures were conducted during the cruise.⁶⁶ Crewmembers predominately suffered skin disorders⁶⁷ and cruise passengers⁶⁸ predominantly suffered respiratory disorders.⁶⁹ Further, cardiovascular disorders were more common in passengers.⁷⁰ More passengers suffered acute traumatic injuries than crewmembers (35 passengers, 11 crewmembers).⁷¹ An occupational morbidity evaluation reveals that 14% of the crew were unable to work for a total of 110 days and that five crewmembers became totally medically disabled.⁷² One passenger died during the voyage.⁷³

b. Multiple Cruise Ship Maritime Medical Data Analysis

Peake's cruise ship study of medical consultations during a single calendar year further illustrates the nature and type of medical conditions occurring at sea.⁷⁴ This study analyzed four major-line cruise ships⁷⁵ originating from the United States. The resultant data lend support to the proposition that regulation of medical care delivered aboard ship is necessary.⁷⁶ In a cruise passenger population of 196,171, representing 1,537,298 passenger days and 172 cruises, there were a total of 7,147 new patient visits to the ship's infirmary.⁷⁷ Injuries accounted for approximately 18% of medical visits, 69% were related to medical conditions, and 12% were for unspecified or other conditions.⁷⁸ The most common

63. *Id.* at 168-69.

64. *Id.*

65. *Id.* at 169.

66. Dahl, *supra* note 61, at 169.

67. *Id.* Skin disorders were more frequent in the crew than in the passengers (29% versus 13%). *Id.*

68. *Id.*

69. *Id.* Respiratory disorders were more frequent in passenger than in the crew (26% versus 17%). *Id.*

70. *Id.* Cardiovascular disorders were more frequent in passengers than in one crew (7% versus 1%). *Id.*

71. Dahl, *supra* note 61, at 169..

72. *Id.*

73. *Id.*

74. Peake, *supra* note 35, at 67.

75. *Id.* at 68. The study analyzed medical data from four Holland America Westours Lines ships: MS Nieuw Amsterdam, the MS Noordam, the SS Rotterdam, and the MS Westerdam. *Id.*

76. *Id.*

77. *Id.* at 70.

78. *Id.* at 69.

medical condition was respiratory tract infection (29%).⁷⁹ 11% of passengers had a serious or potentially life-threatening diagnosis, 15 passengers died on board, and 203 passengers disembarked the cruise line prior to completion of the cruise because of medical conditions.⁸⁰ Accordingly, a physician aboard a cruise ship could expect to encounter a potentially serious or life-threatening illness or injury approximately four times per cruise and to have one patient disembark the ship prior to the completion of the cruise because of a medical condition.⁸¹ Table 2, *infra*, illustrates the type of potentially serious or life-threatening illness most commonly encountered aboard ship in this survey. The maritime injury data from this study of multiple cruise ship's analysis is common.⁸²

79. Peake, *supra* note 35, at 69..

80. *Id.*

81. *Id.*

82. In a retrospective review of medical logs from two cruise ships' hospitals with cruises varying between seven to ten days in the Caribbean, similar results were noted. Thomas DiGiovanna et al., *Shipboard Medicine: A New Niche for Emergency Medicine*, 21 ANNALS OF EMERGENCY MEDICINE 1476, 1476 (1992). In DiGiovanna's study the two ships studied had a total of 2,382 passengers and 1,245 crew, totaling a population of 3,627. *Id.* at 1477. Of 1,547 new patient visits, 12% were related to traumatic injuries, whereas 88% were non-traumatic medical conditions. *Id.* at 1478. In this study 4 patients died on board. *Id.* The traumatic injuries included penetrating trauma, burns, sprains, fractures, ocular, lacerations, and blunt trauma. *Id.* at 1477. The majority of the medically related conditions included respiratory (27%), dermatologic (11%), musculoskeletal (10%), gastrointestinal (9%), and motion sickness (8%). *Id.* at 1478. See Table 6, *infra*, for a listing of medical conditions requiring immediate care. Patients requiring immediate medical attention included conditions such as stab wounds to the chest, cardiac arrest, closed-head injuries, serious ocular injury, and a case of near drowning of a person who also suffered a myocardial infarction (heart attack). *Id.* at 1478. See Table 7, *infra*, for a listing of traumatic conditions requiring immediate care.

TABLE 6: IMMEDIATE CARE - MEDICAL CONDITIONS

Medical Conditions Requiring Immediate Care	(n=47)
Myocardial infarction/ Cardiac arrest	5
Acute cardiac conditions	19
Acute abdominal condtions	4
Major upper gastrointestinal bleeding	3
Major lower gastrointestinal bleeding	2
Nephrolitiansis (kidney stones)	3
Syncope	2
Anaphylactic reactions	2
Bacterial meningitis	1
Sickle cell crisis	1
Endotracheal intubation	5

TABLE 7: IMMEDIATE CARE -TRAUMATIC CONDITIONS

TABLE 2: POTENTIALLY SERIOUS / LIFE-THREATENING ILLNESSES⁸³

Medical Condition	Ship Infirmary Visits (n=174)	% (100%)
Asthma	106	15
Arrhythmia (abnormal heart rhythm)	93	13
Angina (cardiac pain)	83	12
Congestive heart failure	75	11
Syncope	64	9
Pneumonia	63	9
Chronic obstructive lung disease	58	8
Cerebral ischemic event (stroke)	39	5
Myocardial infarction (heart attack)	30	4
Bowel obstruction	18	3
Cardiac arrest	17	2
Hip fracture	17	2
Seizure (convulsions)	17	2
Nephrolithiasis (kidney stone)	16	2
Hypotension (low blood pressure)	15	2
Pneumothorax (lung collapse)	3	0.5

c. Seafaring-Cargo Ship Maritime Medical Data Analysis

Serious and fatal injuries are common among the occupational seafarer populations.⁸⁴ According to a study of Polish seafarers, crewmembers received 30,340 medical consultations in just one year during 201 voyages of Polish Ocean Lines.⁸⁵ A large amount of these seafarers also suffered from traumatic injury consisting of wounds, contusions, broken bones, burns, and scalds.⁸⁶ Thirty-three crewmembers suffered serious medical

Traumatic Conditions Requiring Immediate Care	(n=189)
Blunt trauma	105
Lacerations/ abrasions	37
Ocular injuries	23
Fractures/ Musculoskeletal	15
Burns	5
Penetrating trauma (stab wounds)	2
Closed-head injury	1
Near-drowning with myocardial infarction	1

83. Peake, *supra* note 35, at 70.

84. Stanislaw Tomaszunas, *The Work of Ship's Doctors of Polish Ocean Lines*, 36 BULL. INST. OF MAR. & TROPICAL MED., GDYNIA 51, 51-58 (1985).

85. *Id.* at 53.

86. *Id.*

conditions that required disembarkation.⁸⁷ Two crewmembers suffered fatal heart attacks.⁸⁸

In another survey reviewing work-related accidents and injuries among Polish seafarers during the period of 1990-95, the average incidence rate of traumatic injury was 22 per 1,000 people per year.⁸⁹ During this 5 year period, 960 accidents were recorded of which 37 (4%) resulted in death.⁹⁰ Moreover, 768 (80%) of all work-related accidents resulted in some degree of occupational incapacity, of which 307 (32%) of the industrial injuries caused work disability of 29 days or more.⁹¹ Causes of death in seafarers included drownings (24),⁹² disappearance (5),⁹³ suffocation (4),⁹⁴ violence (2),⁹⁵ and contusions (2).⁹⁶

A prospective study compiled mortality data of 30 crewmembers, 2,468 deep-sea factory-trawler fishermen, and 2,906 merchant vessel seafarers.⁹⁷ The study determined that 32% of fishermen and 45% of seafarers had at least one abnormal medical condition.⁹⁸ The most common causes of occupational disability included traumatic injuries, fractures, and wounds, resulting in 619 days absent per 1,000 fishermen, and 1,075 days absent per 1,000 seamen, annually.⁹⁹ The most frequent medical disorders in fishermen and seafarers included acute respiratory infections.¹⁰⁰ There was a 2% incidence of disembarkation in fisherman (36) and seafarers (39).¹⁰¹ Medical conditions were the most common cause of disembarkation in fishermen, whereas traumatic injuries caused more disembarkations in seafarers.¹⁰² Other epidemiological studies of maritime injury indicate a similar pattern of injury and medical condition occurrence.¹⁰³

87. *Id.*

88. *Id.*

89. Stanislaw Tomaszunas et al., *Accidents and Injuries in Polish Seafarers*; 48 BULL. INST. OF MAR. & TROPICAL MED., GDYNIA 59, 59-73 (1997). This corresponds to a fatal accident rate of 0.85/1000. *Id.*

90. *Id.*

91. *Id.*

92. *Id.* at 69.

93. Tomaszunas, *supra* note 29, at 69.

94. *Id.*

95. *Id.*

96. *Id.*

97. Stanislaw Tomaszunas et al., *Morbidity, Injuries and Sick Absence in Fishermen and Seafarers - A Prospective Study*, 39 BULL. INST. OF MAR. & TROPICAL MED., GDYNIA 125, 127 (1988).

98. *Id.* at 127.

99. *Id.* at 130, 131.

100. *Id.* at 129.

101. *Id.* at 132.

102. Tomaszunas, *supra* note 97, at 132.

103. Scott, *supra* note 44, at 244 (citing Thomas M. Hall reporting on 150 consecutive cases of maritime conditions occurring at sea and noting that 33% were the result of acute traumatic injury or musculoskeletal problem, 17%

B. Legal Epidemiology of Maritime Injuries

There are two reasons to consider the legal epidemiology of maritime injuries. First, a review of personal injury lawsuits resulting from onboard cruise ship occurrences illustrates the pattern, nature, and seriousness of maritime injuries and illnesses.¹⁰⁴ Second, such a review also illustrates dramatic deficiencies in ship owner management and the liabilities that arise when healthcare regulatory compliance guidelines are not implemented. The result, as noted below, can be just as shocking as the inadequacy of medical care.

Common accidents onboard cruise ships leading to personal injury lawsuits include the following categories: (1) slip and fall injuries;¹⁰⁵ (2) drowning and pool accidents;¹⁰⁶ (3) rape and assault;¹⁰⁷ (4) medical professional negligence;¹⁰⁸ (5) injury from

consisted of gastrointestinal conditions; and 9% consisted of respiratory problems). Hall, *supra* note 46, at 202. See also C.J. Urner, *Medical Care at Sea: A Ten Year Overview of Treatment Aboard and Onshore*, PROC. OF THE 1991 INT'L SYMP. ON MAR. HEALTH, (1991) (noting that pulmonary conditions are the most common, consisting of 13.4 reported occurrences per 200,000 man hours aboard ship, and that there was a significant incidence of psychiatric and substance abuse problems at sea).

104. Thomas A. Dickerson, *The Cruise Passenger's Rights and Remedies*, 7 INT'L TRAVEL L.J. 81, 81-83 (2000).

105. See *Kunken v. Celebrity Cruises*, No. 98 Civ. 7304, 1999 U.S. Dist. LEXIS 19321, at *1 (S.D.N.Y. Dec. 10, 1999) (holding the cruise line liable to passenger who slipped and fell as she entered the passageway to her cabin, resulting in a broken ankle); *Lee v. Regal Cruises*, 916 F. Supp. 300, 301 (S.D.N.Y. 1996) (involving the claim of a plaintiff who, after leaving the ship's lounge, fell while descending a staircase causing her to twist her right ankle and to break her left patella); *Bergonzine v. Maui Classic Cruises*, 1995 A.M.C. 2628, 2628 (D. Haw. 1995) (centering on the claim of a passenger on his honeymoon cruise who fell and injured himself while disembarking the ship's staircase). See also *Rainey v. Paquet Cruises*, 709 F.2d 169, 170 (2d Cir. 1983) (describing an incident in which the plaintiff "exuberantly" dancing the "Lindy" in the ship's discotheque tripped over a stool and suffered injuries); *Fedorczyk v. Caribbean Cruise Lines, Ltd.*, 82 F.3d 69, 72 (3d Cir. 1996) (noting that plaintiff slipped and fell in the tub); *Kloster Cruise v. Grubbs*, 762 So. 2d 552, 552 (Fla. Dist. Ct. App. 2000) (slipping on a metal threshold, plaintiff broke her hip); *Keefe v. Bahama Cruise Line, Inc.*, 682 F. Supp. 1191, 1192 (M.D. Fla. 1988) (dancing a moderately fast dance, plaintiff suddenly slipped on a wet spot on the cruise ship's dance floor causing injury to her neck and feet).

106. See *Brown v. New Commodore Cruise Line*, No. 98 Civ. 4402, 2000 U.S. Dist. LEXIS 536 (S.D.N.Y. Jan. 19, 2000) (jumping thirteen feet to the pool below, plaintiff landed on a wooden bench and fractured his ankle); *Carron v. Holland America Line*, 51 F. Supp. 2d 322, 324 (E.D.N.Y. 1999) (finding that plaintiff's injury was caused in the ship's pool after the plaintiff was "propelled into a sharp statue").

107. See *Carnival Corp. v. Romero*, 710 So. 2d 690 (Fl. Dist. Ct. App. 1998) (claiming that a Carnival employee drugged plaintiffs and that one plaintiff was sexually assaulted in the drugged state); *Kauffman v. Ocean Spirit Shipping Ltd.*, No. 4:90-CV-49, 1990 WL 483909, at *1 (W.D. Mich. Oct. 15,

flying objects;¹⁰⁹ (6) injury from defective equipment;¹¹⁰ (7) injury from inhalation of noxious gases,¹¹¹ and (8) injury from infectious diseases.¹¹² These occurrences demonstrate that there may be a

1990) (noting that the “[p]laintiff’s complaint alleges a most egregious and outrageous sexual assault and rape committed upon her by a crewman of a cruise ship upon the high seas”); *Morton v. DeOliveira*, 984 F.2d 289, 291 (9th Cir. 1993) (finding that a crewmember raped plaintiff); *Pacific S.S. Co. v. Sutton*, 7 F.2d 579, 579 (9th Cir. 1925), *cert. denied*, 269 U.S. 586 (1926) (finding that a fifteen-year-old Indian girl was “assaulted and ravished and injured by two Negroes engaged in the service of the ship”); *Rugo v. Bermuda Star Line, Inc.*, 741 F.Supp. 1013 (D. Mass. 1990) (finding that “plaintiff was assaulted and raped by two crewmembers during the late evening or early morning hours while en route back to her stateroom.”); *Jaffess v. Home Lines, Inc.*, No. 85 Civ. 7365, 1988 U.S. Dist. LEXIS 3481, at *3 (Apr. 22, 1988) (finding that a crewmember physically and sexually assaulted the plaintiff); *York v. Commodore Cruise Line, Ltd.*, 863 F.Supp. 159, 160 (S.D.N.Y. 1994) (finding that plaintiff was raped or sexually assaulted by her cabin steward).

108. See *Warren v. Ajax Navigation Corp.*, No. 91-0230-CIV-RYSKAMP, 1995 WL 688421, at *3, *4 (Fla. Dist. Ct. App. Feb 3, 1995) (alleging that defendants were negligent for failing to provide a hospital facility, competent physician, and staff to treat an acute myocardial infarction); *Bailey v. Carnival Cruise Lines, Inc.*, 448 So. 2d 1090, 1091 (Fla. Dist. Ct. App. 1984) (alleging that decedent’s death was caused by ship operator’s failure to maintain the ship’s emergency medical equipment in working condition and to render proper medical care).

109. See *McDonough v. Celebrity Cruises, Inc.*, 64 F.Supp. 2d 259 (S.D.N.Y. 1999) (applying ordinary negligence standard to plaintiff’s head injury from dropped four-pound coconut-laden drink); *Melnik v. Cunard Line Ltd.*, 875 F.Supp. 103, 105 (N.D.N.Y. 1994) (alleging that injuries were caused by an escaped golf ball from the shipboard practice course); *Catalan v. Carnival Cruise Lines*, 618 F.Supp. 18 (D. Md. 1984) (dismissing plaintiff’s negligence action for injuries from a stray golf ball because of a waiver contract); *Fay v. Oceanic Sun Line*, 1985 A.M.C. 1132 (1984) (dismissing plaintiff’s negligence action for *forum non conveniens* because there was no substantial nexus to the State of New York).

110. See *Berman v. Royal Cruise Line Ltd.*, 1995 A.M.C. 1926, 1928 (1995) (claiming injuries from allegedly defective exercise treadmill equipment); *Kornberg v. Carnival Cruise Lines*, 741 F.2d 1332, 1333 (11th Cir. 1984) (alleging injury due to malfunctioning toilets during a one week cruise in the Caribbean).

111. *Dickerson*, *supra* note 104, at 82; TRAVEL WEEKLY, March 1, 1999. “Controversy surrounded Carnival Cruise lines’ Tropicale in the aftermath of a fire that left the ship drifting without power for almost 24 hours as a tropical storm threatened.” *Ecstasy Fire Prompts Closer Look At Safety On The Seas*, TRAVEL WEEKLY, Sept. 27, 1999.

112. *Mullen v. Treasure Chest Casino*, 186 F.3d 620 (5th Cir. 1999). In *Mullen*, plaintiffs were former employees of a floating casino known as the M/V Treasure Chest Casino located in Kenner, Louisiana. *Id.* at 623. Two plaintiffs claimed injury from respiratory illness caused by the casino’s defective and/or improperly maintained ventilation system. *Id.* As a result, plaintiffs claimed they suffered from the acquired disorder of asthma and bronchitis which caused several subsequent hospitalizations. *Id.* The court affirmed the district court’s certification of the class action of all casino employees stricken with an occupation-related respiratory illness. *Id.* at 629. See also *Barbachym v. Costa Line, Inc.*, 713 F.2d 216 (6th Cir. 1983) (alleging

need for international healthcare regulatory compliance aboard ships as is dramatically illustrated in the case of *Johnson v. Commodore Cruise Lines*.¹¹³

On the afternoon of May 1, 1992, the plaintiff, a cruise line passenger, reported to the ship's doctor and nurse that she had been raped by a crewmember.¹¹⁴ The ship's doctor told the plaintiff that she was suffering from a heart attack.¹¹⁵ Despite the plaintiff's objections, the ship's doctor injected her with 15 milligrams of morphine.¹¹⁶ The ship's captain, doctor, and hotel manager then arranged for the plaintiff to be transported to a hospital in Mexico, where the ship was docked.¹¹⁷ Two physicians at the hospital in Mexico examined the plaintiff and determined that she had not suffered from a heart attack.¹¹⁸ Upon the family's return to the ship, the ship's doctor informed them that the plaintiff had suffered a "massive heart attack"¹¹⁹ with a 50% chance of survival.¹²⁰ Alternatively, the doctor said that she could be "brain dead" or a "vegetable" requiring constant care for her life's duration.¹²¹

The ship's hotel manager directed the plaintiff's family members to immediately disembark the ship and ordered his staff to pack the plaintiff's belongings and bags.¹²² It was later discovered that the plaintiff did not suffer from a heart attack, nor was she brain dead.¹²³ Because of the mistaken determination by

that food poisoning contracted from the ship forced the plaintiff to undergo multiple surgeries). The *Barbachym* court adopted the "reasonable notice" standard and held that the notice given was not only insufficient, but virtually nonexistent, thereby reversing and remanding the case for further proceedings. *Id.* at 219, 220. Plaintiffs experienced a "nightmare" cruise on the *Skyward*, wherein both passengers and crew were taken seriously ill. *Hernandez v. The Motor Vessel Skyward*, 61 F.R.D. 558 (S.D. Fla. 1973), *aff'd* 502 F.2d 1278 (5th Cir. 1975). Illness was alleged to have resulted from the consumption of contaminated food and water aboard ship which resulted in severe vomiting and diarrhea. *Id.* Plaintiffs brought a class action suit. *Id.* *Freeman* was a class action suit filed by passengers of a cruise line alleging they had been exposed to bacteria causing Legionnaires' disease. *Freeman v. Celebrity Cruises, Inc.*, Nos. 94 Civ. 5270, 94 Civ. 5473, 94 Civ. 5546, 1994 WL 689809 (S.D.N.Y. Dec. 8, 1994). The defendant ship company learned that passengers from an earlier cruise had contracted Legionnaires' disease. *Id.* Legionnaires bacteria contaminated the ship's water supply. *Id.*

113 897 F. Supp. 740 (S.D.N.Y. 1995).

114. *Id.* at 743.

115. *Id.*

116. *Id.*

117. *Id.*

118. *Johnson*, 897 F. Supp. at 743.

119. *Id.*

120. *Id.*

121. *Id.*

122. *Id.*

123. *Johnson*, 897 F. Supp. at 743.

the attending physicians, the plaintiff and her family members were refused re-entry on to the ship and were left stranded in Mexico without passports or money.¹²⁴ This case is one illustration of the need for international healthcare regulatory compliance that will monitor the quality of medical care, ship's governance, operations, managerial, and professional responsibility aboard ship.

II. MEDICAL TREATMENT ABOARD SHIP: IS THERE A DUTY TO CARE FOR INDIVIDUALS ABOARD SHIP?

This section considers the foundational issue of whether a duty to care for individuals aboard ship exists. Can such a duty exist internationally where there are no regulations regarding healthcare aboard ship? If such a duty does exist, who should fulfill the duty? This section attempts to answer these questions.

A. Medical Treatment Aboard Ship: *In Re Passengers*

1. Finding a Legal Basis for the Duty of Care

Having considered the conditions of medical care aboard ship and having illustrated that there is no international standard or regulation of maritime healthcare, there must be an evaluation of whether there *is* a duty to provide care for injuries or illnesses aboard ship. Further, how is the duty determined, and, if the duty of care is found to exist, what is the duty owed to the patients? Traditionally, in the United States as well as in many foreign nations, there is a legal duty to provide care to passengers or crew based on the legal theories of (a) "common carrier," and (b) the passenger-carrier relationship.

a. Basis for Duty: "Common Carrier" Status

Maritime vessels that transport passengers or cargo are generally classified as "common carriers."¹²⁵ In the United States,

124. *Id.*

125. NORRIS, *supra* note 7, at § 3.3. See *American Assoc. Cruise Passengers v. Carnival*, 911 F.2d 786, 787 (D.C. Cir. 1990). In *American* the Association of Cruise Passengers (AACP) brought an antitrust suit against several vacation cruise lines and two trade associations for engaging in an unlawful boycott agreement against the AACP. *Id.* The court agreed with the AACP that a cruise that "begins and ends at a foreign port, and does not stop at a domestic port, does not constitute common carriage under the Shipping Act." *Id.* at 791. The court cited portions of the Shipping Act's definition of a common carrier noting that

'common carrier' holds itself out to the general public to provide transportation . . . between the United States and a foreign country . . . that . . . utilizes, for all or part of that transportation, a vessel operating on the high seas or the Great Lakes between a port in the United States and a port in a foreign country.

the common carrier designation of a ship is based on either statute or case law. For instance, the language of the Shipping Act of 1984¹²⁶ provides that “common carrier” means an entity holding itself out to the public to provide transportation between the United States and a foreign country for compensation.¹²⁷ Furthermore, courts consistently use language implicating maritime vessels as “common carriers.”¹²⁸ These courts assign

Id. (citing 46 U.S.C.S App. § 1702(6) (Law Co-op. 2000). Accordingly, the court reasoned that “[w]ithout deciding how much, if any, deference we owe to the Commission’s interpretation of the term ‘common carrier,’ we hold that a cruise ship is a common carrier under the Shipping Act if it travels between a U.S. and a foreign port.” *Id.* at 789 (emphasis added).

126. 46 U.S.C.S. app. § 1702(6)(Law Co-op. 2000). The language of the Shipping Act of 1984, includes the following:

(6) ‘common carrier’ means a person holding itself out to the general public to provide transportation by water of passengers or cargo between the United States and a foreign country for compensation that—

(A) assumes responsibility for the transportation from the port or point of receipt to the port or point of destination,
and

(B) utilizes, for all or part of that transportation, a vessel operating on the high seas or the Great Lakes between a port in the United States and a port in a foreign country, except that the term does not include a common carrier engaged in ocean transportation by ferry boat, ocean tramp, or chemical parcel-tanker or by vessel when primarily engaged in the carriage of perishable agricultural commodities (i) if the common carrier and the owner of those commodities are wholly-owned, directly or indirectly, by a person primarily engaged in the marketing and distribution of those commodities and (ii) only with respect to the carriage of those commodities. As used in this paragraph, “chemical parcel-tanker” means a vessel whose cargo-carrying capability consists of individual cargo tanks for bulk chemicals that are a permanent part of the vessel, that have segregation capability with piping systems to permit simultaneous carriage of several bulk chemical cargoes with minimum risk of cross-contamination, and that has a valid certificate of fitness under the International Maritime Organization Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.).

Id.

127. *Id.*

128. *Moore-McCormack Lines, Inc. v. Rusak*, 266 F.2d 573, 573 (9th Cir. 1959). That cruise lines and other maritime vessels are regarded as “common carriers” is also reflected by language within various court opinions where a “higher duty of care” is imputed to the vessel. *See, e.g., Stanga v. McCormick Shipping Corp.*, 268 F.2d 544 (5th Cir. 1959). In *Stanga*, a passenger filed a personal injury suit against the owners of the SS Yarmouth Castle. *Id.* at 546 The passenger caught her shoe on metal stairway stripping that “catapult[ed] her down the flight of stairs to the landing, below.” *Id.* Considering “carrier” obligations, the *Stanga* court noted that “this is but a reflection of Maritime Law. For it is the contract of carriage as a water-borne passenger that gives rise to the ‘high degree of care’ exacted of a carrier of passengers whether stated in terms of negligence or unseaworthiness.” *Id.* at 551 (emphasis added).

duties to ship owners. *McCormack Shipping Corp. v. Stratt* demonstrates the common law implication of ships as common carriers.¹²⁹ *McCormack* held that “[the shipowner], though not an insurer, is bound by not only what it actually knows, but by what it should have known. A shipowner owes to its passengers the duty of a ‘high degree of care.’”¹³⁰ Thus, a duty of care is properly applied to ships as “common carriers.”¹³¹

See also *Moore-McCormack Lines, Inc. v. Russak*, 266 F.2d 573, 573 (9th Cir. 1959). The plaintiff in *Russak* slipped on grapes at a fiesta causing a fractured bone in his foot. *Id.* Another passenger who was imitating Carmen Miranda threw the grapes on the floor. *Id.* The district court concluded that there was a reasonable probability that grape residue existed on the dance floor for a sufficient length of time to permit the defendant shipping line an opportunity to exercise the ‘highest degree of care’ for passenger safety. *Id.* at 574 (emphasis added). The *Russak* court further held that because the appellant shipping line was “a public carrier,” it “owed the highest degree of care to appellee passenger. *Id.* at 573.

Moore-McCormick Shipping Corp. v. Stratt, 322 F.2d 648, 648 (5th Cir. 1963), also addressed this issue. In *Stratt*, the cruise passenger was injured on the defendant’s ship from a closet door that swung open and struck the passenger on the head. *Id.* The court of appeals held that the “[a]ppellant [shipowner], though not an insurer, is bound by not only what it actually knows, but by what it should have known. A ship owner owes its passengers the duty of a ‘high degree of care’[.]” *Id.* (emphasis added).

The Hawaiian case of *Cozine v. Hawaiian Catamaran, Ltd.*, 412 P.2d 669, 677 fn.3 (Haw. 1966), also implicates maritime vessels as “common carriers.” In *Cozine*, a passenger was injured when a mast from the defendant’s catamaran fell and struck the passenger on her head. *Id.* The Hawaii Supreme Court, citing the United States Supreme Court, noted that the rule that there is a duty owed to passengers will not be altered for common carriers. *Id.* The Hawaii court, citing *The City of Panama*, 101 U.S. 453, 462, held that the carrier’s duty is one of “utmost care, skill and caution.” *Id.* at 677 (emphasis added).

Lastly, the court in *Rechany v. Roland*, 235 F. Supp. 79, 84 (S.D.N.Y. 1964) also held that a carrier owes a duty of highest care to its passengers. The facts are dispositive. *Rechany*, a mariner, while in the hallway, heard repeated noises from the ship’s stateroom. *Id.* *Rechany* knocked on the door repeatedly, but no one answered. *Id.* He then took out his pass key, opened the door of the stateroom only to find a lady in bed. *Id.* *Rechany* subsequently invited the lady to a party in the ship’s Torraino Room. *Id.* at 80-81. The lady declined. *Id.* At the same time, unbeknownst to the *Rechany*, another crewman was concealed in the lady’s clothing closet (the crewman had apparently gone to hide after he heard the noise of *Rechany*’s repeated knocking). *Id.* *Rechany* (and later the seaman who was caught exiting the lady’s room) were cited for misconduct. *Id.* at 80. The *Rechany* court believed that *Rechany* opened the stateroom door because he was concerned for the safety of the inhabitants, but upon finding that the lady was all right, he merely decided to extend her an invitation to a party. *Id.* at 83. *Rechany*, appealed an administrative decision against him for misconduct. *Id.* at 70. However, the court affirmed the decision holding that “ship’s officers have a ‘high duty of care’ for the safety of passengers.” *Id.* at 84 (emphasis added).

129. 322 F.2d 648 (5th Cir. 1963).

130. *Id.* (emphasis added).

131. NORRIS, *supra* note 7, at § 3:3.

In general, the owners and operators of maritime vessels that are common carriers of people (e.g., passengers, crew, or seafarers) owe those people a duty of safe transportation.¹³² The duty of safe transportation of the passenger includes safe embarkation,¹³³ carriage,¹³⁴ arrival,¹³⁵ and disembarkation.¹³⁶ Specifically, the ship's crew must protect passengers from any injury attributable to negligence aboard vessels.¹³⁷

b. Basis for Duty: The Passenger-Carrier Relationship

The passenger-carrier relationship is a second method for finding a duty on the part of the ship owner to care for the passengers or crew aboard ship.¹³⁸ This relationship between the parties is a cornerstone of liability.¹³⁹ The basis for the passenger-carrier relationship is long recognized as the "contract of carriage" in maritime law.¹⁴⁰ In *Stanga v. McCormick Shipping Corp.*, the court held that "it is the contract of carriage as a water-borne passenger which gives rise to the high degree of care extracted."¹⁴¹ Similarly, in *Chan v. Soc'y Expeditions*, the court noted its "long recogni[tion] that the passenger-carrier relationship, as established in the contract of carriage, yields significant legal consequences."¹⁴² Under *Chan*, ticket sales initiate a contractual passenger-carrier relationship and that a contract of carriage imposes a duty on carriers to exercise reasonable care in the

132. *Id.* See also *Stanga*, 268 F.2d at 551 (finding that "[i]t is the contract of carriage as a water-borne passenger which gives rise to the high degree of care exacted"); *Kermarec v. Compagnie Generale Transatlantique*, 358 U.S. 625 (1959). The *Kermarec* Court held that it is a well settled principle in maritime law that a shipowner owes a duty of reasonable care to those lawfully aboard the vessel who are not members of the crew. *Id.* at 630. Significantly the *Kermarec* court stated, "[w]e hold that the owner of a ship in navigable waters owes to all who are on board for purposes not inimical to his legitimate interests the duty of exercising reasonable care under the circumstances of each case." *Id.* at 632.

133. NORRIS, *supra* note 7, at § 3.3.

134. *Id.*

135. *Id.*

136. *Id.*

137. *Id.*

138. The term "carrier," "common carrier," "vessel," and "ship," are used interchangeably throughout the entirety of this Comment.

139. The passenger-carrier relationship generally ends when the vessel reaches the port of the passenger's destination and the passenger disembarks the vessel, shipowner's dock, or premises. NORRIS, *supra* note 7, at § 3.3.

140. *Stanga v. McCormick Shipping Corp.*, 268 F.2d 544, 551 (5th Cir. 1959).

141. *Id.*

142. 123 F.3d 1287, 1290 (9th Cir. 1997). In *Chan*, passengers on the way back from Makatea, capsized their raft while approaching the cruise ship. *Id.* at 1289. All passengers were thrown into the ocean. *Id.* The resultant injuries included brain injury, head injury, and death. *Id.*

transportation of its passengers.¹⁴³ Courts treat the express or implied contract of carriage that exists between passengers and ship owners with tremendous deference.¹⁴⁴

2. Degree of Care Owed: What is the Degree of Care Required to Satisfy that Duty?

Having established the legal basis for a duty of the ship owner, notwithstanding the lack of international law or treaty establishing same, the next consideration is the degree of care required to satisfy any duty. The language describing the degree of care a common carrier owes passengers is often confusing. For instance, courts have held that common carriers owe their

143. *Id.* (emphasis added).

144. NORRIS, *supra* note 7, at § 3.1. See also Lieb v. Royal Caribbean Cruise Line, Inc., 645 F. Supp. 232 (S.D.N.Y. 1986) (addressing the degree of deference given to a contract of carriage). The Liebs, deaf-mutes, claimed that they were prevented from fully noticing or understanding the contract terms because of their handicap. *Id.* at 235. Mrs. Lieb fell and broke her arm. *Id.* at 233. The court noted that 46 U.S.C. § 183 (1979) allows shipowners and their agents to limit their liability for personal injury or death from cases in suits that are instituted within one year of the date when the death or injury occurred. *Id.* at 234. The court explained that the federal courts employ a two-pronged analysis in determining the validity of limitations contained within the contract of carriage (or ship's ticket). See *id.* (citing Shankles v. Costa Armatori, S.P.A., 722 F.2d 861 (1st Cir. 1983)). The first prong considers "where the conditions of limitation are placed in respect to the balance of the ticket; whether the passenger is given appropriate notice of the conditions of limitation; the placement of that notice; the size of the type used; and the existence of any other conspicuous lettering or symbols designed to call attention to the conditions and limitations." *Id.* Then, a court must determine whether the defendant "had done all it reasonably could to warn the passenger that the terms and conditions were important matters of contract affecting his legal rights." *Id.*

The second prong considers "the circumstances surrounding the passenger's purchase and subsequent retention of the ticket/contract." *Id.* at 235. The court held that notwithstanding the Lieb's handicap, the ship's ticket contained clearly visible contract of carriage provisions and "conspicuous notice directing the passenger's attention to the contractual claims contained on the inside." *Id.* at 234. Further, federal courts have consistently enforced the contractual terms contained in the contract, regardless of whether the passenger may read the contract. *Id.* (citing Strauss v. Norwegian Caribbean Lines, Inc., 613 F. Supp. 5, 8 (E.D.Pa. 1984) and Ager v. Australielinje Wilhelmsens Dampskibsaktieselskab, 336 F. Supp. 1187 (S.D.N.Y. 1972)). As a result, the court granted the defendant's motion for summary judgment. *Id.* at 235. Additionally informative is *Anderson v. Cunard Line, Ltd.*, where Dr. Anderson was given free passage aboard the cruise line during a trip to Greece, in exchange for giving various free lectures to the passengers. 1995 WL 144576, at 1 (E.D. La. 1995). During the course of her cruise she injured her leg and sued the defendant ship owner under the Jones Act, as an employee of the cruise line. *Id.* at 4. The court precluded Dr. Anderson's claim because, as a passenger, she is held to the limitations and provisions of her carriage of contract. *Id.* at *6-*7.

passengers the duty to exercise a “very high degree of care” to protect passengers from harm.¹⁴⁵ Other terms describing the degree of care for the safety of passengers have included “the greatest possible care,”¹⁴⁶ “a high degree of care,”¹⁴⁷ “very high indeed,”¹⁴⁸ “the highest degree of care,”¹⁴⁹ “utmost care,”¹⁵⁰ and

145. See *Ludena v. The Santa Luisa*, 112 F. Supp. 401, 407 (S.D.N.Y. 1953) (finding that “[a]lthough the ship is not an insurer of the safety of its passengers, it [did] owe [a] duty to exercise [a] ‘very high degree of care’ to a passenger whose hand was injured in a cabin doorjamb when the ship rolled) (emphasis added) (citing *Moore v. American Scantic Line, Inc.* 121 F.2d 767 (2d Cir. 1941)). The plaintiff in *Moore* sailed with his wife on the defendant’s S.S. “Minnequa,” where, while skipping rope on the bridgedeck his right foot struck an uneven surface of the deck resulting in an injury to his Achilles tendon. *Id.* The *Moore* court noted, that although the defendant shipowner was “not an insurer, [it] does owe the duty to exercise a ‘very high degree of care’ for the safety of its passengers.” *Id.* at 768 (emphasis added). Further, the court noted that “[a] passenger is entitled to have a carrier exercise as much skill, care, and prudence as an exceedingly competent and cautious man would bring to the task in like circumstances and is liable for injuries to passengers due solely from a failure to do that.” *Id.*

146. *Pennsylvania Co. v. Roy*, 102 U.S. 451 (1880). Mr. Justice Harlan delivered this 1880 opinion about a passenger who was injured when he fell from a train. *Id.* at 142. The Court held that when carriers undertake to convey passengers, public policy and safety require that the common carrier is held to the “greatest possible care” and stated that this doctrine was expressly affirmed in *Steamboard New World v. King*, 57 U.S. 469, 474 (1850).

147. *Alpert v. Zim Lines*, 370 F.2d 115 (2d Cir. 1966). Eight years prior to her cruise, the plaintiff suffered an injury that required a metal nail to be inserted into her thighbone. *Id.* at 116. The plaintiff fell and refractured her thighbone when the ship severely dipped and rolled. *Id.* The court stated that “a ship is held to a ‘high degree of care’ and whether negligence exists may depend upon a passenger’s special needs and the ship’s knowledge thereof.” *Id.* Additionally, “[a] passenger carrier has a duty ‘to exercise extraordinary vigilance and the highest skill to secure the safe conveyance of the passengers’” [citation omitted] “and if it knows that a passenger has physical disabilities it must exercise such higher degree of care—including giving special assistance—as is reasonably necessary to insure that passenger’s safety in view of his disabilities.” *Id.* at 116 (quoting *American President Lines, Ltd. v. Lundstrom*, 323 F.2d 817, 818 (9th Cir. 1963)). See also *Stanga v. McCormick Shipping Corp.*, 268 F.2d 544, 551 (5th Cir. 1959) (holding a high degree of care requirement in contracts of carriage); *Moore-McCormack Lines, Inc. v. Stratt*, 322 F.2d 648 (5th Cir. 1963) (holding that a ship owner “is bound by not only what it actually knows, but by what it should have known”); *Cozine v. Hawaiian Catamaran, Ltd.*, 412 P.2d 669 (Haw. 1966) (holding that a maritime vessel owes a “high degree of care” to its passengers); *Rechany v. Roland*, 235 F. Supp. 79 (S.D.N.Y. 1964) (holding that “ship’s officers have a ‘high duty of care’ for the safety of passengers”).

148. See *Maibrunn v. Hamburg-American S.S. Co.*, 77 F.2d 304 (2d Cir. 1935). “We are to remember that as passenger, the plaintiff was entitled to much more than the ordinary measure of care; the precise formula in which that has from time to time been cast is not important; it is enough that it is very high indeed.” *Id.* at 305 (emphasis added).

149. See *Moore-McCormack Lines, Inc. v. Russak*, 266 F.2d 573, 574 (9th Cir. 1959) (holding that “[a]ppellant as a public carrier owed the ‘highest

“extraordinary vigilance and the highest skill to secure the safe conveyance of the passengers.”¹⁵¹

Rainey v. Paquet Cruises, Inc. addresses the issue of what degree of care is owed to ship passengers.¹⁵² There, a cruise ship passenger, while “exuberantly” dancing the “Lindy,” fell over a stool and was injured.¹⁵³ The district court dismissed the claim concluding that the defendant was not negligent because the defendant did not have notice that the stool was on the dance floor.¹⁵⁴ In affirming the district court decision, the Second Circuit relied upon *Kermarec v. Compagnie Generale Transatlantique*,¹⁵⁵ which applied the rule of “reasonable care under the circumstances.”¹⁵⁶ Thus, the degree of care owed in a negligence action involving passenger personal injury is determined on a case-by-case basis.

Specifically, the *Rainey* court noted that the *Kermarec* rule of reasonable care under the circumstances applies to passenger

degree of care’ to appellee passenger who was injured by slipping on a foreign substance during a dance fiesta . . .”); *Morrison v. Coombs*, 23 F. Supp. 852, 854 (D. Me. 1938) (stating that “[t]his steamboat was used as a common carrier and the liability of the owners is that of common carriers and they are held for a much higher degree of care than a private carrier, - in fact, the ‘highest degree of care . . .”). *Id.* at 854 (emphasis added).

In *Pacific S.S. Co. v. Holt*, as the plaintiff climbed over the foot of her bed and onto the ladder, the ship tipped, and the plaintiff was thrown onto the washbasin striking it with her back. 77 F.2d 192 (9th Cir. 1935), *rev’d. on other grounds*, 295 U.S. 649 (1935). The court noted that “[i]f a carrier holds himself forth as a carrier of passengers, that imposes upon him a ‘very high measure of care,’ not only in the furnishing of the appliances necessary for the carrying of passengers, but also in the care and maintenance and the proper fitting and placing of those good appliances.” *Id.* at 195 (emphasis added).

150. *The Tourist*, 265 F. 700, 702 (D. Me. 1920). In *The Tourist*, a crewmember fractured his ankle when a swinging gangplank struck him. *Id.* The court held that “[t]he duty of those in charge of the steamer was clear. Although they were not insurers of the safety of their passengers, they were bound to use the ‘utmost care’ in providing a reasonably safe steamer.” *Id.* at 702-03.

151. *American President Lines, Ltd. v. Lundstrom*, 323 F.2d 817 (9th Cir. 1963). The court imposed a higher standard on the ship owner, stating that “[a] passenger carrier has a duty to ‘exercise extraordinary vigilance and the highest skill’ to secure safe conveyance of the passengers, where a passenger was injured when she fell during a fire drill because she could not see over the bulge of the life jacket she was wearing, thereby blocking her view of various steps. *See also* *Allen v. Matson Navigation Co.*, 255 F.2d 273, 277 (9th Cir. 1958) (considering what degree of care was owed a passenger who slipped and fell on a steamship). The court noted that “[p]lainly enough as a carrier it was the duty of the defendant here to ‘exercise extraordinary vigilance and the highest skill’ to secure the safe conveyance of the passengers.” *Id.*

152. 709 F.2d 169 (2d Cir. 1983).

153. *Id.* at 170.

154. *Id.*

155. 358 U.S. 625, 630 (1959).

156. *Id.*

cases.¹⁵⁷ Importantly, in a concurring opinion, Justice Oakes explained:

as a matter of law the standard of care is *no different* for a carrier than it is for anyone else- *the duty is one of reasonable care under the circumstances*. The circumstances of each case of course vary, and the greater the degree of the carrier's control or the lesser the degree of the passenger's control over the factors causative of the injury, the easier it is to find negligence.¹⁵⁸

There are similar concerns for seamen and passengers as to whether there is a duty of medical care at sea. If there is a duty, how much care is owed? The next section explores these issues with respect to seamen, passengers, and crew.

B. Medical Treatment Aboard Ship: *In re Seamen*

1. Basis for Duty: Seamen-Vessel Relationship

General maritime law imposes an affirmative duty upon the master and owner of a ship to provide seamen and seafarers with medical care.¹⁵⁹ In addition, depending upon the seriousness of the illness or injury and upon the circumstances of the case, a ship may be required to go to the nearest port to attain more complete and definitive medical care for a passenger.¹⁶⁰ The failure of the

157. Rainey, 709 F.2d at 172 (emphasis added).

158. *Id.* (emphasis added).

159. MARTIN J. NORRIS, 2 THE LAW OF SEAMEN § 26.8 (1985) [hereinafter 2 NORRIS]. See also *Central Gulf S.S. Corp. v. Sambula*, 405 F.2d 291, 296 (5th Cir. 1968) (stating that “[t]he general rule is that a ship has a duty to provide maintenance and cure to any of its seamen injured while ‘in the service of the ship.’”); *The Iroquois*, 194 U.S. 240, 247 (1903) (holding that the master has a “duty to look out for the safety and care of his seamen, whether they make a distinct request for it or not”). There is also a duty to provide proper medical treatment for ill or suffering seamen. *Id.* at 241-42. See also *DeZon v. American President Lines*, 318 U.S. 660, 667 (1942) (holding that a “seaman becomes committed to the service of the ship [when] maritime law annexes a duty that no private agreement is competent to abrogate . . .”); *The Svealand*, 136 F. 109, 110 (4th Cir. 1905) (finding that it is “[t]he duty of the master to furnish . . . prompt medical treatment and surgical aid”). *Rodgers v. United States Lines Co.*, 189 F.2d 226, 229 (4th Cir. 1951) (noting that a captain of a vessel owes an injured member of his crew medical care).

160. *The Iroquois*, 194 U.S. 240, 242-43 (1904), specifically addresses this obligation as follows:

We cannot say that in every instance where a serious accident occurs the master is bound to disregard every other consideration and put into the nearest port, though if the accident happen within a reasonable distance of such port, his duty to do so would be manifest. Each case must depend upon its own circumstances, having reference to the seriousness of the injury, the care that can be given the sailor on shipboard, the proximity of an intermediate port, the consequences of delay to the interests of the shipowner, the direction of the wind and the probability of its continuing in the same direction, and the fact whether

captain, ship's officers, or master to furnish care to a seaman gives the seaman a cause of action against the master and shipowner for consequent damages as agents of the shipowner.¹⁶¹

The measure of the shipowner's duty to provide proper medical care to a sick or injured seaman depends upon the circumstances of each case.¹⁶² Furthermore, the fact that a seaman waives proper medical care and treatment or otherwise agrees to

a surgeon is likely to be found with competent skill to take charge of the case. With reference to putting into port, all that can be demanded of the master is the exercise of reasonable judgment and the ordinary acquaintance of a seaman with the geography and resources of the country. He is not absolutely bound to put into such port if the cargo be such as would be seriously injured by the delay. Even the claims of humanity must be weighed in a balance with the loss that would probably occur to the owners of the ship and cargo.

Id. See also *Bourg v. J. Ray McDermott & Co.*, 70 So. 2d 225, 226-27 (La. App. 1954) (stating that "[t]he deceased was himself the master of the vessel. He was in full charge. If he required medical attention it was his duty to look for it, or to ask the mate to stop the vessel and obtain a physician.").

161. *The Iroquis*, 194 U.S. at 241-42 (stating that "[t]he duty to provide proper medical treatment and attendance for seamen falling ill or suffering injury [in] the service of the ship has been imposed upon the shipowners by all maritime nations"); *Cortes v. Baltimore Insular Line, Inc.*, 287 U.S. 367, 371 (1932) (stating that "[i]f the failure to give maintenance or cure has caused or aggravated an illness, the seaman has his right of action for the injury thus done to him; the recovery in such circumstances including not only necessary expenses, but also compensation for the hurt [citation omitted]"); *Robinson v. Isbrandtsen Co.*, 203 F.2d 514, 515-16 (1953) (holding the defendant shipowner liable for plaintiff's food poisoning and for aggravating plaintiff's condition by failing to provide medical attention).

162. For instance, the Court of Appeals in *Central Gulf S.S. Corp. v. Sambula*, 405 F.2d 291, 300 (5th Cir. 1968) stated that a ship, through its captain, has a duty to care for sick or injured crewmembers, and that the measure of such duty varies with the circumstances of each case, depending upon the "nature of the injury" and the "relative availability of medical facilities." *Id.* There, a messman was attacked and robbed by three men where the messman sustained an injury to his eye. *Id.* at 293. The ship's agent took the messman to a local Korean general practitioner who found that the seaman was fit for duty and so informed the master. *Id.* Aboard ship the seaman received bed rest, but had to get up from his berth for meals and to go to the toilet. *Id.* at 293-94. Subsequently the blood vessels in Sambula's eye hemorrhaged. *Id.* at 294. The seaman was flown to the United States where it was determined that his injury required the total removal of his eye. *Id.* at 294-95. The district court held that the ship was negligent in failing to give the plaintiff proper medical attention noting specifically that:

Sambula's eye was not irreparably lost for several days after the injury during the voyage to Singapore. He should have been hospitalized in Inchon as soon as possible. This was not done either because Dr. Lee failed to recognize the clear danger signal or because the ship's agent failed to provide a proper doctor. Either act was negligent and is imputed to the ship.

Id. at 296. Taking the evidence as a whole, plaintiff has sustained the burden of showing that employer negligence played any part, even the slightest, in producing the injury for which damages are sought. *Id.* at 302.

the ship doctor's recommended course of action does not exonerate a shipowner from liability.¹⁶³ There are no international regulations or competency requirements for a doctor under ship employment.¹⁶⁴

163. *Wittekoppe v. New York & P.S.S. Co.*, 189 F. 920 (S.D.N.Y. 1911). In *Wittekoppe*, while a steamship was on a voyage from St. Lucia to Bahia Blanca, South America, a seaman fell from a ladder and broke his wrist. *Id.* at 921. There was no surgeon on board, and the master, who knew the wrist was broken, attempted to set the bones, but the setting was performed imperfectly resulting in serious injury to the seaman's arm and hand. *Id.* The vessel passed near Para and Pernambuco, in both of which were adequate hospital accommodations, but the master did not stop. *Id.* at 922. Further, the court noted, the steamer met on its voyage twelve to fifteen other large vessels "most of which probably had a competent surgeon on board who would presumably, if requested, have gone to the Caracas and properly set the broken bone." *Id.* at 921. The court held that it was the duty of the master to put the seaman ashore and send him to a hospital [at Para or Pernambuco] and that his failure to do so rendered the shipowners liable for the resulting injury. *Id.* at 922. Additionally, the seaman's assent to the ship's course could not abrogate the shipowner's duty to care for the seaman. *Id.*

164. The United States Coast Guard's minimal requirement for the licensing of a ship's surgeon is that he merely possess "[a] valid license as physician or surgeon issued under the authority of a state or territory of the United States, the Commonwealth of Puerto Rico, or the District of Columbia." 46 CFR § 10.807 (2001). However, when a ship carries a physician on board, the ship owner is liable for the doctor's negligence in treating a seaman under the Jones Act. 2 NORRIS, *supra* note 159, at § 26:50. A ship doctor's incompetence was vividly examined in *De Zon v American President Lines, Ltd.*, 318 U.S. 660 (1943), *reh'g denied* 319 U.S. 780 (1943). *De Zon*, a seaman, suffered an injury when a chip of dry aluminum paint lodged in his right eye while he was painting. *Id.* at 661. One day after the eye injury, the ship's doctor examined the seaman's eye because he was complaining of significant pain. *Id.* The doctor did not utilize any special equipment and washed the eye out with a boric solution. *Id.* *De Zon* sought further medical attention from a shore side hospital. *Id.* The shore side physician that treated *De Zon's* eye advised him "to get off the ship and be hospitalized ashore." *Id.* at 662. In response to *De Zon's* request to get off the ship, the ship's doctor told *De Zon* that "if you want to take a chance or a gamble on it, you can go on to the States. It don't look so bad. It can be all right." *Id.* As a result, *De Zon* continued on the ship's voyage and approximately two days later *De Zon's* eye was in an "alarming condition." *Id.* On arrival at San Francisco, *De Zon* was taken by ambulance to the Marine Hospital, whereupon it was found necessary to totally remove his eye. *Id.* at 663.

In *De Zon*, the Supreme Court thoroughly affirmed the shipowner's well-established duty to provide proper medical treatment for ill or injured seamen. *Id.* at 665-67. The Court further stated that although there may be no duty to the seamen to carry a ship's doctor "circumstances may be such as to require reasonable measures to get him to one." *Id.* at 668 (emphasis added). The Court reasoned further that (a) the doctor in treating the seaman is engaged in the shipowner's business, (b) the doctor performs such service because the ship's employs him to do so, and (c) the ship's doctor is subject to ship discipline and the master's orders, and accordingly, a shipowner is liable in damages for harm suffered as a result of any negligence on the part of the ship's doctor. *Id.*

C. *Attempting to Satisfy the Duty of Care: By Whom Is This Duty of Care to Be Provided?*

A ship owner's duty to provide care is not abrogated by the lack of statutory or other legal requirements to provide physicians or other medical professionals. Rather, the shipowner's duty is clear as noted in *Neites v. American President Lines, Ltd.*¹⁶⁵ *Neites* held:

[w]here the ship carries no ship's physician or nurses, the carrier [remains] under a duty to provide such care and attention as is reasonable and practical under the circumstances, and this has traditionally required the master to change course and put in at the nearest port, according to the gravity of the illness.[citation omitted] This duty extends to both passengers and seamen whose lives may be threatened by illness [or injury] on board ship.¹⁶⁶

However, who is to provide "reasonable care?" Should a reasonable and prudent person be responsible for providing medical care? Should the ship owner's agent (e.g., first mate, ship's captain) be responsible for providing the care although that person possesses a different level of skill and knowledge, *ab initio*, than a prudent non-seafaring person? Lastly, should the ship's physician or nurse be responsible for providing the care when they are present?

The commonly occurring scenario places the burden of reasonable care upon the captain, master, first mate, or other ship's officers, *although laymen themselves*, to examine, evaluate, and treat passengers, crew, or seafarers who become ill or injured during their voyage.¹⁶⁷ These laymen may indeed have skill and knowledge attributable to them in respect to seagoing affairs, but not necessarily regarding medical affairs.¹⁶⁸

No recognized or accepted international standards exist for (1) the provision and regulation of medical care aboard ship, (2) the provision of medical supplies or medical equipment aboard ship, or (3) the provision of formalized medical training or certification for captains, masters, ship's officers, or other agents of the shipowner, including the ship's physician. There is no international legal requirement for a passenger-carrying vessel to carry a physician, other medical professionals, or medical facilities on board ship.¹⁶⁹ Thus, it is important for ship passengers to

165. 188 F. Supp. 219 (N.D. Cal. 1959).

166. *Id.* at 221 (emphasis added).

167. NAUTICAL MED., *supra* note 46, at 53. "Only a very few ships anywhere still carry a doctor; thus the crew members are dependent on the medical care of laymen with very limited medical qualifications." *Id.*

168. *See id.* (noting "[i]n other words, there is a discrepancy between the possibilities of medical care *ashore* (*high standard*) and *on board* (*low standard*). (emphasis in the original).

169. It was once true that "[a] statutory requirement that certain passenger

understand that, although they are entitled to receive a duty of reasonable care under the circumstances, as a matter of law, the person administering the duty (and hence often the medical care) is likely to merely exercise his own degree of skill, care, and prudence as a cautious person would bring to the task in like circumstances. In that regard, the degree of care which the carrier owes to the ship's passenger is based on a standard which is not just that of the usual reasonable and prudent person.¹⁷⁰

1. *Texts and the Illusory Ship's Medicine Chests*

Maritime personnel charged with the obligation of caring for passengers or crew, whether as agents of the shipowner or as the ship's physician, attempt to satisfy their duty of care by relying upon either the ship's medicine chest, or various medical text references.¹⁷¹ This Comment will illustrate that both methods are wholly inadequate.¹⁷² Most seafaring nations have laws providing that vessels should carry a "ship's medicine chest" to aid sick and injured passengers and seamen.¹⁷³ However, most nations, including the United States, do not regulate what a medicine chest should contain.¹⁷⁴ Furthermore, there are *no* recognized or

vessels must carry a competent surgeon or medical practitioner may be found at 46 USCA § 155." Romualdo P. Eclavea, *Liability of Ship or Shipowners for Negligence in Connection with Medical Care or Facilities Provided Crewmember*, 16 A.L.R. FED. 87 § 3 (1973). However, Section 155, Regulation as to Vessels Carrying Steerage Passengers, enacted August 2, 1882, was repealed, Pub. L. No. 98-89, § 4(b), 97 Stat. 600 (1983). NORRIS, *supra* note 7, at § 3:10.

170. NORRIS, *supra* note 7, at § 3:4.

171. NAUTICAL MED., *supra* note 46, at 24. "Many a doctor who went to sea tried, by means of treatises and monographs, to pass on the knowledge gained during long, eventful voyages, or to make new findings generally available to other colleagues."

172. See generally footnotes 185-88, and the text to which they refer, where the inadequacies of the current available texts in maritime medical care are specifically delineated.

173. Nebojsa Nikolic et al., *Ship's Medicine Chest on Yugoslav Ships*, 41 BULL. INST. OF MAR. AND TROPICAL MED. GDYNIA 167, 167 (1990).

174. Title 46 of the United States Code, Annotated, Section 11102, "Medicine Chests," merely provides as follows:

(a) A vessel of the United States on a voyage from a port in the United States to a foreign port (except to a Canadian port), and a vessel of the United States of at least 75 gross tons as measured under section 14502 of this title, or an alternate tonnage measured under section 14302 of this title as prescribed by the Secretary under section 14104 of this title on a voyage between a port of the United States on the Atlantic Ocean and Pacific Ocean, *shall be provided with a medicine chest.*

(b) The owner and master of a vessel not equipped as required by subsection (a) of this section or a regulation prescribed under subsection (a) are liable to the United States Government for a civil penalty of \$500. If the offense was due to the fault of the owner, a master penalized under this section has the right to recover the penalty and costs from the owner.

accepted international standards detailing the extent of medical supplies or facilities that ship owners must provide to passengers or seamen.¹⁷⁵ Likewise, *no* certification on an international basis exists for the education and training that masters, ship's officers, or other agents of the ship owner, should have in using medical supplies or medical equipment on board.¹⁷⁶

Ship owners have a long history of neglecting the medical standards in aiding the sick and injured that compound the lack of international regulation and standardization of either ship medicine chests or ship medical facilities.¹⁷⁷ In *Harden v Gordon* the court disturbingly noted the following:

In the course of the investigation of this suit, it has come to the knowledge of the court, that there is a most *criminal neglect and indifference* on this subject, that cannot but excite the most painful surprise and mortification. When we find, that some merchants in this neighborhood, *instead of* directing a *medicine chest* to be *furnished and replenished* with an adequate stock of all the necessary medicines, drive a hard bargain for a supply of the most ordinary kinds, and of *those least adapted* to the voyage, at a very trifling fixed price; and when even such medicines are *insufficient in quantity*, it cannot but create a feeling little short of indignation, that there should exist among a moral people, such an *insensibility to human suffering*, and such a *carelessness of human life*.¹⁷⁸

46 U.S.C.A. § 11102 (2000) (emphasis added). Note, for example, that the failure of a passenger ship carrying 3,000 plus passengers on board, but which does not carry a medicine chest, may result in a sanction of a fine of only \$500. *Id.*

175. Furthermore, there is conflicting legal authority about whether the absence of certain medications aboard ship constitutes negligence or even unseaworthiness, thereby providing for shipowner liability for consequential damages. *Eclavea*, *supra* note 169, at § 21(a). *See also* *Russo v. Standard Oil Co. of California*, 195 F.2d 521, 522 (holding that defendant ship owner was not required to carry sulfa antibiotics and that his failure to carry did not cause shipowner to be liable for negligence). *But c.f.*, *Stevens v. Seacoast Co.*, 414 F.2d 1032, 1040 (5th Cir. 1969) (considering a ship unseaworthy because of insufficient medications including the ship's first aid kit).

176. *Feuer*, *supra* note 3, at 461.

177. *Harden v. Gordon*, 11 F. Cas. 480 (C.C.D. Me. 1823).

178. *Id.* at 487 (emphasis added). The court in *Harden* went on to consider what course it would take when it received information concerning the criminal neglect and indifference of a ship owner in providing certain medication for its crew:

This information, which for the first time has been brought to the notice of the court, is most unwelcome, and calls upon it, as an imperious duty, to pronounce the most pointed reprobation of the practice. If owners will persist in this practice, they shall not, so far as this court is concerned, derive any benefit from such a violation of duty. Whenever they seek to exonerate themselves from the charges of sickness imposed upon them by maritime law, the burden of proof of the sufficiency of the medicine chest in all respects rests upon them. And the court will require the fact to be established by the testimony of disinterested

Although the U.S. Department of Health and Human Services, Public Health Service, and the Office of the Surgeon General, jointly publish a text entitled *The Ship's Medicine Chest and Medical Aid at Sea*,¹⁷⁹ such a text is intended "for medical care on merchant ships at sea," and are not intended for use in providing care to passengers.¹⁸⁰ Furthermore, the tenet of *The Ship's Medicine Chest* is ambiguous. For instance, the text represents that the publication intends to give "what we believe to be the best advice on 'what to do until the doctor comes' for the sailing community."¹⁸¹ However, the table of contents includes topics addressing a multiplicity of problems such as cardiopulmonary resuscitation, hypothermia, shock, concussion, among others.¹⁸² Whether, it is reasonable to expect laymen without any medical training whatsoever to properly diagnose and treat these conditions is subject to debate. Although the text is intended to serve as a 'what to do until the doctor comes,' in most instances, the doctor is not coming to the middle of the Atlantic, Pacific, or Indian Oceans. Furthermore, the expectation that laymen diagnose and medically manage such complex medical conditions is both unreasonable and dangerous. The expectation that these laymen should use the text as a guide for fulfilling the shipowner's duty of providing reasonable and practical care and attention under the circumstances is misguided.¹⁸³

In addition to *The Ship's Medicine Chest*, other textbooks address illnesses and injuries commonly affecting passengers or seamen at sea.¹⁸⁴ Both the *International Medical Guide for Ships*, and the *Handbook of Nautical Medicine* include a wide array of

persons, and not exclusively to depend upon parties, who have trafficked for the supply at a low fixed rate, and may feel a deep interest in point of reputation and custom to gloss over the infirmities of the transaction.

Id.

179. Office of Surgeon General, Public Health Service, United States Department of Health and Human Service, Pub. No. (PHS) 84-2024, *THE SHIP'S MEDICINE CHEST AND MEDICAL AID AT SEA* (1984) [hereinafter *THE SHIP'S MED. CHEST*].

180. C. EVERETT KOOP, M.D., Sc. D., Foreword, *THE SHIP'S MED. CHEST*, *supra* note 179, at vii.

181. *Id.* (emphasis added).

182. *THE SHIP'S MED. CHEST*, *supra* note 179, at xiii-xiv. Other conditions described include congestive heart failure, casualties associated with diving, control of communicable disease, acute fractures, hepatitis, poisoning and diabetes. *Id.*

183. Where a ship carries no ship's physician or nurses, the carrier remains under a duty to provide such care and attention as is reasonable and practicable under the circumstances – that is, via laypersons. *Nietes v. American President Lines, Ltd.*, 188 F. Supp. 219, 221 (N.D. Cal. 1959).

184. Two examples include *INTERNATIONAL MEDICAL GUIDE FOR SHIPS*, 2nd ed., World Health Organization, International Labour Organization, International Maritime Organization, Geneva, 1988 [hereinafter *INT'L MED. GUIDE*]; and *NAUTICAL MED.*, *supra* note 46.

topics and lists of recommended shipboard medications. However, all these texts provide dangerously contradictory information. They are inconsistent with the appropriate medications and pharmaceuticals for a ship's medicine chest.¹⁸⁵ The texts also contain inconsistencies in the treatment of medical conditions.¹⁸⁶

185. For instance, THE SHIP'S MED. CHEST suggests that a ship's medicine chest contain certain pharmaceuticals that are not recommended for inclusion by the INT'L MED. GUIDE. Compare INT'L MED. GUIDE, *supra* note 184, at 310-12 (including aluminum acetate ear drops; amitriptyline; ascorbic acid (Vitamin C); benzathine benzylpenicillin; cetrимide; chlorphenamine tablets or injection; chlorpromazine tablets or injection; cyclizine; dimercaprol; Doxycycline; Tetracaine; chloramphenicol eye drops; glyceryl; iodine; Lindane cream; magnesium hydroxide suspension; medtronidazole; Miconazole vaginal cream, pessary and inserter; neomycin-bacitracin ointment; oral rehydration salt tablets; paracetamol; phenoxymethyl penicillin potassium tablets; potassium permanganate; Proguanil; Pyrantel; Quinine; sulfamethoxazole + trimethoprim; tetracycline ear drops; and zinc oxide), with THE SHIP'S MED. CHEST, *supra* note 179, at VI-1-VI-49 (including the following acetazolamide (Diamox); amonia, aromatic inhalant; amyl nitrite inhalant, crushable; Bacitracin ointment; belladonna elixir; benzoin tincture; Cidex-7; dextromethorphan with glyceryl guaiacolate (Robitussin); dextrose Injection, 50%; digoxin (Lanoxin); diphenhydramine tablets (Benadryl); diphenhydramine injection (Benadryl); diphenoxylate hydrochloride with atropine (Lomotil); benzalkonium chloride; flurazepam (Dalmane); gamma benzene (Kwell); glucagon, injectable; homatropine; hydrocortisone-neomycin-polymixin B ear drops; hydrogen peroxide solution; insulin for injection; Ipecac; Kaolin with Pectin (Kaopectate); lactated ringers solution; lubricating jelly (K-Y); magnesium sulfate (Epsom salt); meclizine (Antivert); menthol ointment; meperidine (Demerol); metamaminol (Aramine); Milk of Magnesia; nitroglycerine tablets; paraldehyde; penicillin tablets; phenylephrine nasal spray; phenytoin (Dilantin); polymixin B-neomycin-bacitracin eye drops or ointment; povidone-iodine (Betadine); prednisolone eye drops; proparacaine (Ophtaine); skin freeze; sodium bicarbonate injectable; sodium bicarbonate powder; sodium biphosphate and sodium biphosphate solution (Fleet Enema); sulfadiazine silver cream (Silvadene); sulfisoxazole (Gantrisin); sunscreen; tolnaftate (Tinactin); and whisky, medicinal).

186. There are numerous examples of contradictory medical advice. For instance, in the treatment of hypertension, the INT'L MED. GUIDE suggests the use of diazepam, 5 mg. three times per day, while THE SHIP'S MED. CHEST suggests treatment with phenobarbital, 30 mg. two to three times per day. INT'L MED. GUIDE, *supra* note 184, at 209; THE SHIP'S MED. CHEST, *supra* note 179, at V-5. In the treatment of anaphylactic shock, the INT'L MED. GUIDE suggests the use of chlorphenamine 10 mg, while THE SHIP'S MED. CHEST suggests treatment with diphenhydramine 50mg. INT'L MED. GUIDE, *supra* note 184, at 168; THE SHIP'S MED. CHEST, *supra* note 179, at V-87. In the treatment of angina, the INT'L MED. GUIDE suggests the use of glyceryl trinitrate, valium, and does not mention the use of oxygen, while THE SHIP'S MED. CHEST suggests treatment with nitroglycerine, intramuscular morphine injection (10mg), and mentions the use of oxygen. INT'L MED. GUIDE, *supra* note 184, at 203; THE SHIP'S MED. CHEST, *supra* note 179, at V-3. In the treatment of paroxysmal tachycardia, the INT'L MED. GUIDE suggests the use of reassurance and diazepam, while THE SHIP'S MED. CHEST merely suggests the reduction of amount of food eaten at meals, and the avoidance of coffee, tea, tobacco, and alcohol. INT'L MED. GUIDE, *supra* note 184, at 204-05; THE

The texts are also inconsistent with well-recognized medical standards in civilized nations such as the United States.¹⁸⁷ Further, the information provided within any of the above mentioned texts is often grossly insufficient to satisfy emergency medical needs.¹⁸⁸ For example, the *International Medical Guide* suggests that it "is intended for use by people, with little or no formal medical training, who are responsible for health care on board ships of all kinds."¹⁸⁹ This affirms the unacceptable result that poorly trained laymen will be administering healthcare to the sick aboard ship.¹⁹⁰

The lack of international consensus for an authoritative maritime vessel medical guide aggravates shipboard medical

SHIP'S MED. CHEST, *supra* note 179, at V-4.

187. For instance, *neither* the INT'L MED. GUIDE, THE SHIP'S MED. CHEST, or NAUTICAL MEDICINE, recommends use of the following pharmacological medications (among others) during advanced cardiac life support: adenosine (Adenocard); bretylium; calcium chloride; calcium gluconate; diltiazem (Cardizem); dopamine; dobutamine (Dobutrex); isoproterenol (Isuprel); lidocaine (Xylocaine); norepinephrine; nitroglycerine, intravenous; procainamide (Pronestyl); propranolol (Inderal); quinidine; and verapamil (Isoptin). INT'L MED. GUIDE, *supra* note 184, at 310-12; THE SHIP'S MED. CHEST, *supra* note 179, at VI-1-VI-49; NAUTICAL MED., *supra* note 46, at 35-36, 43-44, 46, 221-23, 397-98. Similarly, *neither* the INT'L MED. GUIDE, THE SHIP'S MED. CHEST, or NAUTICAL MEDICINE, provide instructions or recommendations concerning the use and management of either the automatic external defibrillator (A.E.D.) or synchronized and unsynchronized cardiac defibrillation for either supra ventricular or ventricular arrhythmias. INT'L MED. GUIDE, *supra* note 184, at 2,3, 17, 179, 203-05; THE SHIP'S MED. CHEST, *supra* note 179, at IV-1-IV-26, V-2-V-6; NAUTICAL MED., *supra* note 46, at 35-36, 43-44, 46, 221-23, 397-98.

188. For instance, the INT'L MED. GUIDE, THE SHIP'S MED. CHEST, or NAUTICAL MEDICINE, do not include discussions or instructions regarding: medical pharmaco-intervention as may be required in cardiac atrial or ventricular dysrhythmias; medical pharmacointervention as may be required in cardiac arrest; fluid management and resuscitation in traumatic hypotensive shock; artificial mechanical devices used to maintain ventilatory support, either during or following resuscitation from cardiopulmonary arrest; emergency life-saving procedures such as pericardiocentesis, chest decompression, cricothyroidotomy, central venous cutdown and catheter placement, etc.; or include instructions or recommendations concerning the use and management of either the automatic external defibrillator (A.E.D.) or synchronized and unsynchronized cardiac defibrillation for either supra ventricular or ventricular arrhythmias. NAUTICAL MED., *supra* note 46, at xiii-xxvi, 35-36, 43-44, 46, 221-23, 397-98, 453-90; INT'L MED. GUIDE, *supra* note 184, at 2-3, 17, 179, 203-05; THE SHIP'S MED. CHEST, *supra* note 179, at IV-1-IV-26, V-2-V-6.

189. INT'L MED. GUIDE, *supra* note 184, Text Cover (emphasis added).

190. Goethe estimates that 95% of all seafarers are employed on board ships without physicians. NAUTICAL MED., *supra* note 46, at 55. Goethe further confirms that "[o]n board most ships, medical care is the duty of one of the deck officer who has been designated by the ship's captain." *Id.* "The deck officer in charge usually gives the medical care in addition to his normal duty, e.g., watchkeeping." *Id.* at 55.

problems when crews are of foreign nationality.¹⁹¹ International vessels and passenger cruise ships often have multinational crews because such crews accept wages that American seamen will not accept.¹⁹² This diversity of crew make-up is believed to cause a further lack of standardization and uniformity in the crew's approach and management of critical safety issues.¹⁹³

It is reasonable, if not axiomatic, to conclude that the extent of medical training of the crewmember entrusted with the delivery of medical care aboard ship is a decisive factor in the successful treatment of the sick and injured.¹⁹⁴ Incorrect diagnoses and/or careless handling of an accident, injury, or illness may lead to severe physical disablement or death.¹⁹⁵ Cases have arisen where the disregard of certain symptoms and/or the failure to seek additional emergency assistance has resulted in fatalities.¹⁹⁶

191. *How Safe Are Cruise Ships with Foreign Crews?* U.S.A. TODAY, May 21, 1998, at 14A.

192. *Id.* See also Frantz, *supra* note 47, at A1 (finding that "[t]he cruise lines, all of them registered in foreign countries, do not observe the nation's labor laws, minimum wage law and many environmental and safety regulations").

193. "Some critics claim that the cruise lines hire foreign medical personnel because they'll work for lower pay." *Cruise-Ship Health Care*, *supra* note 3, at 7. "Besides differences in training, foreign doctors may be hampered by a language barrier, which may impair doctor-patient communication or consultations with shoreside doctors or emergency personnel." *Id.*

194. "Foreign-trained doctors seeking a U.S. license face a long and expensive process of education verification, exams, english tests, and clinical-skills assessments before beginning three years of U.S. residency training." *Cruise-Ship Health Care* *supra*, note 3, at 7. Charles Willis, director of the International Medical Graduate Services unit of the American Medical Association, notes that "[w]hile doctors not licensed in the U.S. may have excellent training and skills, there is no uniformity in the standards, so you just don't know" and that "[t]hey've met the standards from somewhere, but that may not make U.S. passengers happy." *Id.* See also *Medical Neglect*, *supra* note 1, at ¶ 4 (stating that "shipboard doctors have degrees from foreign medical schools and lack the minimum training to practice in American hospitals"). It was also noted that "[a]lthough 90% of cruise ship passengers are American, most cruise ships fly flags-of-convenience that do not require compliance with even the most basic medical standards." *Id.* ¶ 5.

195. Of course, incorrect diagnosis and carelessness can have lethal effects and increase morbidity and mortality statistics shoreside just as when it occurs aboard ship. NAUTICAL MED., *supra* note 46, at 53 (noting "there is a discrepancy between the possibilities of medical care *ashore* (*high standard*) and *on board* (*low standard*) (emphasis in the original). However, when it occurs shoreside there is greater access to help from other physicians and consultants which simply are not available aboard ship. *Id.*

196. The cases of James Curtis and Margaret DiBari, as mentioned in the Introduction of this Comment, are but two examples of medical mismanagement aboard a cruiseliner that ended in death. *Medical Neglect*, *supra* note 1, at ¶ 3.

2. Attempting to Satisfy the Duty: Seamen

In determining negligence, courts have stated that the master is not required to exercise the skill or discernment of a physician in diagnosing and caring for the seaman.¹⁹⁷ The United States Supreme Court in *Potter Title & Trust Co. v. Ohio Barge Line, Inc.*, reversed a judgment that held a shipowner liable for the death of a seaman on the ground that the seaman's death had resulted from the shipowner's negligence in failing to furnish him proper medical care.¹⁹⁸ The Court pointed out that the seaman, during the entire

197. In *The Kenilworth*, 144 F. 376 (3d Cir. 1906), the court succinctly noted: In considering whether he (the master) was or was not duly careful, we are bound, so far as possible, to put ourselves *in his place*. He was *not required to have the skill or discernment of a surgeon*, and the opinion which he formed, if viewed in no clearer light than was afforded by such *limited knowledge* as may be justly attributed to him, does not appear to have been an *unreasonable* one, and the treatment which he adopted, when considered in connection and conformity with that opinion, was neither negligent nor improper.

Id. at 378 (emphasis added). See also *The Van Der Duyn*, 261 F. 887 (2d Cir. 1919).

The court explained:

The ship will not be held responsible for an error of judgment on the part of the officers, if their judgment is conscientiously exercised with reference to conditions existing at the time. It is only where the external extent of the injury in question should have moved them to ascertain its real nature, when they could do so without serious diversion of the course, and at comparatively trivial expense, that the courts have permitted liability to attach to the vessel. *Id.* at 890 (citing *The Osceola*, 189 U.S. 158 (1902); *The Governor* 230 F. 857 (1915); *The Scotland* 42 F. 925 (1890); and *The Eva B. Hall* 114 F. 755 (1902). *Potter Title & Trust Co. v. Ohio Barge Line, Inc.*, 184 F.2d 432, 436 (3d Cir. 1950), *cert. denied*, 340 U.S. 955 (1950) (stating that "[i]t necessarily follows that the master of the ship cannot be, and is *not*, expected to exercise the *skill* of a physician in recognizing the ailments of his crewmen and rendering suitable treatment . . .") (emphasis added); *Barlow v. Pan Atlantic S.S. Corp.*, 101 F.2d 697, 698 (2d Cir. 1939) (holding that "[w]hile a trained physician might have realized the advisability of sending the wounded man to a hospital at once, a ship's officer *cannot* be held to the same *standard* of skill as a professional medical man.") (emphasis added); *Sawyer v. California Tanker Co.*, 147 F. Supp. 324, 328-29 (D.N.J. 1957) (finding that "[t]he law imposes an obligation to give reasonable medical treatment to an injured or ill seaman, and the vessel will not be held responsible for an error of judgment on the part of officers, if their judgment is conscientiously exercised with reference to existing conditions").

198. 184 F.2d 432, 434, *cert. denied*, 340 U.S. 955 (1950). Furthermore, a shipowner will *not* be held liable for the master's failure to provide proper medical care where such failure results from an honest, but not gross, error of judgment on the part of the master. *MacQueen v. United States Coast Guard*, 287 F. Supp. 778, 782 (E.D. Mich. 1968). *MacQueen* involved an action under the Jones Act where a master sued the shipowner for negligent failure to provide medical care. *Id.* The court rejected the contention that ship's officers *should have recognized* the master's stroke condition. *Id.* (emphasis added).

period of his employment, never complained, asked to be relieved from work, sought medical attention, or requested a hospital slip.¹⁹⁹ Also, fellow crewmembers verified that the seaman exhibited no signs of illness.²⁰⁰

However, there is authority for imposing liability for a mistake of judgment made by the master (such as the belief that the seaman was merely "shamming").²⁰¹ Such a mistake will not excuse the failure to provide proper medical care where the facts of the case do not justify the master's erroneous views concerning the existence or nature of the injury or illness.²⁰² In *Morris v. United States*,²⁰³ a seaman sustained a severe sprain and hernia and requested medical attention through the master.²⁰⁴ The master denied the seaman's request for medical attention even after the ship remained for five or six days at an intermediate port.²⁰⁵ Finally, on the second day of arriving at the ship's destined port, the seaman went to a marine hospital where he underwent an operation.²⁰⁶ The court reversed a decree dismissing the seaman's

The court stated that the personnel of the ship were not physicians, did not have, and were not required to have, the skill or discernment of a surgeon. *Id.* The court held that while "[t]he law imposes on the officers of a ship a duty to exercise *reasonable care* to furnish aid to an injured or ill seaman, . . . the ship, however, will *not* be held responsible for an error of judgment on the part of the officers if their judgment is conscientiously exercised with reference to existing conditions." *Id.* (emphasis added).

Similarly, in *The Van Der Duyn*, 261 F. 887 (2d Cir. 1919), a doctor misdiagnosed a seaman's fractured arm and applied the wrong treatment. *Id.* at 888. The court held that a ship must give reasonable medical treatment under all circumstances and that "[t]he ship will not be held responsible for an error of judgment on the part of the officers, if their judgment is conscientiously exercised with reference to conditions existing at the time." *Id.* at 890 (emphasis added). Accordingly, the court reversed a decree allowing recovery on the ground that the ship's officers did not give the seaman proper treatment. *Id.*

199. *Potter Title & Trust Co.*, 184 F.2d at 435.

200. *Id.* at 435-37.

201. *Morris v. United States*, 3 F.2d 588, 590 (2d Cir. 1924).

202. *Id.* See also *The Eva B. Hall* 114 F. 755, 756 (C.D.N.Y. 1902) (imposing liability upon a shipowner). The *Hall* court noted that:

The liability of a vessel to her crew ordinarily does not include any compensation or allowance for the resulting effects of an injury received while in her service, but is limited to the expenses of the care, attendance, and cure of the seaman. Where, however, there has been misconduct or neglect by the officers in the treatment of the seaman, after he has been wounded in the service of the ship, an additional cause of action arises against the ship for consequential damages.

Id. See also *The Point Fermin*, 70 F.2d 602, 604 (5th Cir. 1934) (holding that the shipowner is under a duty to furnish medical aid to a seaman who suffers injury or becomes ill in the service of the ship).

203. *Morris*, 3 F.2d at 588.

204. *Id.* at 589.

205. *Id.*

206. *Id.*

libel action against the United States as the shipowner to recover for the master's failure to provide the seaman medical care.²⁰⁷ The court held that it was the duty of the master to obtain medical aid at the intermediate port since he had no means of affording medical attention on board.²⁰⁸ Further, the court held that the master's mistaken judgment did not relieve the ship from the responsibility it owed to the seaman.²⁰⁹

Similarly, in *The Governor*,²¹⁰ the court allowed recovery for the failure of a shipowner to furnish the seaman medical treatment.²¹¹ There, a seaman fell against a pipe, sustained severe lacerations near the rectum, and ruptured his urethra.²¹² An hour after the accident, the ship reached the Port of Victoria where the seaman remained for more than three hours without treatment other than cleansing his wound with warm water, peroxide, and gauze.²¹³ The seaman was finally taken to a hospital eleven hours after the accident when the vessel arrived in Seattle.²¹⁴ The court found the master liable to the seaman for failure to provide medical treatment at Victoria.²¹⁵ The court also affirmed the rule that a ship will not be held responsible for an error of judgment on the part of the officers if the judgment is conscientiously exercised under the conditions existing at the time.²¹⁶ However, the officers should not have relied upon their own unskilled judgment to the detriment of the seaman but should have ascertained the seaman's true condition.²¹⁷ The court noted that due care requires that the judgment of the officers should be exercised not only with such knowledge as they possess, but also with the knowledge they can readily acquire when dealing with injured seamen.²¹⁸

III. PROPOSAL: INTERNATIONAL MARITIME HEALTH CARE REGULATION AND COMPLIANCE THROUGH PRIVATE ACCREDITATION

This Comment is a loud call for immediate intervention by the international community for the often-times deplorable medical care delivered aboard ships.²¹⁹ The legal literature affirms

207. *Id.* at 590.

208. *Morris*, 3 F.2d at 590.

209. *Id.* at 591.

210. 230 F. 857 (N.D. Cal. 1915).

211. *Id.* at 859.

212. *Id.* at 857.

213. *Id.*

214. *Id.*

215. *The Governor*, 230 F. at 859.

216. *Id.* at 858.

217. *Id.*

218. *Id.* at 859.

219. "To ensure adequate patient care, medical facilities and physician staffing aboard ships should be regulated by a central governing agency, and legislation must be enacted to accomplish this." DiGiovanna, *supra* note 82, at

1479 (emphasis added).

Additionally, in 1996, the American Medical Association (AMA) and the Florida Medical Association (FMA) House of Delegates answered the call in the form of a Resolution. Florida Medical Association Resolution #429 [hereinafter FMA Resolution]. Due to the medical care atrocities aboard cruise ships, the FMA urged the AMA to engage in the adopting of a formal resolution and development of standards for the provision of general and emergency medical care, for passengers aboard cruise ships entering or leaving the United States' ports. Feuer, *supra* note 3, at 461.

The problem with the AMA and FMA resolutions is that they contain fatal flaws precluding either organization from making any impact whatsoever in the field of international maritime health care. FMA Resolution. First, the resolutions of the AMA only partially address the problem at hand, and even in doing so, address it in a piecemeal fashion. *Id.* That is, (a) both the AMA and FMA only address the need for standards and regulations in respect cruise lines, thereby ignoring other maritime vessels (e.g, cargo tankers, "fishing-factories," etc.), and (b) the subject matter with which these resolutions concern themselves is exclusively limited to cruise line passengers, ignoring the medical concerns and emergency medical care of seafarers and crew. *Id.* The resolutions and efforts on behalf of either the AMA or FMA have been ineffective because they do not address the humanitarian aspect of health care provisioning to all people of all nations aboard all ships. *Id.* This call cannot be limited to those ships that dock in the United States. Ignoring the medical needs and populations of other nations is an unjustified and myopic call.

The FMA Resolution, adopted by the American Medical Association, entitled, "Assurance of the Public's Health Aboard Ship," included the following:

Whereas, Many citizens and visitors who may be elderly and/or possess complex medical needs avail themselves of the opportunity to participate in cruises to international destinations from cruise ship ports in the United States; and

Whereas, There is an absence of regulations and/or credentialing of cruise ship physicians as well as emergency medical care that is substantially less than U.S. citizens expect as a normal community standard; and

Whereas There is virtually no assurance of enforcement of usual and customary public health practices on ships not of United States registry; therefore be it

RESOLVED, That the American Medical Association urge the development of standards for the provision of medical care, including emergency medical care, for U.S. citizens aboard cruise ships entering or leaving United States ports through federal legislation or international treaty, as appropriate; and be it further

RESOLVED, That the AMA provide information to the AMA membership through its publications in order to increase physician and patient awareness of the limited medical services and resources aboard cruise ships which would adversely impact the patient's health status.

Id.

The call is similarly made for seafarers where there is equal urgency for remedial action. *Abandonment, Personal Injury and Death of Seafarers Need*

this call as it evidences increasing personal injury lawsuits for injuries occurring aboard ship. The medical literature projects an astronomical increase in the rates of onboard injury and illness by the year 2002. This adversely affects passengers and crew.²²⁰ Both passengers and crew have a justified expectation that physicians and medical personnel aboard ship who deliver medical care are properly trained to do so and that necessary medical equipment is available.²²¹

The call can be answered by establishing a private international maritime healthcare regulatory compliance and accreditation organization (IMHRCAO). Such an organization would certify and provide accreditation for ship medical facilities and medical staff. This would assure the quality administration and delivery of medical care aboard all ships and to all people.

A. Precedent for Private Accreditation

Historically, private accreditation has precedent in both healthcare and education.²²² Accreditation is commonly defined as

Urgent Action, Says IMO/ILO Working Group, 4 INT'L MAR. ORG. NEWS 12, 12 (1999).

220. *Id.*

221. Letter in reply, from Robert E. Wheeler, American College of Emergency Physicians Section of Cruise Ship and Maritime Medicine, to the Editor, ANNALS OF EMERGENCY MED., *Cruise-Ship Medicine*, 26 ANNALS OF EMERGENCY MEDICINE 761, 762 (1995). Dr. Wheeler stated that:

[a]lthough no international maritime regulation requires a cruise line to provide medical personnel aboard its ships, both passengers and crewmembers have a justified expectation that the physicians and nurses providing medical services aboard cruise ships are qualified to do so. Because of these expectations, it is the responsibility of the cruise line to ensure not only a capable medical staff but also the equipment and supplies necessary for the staff to provide an acceptable level of care.

Id.

222. Barry R. Furrow, *Regulating the Managed Care Revolution: Private Accreditation and A New System Ethos*, 43 VILL. L. REV. 361 (1998). In fact, the process of accrediting health care institutions has been around since the creation of the Joint Commission of Accreditation of Health Care Organizations (JCAHO). *Id.* at 396. See also Timothy Stoltzfus Jost, *The Joint Commission on Accreditation of Hospitals: Private Regulation of Health Care and the Public Interest*, 24 B.C. L. REV. 835, 882 (1983) [hereinafter *The Joint Commission*] (noting that "JCAH accreditation also limits health care delivery to institutional settings by excluding competing non institutional alternatives"); Timothy Stoltzfus Jost, *Medicare and the Joint Commission on Accreditation of Health Care Organizations: A Healthy Relationship?*, 57 LAW & CONTEMP. PROBS. 15, 15 (1994) [hereinafter, *Medicare*] (noting that JCAHO accreditation program is "oldest and most substantial regulatory use of health care accreditation in the United States"); Eleanor D. Kinney, *Private Accreditation as a Substitute for Direct Government Regulation in Public Health Insurance Programs: When Is It Appropriate?* 57 LAW & CONTEMP. PROBS. 47, 52, (1994) (noting that the JCAHO, has been "predominant private

the “formal expression by a private body of an authoritative opinion concerning acceptability, under objective quality standards fairly applied.”²²³ Accreditation “is indeed more commonly *de facto* than *de jure*.”²²⁴

Healthcare accreditation typically delineates standards for establishing and measuring quality of medical care delivered.²²⁵ Accordingly, private accreditation programs are usually more capable than public accreditation programs in identifying the characteristics of health care institutions and the services they provide that may affect the quality of health care.²²⁶ Further, public accreditation of healthcare by governments is historically minimal.²²⁷

B. Purposes of Private Accreditation

The purpose of accrediting international maritime medical care is to improve the quality of medical care aboard ships and to form a process of continued medical quality improvement.²²⁸

accrediting body”). The National Committee of Quality Assurance (NCQA) history goes back to the Health Maintenance Organization Act of 1973. Furrow, *supra* note 222, at 399.

223. Clark C. Havighurst, *The Place of Private Accrediting Among the Instruments of Government*, 57 LAW & CONTEMP. PROBS. 3 (1984).

224. *Id.* (emphasis added).

225. *Medicare*, *supra* note 222, at 17. For instance, JCAHO accreditation manual revisions focus on streamlining standards. *Id.*

226. This approach to industry self-regulation is believed to be “consistent with modern regulatory reform” and is “widely regarded by researchers as having great potential to produce effective results from the sweeping mandates of modern legislation. Douglas C. Michael, *Federal Agency Use of Audited Self-Regulation as a Regulatory Technique*, 47 ADMIN. L. REV. 181, 185 (1995).

227. *Id.*

228. Many reasons are postulated about why there should be a delegation of a public governmental function to a private organization. Furrow, *supra* note 222, at 396. First, the accreditation process becomes a private expense of shipowners, rather than a governmental expense. *Id.* at 396-97. Second, a private organization can develop superior subject matter knowledge and expertise in the field of international maritime medical care, as opposed to what varied multiple national governments may singularly and non-cohesively assimilate. *Id.* at 397. Finally, self-regulation by the international maritime community may result in a greater degree of compliance, as self-regulation and self-enforcement will generate rules and standards that are tailored to international maritime industry. *Id.* See also, Michael, *supra* note 226, at 181.

Contrariwise, limits to private accreditation have also been described and include: (1) lack of independence; (2) survey and auditing processes are predictable and generally pre-announced; (3) private organizations generally have a limited ability to investigate complaints; (4) “the private accreditation process generally lacks public accountability and access by the public to the standard development process” as private accrediting bodies have no obligation to publish proposed accreditation standards, and even may copyright and sell such standards for profit; and (5) survey reports may be

Because private accreditation is a “microeconomic response to information deficits (asymmetric information) that inevitably plague consumers,”²²⁹ private accreditation is in itself a process of education.²³⁰ The process of the IMHRCAO must consist of a continuing attempt to pursue and attain quality medical care aboard ships.

Accordingly, the IMHRCAO must work *with*, and not in opposition to, shipowners, ships’ attorneys and the ships’ insurance carriers, to implement a quality medical program which will not only deliver good medical care, but will also serve as a risk management tool.²³¹ As a risk management tool, IMHRCAO should serve to decrease the ship’s litigation exposure, as the shipowner will be able to show compliance with the requirements of an international standard of accreditation for maritime health care facilities and maritime healthcare personnel.

This proposed IMHRCAO involves maintaining a process of certification and accreditation that is instructive, informative, cooperative, and educational, but not punitive. That is, there must be a shift away from emphasis in identifying poor medical care providers aboard ship toward the promotion of improved health status for all beneficiaries onboard. In that regard, the central purposes of the IMHRCAO will be to certify and accredit healthcare facilities and medical personnel aboard ship. The IMHRCAO will serve a crucial quality assurance function as it would in any other healthcare system. Thus, a key objective and benefit of a private accreditation program will be to reassure consumers of the quality of medical care they receive onboard ship and to provide certification and accreditation evidencing that a

kept entirely secret and only summaries may be released; public access to meaningful information about the facilities which were surveyed may be virtually nonexistent. Furrow, *supra* note 222, at 397-99. Additionally, a private organization may not actually require a health care facility to meet all or any of its requirements or standards, but only require that such health care facility “substantially comply” with their standards as a whole. *The Joint Commission*, *supra* note 222, at 842.

229. The results of the ship surveys may have a potential effect upon the market cruise economy. Furrow, *supra* note 222, at 399. Readily accessible information for medical care quality delivered aboard ship, and the type of medical facilities available may influence individual travelers in their selection of cruise ships for their voyage at sea. *Id.* at 400.

230. “The central purpose [of accreditation] is usually to reassure consumers and other users concerning the quality of the industry’s products or services.” Havighurst, *supra* note 223, at 2. It then evaluates organizations to determine if they have met these standards. *Id.*

231. A contrary view to the proposed IMHRCAO may be raised by shipowners that shipowner liability is provided for under existing international regulations. However, from a risk-cost-benefit perspective, this proposal offers shipowners a cost effective way to manage their potential risk at a cost far below that required for the accreditation of any outpatient health care facility in the United States.

ship has met, and continues to meet, specified standards.²³²

Additional purposes of the proposed international IMHRCAO are to: (1) define international maritime healthcare standards in order to monitor and measure quality medical care;²³³ (2) define methods of monitoring compliance to these international maritime healthcare standards;²³⁴ (3) control and preclude more aggressive governmental regulation;²³⁵ (4) provide for international maritime industry self-regulation;²³⁶ (5) provide a forum to explain behavior and attain quality assurance;²³⁷ and (6) provide a methodology to express private opinions, rather than act as a surrogate for public regulation and government.²³⁸

To accomplish these goals, the IMHRCAO should be structured to operate under not-for-profit rules and regulations. Further, it should operate exclusively for charitable, educational, and scientific purposes, in furtherance of the health and medical care administered to all aboard maritime vessels. The IMHRCAO will most likely serve as a quasi-autonomous private accrediting international organization for the voluntary and non-exclusionary certification and regulation of international maritime healthcare aboard ship.²³⁹

C. Areas of Accreditation and Certification

This Comment proposes three areas where an IMHRCAO should evaluate ships in order to grant private accreditation and certification. These areas include: (1) Ship Governance; (2) Ship's Medical Facility and Ship Medical Personnel; and (3) Advanced Life Support (cardiac and trauma).

1. Ship Governance

In order for a ship to achieve accreditation and certification, the ship should be able to demonstrate competency in such fields as: patient's rights; governance; administration; quality care; quality management and improvement; clinical records; professional improvement; and the facility and environment. Key issues in this section concern the rights of all people aboard ship to have access to their medical files, to be treated with dignity, respect, consideration, and to have recognized privacy rights.

232. "In health care, as in education and other social activities, private accrediting bodies replace or supplant government regulation of the activity." Furrow, *supra* note 222, at 396.

233. Havighurst, *supra* note 223, at 2; Furrow, *supra* note 222, at 396.

234. Havighurst, *supra* note 223, at 2-3.

235. *Id.* at 3.

236. *Id.*

237. *Id.* at 5.

238. *Id.* at 2-3.

239. Havighurst, *supra* note 223, at 1.

There should exist meaningful guidance and relationship between the ship's management and the ship's infirmary. Further, there should be some system in place for the monitoring of quality of care, quality improvement, peer review, professional improvement, equipment checks, and medication surveys. Additionally, MOCK Codes should be required on a regular basis. MOCK codes are training sessions for the emergency resuscitation of patients.²⁴⁰ These trial exercises are proven to increase life survival after a catastrophic event.²⁴¹

2. Ship's Medical Facility and Ship's Medical Personnel

In order for a ship to achieve accreditation and certification, ship's management should be required to demonstrate that the following are present and maintained on a ship at all times: emergency and intensive care treatment areas; emergency airway equipment; multiple emergency cardiac monitors and defibrillators; emergency breathing assistance devices; adequate oxygen supplies; and emergency surgical equipment to perform various life-saving procedures that might be required. X-ray, electrocardiographic machines and ventilators should be mandatory as well as laboratory equipment to diagnose pregnancy, blood chemical abnormalities, and heart attack.

Further, the accreditation and certification process should require that the ship's management and medical personnel exhibit specific competency. The medical personnel should have experience in treating emergency medical conditions, performing life-saving measures such as chest and heart decompression, and other emergency surgical procedures such as establishing an emergency airway. Additionally, the medical staff should be required to prove *competency* in all aspects of advanced cardiac and trauma life support. Furthermore, there should be specific training requirements and certification for professional medical personnel and for a ship's non-medical personnel. For either group, competency should be required in cardiac life support, trauma management, and in the use of the automatic electrical cardiac defibrillator.

3. Ship's Emergency Medications of Advanced Life Support

The IMHRCOA should require that all advanced cardiac life

240. MOCK Codes are also known as Megacodes, and are part of the evaluative process in obtaining the certificate in Advanced Cardiac Life Supported given by the American Heart Association. *See generally* CUMMINS, *supra* note 11.

241. Because of their effectiveness in the training of individuals in advanced cardiac life support, MOCK Codes are part of the evaluative process in obtaining the certificate in Advanced Cardiac Life Supported given by the American Heart Association. *See generally* CUMMINS, *supra* note 11.

support and trauma life support medications, supplies, and equipment be maintained on board in order to achieve accreditation and certification. Further, these supplies should be maintained in quantities sufficient to support and maintain three patients with complex cardiac arrest.

CONCLUSION: A CALL FOR INTERNATIONAL REGULATION OF
MARITIME HEALTHCARE ABOARD SHIPS

Increased prominence of the cruise trade and cargo transport has led to a dramatic increase of injuries to passengers and seamen aboard ship.²⁴² The number of dissatisfied passengers and seamen has also increased.²⁴³ Such complaints to the Port Authorities in the Port of Miami, Florida, were so frequent and descriptive that in 1996 the Florida Medical Association (FMA), in conjunction with support of the American College of Emergency Physicians (ACEP), sent a Resolution to the American Medical Association (AMA).²⁴⁴ The Resolution addressed the problems of the “absence of regulations and/or accrediting/licensing of cruise ship physicians as well as emergency medical care that is substantially inferior than U.S. citizens’ expectation as a normal community standard.”²⁴⁵

This Comment proposes the establishment of an IMHRCOA that will monitor medical care aboard ships by certifying and accrediting maritime healthcare facilities and ship medical personnel. The basis of the standards may be devised and implemented in the same fashion as any other humanitarian effort that benefits citizens of all nations.²⁴⁶ This includes the recognition by nations that obligatory axiomatic norms, reciprocal tolerances, and responsibilities are essential for all people to thrive and prosper. Further, world order is maintained through a system of international relationships, international cooperation, and social interdependence.²⁴⁷

242. NORRIS, *supra* note 7, at Preface. This is also generally discussed in the Introduction, Part I, and Part II, *supra*.

243. *Cruise-Ship Health Care*, *supra* note 3, at 6-8.

244. Feuer, *supra* note 3, at 461.

245. FMA Resolution, *supra* note 219.

246. JENNIFER LEANING ET AL., HUMANITARIAN CRISES, THE MEDICAL AND PUBLIC HEALTH RESPONSE 15 (1999). “The immediate priorities of assistance programs in the setting of complex humanitarian emergencies are the protection of the affected populations and the reduction of mortality. To be effective, relief programs must be based on assessments conducted early in the emergency that identify the most critical public health threats to the population and the immediate priorities for action.” *Id.*

247. LOUIS HENKIN ET AL., INTERNATIONAL LAW, CASES AND MATERIALS 19 (3rd ed. 1993). “An emergent global ethos suggests the reality of a shared destiny for the human species and a fundamental unity across space and time, built around the bioethical impulse of all human groups to survive and

Specifically, this Comment proposes the establishment and implementation of recognized and accepted international standards of: (1) medical care for passengers and seamen aboard ship, with particular emphasis upon the management of emergency medical conditions; (2) the establishment of basic and advanced medical supplies and medical equipment, which should be at all times ready and available aboard ship infirmaries; and (3) formal medical training and certification for ship's doctors, ship's captains, ship's masters, and other agents of the ship owner.

Indeed it *is* axiomatic that the medical training of crew responsible for the delivery of medical care on board ship is a decisive factor in the successful treatment of sick or injured crewmembers and passengers. Incorrect diagnoses and/or careless handling of an accident, injury, or illness leads to severe physical disablement and even death. By initiating and completing the above recommendations, both passengers and seamen, who represent the citizenship of all nations, will be better cared for and will have their medical needs managed in a manner which would be respectable to any nation. The international family of nations, through international cooperation and collaboration, will thereby realize a benefit to the citizens of all nations—passengers, seamen, and even those electing to take a drier path.

flourish. Such an ethos has implications for the assessment of problems, the provision of solutions, and the overall orientation of action and actors." *Id.* (quoting PROFESSOR FALK, *EXPLORATIONS AT THE EDGE OF TIME: THE PROSPECTS FOR WORLD ORDER* 198-213 (1992)).

