

Meeting the Challenge – Cruise Ship Medicine

a report by

Sally van Boheemen

Registered Nurse and Manager, Fleet Medical Operations, Holland America Line and Windstar Cruises

The cruise market has not exhibited any signs of slowing down and, in fact, the number of passengers interested in vacations at sea continues to grow. In 2002, over nine million travellers chose a cruise for their vacation, representing a 9.8% increase over the previous year. The industry grows at a rate of 8.4% each year. There are currently 26 new ships scheduled for release in the next four years.

Given the diverse population and locations around the world, the medical operations of cruise lines have had to grow to meet new challenges with the increased popularity of cruise travel.

Cruise ship medicine has changed significantly in the past 25 years. “People have this view that cruise ship medicine consists of doctors who could not get a job anywhere else,” explains Steve Williams, Director of Medical Operations for Carnival Cruise Lines. “That couldn’t be farther from the truth,” agrees Dr Robert Wheeler, cruise ship physician and Chairman of the Section on Cruise Ship and Maritime Medicine (SOCSMM).

“For almost 20 years, I have had the opportunity to serve as a physician aboard various cruise ships,” Dr Wheeler explains. “During this time, I have been witness to significant enhancements in medical services, such as diagnostics, radiology (now becoming more digital), standardised formularies and increasingly sophisticated medications such as fibrinolytic therapy for acute myocardial infarctions [heart attacks].”

Self-regulation

The medical directors and managers of various cruise line medical operations, together with the International Council of Cruise Lines (ICCL), have recognised the need for standardisation and have struggled to develop reasonable guidelines. ICCL is a non-profit-making industry trade association consisting of the 16 largest passenger cruise lines that serve major marine ports. ICCL participates in the regulatory and policy development process to promote a safe, secure and healthy cruise ship environment.

Just as with land-based medical centre care providers, the cruise line industry understood the need for a consistent quality of emergency care and sought to bring about agreement on a set of guidelines. SOCSMM was founded in the fall of 1990 by a group of emergency and maritime medicine physicians. The American College of Emergency Physicians (ACEP) formally approved the section in December of that same year. For the next five years, members of SOCSMM met to develop and agree on an established set of guidelines that encompassed all aspects of medicine on-board cruise ships. The ACEP approved those guidelines in December 1995.

With the adoption of these guidelines, ICCL members agreed to comply with self-imposed industry standards. These standards address all aspects of medical care on-board cruise ships and are divided into five categories:

- medical centre design/space;
- medical staff qualification;
- emergency equipment;
- medications; and
- procedures for health and safety.

With these guidelines in place, the cruise lines are ready to meet the challenges that a diverse community brings. The most frequently misleading concept is that cruise line medicine consists of treating sunburns and hangovers. While those ailments certainly do occur, they are not what keeps ships’ medical centres busy.

In 2003, Holland America Line’s medical staff treated over 35,000 passengers and 46,000 crew members. The majority of those treated were successfully handled on-board the vessel.

However, there are instances where further diagnostic care is needed, such as a computed tomography scan or ultrasound, to rule out a life-threatening illness or injury. Medical disembarkations also occur in order to provide more critical in-patient care or surgery. With the exception of only a few ships, surgery is not possible on-board.



Sally van Boheemen has been Registered Nurse and Manager of Fleet Medical Operations for Holland America Line and Windstar Cruises for the past 15 years. Prior to this, she was a Registered Certified Emergency Nurse (CEN), serving as Nurse Manager in various emergency and trauma centres in Washington State since 1978. Ms van Boheemen is an active member of the Emergency Nurses Association and of the department of Cruise Ship & Maritime Medicine at the American College of Emergency Physicians. She has taught many Emergency Medical Treatment/ Paramedic and Trauma nursing courses in her career, prior to sailing on-board cruise ships as a ship nurse.

Emergency Evacuation

With one cruise line disembarking 600 patients in a year, one might ask “how?” and “who pays?” This is a challenge that all lines face. Never wanting to compromise healthcare, the issue becomes how to effectively arrange a disembarkation that is appropriate for the medical condition. Unlike a land-based emergency room, where critical patients are taken off to surgery or admitted to a full intensive care unit, ships’ medical staff are faced with obstacles that come with being miles out to sea.

There are only a few options available. If the ship is close enough to a coastline, the ship’s master can contact a local coastguard emergency response centre to see if a helicopter evacuation from the ship is possible. The ultimate decision on sending that helicopter lies with the coastguard and the flight surgeons. Many factors are considered, such as weather, sea conditions, location, severity of the illness or injury and the availability of a crew to respond. In 2000, Holland America Line called on naval or coastguard helicopters 22 times to evacuate patients from its ships.

Another option used by all cruise lines is diversion. This is when the ship’s captain actually changes course, in order to arrive at a local port of call that can effectively deal with the medical emergency or where an air ambulance can land to retrieve the patient. This ultimately affects the rest of the passengers and crew on board, in that the remaining ports of call may be affected by this unexpected stop. Occasionally, the best decision may be to return to the port the ship has just left. Again, the remainder of the cruise may be affected, so these decisions are difficult and made with the patient’s safety and wellbeing in mind.

Air Ambulance

Air ambulance evacuations are costly and not often covered by passengers’ private US-based medical insurance. The costs can range from US\$5,000 to US\$80,000 depending on location. For this reason, travel agents and cruise lines strongly recommend purchasing travel insurance. There are many to choose from and, as with any insurance, passengers are encouraged to read the fine print and consider the options wisely. Most travel insurance policies cover medical expenses and/or air evacuation.

Role of Centres for Disease Control and Health Canada

One area of consistent regulation within cruise line medical operations comes from US Public Health, Centers for Disease Control (CDC) and Health Canada. These agencies are responsible for various aspects of public health and sanitation on all cruise ships

entering the US and/or Canada. They require strict reporting of all gastrointestinal illness, as well as other defined communicable diseases on board. Reports must be made 24 hours prior to arrival in the ship’s first US or Canadian port of call on their itinerary.

These two government agencies take an active role in the surveillance of communicable diseases, working with the medical staff on-board to accurately diagnose, monitor and define any potential outbreak.

With the recent outbreaks of Norovirus (the Norwalk-like viruses (NLVs)), CDC and Health Canada have been instrumental in confirming the causative organism. The administrations of cruise lines have been frustrated with the relative ease of transmission as well as the prevalence of this bothersome virus. NLVs are the most common reason for doctor visits in the US and, according to CDC, come second only to the common cold for their frequency. Last year alone, over 22 million cases were noted in the US.

However, most cases are not recorded or documented in land-based facilities. Only cruise ships are regulated to the point of advising the US CDC and/or Health Canada of such cases. This is clearly the reason for the notoriety that the cruise lines have received over the outbreaks on-board vessels. All cruise lines have developed extensive protocols for handling any potential outbreak, including altering significantly the way the ships operate on a day-to-day basis.

At the first sign of any NLV cases, ships switch modes and operate under ‘Code Yellow’ or ‘Code Red’. Day-to-day operations undergo changes such as removing all self-serve items from tables (such as salt and pepper) and closing buffet lines and the jacuzzi. Casino chips must be cleaned and all handrails wiped down continually. Every surface that can be touched by hands must be cleaned every few hours.

Out of necessity, the cruise lines have risen to meet this challenge and, indeed, as Dave Forney, the Chief of Vessel Sanitation for CDC, notes, “much of what we have learned about Norovirus outbreaks has come as a result of the cruise lines’ efforts.”

Clearly, travel within the cruise industry has grown over the years. Cruise ship medicine has evolved and adapted to meet this growth and continues to provide excellent care at sea. ■

A longer version of this article can be found on the BBL website supporting this business briefing (www.bbriefings.com/cdps/cditem.cfm?NID=858).