

If You Were The Ship's Captain, What Would YOU Have Done?

By ALBERT J. MARCELLA Jr., Ph.D., CISA, CISM

The fictional Fantome Marques, registered out of the Cayman Islands, a 249,000-ton 6,296-passenger floating city, the flagship of Seahorse Lines, departs Miami for an eight-day Caribbean cruise.

On day two of the cruise, while sailing between ports, passengers are reporting to the ship's infirmary (sickbay) with complaints of nausea, vomiting, bloody diarrhea, and abdominal pain. Medical personnel treat these initial cases, recommending increased fluids to prevent dehydration, instructing passengers to drink plenty of liquids, especially water and juices, as passengers are exhibiting typical symptoms of a norovirus infection, unfortunate but common on cruise ships.

Ship security brings one passenger to sickbay complaining of excessive vomiting, and when vitals are taken the passenger's blood pressure was 122/80 mmHg with irregular pulse of 46/minutes, and looking toxic due to excessive vomiting. These vital signs are not indicative of a typical norovirus infection.

Medical personnel are being paged to separate deck levels as more passengers and crew

are reporting a growing number of similar cases, passengers weakened by nausea, lightheadedness, vomiting, fatigue, and headaches. An emergency call is made to the ship's medical office as three passengers have just collapsed in the ship's conservatory tavern.

Reports coming in now overwhelm the ship's medical sickbay staff and indicate that passengers have collapsed throughout the ship, exhibiting signs of severe nausea and vomiting, abdominal pain, and dizziness. Unconfirmed reports place the number at more than 2,500 passengers, if not more, as many afflicted passengers may be unable to leave their cabins.

A ship's medical officer treating a patient on deck 10 collapses as do two children in the hall of deck 10. The children are unresponsive to emergency CPR.

Ship security personnel communicate the evolving medical crisis to the captain, who orders the ship to alter course,

increase speed, and head for the port of Nassau, Bahamas. Passengers begin to panic as more signs of a spreading outbreak are visible throughout the ship, as the number of ill passengers appears to be increasing unchecked.

The ship's medical and safety officers inform the captain the rapid spread of illnesses among passengers and crew cannot be attributed to a common norovirus infection, and it must be assumed until disproved, that a pathogen of yet unknown type and origin has been released onboard the ship.

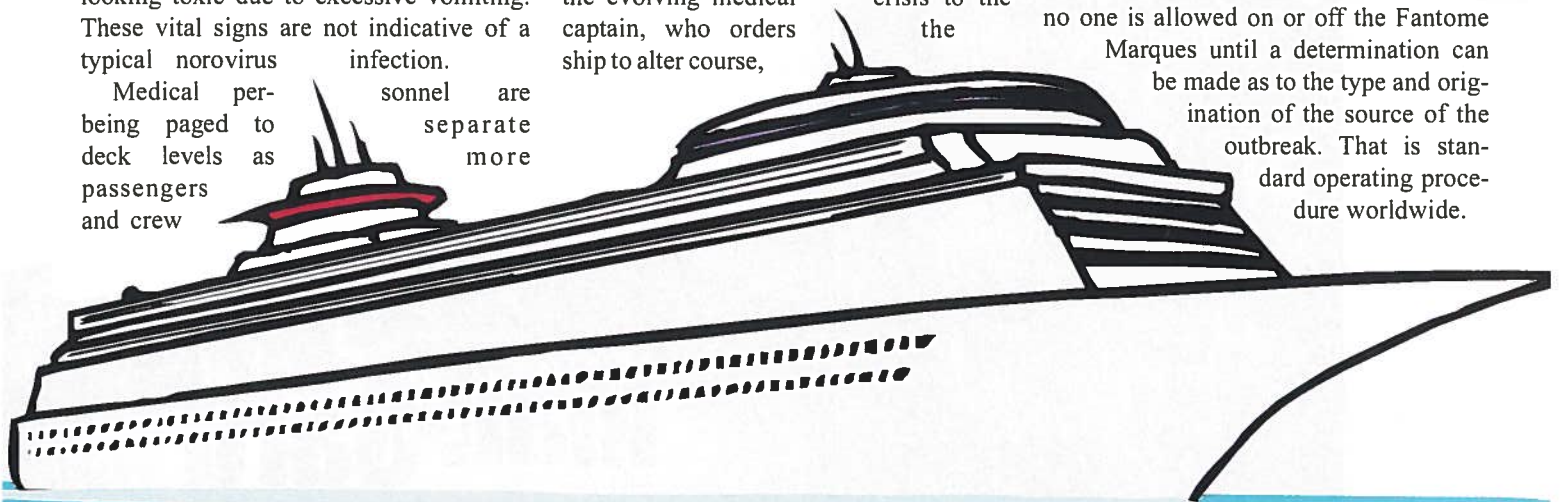
The captain contacts the Nassau Port Authority. The port controller relays the current situation onboard and requests emergency medical assistance and a pilot boat to aid in docking in Nassau.

The port controller informs the captain that because he is requesting an early arrival, all the berthing spots are already taken by other ships; he is not authorized to enter the harbor or berth his ship.

The port controller also informs the captain that according to Part III, Duties and Obligations of Ships on Arrival to the Bahamas, that no ship arriving at any port of the Bahamas from any place outside The Bahamas, shall be brought alongside any wharf or quay until it has been admitted to pratique (*license or permission to use a port, given to a ship after quarantine or on showing a clean bill of health*).

Given the unspecified nature of the spreading illness aboard his ship, the port controller has issued a quarantine order: no one is allowed on or off the Fantome

Marques until a determination can be made as to the type and origin of the outbreak. That is standard operating procedure worldwide.



Pratique will only be granted after it has been determined that the Fantome Marques is free from any quarantinable disease. The vessel and people onboard remain subject to quarantine until such time as pratique is granted. The captain contacts several other potential ports and receives the same response regarding the pratique protocol.

Because the cruise ship does not have a full trauma unit or an intensive care unit, the ship's medical personnel are overwhelmed with increasing cases of passenger illness spreading quicker than ship's personnel can effectively handle.

Unable to identify the basis for the spreading illness or the nature of the illness, as symptoms no longer reflect those of a more common norovirus, the captain requests assistance from the National Emergency Medical Service (NEMS), which provides all emergency services in the Bahamas. The NEMS does not have a specialized hazardous materials (HAZMAT) team. The nearest team will have to be dispatched from Florida.

The number of people infected is now unknown and impossible to determine with any degree of accuracy. The ability of the ship's personnel who remain capable, to quarantine those showing signs of infection has collapsed, as has the crew's ability to maintain a calm order on board. Chaos among the frightened passengers continues to escalate as more passengers become ill and many now lay unresponsive throughout the ship. Passengers besiege the captain and any personnel they encounter, demanding answers and wanting to know how the cruise line staff will protect them.

It is presumed that passenger illnesses and incident-related deaths will continue to increase, albeit exponentially, until the source of the outbreak is identified and countermeasures to contain the outbreak have been implemented and are successful.

The outbreak source is unknown. The timeline for achieving containment is unknown. The total mortality rate is unknown.

Incident Management Response

Questions to be asked and answered in a review of the incident management response to the scenario presented are listed below.

What is the capability of the ship's crew to:

- rapidly identify the root cause of the illness currently affecting passengers and crew?
- immediately contact the appropriate authorities with the technology to determine the cause of the illnesses and transport specifically trained responders and medical professionals and equipment to the ship while at sea?
- bring aboard EMS, HAZMAT, investigators, and security personnel without exposing these responders to the yet unidentified and unknown pathogen? Once on board, will these personnel be allowed to leave? Under what conditions, safety precautions, etc.?
- respond quickly and efficiently to a mass casualty event?



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- establish triage and containment centers on board the ship?
- identify the introduction source of the suspected pathogen on board the vessel?
- identify the route of transmission? Air-borne? Water-borne? Soil-borne? Direct contact, etc.?
- establish how virulent (aggressive) is the pathogen?
- determine how communicable is the pathogen? How easily is it transmitted?
- ascertain the amount of an infectious dose?
- mitigate the further distribution of the yet-to-be-identified pathogen?
- quickly identify the source, type, and method of distribution?
- quarantine large groups of infected or potentially infected passengers and crew?
- identify the number and location of infected or potentially infected passengers aboard the Fantome Marques (6,296 passengers and 2,391 crew aboard a 2,750-room, 16-deck, floating city)?
- safely separate healthy passengers and crew from those exhibiting signs of illness?
- establish "safe zones" and keep those areas free from contamination?
- prevent further contamination and infection spread throughout the ship?
- establish order once widespread word of the infection, illness, and possible deaths reaches all passengers and crew and chaos erupts into large scale panic?
- quickly establish HAZMAT, triage, and decontamination operations on board the vessel?
- provide food, water, and proactive and preventative medical care to all the ship's passengers and crew not exhibiting signs of infection (without an indication of the root of the infection, providing proactive medical care may be moot)?
- provide food, water, and medical care to all ship's passengers and crew showing signs of illness or infection?
- prevent or mitigate the distribution of video, audio, and text messages from the passengers to family, news media outlets, social media sites, etc., providing first-person reporting of the unfolding events aboard ship?
- prevent or mitigate the distribution of misinformation, by these same passengers and/or crew members?
- prevent or mitigate the disclosure of events aboard the ship to persons or organizations responsible for the mass illness incident, providing potentially unsuspecting confirmation of the mission's success? What information may be of tactical value to persons responsible for the infectious outbreak?
- if the captain and ship are denied port entry, how long will the ship's crew be able to maintain security and quality of life, if stranded for days, out at sea?
- given the yet unknown cause or source of the illness affecting passengers and crew

(in the above scenario), does maritime law give a sovereign nation the justification to:

- a. Restrict how close to its shoreline a potentially infected ship may pass?
- b. Who may disembark?
- c. Under what conditions?
- d. Under what circumstances?
- e. Authorize the use of force to ensure compliance?

Summary

Disaster events are not limited to geography, element, or target. How would this scenario play out on land? Would it be different in the public or private sector? Incident management and disaster preparedness professionals must remain mindful of any potential source that may have the capability of evolving into a situation that places individuals and organizations at risk.

It is not always the most obvious risks, exposures, or threats that can manifest into situational disasters which test the resolve of an organization's ability to respond in an efficient, timely, and proactive manner.

"Microbial threats will grow in the coming years in their ability to plague us, kill people, destroy regional economies, and threaten humanity in ways more severe than the worst imaginable volcanoes, hurricanes, or earthquakes."

– Nathan Wolfe,
The Viral Storm:

The Dawn of a New Pandemic Age

Post Script

Quick ... pick the terrorist's weapon?



What security guard, TSA Agent, flight attendant, or cruise staff would question the innocence of a bouquet of sweet smelling, beautiful flowers? What metal detector would sound an alarm when scanning a spray of fragrant flowers? Who would be able to detect the addition of a small amount of tainted liquid to a buffet juice dispenser? Notice an extra garnish or topping to items laid out so deliciously on a salad bar?

Only a small amount of oleander [answer C] intake has shown adverse effects on the human body featuring lethal or near-lethal effects. The glycoside oleandrin, when ingested, causes serious cardiac problems leading to death. These compounds are present in all parts of the plant and particularly the juice. Oleander bark is said to contain rosagenin, which is known for its extreme toxicity (equal to a rat-killing poison).

When ingested, oleander reacts by causing nausea and vom-

iting, excess salivation, abdominal pain, diarrhea, and irregular heart rate. In severe reaction one can get pale in seconds due to poor or irregular blood circulation and in extreme cases results in nervous system failure leading to coma and eventually death.

Twelve leaves soaked in a cup of water overnight is enough to kill an adult; smoke from the oleander is extremely toxic.

Oleander is extremely toxic and is considered one of the most poisonous plants in the world!



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