

# the unexpected



# unexpected

Today, with more yachts venturing into remote areas, an onboard medical emergency is a possibility to be taken seriously. **Kelly Sanford** details the steps to take to ensure that your yacht and your crew are properly equipped.

There is no denying that in this age of technology, advances in yachts and their systems are occurring at an exponential rate. Equipment, technology and capabilities that are widely available today are markedly different from those available ten years ago. With these advances has come a geographic coup d'état. In the last decade, the number of boats built or upgraded with the ability to handle ambitious voyages has skyrocketed. More vessels than ever are capable of making blue water crossings on their own bottom, and more pleasure yachts are venturing to some of the world's most remote destinations. Impressive advancements have enabled the yachting community to make these enterprising voyages and to do so with luxurious accommodations and modern conveniences. However, there is clearly a direct relationship between one's ability to get away from it all and the degree to which one is at the mercy of his environment. It is a perplexity which merits a candid conversation about medical emergencies.

With the sheer number of decisions associated with outfitting and maintaining your yacht, it is easy to overlook a few details. Emergency medical systems in almost every modern civilization have made many complacent with respect to emergencies. Medical emergencies are not something many of us are forced to think about on a regular basis. The typical plan of action when the average person contemplates a medical emergency is dialing 911. Likewise, there are many yachtsmen whose plan of action at sea is to issue a mayday. However, once a yacht leaves port or reaches a remote destination without modern medical facilities, you and your crew may find yourselves hours, sometimes days, from viable medical help. It is therefore extremely dangerous (and quite frankly, foolish) for yachtsmen to rely on a medical emergency plan which is strictly dependent upon others. Commander Steven Stilleke with the US Coast Guard offers these words of caution, "Most coastal countries are signatories of the International Convention on Maritime Search and Rescue and the International Convention for Safety of Life at Sea (SOLAS)... [However,] many small nations have only volunteer SAR organizations and use private pleasure boats to assist people as they can... Response to a medical emergency at sea will not be the same as calling 911, and depending on the location of the distress, a response could take many hours."

When one is comfortable and relaxed on board his yacht, perhaps with the benefit of a very capable and attentive crew, it is easy to forget that things can go drastically wrong. It is time to make sure you and your crew are ready.



COURTESY OF MEDLINK

### GET THE GEAR

The most important steps you can take to prepare for a medical emergency will happen long before the incident occurs. A well-prepared yacht will have reliable communications, a comprehensive first aid kit, an AED (Automated External Defibrillator), emergency oxygen, a supply of emergency pharmaceuticals, access to a 24/7 medical advisory service and a well rehearsed emergency medical plan.

An appropriate first-aid kit for a yacht will closely resemble that carried by a Paramedic/EMT. There are companies that specialize in assembling these kits, which will contain specialized items that may require additional training.

In addition to standard first aid supplies, these kits will contain items such as a suture kit, IV fluids, tourniquets, pressure cuff, stethoscope, epinephrine and a pocket mask rescue breather.

The same companies that offer these kits will also supply your AED, emergency oxygen, stretcher and splinting supplies, along with the supplemental training for items which may be totally unfamiliar to those with only basic first aid training. Furthermore, these companies can procure prescription pharmaceuticals for treating common ailments as well as allergic reactions, stings and infections for those times when a pharmacy is inaccessible. However, there will be strict guidelines for dispensing these pharmaceuticals whereby the captain is required to

keep them under his control (if not under lock and key) and only use them when directed to do so by a physician, which is the next component of a well-honed emergency preparedness plan.



### HAVE ACCESS TO MEDICAL SUPPORT

One of the most important advancements of the last decade has been the reliability of satellite telecommunications. Ten years ago, very few yachts had satellite phones; those who did paid handsomely for the convenience and had to tolerate slow transmissions and dodgy coverage. Today, a yacht is woefully behind the times if it does not have comprehensive satellite communications including global wireless Internet access. These telecommunications advancements have exponentially increased the accessibility of tele-medical support, a service which no yacht should be without. Emergency medical support services provide unconditional access to a doctor 24/7 by SAT phone, telex or email, even if the situation is not an emergency.

Assuming you have global Internet access, a digital camera is another valuable tool for tele-medical support. Those assessing the injured or ill can take photographs of conditions which may be hard to describe, giving the doctor valuable information for assisting in treatment.

### GET IT RIGHT

Though you may be able to piecemeal comprehensive equipment and supplies from various sources – perhaps doing so for less money than using a service – there are clear advantages to using professional services. Having professionals compose your emergency arsenal gives you the valuable benefit of orchestrated support. Most of these companies can help monitor your inventory and replace used or expired supplies. Furthermore, kits are frequently assembled in conjunction with the respective medical support services, which will then know exactly what you have on board in the event they need to direct you through an emergency procedure (like the Apollo 13 mission).

### GET THE TRAINING

Ray Jarris, M.D., vice president and medical director for HealthForce Partners, warns that travel does not have to



SHAW MCCUTCHEON

include remote locations before first aid and medical training becomes necessary. “An [individual] rapidly losing blood from a bleeding ulcer may present as much of a challenge in the Puget sound as it might in the Aleutian Islands...Weather, sea conditions [and] proximity to land...are some of the many considerations that come into play...[during a] critical medical event at sea.” Dr. Jarris suggests a minimum of basic first aid and CPR, but quickly adds that advanced first aid is better.

Having comprehensive gear on board from a reputable service does not mean that your crew has been trained to use it. Currently, training is not required to occur in conjunction with acquiring medical equipment. With a busy schedule, your crew may still have medical training on their to-do list. You may be thinking, “My crew are all STCW [Standards of Training, Certification and Watchkeeping] compliant, so they have clearly had medical training.” This thought is both true and false. STCW does require a Basic Safety Training (BST) certification, however BST covers

only basic first aid and CPR – the kind intended for those who have access to EMS. There are additional USCG certifications available from companies like Maritime Professional Training and Marine Medical International. These upper level certifications are not required for all crew, but are certainly advisable for as many crew who are willing and able to attain them.

After STCW/BST there is a Medical First Aid Provider certification, a three-day course which expands upon basic first aid and introduces fundamental principals of assessment for the purpose of stabilizing critical injuries and illnesses. The next certification is Medical Person in Charge, a seven-day course that prepares individuals to treat the injured or ill. This course teaches suturing; IV therapy; infectious diseases; poisoning/overdoses; OB/GYN emergencies and infant care; cardiovascular and respiratory emergencies, among other equally important and life-saving skills. A complete course description is available online at [www.mptusa.com](http://www.mptusa.com).

### COVER ALL THE BASES

Consider every possible medical scenario with respect to your geographic, logistical and recreational agenda. If you have children on board (even if it's only on charter) be prepared with pediatric counterparts for all components of your med kit and pharmaceuticals. Dr. Jon Winner, an experienced yachtsman and pediatrician, cautions that “common ailments can become life threatening with children. Excessive sun exposure, vomiting and diarrhea can critically dehydrate young children. Marine or insect stings may require epinephrine. And drowning is a leading cause of death in children under 5.”

Yachts with dive gear should have at least one crew member with a current rescue diver certification. Portable emergency oxygen is a necessity for dive emergencies as is knowing the location of the nearest recompression chamber. Try to anticipate any potential emergency and be appropriately prepared.



DANA JINKINS



### HAVE A PLAN

Simply acquiring top-notch gear is not enough to save life and limb. Many boats already carry comprehensive med kits. But with alarming frequency, these kits are stowed in a bilge or void where they are relatively inaccessible and often in a compromised condition with expired supplies which could potentially prove to be fatal. Everyone on board (including the owner and his family) should be familiar with the emergency plan, knowing what everything does and where everything is. Do not wait for a dire emergency before you first consider what you have and how it works.

Have a direct conversation with your captain regarding the vessel's overall preparedness for a medical emergency. A savvy yachtsman will require his captain to have regular emergency drills. Even if the vessel has the benefit of an EMT or Medical Person in Charge, everyone aboard should have an opportunity to role-play for every component of your on board emergency support system, as key

members of your crew may be off the boat at the time of an incident or may even be the recipient of the medical effort.

Simply adding this drill to the captain's already lengthy list of responsibilities may result in the drill remaining on the infamous to-do list. Make a point of setting aside time in the boat's schedule for these drills. Not drilling for a medical emergency is an invitation for disaster. Insisting on proper preparations may one day save your own life.

### THE THIN LINE BETWEEN RESPONSIBILITY AND LIABILITY

Typical of most laws, those regarding a vessel's responsibility for medical emergencies are fairly convoluted. *Boat International USA* asked Fort Lauderdale-based Admiralty Lawyer Paul Ansel for a "short answer" with respect to an owner's legal obligation for medical preparedness. According to Ansel, "there is no short answer, per se. However, a yacht owner who fails to provide proper medical support aboard could be subject to a lawsuit. Both in accordance with the Jones Act and General Maritime Law, insufficient medical provisions could be a litigious example of negligence."

### USE WHAT YOU HAVE

Unconditional access to a doctor 24/7 is a privilege that should be maximized. Whenever a crew member or guest is injured or falls ill, a doctor can and should be contacted. Sister publication *Dockwalk Magazine* recounted in a similar feature the story of a stewardess who was having chronic migraines. Feeling miserable, she went down to her cabin to try and sleep it off. What was dismissed as a migraine turned out to be a brain aneurism caused by a chronic condition the stew had not disclosed to the captain. Unfortunately, this diagnosis came after the autopsy. A legal maelstrom followed which involved the owner, the captain and teams of international lawyers. Despite being exonerated of any wrong-doing, that captain now claims, "a crew member sneezes, and I am on the phone with a doctor."





### AN OUNCE OF PREVENTION

According to Dr. Jarris, “Pre-departure medical and dental examinations are recommended for all aboard. Anticipation of potential complications of chronic disease, such as diabetes, should prompt a critical review of the medical chest and training... Basic adult and pediatric vaccinations should be complete before departure. Hepatitis A and B series should be obtained, along with other vaccinations [and prophylactic medications] appropriate for the itinerary.” This information can be obtained from your tele-medical support service or online from the Centers for Disease Control and Prevention ([www.CDC.gov](http://www.CDC.gov)).

Keep working environments safe. Trust your instincts and those of your captain with respect to activities and questionable passages. Though some very experienced crew may seem super-human at times with respect to injury and illness, they are not. Do not allow minor ailments to escalate before they are treated. Readily accessible over-the-counter medicines can often keep a minor illness, injury or infection from escalating into a major health problem. Be sure to keep a reasonable supply on board.



## CONTACTS

There are numerous medical equipment and technical support purveyors around the globe. The following list includes several U.S. companies with worldwide coverage, comprehensive services and an established track record within the yachting community.

#### HealthForce Partners

Location: Bothell, WA

Tel: (877) 437-2497

[www.healthforcepartners.com](http://www.healthforcepartners.com)

Unique Offerings: Strong priority in integrating at-sea care with vessel diversions and emergency evacuations with shore-based medical resources.

#### MedLink/Medaire

Location: Tempe, AZ

Tel: (480) 333-3700

[www.medaire.com](http://www.medaire.com)

Unique Offerings: The doctors on call are always physically in a trauma center (not at home or the golf course) when a call is received. The Medaire division has a long standing tradition in supplying aircraft with similar equipment.

#### Marine Medical International

Location: Fort Lauderdale, FL

Tel: (954) 523-1404

[www.marmed.com](http://www.marmed.com)

Unique Offerings: MMI offers superior Dive Emergency equipment, training and support. The U.S. office is located in Fort Lauderdale for easy accessibility for many U.S. yachts. MMI offers USCG certifications for BST, Medical Care Provider, and Medical Person in Charge.

### STATE OF THE ART

Those inclined to spare no expense have some fascinating options with respect to medical gear. Tele-medical video setups are currently available, yet Dr. Jarris claims, “I’d rather see a vessel invest in basic equipment and training. My best estimate is that 95% of what needs to be conveyed can be accomplished via voice alone and supplemented by email photographs when necessary.”

For yachts with ambitious dive itineraries, companies like Nautilus Underwater Systems offer portable hyperbaric chambers for use on private yachts which are available through Marine Medical International and Brownie’s (in Fort Lauderdale). Marine Medical International in partnership with Maritime Health Services now offers DiveMed specifically for dive emergencies.

Recent years have seen significant innovations with respect to portable AEDs. Standard kits can now be upgraded to diagnostic kits which include a digital blood pressure cuff, fingertip pulse oximeter and glucometer. According to MedLink spokesperson Jill Drake, units now have audible CPR coaching, water resilience ratings and pediatric capabilities. The next generation is projected to have wireless Internet capabilities to allow tele-medical personnel real-time access to this information.

Another interesting innovation is the Evac-U-Splint, an inflatable splinting system that offers extremity splints and mattress splints (stretchers) including a pediatric version. One of the numerous benefits is that they are inflatable and thus require little storage space.

Though no one expects you to run out and commission a medical support vessel, like that offered by Shadow Marine with a designated triage room, it is imperative that every mariner considers his state of readiness with regard to the health and wellbeing of his passengers and crew. Taking the time to ensure that you have the essential gear, training and support will pay dividends during an emergency. □