

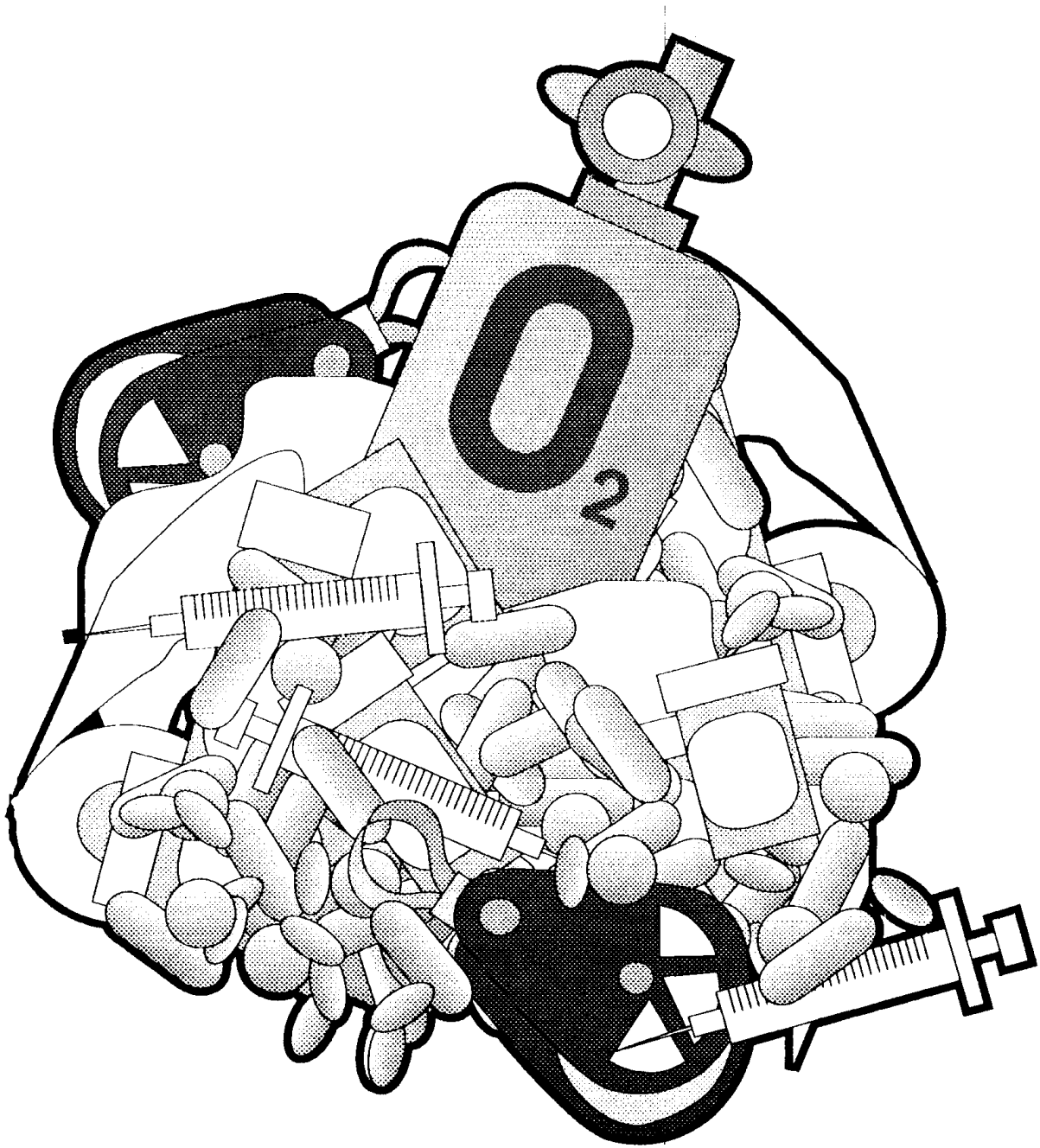
Emergency Room Afloat: The Medical Kit and the Conscientious Sailor

Part 1, The Realization

When I took this job for TSC, one of my main goals was to publish a complete medical kit for its membership. The more the idea was examined the more it became evident how truly difficult and complicated the task would be. Not only was there the considerable problem of keeping the kit to a manageable yet reasonably complete, but it was evident that a wide diversity of needs for on-board medical supplies were required. Everyone sails in different venues, different times of the year and climates, with different groups of people; all of whom have individual needs.

After much consideration, the conclusion was to first break things up in two general ways; group sailing with an event organizer and staff to be in charge of, and on-board medical kits for individuals traveling alone. More information is necessary to determine the design parameters in organizing these kits. First, gathering information about what was really needed on board became a priority. Many doctors and authors of medical kits literature expound on their personal views of what is needed, based on limited (despite the fact that they may have personally logged many nautical miles) experience. My assessment of these writings is that they were always biased and limited. There has to be a better way!

Second, I needed to break up these kits into more specifically useful and manageable sizes. What is often found on the market are kits with compartmentalized groupings based on medical "chapters" like; trauma, allergies, cuts and bruises, etc; such that you can pick the modules that you want to carry. I think this is a great way to organize your kit, but not to produce it. Most kits need a little of everything.



Why Different Kits and Categories; The Doc-on-Deck System

A lot of time was spent trying to distill a 'complete' medical kit for different users and different onboard needs. The conclusion was simply that no one medical kit was proper for every boat and event organizer, or every situation. *The single most important aspect in determining the inclusions in the medical kits to meet needs is the **time it takes** for a person in trouble to get professional medical help.* The available time is the key to deciding: how much you need to have on board, or carried by the event organizer, anywhere; and how much medical training you may personally need, and ultimately how secure you really are!

If you are never going to be further from medical help and/or transportation to a medical facility than ten minutes, it would be ridiculous for you to be carrying suture material and oxygen around. Continuing with this same logic, if you are potentially days away from medical help and transport, you would be well advised to know a lot about medical care and have a complete medical kit to back it up.

CPR with AED (Automated External Defibrillator) training, a basic knowledge of suturing a wound, an idea of how to deal with most medical emergencies, treatment of infections and even tooth aches would be needed medical knowledge. The knowledge must be there to be able to use the medical supplies you have gathered in your medical kit. I can not stress this point more. A medical kit with the equipment needed to accomplish the tasks mentioned above is worthless without the knowledge to use it.

In the latter case you should also be aware of the medical history of all crew members and their special medical needs (i.e., diabetes), as well as the knowledge to at least begin treating these conditions if needed.

Event organizers should be able to deliver care on the water and even on land for land-based events. On land only a simple first aid kit is needed as professional care is only a phone call away. In a sense it is more of a courtesy or added value, to provide this. But when you organize a race, or a cruise; there are legal consequences. Many insurance companies like Growery have detailed papers on their web site address these issues (and they are a good source of information-check it out!).

The Doc-on-Deck Categories of kits

Category	Comments	Kit Type
A) Staff Medical kits	Land based care Help only a phone call away	simple, single box
1) Kitchen/Dining area	Burns and cuts a priority	simple, small box
2) Front desk	General purpose	simple
3) Bar	Headaches, stomach aches	simple
4) Pool Area	Abrasions, sunburn	simple
5) Tennis Courts	sprains, sunburns-AED	Basic first aid
6) Parks/Lakes	Advanced 1 st aid and AED	Advanced first aid
7) Dock House	Same as above	same
8) Support boats	Basic first aid boxes	Geared to waterfront
9) Signal Boat/Cruise support	Advanced 1 st aid and AED	Advanced
B) On-Board Medical Kits	On-Board Medical Kits	Simple to complex
1) Day-sailor	Medical help available Within 30 minutes	Basic, single unit on Deck
2) Coastal Cruiser	Medical help available Within several hours	2 units-Deck Kit and Advanced with AED

3)	Distance Cruiser	Medical help available Within 24 hours	Complete, multi-unit medical kit with Training
4)	Deep Sea Sailor	Help may be days away	Advanced Medical Training and supplies

Commercially Available Kits

Recently, many companies have popped up with premade kits, some more complicated than others. In general, these kits are not designed well, nor are they very practical in dealing with medical needs. Even those that advertising completeness and are separated into components, including prescription drugs and equipment, tend to be greatly overpriced and geared more to making money for the seller (in my opinion) rather than provide a good medical kit. You can use some of these kits as starters, and then build them up to a sufficient level of usefulness. It is a learning experience putting together a medical kit, and if you have taken the time to put it together, you will know how to use what is in it! Do not rely on a purchased kit that you have never opened to provide what you need when a true need arises! Another good source of information is your own doctor. Who better to help you develop a medical kit for you and your family's need than someone who already knows your medical history. For long range cruising this is a must. You may need to see him (or her) several times and make specific appointments for this purpose. There are companies that will customize and personalize a medical kit for you. They offer a high level of expertise and help and are often linked to direct satellite email and voice support. You pay for what you get.

Getting Help from Your Doctor

It is a good idea for anybody who may be hours away from medical attention to see their doctor to get help developing a medical kit. This is especially true if you or your crew have any chronic illness or debilitation that requires medication or medical support (such as diabetes or a heart condition). Although most authorities and available resource books can give you general recommendations, *your body and the bodies of your crew are unique, and may require specialized items & medications for your safety.* As a skipper, dealing with these needs is your responsibility.

When you go to the doctor, don't go without a game plan. You should have questions ready and a basic idea of what you need prepared in advance. Discuss with him/her the elements of the kit both for general preparedness and your own personal needs. You could bring a sample kit with you. This will save you and your doctor time, and you'll leave feeling you accomplished something concrete and got your money's worth.

Discuss with him/her how far you plan to venture and your destinations, as well as the idea that help may not be immediately available. Even locally, some areas are known for infestations such as Lyme disease and Babesiosis. Preventative measures should also be discussed. Preventative measures for different cruising grounds will be different, and medical needs and supplies carried may also be customized to specific cruising grounds. Again, discuss with your doctor the 'time to medical care' that you will encounter to help

determine what is needed on board. Also, you want to be able deal with situations you may encounter that could ruin your trip, but may not be very dangerous such as diarrhea and allergies.

Medical supplies, like drugs, can be obtained with a prescription from your doctor. Remember to document all drugs and supplies on board with an inventory list and a copy of the prescriptions from your doctor. You should have a log of all medications dispensed and to whom. Not only will this keep your kit up to date and well supplied, it will avoid any 'misunderstandings' with the authorities. If you have drugs on board with abuse potential, even a friendly coast guard inspection can turn ugly (as we tend to store things on board in airtight zip lock bags and not original containers).

For those of you with a chronic illness such as asthma, diabetes, and angina, who are under a doctor's care; discuss with the physician your plans and also the physical limitations of a cruising boat. Including the time to medical help, and the training of and availability of help from your crew, which may be vitally important. Remember that you may be the victim in a medical emergency, and if all of the medical knowledge is unconscious along with you, you are truly in a jam.

Finally, pick the right doctor, one who understands the sailing life and is willing to take the time and give you prescription drugs to administer to others. Taking the responsibility of giving someone else drugs and medical treatment is a big responsibility. Some physicians may see it as handing you a loaded gun, and to a degree they are right. Find out in advance if there is the possibility of help and cooperation. With good communication and appropriate knowledge of the use of the medical kit, most doctors will be glad to help (especially if you have had training). At the same time, this is a professional matter for the physician and personal liability for advice and drugs may be a factor. Don't be offended if a doctor friend determines not to get involved outside of professional practice. Not only is there a matter of liability, the doctor is also concerned about the possible harm that may come about as a direct result of giving off the cuff advice about potential situations, or potentially needed medications requiring medical prudence in determining whether or not they should be administered.

In general, my advice to you is not to give anyone anything out of the ordinary unless you feel that it is a true emergency and you cannot wait for professional medical help to be administered. You are then covered by the Good Samaritan laws of the state.

These discussions may seem remote as you sit and read them at home. But on this years cruise to Maine, many hours could pass before medical help was available in an emergency. Are you ready?

You and Your Ship's Medical Preparedness

You should have a ship's medical library on board, just as you have appropriate charts and cruising guides. The farther away you are from help, the more extensive the library should be. The following are some suggestions to keep onboard:

Standard First Aid by the American Red Cross

Personal Safety and CPR by the American Red Cross

Advanced First Aid Afloat by Peter Eastman, MD..

Your Offshore Doctor by Michael Beilarm, MD..

The Cruising Sailor's Medical Guide by N. Leone, MD.. and E. Philips, RN.

The Ship's Medical Chest, a Federal Government Publication, H.I.H.

Complete Guide to Prescription and Non -Prescription Drugs by H. Griffith, MD.

For yourself and at least one other crew member, it is highly recommended that you take the basic first aid course and the CPR course offered by the American Red Cross. More advanced training is also available to you including courses in suturing and administering advanced first aid and even advanced CPR. If you feel you need this training, your doctor can arrange for your training sessions and/or tell you where advanced courses are available in your area.

Next issue we will start with a breakdown of the simple and basic medical kits. Just in time too, as many of us will be getting ready for commissioning day. **See you on the water!**