



CRUISING CLUB OF AMERICA

FLEET SURGEON'S MEMORANDUM FOR OFFSHORE PASSAGES

JANUARY 2010

Medical skills, first aid equipment and the ability to communicate by radio affect the outcome of an offshore medical emergency.

In the Injury and Illness Survey of the last five Bermuda Races the extremities, especially fingers and toes, were the sites most at risk for injury. Sea sickness and sunburn were common. Infections, migraine, diabetic dehydration, and airway obstruction requiring a Heimlich maneuver were encountered. Pre-race seminars stress the importance of avoiding hypothermia, dehydration, fatigue and seasickness.

Conditions not encountered in these races must also be considered. The incidence of malignant melanoma, as well as other skin disorders, has increased alarmingly among sailors, according to records of the US Coast Guard. Asthma, life-threatening allergic reactions, heart attacks, strokes, seizures and surgical emergencies can be added to the long list of potentially treatable things one might have to deal with on an offshore passage. Anticoagulants (blood thinners), which are used to treat recurrent phlebitis or cardiac conditions such as atrial fibrillation, can turn a minor knock on the head into an untreatable and fatal hemorrhage in the brain.

Finally, some conditions, such as falling overboard and drowning or being hit on the head by the boom or mainsheet during an accidental jibe, are like lung cancer: they have high mortality rates despite one's best efforts, but they are mostly preventable, by always using a harness, in the former case, and by a permanently installed and always engaged preventer, in the latter.

The **Medical Officer** and the **Communications Officer** are the key positions or functions to prepare a boat for offshore sailing.

The **Medical Officer** (who is not necessarily a medical professional) makes sure he and the crew have appropriate medical skills for the voyage. Reference books, a medical/surgical kit and medicines are necessary (see appendix). Pertinent medical information about individual crew members is collected and the availability, or lack thereof, of land-based medical assistance during the voyage is determined. Red Cross and Advanced "wilderness" and first aid courses are commercially available for non-professional Medical Officers and other crew. CPR training is urged for all crew members.

The **Communications Officer** links the boat to outside medical help and rescue services. VHF and Single Sideband radios and a suitable satellite system for voice and/or email communication are recommended on an offshore yacht. Ham radio may be a valuable addition. More than one crewmember must know how to use the equipment and whom to call (see Offshore Communications at www.cruisingclub.org). During the Bermuda Races 2002 – 2006, competitors by pre-arrangement used the Emergency Department of the Beth Israel Deaconess Hospital in Boston. Similar services are available commercially.

ADDENDUM 1: BOOKS TO CONSIDER**For Limited Passages**

Advanced First Aid Afloat, by Peter F. Eastman, M.D., Fifth Edition: Cornell Maritime Press, Inc, Centreville, MD, 21617, 2002. ISBN 0 87033 524 3

Sailing and Yachting First Aid, by John Bergan, M.D. and Vincent Guzzetta, M.D., prepared for the United States Sailing Association, Portsmouth, RI

First Aid at Sea, by Douglas Justins and Colin Berry, Adlard Coles Nautical, A&C Black(Publishers) Ltd, 35 Bedford Row, London, WC1R 4JH, 1999 ISBN 0 7136 4922 4

The Onboard Medical Handbook, by Paul G. Gill, Jr., M.D., International Marine, Camden, ME 1997 ISBN 0 07 024274 7

A Comprehensive Guide to Marine Medicine, by Eric A. Weiss, MD and Michael Jacobs, MD, Adventure Medical Kits, Oakland CA 94624, 2005 ISBN 0-9659768-2-3

For Extended Passages

The Ship Captain's Medical Guide, 22nd edition. Crown Copyright 1999. Obtainable from Her Majesty's Stationary Office, e-mail book.orders@tso.co.uk, fax – 44 (0)870 600 5533; tel – 44 (0)870 600 5522.

International Medical Guide for Ships, Second Edition, World Health Organization, 1988, reprinted 1994 ISBN -10 92 4 154231 4, order number 11502078 (go to publications at www.who.int)

The Ship's Medical Chest and Medical Aid at Sea, DHHS Publication(PHS) 84-2024 Government Bookstore, O'Neil Building, 10 Causeway, Boston, MA 02222 (telephone 617 565 6680) and www.fas.org/irp/doddir/milmed/ships.pdf. Comprehensive and contains an extensive list of medical references .

Merck Manual of Diagnosis and Treatment, 18th Edition, Editors Mark H Beers, Robert S. Porter, Thomas V. Jones, Merck Research Laboratories, Division of Merck & Company, Inc., Whitehouse Station, NJ 08889-0100, 2006

*** Wilderness, first aid and emergency medicine texts are also available.**

ADDENDUM 2: SAMPLE EQUIPMENT LIST

Medical kits targeted for private yachts are commercially available at varying levels of complexity. Their contents should be reviewed carefully to be sure they meet the objectives of the intended voyage and the standards of the ship's medical officer. It is recommended the items below, or appropriate substitutes, be included.

Airway kit	Oral airway, Ambu bag
Bandages	Rolled gauze, tape, sterile dressing sponges (4X4s), Band-Aids, ace bandages
Blood pressure	cuff and stethoscope
Catheter (urinary)	Prepackaged, sterile bladder catheterization kit
Gloves	Disposable sterile gloves
Intravenous fluid administration kit	
Splints	Inflatable (or other) splints for arms, legs; tongue depressors; Philadelphia collar (for neck injuries)
Surgical kit	In sterile pack(s): scissors; forceps; hemostats; silk or Vicryl suture material preferably with swaged-on needles; Steristrips; Matisol or Bensoin adhesive for Steri-strips; sterile towels; injectable local anesthetic,; disposable gloves.
Thermometer	

ADDENDUM 3: EXAMPLES OF MEDICATIONS**Notes:**

1. Medications should be assembled and given with the advice of a physician.
2. Medicines available "over the counter" are in regular type.
3. *Prescription medications are in italics. Prescription medicines should be given only on advice of a physician.*
4. Know about crew member's allergic or adverse reactions before giving any medication.

<u>AILMENT or /PROBLEM</u>	<u>MEDICATION</u>
Allergic reactions	Benadryl(diphenhydramine); <i>epinephrine;EpiPen</i>
Antihistamines	Allegra;Benedryl, Claritin, <i>Zyrtec</i>
Antiseptic solutions	Betadine, Hibiclens, Alcohol
Asthma	<i>Albuterol inhaler</i>
Burns	<i>Silvadene cream</i> , Bacitracin Ointment, Vaseline
Cardiovascular	<i>Atropine, epinephrine, Aspirin, Nitroglycerine</i>
Constipation	Mineral oil, Milk of Magnesia, Fleet enema, Dulcolax suppository
Cough	Robitussin
Diarrhea	Imodium, Kaopectate, <i>Lomotil</i>
Ears	<i>Corticosporin drops, Oralgen</i>
Eye infection	<i>Ilotycin or Bacitracin ophthalmic ointment;</i> ; Visine
Gastritis	Maalox, Tagamet, <i>Zantac</i>
Hemorrhoids	Preparation H, Tucks wipes
Infections	<i>(Antibiotics)</i>

Urinary tract	<i>Bactrim, Cipro</i>
Respiratory	<i>Bactrim, oxafloxacin, Zithromax</i>
Ear, gum, tooth	<i>Cipro, penicillin, amoxicillin</i>
Infected cuts	<i>Keflex, dicloxacillin, moxifloxacin</i>
Meningitis, peritonitis	<i>(Intravenous antibiotics)</i>
Intravenous fluids	Sterile 0.9% saline, 5% dextrose & 0.9% saline
Inflammation, pain	Ibuprofen, Tylenol, Aspirin
Local anesthetic (injectable):	<i>Xylocaine, Lidocaine</i>
Narcotic pain medication	<i>Tylenol # 3 with codeine, Vicodin, Percocet or Demerol tablet, Demerol or morphine injection</i>
Nasal congestion	Afrin nasal spray, Actifed, Sudafed, other decongestants
Rash	Calamine lotion, Mycolog cream, Desenex powder, <i>Triamcinalone Cream</i>
Sea sickness	Dramamine, Tigan suppository, Stugeron (cinnarazine which is over the counter in UK, Bermuda, Ireland, etc), <i>Transdermscope patches</i>
Sleeping	<i>Valium, Benadryl, Ambien</i>
Sore throat	Cepacol lozenges
Sun burn	Solarcaine