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MEDICAL AID AT SEA AND WHAT TO INCLUDE IN YOUR OFFSHORE FIRST AID KIT

SAILING HEALTH RISKS

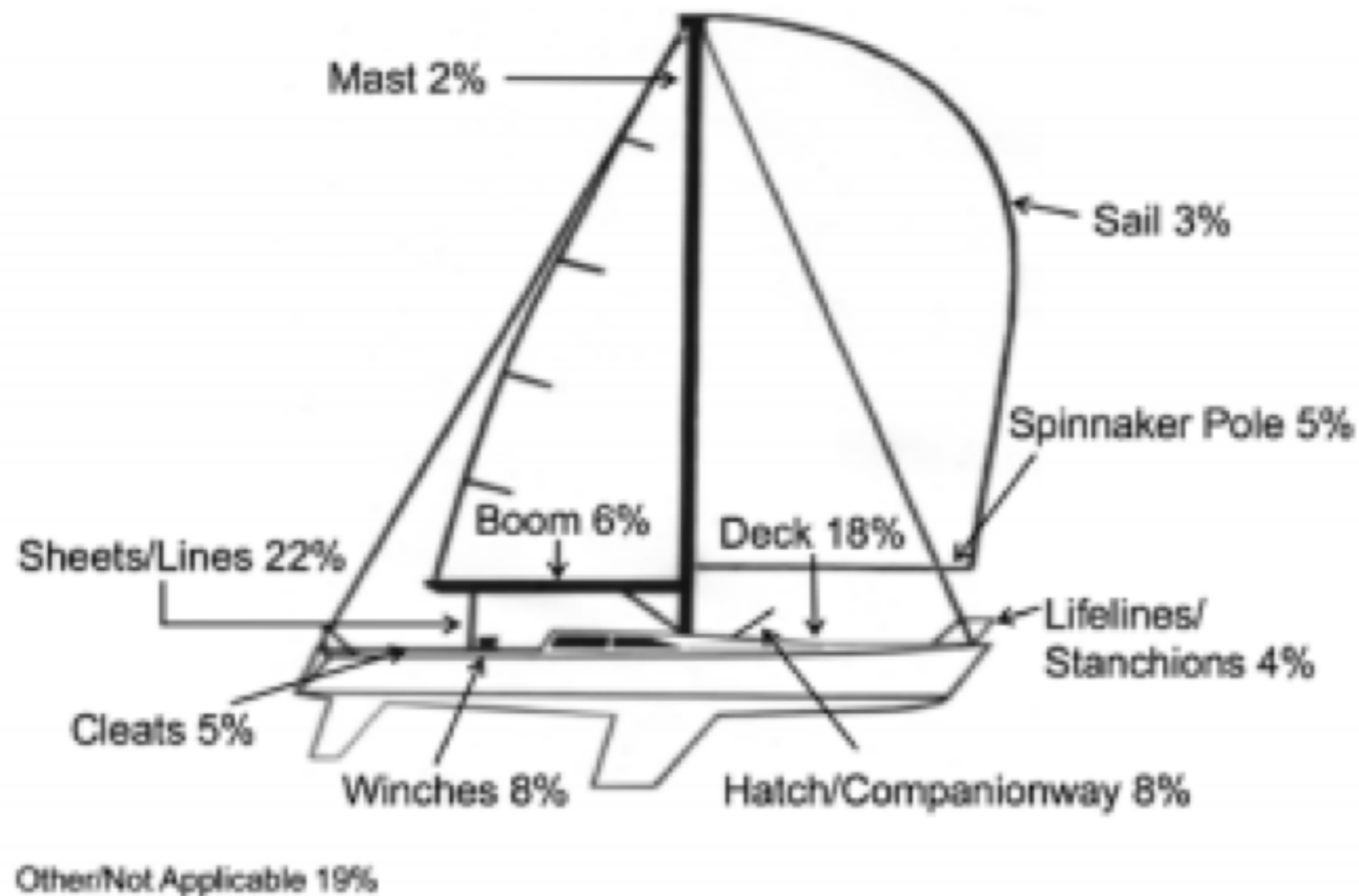
- ▶ Acute injuries
- ▶ Sailing Related Illnesses
- ▶ Unique challenges of Offshore Medical Care

STUDIES OF KEELBOAT SAILING INJURIES

- ▶ Amateur around the world races-9 injuries/1000 days at sea
- ▶ Intermediate/advanced sailors-5 injuries/1000 sailing days
 - ▶ Mostly from falls (30%)
 - ▶ Contusions (12-40%)-mostly leg
 - ▶ Lacerations (5-26%)-mostly hands
 - ▶ Fractures and burns less common

MECHANISMS OF KEELBOAT INJURY

- ▶ falls and Impacts from various parts of boat



ACUTE SAILING INJURIES

- ▶ Contributing Factors
 - ▶ High winds are the leading risk factor
 - ▶ Operator inexperience
 - ▶ Operator inattention

SEVERE INJURY PATTERNS

- ▶ Boom/mainsheet impact in planned/accidental jibes
- ▶ collision with other boats
- ▶ dismasting
- ▶ Falls through hatches and companionways

LACERATIONS

- ▶ Closure vs Leave Open
- ▶ Suture, Skin stapler, steri-strips
- ▶ Irrigation
- ▶ Tourniquet
- ▶ Clotting agents

HemCon

QuickClot

CELOX

Staple Remover!



FRACTURES AND BURNS

- ▶ SAM Splint
- ▶ Impregnated Gauze/Xeroform
- ▶ Silvadene Cream for 2nd/3rd degree burns

HEAD INJURIES

- ▶ With or Without LOC-Loss of Consciousness
- ▶ Monitor mental status-Person, Place, Time
- ▶ Awaken to assess every 4 hours for first 24 hours
- ▶ Beware of Neck Injuries

SAILING FATALITIES

- ▶ Sailing fatality rate 1.2/million sailing days
 - ▶ Up to 73% from drowning-82% not wearing life jackets (US Waters)
 - ▶ Falls overboard (39-44%)
 - ▶ Capsizing (20-40%)
 - ▶ Sinking (7%)
 - ▶ Collision (5%)
 - ▶ Trauma (10%)
 - ▶ Hypothermia (4%)

SAILING FATALITIES

- ▶ leading contributors to fatal sailing accidents
 - ▶ High winds (12-20%)
 - ▶ Alcohol use (10-15%)
 - ▶ Operator inexperience (8%)

SAILING ACCIDENTS

- ▶ Operator-preventable contributing factors
 - ▶ Alcohol use (15%)
 - ▶ Inexperience (8%)
 - ▶ Inattention (10%)
- ▶ Non-preventable contributing factors
 - ▶ High winds (12%)
 - ▶ Hazardous seas (9%)
 - ▶ Equipment failure (4%)

SAILING RELATED ILLNESSES

- ▶ Sea sickness
- ▶ Dermatologic conditions
- ▶ Upper respiratory infections
- ▶ Gastroenteritis

SAILING RELATED ILLNESSES

- ▶ Predisposing Elements
 - ▶ Exposure to the elements
 - ▶ Confined living quarters
 - ▶ Poor hygiene
 - ▶ Vessel motion

SEASICKNESS MOST COMMON SAILING RELATED ILLNESS

- ▶ Directly correlated with stormy conditions
- ▶ Incapacitation concerns
 - ▶ Short handed
 - ▶ More dangerous conditions
- ▶ Scopolamine patch, Stugeron & Phenergan suppository
- ▶ Usually resolves after 3 days of constant sea state

SEASICKNESS TREATMENT/PREVENTION

- ▶ Scopolamine transdermal patch
 - ▶ 4-6 hours to take effect
 - ▶ Side effects
 - ▶ Urinary retention
 - ▶ Psychosis
 - ▶ Blurred vision
 - ▶ Dry mouth



SEASICKNESS TREATMENT/PREVENTION

- ▶ Stugeron (Cinnarizine) antihistmine
 - ▶ 2-3 hours to take effect
 - ▶ Dosing
 - ▶ 2 15mg tablets initially, then 1 tablet every 8 hours
 - ▶ 1 25 mg tablet as necessary
 - ▶ Main side effect is sedation

SEASICKNESS TREATMENT

- ▶ Phengergan Suppository/IM
 - ▶ 25mg PR twice a day/6.25 or 12.5mg IM
 - ▶ Keep suppositories refrigerated
 - ▶ Side effects
 - ▶ Very sedating
 - ▶ confusion

DERMATOLOGIC ILLNESSES 21% OF SAILING RELATED ILLNESSES

- ▶ Sunburn
- ▶ Boils
 - ▶ Infected hair follicles
- ▶ Cellulitis
 - ▶ Keflex
- ▶ Tinea (fungal skin infections)
 - ▶ Ringworm, Athletes Foot, Jock Itch
 - ▶ Personal contact with damp surfaces

DERMATOLOGIC ILLNESSES-PREVENTION/TREATMENT

- ▶ Sunburn
 - ▶ Zinc oxide
 - ▶ Aloe
- ▶ Boils-usually don't require treatment
- ▶ Cellulitis
 - ▶ Neosporin ointment
 - ▶ Keflex
- ▶ Tinea
 - ▶ OTC anti fungal creams

OTHER TOPICAL MEDICATIONS IN THE FIRST AID KIT

- ▶ Cortisporin Otic Suspension
 - ▶ External Otitis (swimmers ear)
- ▶ Triamcinolone Cream & Hydrocortisone ointment
 - ▶ Allergic skin reactions, insect bites-not infections
- ▶ Polytrim/Trimethoprim Ophthalmic Solution
 - ▶ Conjunctivitis or Other Eye Infections

URI 18% OF SAILING RELATED ILLNESS

- ▶ Common Cold & Flu
 - ▶ Viral requiring only supportive treatment
- ▶ Strep
 - ▶ Azithromycin

GASTROENTERITIS 15% OF SAILING RELATED ILLNESSES

- ▶ “Stomach Flu”
 - ▶ Diarrhea, vomiting & low grade fever
- ▶ Viral or Bacterial
- ▶ Contaminated food or water
- ▶ Most require no treatment
 - ▶ Cipro, Flagyl
 - ▶ Dehydration

TREATABLE LIFE THREATENING CONDITIONS

- ▶ Angina
 - ▶ Sub-lingual NTG tablet or spray
 - ▶ Chew aspirin
- ▶ Severe Allergic Reactions
 - ▶ EpiPen
 - ▶ Prednisone
 - ▶ Benadryl

PAIN

- ▶ NSAIDS
 - ▶ Best for inflammation
- ▶ TYLENON
 - ▶ Enhances NSAIDs and reduces fever
- ▶ NARCOTICS
 - ▶ Last choice-side effects
- ▶ MUSCLE RELAXANTS
 - ▶ Valium is best

UNIQUE CHALLENGES OF OFFSHORE MEDICAL CARE

- ▶ Definitive care may be days away
- ▶ Limited supplies
- ▶ cramped and poorly lit space below deck
- ▶ unpredictable and violent vessel motion

UNIQUE CHALLENGES OF OFFSHORE MEDICAL CARE

- ▶ Compounded by increased injury rates in storms
 - ▶ Crew is fully engaged
 - ▶ Fatigue
 - ▶ Seasick
- ▶ Evacuation, if possible, is dangerous and always delayed

DESIGNATED SHIP DOC

- ▶ Truly life threatening conditions are unlikely to be treated successfully offshore
- ▶ Prevention is key to minimizing crew health risks
- ▶ Sea sickness, dehydration, hypothermia and fatigue act cumulatively to impair judgement
- ▶ Recognize and address in early stages

EARLY RECOGNITION

- ▶ Seasickness
 - ▶ Lethargy, drowsiness
- ▶ Dehydration
 - ▶ Fatigue, dizziness, confusion
- ▶ Hypothermia
 - ▶ Drowsiness, confusion
- ▶ Fatigue