

# **Belize Marine, Coastal, & Dive Accident Wilderness First Responder Course Outline**

## **Saturday September 4<sup>th</sup> - 1 Hour**

### Arrival & Dinner

### Introduction

- Local Orientation & Facilities
- Instructors & Staff
- Program & Schedule
- Rules, Feedback Talk, etc.
- 30 minutes

### Medical Concepts

- Introduction To Wilderness & Marine Medicine
- Concepts vs. Cookbooks
- The Need For Improvisation
- What Saves Lives & Limbs
- 30 minutes

## **Sunday September 5<sup>th</sup> - 8 Hours**

### Intro To Rescue

- Find/ Access/Stabilize/Transport Methodology
- 60 minutes

### Dive Rescue

- Surface Rescue Concepts
- Dive Rescue/Recovery
- Scene Marking
- Lost Diver Procedures
- Search Patterns
- 60 Minutes

### Safety & Risk/Benefit

- Threats To Safety
- Personal Protection
  - o BSI & Vaccinations
- Scene Evaluation & Stabilization
- Risk/Benefit
  - o Go/No Go Decisions
  - o Personal Choices
- 30 minutes

### Ropes, Webbing, Hardware

- Rope Type & Care In The Marine Environment
- Webbing Type & Care In The Marine Environment

- Basic Hardware Type & Care In The Marine Environment
- 30 minutes

#### Knots & Harnesses

- 8 (or so) Knots & Hitches
- Seat & Chest Harness
- Practice & Skills Stations
- 60 Minutes

#### Simple Belay

- Anchors
- Body Belay
- Friction Device Belay
- Practice & Skills Stations
- 60 Minutes

#### **Field Training Exercise #1: Patient Packaging**

- Positioning & Log Rolling
- Improvised, Soft, Backboard Immobilization
- Flotation & Water Application
- Practice & Skills Stations
- 120 Minutes

#### Survival

- How People Die
- Cascade Of Doom
- Priorities
- 60 Minutes

## **Monday September 6<sup>th</sup> - 9 Hours**

#### Human Body

- Big 3 Organ System Structure & Function
- Musculoskeletal System
- Living Anatomy, Palpation Practice
- Concepts
  - o Perfusion
  - o Ischemia
  - o Progression
  - o Compensation
  - o Protection
  - o Mental Status
- 60 minutes

#### Intro To Patient Assessment

- Review Scene Safety
- "Move To Me" Methodology
- Mechanism Of Injury
- Mental Status & AVPU
- Well-Sick-About To Die Flash Impression
- C-Spine Protection & Practice

- Intro To Primary (First) Survey & ABCDE
- 60 Minutes

#### Airway & Breathing

- Positioning, Opening, Maintaining
- Vomiting Control & Response
- Ventilation With Pocket Mask & Oral/Nasal Airways
- Airway Trauma & Bleeding Control
- Improvised Airways, Barriers, etc.
- Practice & Skills Stations
- 120 Minutes

#### Circulation

- Pulse Palpation & Significance
- Skin Color/Temp/Moisture
- Bleeding Control
  - o Direct Pressure & Deep Packing
  - o Elevation
  - o Pulse Points
  - o Tourniquets
  - o Binding
  - o Splinting
  - o Ice
  - o Improvised Coagulation Promoters
- Practice & Skills Stations
- 60 Minutes

#### Disability

- Motor/Sensation/Capillary Refill Evaluation & Significance
- Recheck Mental Status
- Rapid Neuro Exam
- Practice & Skills Stations
- 30 Minutes

#### Exposure/Evaluate/Equipment/Evacuation

- Removing Clothing/Dive Gear/Wetsuits
- Decide On Patient Status & Needs
- Send For Additional Assistance/Gear
- Make Evacuation Plans
- Practice & Skills Stations
- 30 Minutes

#### Special Examinations

- Remote Assessment
- Hasty Exam
- Confined Space Exam
- Low Visibility Exam
- Practice & Skills Stations
- 60 Minutes

#### Field Training Exercise #2 - Patient Movement

- Litter Movement

- Simple Teamwork & Commands
- Rough Terrain/Surf - On/Off Boats/Docks
- 120 Minutes

## Tuesday September 7<sup>th</sup> - 8 1/2 Hours

### Secondary (Second) Exam

- Purpose & Timing
- Pulse, Respiration, Temperature, Head-To-Toe Evaluation
- Patient History
- Recording Findings
- Rechecks & On-going Re-evaluation
- Practice & Skill Stations
- 60 Minutes

### Intro To Trauma

- General Concepts
  - Types
  - Contributing Factors
  - Multiple Injuries
  - Response Times
  - Treatment Times
  - Death Peaks
  - Imperfect & Improvised Solutions
  - Pain Control
    - Positioning
    - Splinting
    - Cold/Ice
    - Meds
    - Improvised Topicals
    - Mental Techniques
  - 30 Minutes

### Shock

- Pump, Pipe, Fluid model
- Recognizing Early, Late, Dying Shock
- Treatment
- Prevention
- 30 Minutes

### Orthopedic Trauma

- Concepts
  - Fractures, Dislocations, Sprains, Strains, Contusions
  - Repositioning & "Better/Worse" Methodology
  - Splinting Principles & Improvisation
  - Dislocation Reduction
  - Re-emphasize Pain Control
  - 30 Minutes
- Upper Body Injuries Via Skills Stations
  - Jaw

- Shoulder
  - Elbow
  - Wrist/Hand
  - Fingers
  - 30 Minutes
- Lower Body Injuries Via Skills Stations
    - Pelvis
    - Femur
    - Patella
    - Knee
    - Tib/Fib
    - Ankle/Foot
    - Toes
    - 30 Minutes

#### Head/Spine Trauma

- Scalp Injuries
- Open/Closed Head Injuries
- Blunt Spine Trauma
- Penetrating Spine Trauma
- Immobilization Decisions & C-Spine Immobilization
- Practice & Skills Stations
- 60 Minutes

#### Chest Trauma

- Rib Fracture & Flail Chest
- Sucking Chest Wounds
- Penetrating Trauma & Retained Objects
- Practice & Skills Stations
- 30 Minutes

#### Abdominal & GU Trauma

- Blunt
- Open, Evisceration, Retained Objects
- Practice & Skills Stations
- 30 Minutes

#### Soft Tissue Injuries

- Major vs. Minor
- Review Anesthesia
- Cleaning & Debridment
- Foreign Bodies Impaled Objects, Spines, etc.
- Bites
- Amputations
- Infections & Tetanus
- Closure With Simple Improvised Suture, Tape, Glue
- Practice & Skills Stations
- 60 Minutes

#### **Field Training Exercise #3 - Patient Assessment & Treatment**

- Assessment In Boats, Beach, Etc.

- Initiate Treatments Including Spinal Immobilization
- Initiate Movement
- 120 Minutes

## **Wednesday September 8<sup>th</sup> - 7 1/2 Hours**

### Fluids & Rehydration

- Dehydration
- Oral Rehydration Solutions
  - o Commercial
  - o Improvised
  - o Rice Water
  - o Coconut Milk
- Administration
  - o "Sip-Wait"
  - o Proctoclysis
- 60 Minutes

### Medications & Administration

- Methods Of Delivery & Dosing
- Antibiotics
- Bronchodilators
- Antihistamines
- Topicals
- 60 Minutes

### Medical Emergencies - Part 1

- Cardiac
  - o Chest Pain Protocol Resolving/Non-Resolving
  - o No CPR/Termination Of CPR Protocol
- Respiratory
  - o Asthma & COPD Protocol
  - o Pneumonia
- 60 Minutes

### Medical Emergencies - Part 2

- Neuro
  - o Seizures & Meningitis
- Metabolic
  - o Diabetes & Thyroid
- 30 Minutes

### Common/Simple Emergencies

- EENT
- Dental
- Minor Illness & Boo-Boo's
- 60 Minutes

### Environmental Emergencies

- Hypothermia
- Lightning

- Contact Dermatitis
- Sunburn
- Burns
- 30 Minutes

#### Heat Injuries

- Cramps
- Exhaustion
- Stroke
- Prevention & Treatment
- 30 Minutes

#### **Field Training Exercise #4 - Patient Assessment & Treatment**

- Including Spinal Immobilization & Difficult Situations
- 120 Minutes

### **Thursday September 9<sup>th</sup> - 9 Hours**

#### Allergic Reactions, Bites, Stings

- Allergies
- Anaphylaxis & Allergic Shock
- Insect & Snake Bites, Stings, Etc.
- 60 Minutes

#### Marine Hazards

- Bites, Stings, Toxins
- 'Sea Nasties' Video If Available
- 60 Minutes

#### Diving Medicine #1

- Pressure Concepts
- Gas Embolism
- Nitrogen Narcosis
- 60 Minutes

#### Diving Medicine #2

- Decompression Sickness
- Hyperbaric Chamber Theory
- Fitness To Dive
- 60 Minutes

#### Medical Gear & Supplies

- Improvisation
- Locally Available Materials/Products
- Kits
- Storage
- Replacement
- 30 Minutes

#### Mass/Multiple Casualty & Disaster Incidents

- Triage Multiple Patients

- Marking/Coding
- Collection & Transportation Points
- 10 Patient Tabletop Small Group Exercise
- 60 Minutes

#### Post Disaster Recovery – The First 72 Hours

- Post Hurricane
  - o Scene Safety
  - o Rescue
  - o Medical
  - o Sanitation
  - o Water Purification
  - o Safety & Crowd Control
- 60 minutes

#### Integration Of Concepts

- Triage
- Review FAST Methodology
- ABCDE Priorities
- Fluid Replacement & Medication Use
- 30 Minutes

#### Field Exercise #5 – Patient Assessment & Treatment

- Multiple Casualties
- 120 Minutes

### **Friday September 10<sup>th</sup> – 6+ Hours**

#### Field Training Exercise #6 – Post Hurricane MCI

- Multiple Casualties
- Building Collapse & Confined Space
- Boat & Beach
- FAST Methodology, Triage, Treat, Transport, Etc.
- Oral Testing/Evaluation During Scenario
- 6+ Hours

#### Graduation & Dinner Party

**Appendix A:  
Medical Kit For Maritime Wilderness  
& Dive Accident Management First Responders**

Included with course tuition. To be packed in dry bag or box:

- Laminated emergency cards, dose cards, and prescription to possess and refill medications, etc.
- Latex gloves
- Nasal airway
- Pocket mask & Valve
- Multi-size band-aids
- 4x4 dressings
- Trauma dressings
- Gauze wraps
- ACE type elastic bandages
- Triangular bandages
- Scissors
- Tweezers
- Safety pins
- Eye wash solution
- Betadine pads
- Suction bulb
- Wire ladder splint
- Dental kit
- Tape
- Zip ties
- Rope
- Zip-lock bags
- Trash bags
- Doxycycline 100 mg #20
- Benadryl 25 mg #50
- Albuterol Inhaler #1
- Antibiotic ointment #1 tube
- Hydrocortisone ointment #1 tube
- Aspirin 325 mg #1 bottle
- Oral Rehydration Solution mix # 5 packs