

Aviation Rescue Swimmer Course

Primary Survey LT 5.4

Objectives

- List the procedures used in a primary survey.
- Demonstrate primary survey procedures used in a mock trauma (moulage) scenario without injury to personnel or damage to equipment.

Primary Survey Procedures:

- A head-to-toe examination conducted in one of two rescue situations. During in-water rescue situations once the survivor is in the rescue platform, and during overland rescues prior to transporting the survivor to the rescue vehicle.
- Used to identify all life threatening injuries, which must be treated as they are found.

Arriving on the Scene:

- Scene Safety: Upon approaching the scene during an overland SAR, it is imperative that you evaluate the safety of the area in order to protect yourself and your crew.

NOTE

During in-water rescue scenarios onboard the rescue vehicle, it is understood that the scene is safe. However, it is necessary to evaluate the scene at all times.

Arriving on the Scene

- Body Substance Isolation: Take BSI precautions prior to touching the survivor.
- Determine Responsiveness: Attempt verbal communication with the survivor after or during BSI procedures.

Initial Assessment

- Check the Airway:
 - If survivor is conscious and talking to you, check for severe bleeding and begin Primary Survey.
 - If survivor is unconscious, open the Airway using a “modified jaw thrust.”
- Check Breathing: Verify that the survivor is breathing. If not breathing, give two breaths. If unable to get the breaths in begin Obstructed Airway procedures.

Initial Assessment

NOTE

If it is necessary to perform abdominal thrusts, expose the abdominal area prior to pressing on the abdomen.

- Check Circulation: Verify that the survivor has a pulse. If no pulse, begin CPR procedures.

Initial Assessment

- Check for Severe Bleeding: Take a quick look at the body from head to toe identifying any severe bleeding prior to beginning CPR.

NOTE

If severe bleeding occurs during chest compressions, it may be necessary to expeditiously bandage a wound in order to continue.

Primary Survey:

- Cervical Collar: While maintaining in-line stabilization of the head, sweep the back of the neck checking for blood and/or deformities. Determine the correct size c-collar needed, verify placement, and secure it. Once in place, you may let go of the head.

Primary Survey

- Life Threatening Injuries:
 - Quickly look at the head checking for severe bleeding. If no severe bleeding, move directly to the chest.
 - Expose the survivor's chest and abdomen. Look for and treat all life-threatening injuries present.
 - Expose an arm, look for and treat all life-threatening injuries. Repeat for the other arm.
 - Follow the same procedures for the legs.

Primary Survey

NOTE

Following the order of assessment, if blood-soaked clothing is identified, expose and treat that extremity first.

- Life-Threatening injuries include:
 - Problems with/ ABC's
 - Sucking Chest wounds
 - Severe Bleeding
 - Amputation with Severe Bleeding

Primary Survey

- Abdominal Evisceration
- Obvious Bruising (internal Bleeding)
- Critical Burns
- Head, Neck, or Spinal Injury
- Heat Stroke
- Severe Hypothermia
- Psychiatric Emergencies
- Severe Shock

Primary Survey

- Check Breathing- Check for equal rise and fall of the chest by resting your hands on the survivor's chest, in the front and back. Looking for breathing quality and rate.
- Check Circulation- Check pulses at the wrists (radial) and at the feet (dorsalis pedis), looking for equal quality and rate. Check capillary refill in fingers and toes, looking for circulation return within 2 seconds or less. Check skin temperature by resting the back of a gloved hand on the survivor's forehead and/or chest.

Primary Survey

- Perform Blood Sweep- Begin by wiping gloves clean or replacing them with a fresh pair. Starting at the head, sweep under the body and inside the clothing looking for any bleeding you can't see. If blood is found, investigate it.
- Reassess ABC's- Verify that survivor is still breathing and has a pulse.

Transport or Continue:

- When performing a Primary Survey in an overland situation, once reassessment of the ABC's has been completed (and ABC's are adequate), prepare to transport the survivor to the rescue vehicle. Follow steps for logrolling onto the SAR MEDEVAC litter.
- During an in-water rescue, upon completion of the Primary Survey, continue directly into the Secondary Survey.

Rules for Splinting

- Splinting is always performed during the Secondary Survey.
- When splinting legs, ensure extremities are in-line prior to applying a splint.
- Ensure that the joints above and below the injury are immobilized.
- If an open wound found or bruising is present, ensure a tie is placed above and below the area.
- Tie knots across the top of the splint, not against skin.
- Always check capillary refill after splinting.

Identification and Treatment of Injuries:

Open Chest Wounds “Sucking Chest Wound”

■ Presentation:

- Open wound to the chest with a sucking sound during breathing
- Bleeding and bubbles coming from the chest
- Exit wound may be present

■ Treatment:

- Immediately place a gloved hand over the open wound to create a seal.

Open Chest Wounds “Sucking Chest Wound”

Treatment cont.

- Evaluate wound size. If wound is smaller than a petroleum gauze foil wrapper, use foil to create a one-way valve. If wound is larger, use plastic from an IV bag cut to size.
- Tape on three sides. Top, bottom, and side closest to middle of the body.

Open Chest Wounds “Sucking Chest Wound”

Treatment cont.

- Check for an exit wound. If an exit wound exists, determine its size. Use a combination occlusive and field dressing placed over exit wound using survivor’s body weight to create a seal. During an overland SAR, it may be necessary to log roll the survivor to get a clear view of the injury prior to treatment.
- Deviated trachea is a sign that the one-way valve is no longer working.

Open Chest Wounds “Sucking Chest Wound”

Treatment cont.

- To relieve pressure, peel dressing up using un-taped side and “burp it”. May hear a rush of air as pressure is relieved.
- Lay survivor injured side down if feasible.

Closed Chest Wounds

Presentation:

- Difficulty breathing
- Deviated Trachea

Treatment:

- Place the survivor in an injured side down shock position. Shock position is the only treatment

Flail Chest:

Presentation

- Difficulty breathing
- Section of the rib cage moving opposite of normal breathing. (This is not unequal breathing).
- Bruising to the chest area.

Flail Chest

Treatment

- Place a saline bag over the affected area taping the top and bottom of the bag to the chest. May use cravats if needed, but ensure that they're not too tight as to further hinder breathing.
- Check for other broken ribs before placing tape.
- May use a rolled up burn sheet

Amputations

Presentation

- Severely torn or missing limb.
- May have severe bleeding present.
- Limb may be fractured

Treatment

- Control Bleeding First: Apply direct pressure with a field dressing and tightly wrap with an ACE bandage.
- Splint the amputated end during the Secondary Survey. Using a SAM splint, wrap around the end of the amputation in a “U shape” and secure it with at least two ties.

Open Fractures

Presentation

- Visible bone and/or fragments with an open wound.
- Bleeding can be mild to severe.

Treatment

- **Control Bleeding First:** Place donut-shaped gauze bandage around the exposed bone and cover with a field dressing
- If it's necessary to move an arm to control bleeding from an "open hand fracture", visualize and palpate for other injuries before moving it.

Open Fractures

Treatment cont.

- Ensure the dressing is snug and tied on the side. Do not cross dressing ties over the wound. This will apply unwanted pressure on the exposed bones.
- Splint fractures during the Secondary Survey.
 - For fractures of the lower arms, use a SAM splint underneath the arm (palm side) with hand in the neutral position. Secure with at least three ties with wrist and elbow immobilized.

Open Fractures

Treatment cont.

- For fractures of the upper arms, use a SAM splint across the outer aspect of the arm and secure with at least two ties. Utilize a sling and swath (swath at a minimum). Ensure the swath is not too tight as to hinder breathing.
- To splint fractures of the hands, wrap roller gauze around the hand and wrist, to create a bulky soft splint. Avoid covering fingertips.

Open Fractures

Treatment cont

- For upper leg fractures, use a SAM splint across the side of the leg above the hip to below the ankle. Secure with at least five ties. Ensure the leg is placed in-line prior to splinting and that the hip, knee, and ankle are immobilized.
- For lower leg fractures, use a SAM splint across the side of the leg above the knee to below the foot. Secure with at least four ties.

Closed Fractures

Presentation

- Bruising or deformity may be visible.

Treatment:

- If bruising is present, assume a bone is broken and treat as a fracture.
- Some bruising may be difficult to see. A thorough Secondary Survey must be performed to identify all injuries.
- Splint during Secondary Survey.

Abdominal Evisceration

Presentation

- Open abdominal wound with internal organs visibly exposed and/or spilling out.

Treatment

- Soak large field dressing with Normal Saline.
- Place the large field dressing under exposed organs and fold over the organs, covering all wound areas.
- Tie on the side, ensuring no pressure is placed directly on exposed organs.

Pelvic Fractures

Presentation

- Instability or grinding feeling when pressing in against the hips.
- Grinding sounds accompanying pressing in against the pelvis.
- Survivor may feel like they're coming apart and survivor may be in extreme pain.
- Bruising to the abdominal and/or pelvic region may be present.

Pelvic Fractures

Treatment

- Fold burn sheet and place it inside of the trauma sheet to fill space between the legs.
- Place a Triangular Bandage across the hips, two on the upper legs and two on the lower legs (applying cravats at the hips, then applying them from the feet up.)

NOTE

During overland SAR, the pelvis shall be checked and, if necessary, treated prior to logrolling the survivor onto the litter.

Penetrating Puncture Wounds

Presentation

- Foreign object protruding from any area of the body.

Treatment

- Secure object with Roller Gauze on each side of the penetrating object.
- Cut a hole in the middle of a field dressing large enough for the object to fit through and apply field dressing. Tie on the side to avoid direct pressure.
- Ensure object is secure and visible to personnel to prevent further penetration.

Puncture Wounds

Presentation

- Puncture wound to any area of the body

Treatment

- Place a field dressing on wound and tie over the top of the wound.

Eye Avulsion

Presentation

- Eye missing or protruding from the socket

Treatment

- If eye is missing, cover affected side with a field dressing. Always cover both eyes to minimize movement due to sympathetic oculomotor function.
- If eye is protruding from the socket, soak Roller Gauze with Normal Saline. Apply Roller Gauze to each side of the eye and cover both eyes with a field dressing.
- Ensure dressing is snug and tied on the side.

Simple Rib Fractures

Presentation

- Complaining of difficulty breathing
- Bruising, tenderness, or pain (guarding) to affected area.

Treatment

- Sling and swath the arm of injured side, if no injuries to the arm are present.

Burns

Presentation

- Signs of second and third degree burns (blisters and/or charred skin) to any area of the body.
- If burns to the chest are present, check for singed nose hairs indicating an inhalation injury.

Treatment

- Cover burned areas with a burn sheet cut to size, one sheet thick. Secure loosely with safety pins.
- Lightly palpate burned areas for broken bones during Secondary Survey.

Review

First thing you do when arriving on the scene?

Scene Safety

What are the four things you are checking for on Initial Assessment?

Airway, Breathing, Circulation, Severe Bleeding

