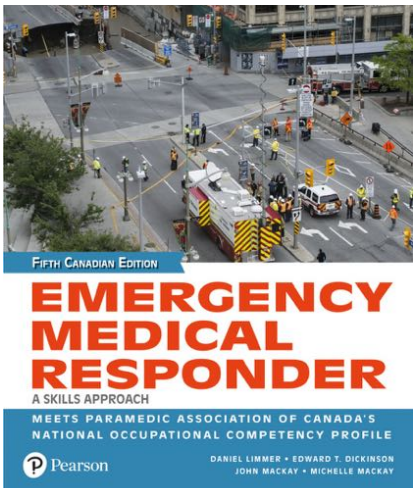
Emergency Medical Responder: A Skills Approach

Fifth Canadian Edition



Chapter 34

Special Rescue Situations

Objectives (1 of 2)

- Define a confined-space emergency and describe some of the inherent hazards for rescuers.
- Identify the role of the EMR in a confined-space emergency.
- Discuss the three general guidelines for performing safe litter carries over distances on rough terrain.

Objectives (2 of 2)

- State the criteria for identifying a rescue as low-angle or high-angle.
- Describe the basic capabilities of a helicopter in rescue operations.
- List the characteristics of a safe helicopter landing zone and describe the procedure for safely approaching a helicopter that has just landed.

Confined Space Emergencies

- Silos
- Storage bins
- Underground vaults
- Wells, culverts, and cisterns

Confined Space Emergency Safety Precautions

- Atmosphere must be properly vented and monitored for a toxic atmosphere
- Electrical systems must be locked out
- Stored energy must be dissipated
- Pipes must be disconnected or blanked out
- A person who plans to enter a space must use appropriate respiratory protection

Scene Assessment

- Determine nature of the emergency
- Call for a specialized rescue team, EMS personnel, and transportation
- Establish a perimeter
- Assist arriving medical and rescue personnel

Cave-Ins

Use a specialized trench rescue team for trenches more than waist deep.

Litter Carries (1 of 2)

- Select teams of four to six bearers each
- After a team carries a litter for a short distance, members should switch positions and then sides
- After another short distance, a fresh team should rotate into position and take over

Litter Carries (2 of 2)

Figure 34–2 Litter carry over rough terrain.

High-Angle Rescue (1 of 2)

A high-angle rescue team is needed under the following circumstances:

- The slope forms more than a 40-degree angle
- Slips or falls could result in serious injury or death due to the dangerous terrain below the slope
- The terrain is so hazardous that it requires rappelling

High-Angle Rescue (2 of 2)

Figure 34–3 Rope system used for a high-angle rescue.

Low-Angle Rescue

- Slope forms less than a 40-degree angle
- Rescuers' hands are not needed for balancing or scrambling
- Slip or fall wounds not likely result in serious injury or death

Helicopters in Rescue Operations

Figure 34–4 Helicopter rescue.

Table 34–1 When to Call for a Helicopter

Operational Reasons	Medical Reasons
• Normal ground travel to the appropriate medical facility would take more than 30 minutes. • Extrication will be prolonged. • The location of the emergency is a remote site. • The patient needs paramedic-level care.	• The patient has a life- or limb-threatening condition. • The patient's condition is unstable (shock, head injury with altered mental status, chest trauma with respiratory distress, penetrating injuries to body cavity, amputations, burns over 15 percent of the body or to the face). • There is a serious mechanism of injury (fall of 5 m or more, blow from a vehicle travelling over 30 km/h, ejection from vehicle, a rollover without restraints, major deformity to passenger compartment or to vehicle's front end, death of one of the car passengers).

Helicopter Rescue

Special Tactics

- Hoisting
- SPIE Line

The Landing Zone

The Landing Zone (LZ) should be flat and have no more than an eight-degree slope.

Table 34–2 Landing Zone Guidelines

• Approximately 30 m × 30 m area
• Free of all obstructions
• Clear of wires, towers, vehicles, people, and loose objects
• Firm ground with less than eight-degree slope
• Markers on all four corners
• All emergency red lights on
• No white lights, spotlights, or blue lights directed toward the helicopter or landing zone
• No smoking

Cold Environment Extrication (1 of 2)

(Below -30 degrees Celsius, with a wind chill)

- Note primary assessment, but….
- Treatment and secondary assessment may have to wait until in warmer environment
- Oxygen adjuncts and BVM device function poorly in extremely low temperatures

Cold Environment Extrication (2 of 2)

(Below -30 degrees Celsius, with a wind chill)

- Handle cold patient with care because abrupt movement can cause heart fibrillation
- Aluminum stretchers and oxygen cylinders cool very quickly in extreme cold and can cause frostbite to both rescuer and patient

