MEDAVIE HealthEd ÉduSanté

Ambulance Operations

Primary Care Paramedicine

Module: 06

Section: 02

Lecture Outline

- Ambulance standards
- Medical equipment standards
- Checking ambulances
- Ambulance deployment and staffing
- Safe ambulance operations
- Air medical transport

Introduction

- Patient care is the core responsibility of a paramedic
- Operations is also a critical part and must be reviewed regularly

Ambulance Standards

- Transport Canada
  - Sets overall vehicle safety standards
- Provinces and Territories
  - Set EMS operations and standards
  - Responsible for setting their own requirements for vehicles and equipment

Standards

- Regulatory agencies tend to set minimum standards
  - Lowest acceptable standard
  - Generic, affordable, politically feasible
- Gold standard
  - Ultimate standard of excellence
  - Local regulations tend to be much more detailed and at a higher standard

Ambulance Design

- No federal, provincial or territorial standards for ambulance design
- Manufacturers tend to select European specifications to identify their designs

Medical Equipment Standards

- Equipment standards and specifications arise from several sources
  - Canadian Standards Association
  - Workman's Compensation (WSIB)
  - Occupational health and safety regulations
  - Provincial/territorial standards
  - Local needs

Checking Ambulances

- Ambulance, equipment and supplies should be checked at the beginning of each shift
- Shift checklist makes the work environment safer
  - Ensures mechanical maintenance
  - Availability and currency of equipment

Vehicle Check

- Exterior
- Maintenance requirements
- Operating equipment
- Cleaning and disinfection
  - Deep cleans as per local protocol
- Patient care equipment

Cleaning

- Cleaning and disinfecting the ambulance is critical to maintaining a safe work environment.

Removing a Vehicle from Service

- This process is based on service specific guidelines.
- If a vehicle is deemed unsafe it is to be removed from service (tagged as per policy).
- Examples may include:
  - Mechanical failures
  - Malfunctioning emergency lights and/or sirens
  - Equipment/vehicle issues that reasonably may lead to accident or injury to patients, paramedics or public.

Ambulance Deployment and Staffing

- The strategy used to manoeuver ambulances and crews in order to reduce response times is known as deployment.
- Factors affecting deployment include:
  - Location of ambulances
  - Location of hospitals
  - Anticipated call volume
  - Local geographic and traffic considerations

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Utilizing Air Medical Transport

Air Medical Transport

- Fixed Wing
  - Employed over longer distances
  - Often used to bring patients home or to a closer hospital
- Rotorcraft
  - Helicopters
  - Can often provide on-scene response especially in rural areas
  - Rapid inter-hospital transport of critically ill or injured patients
- Missions involving air units are commonly referred to as aeromedical evacuations, or medevac.

Advantages of Air Transport

- Rapid transportation
- Access to rural or remote areas
- Access to specialty units (NICU)
- Access to personnel with specialized skills
- Access to specialty supplies

Disadvantages of Air Transport

- Weather and environment restrictions to flying
- Altitude limitations
- Airspeed limitations
- Expense

Air Medical Transport

- In order for a helicopter program to be effective, the front-line First Responders and Paramedics must be willing to consider the need for air transport (and activate) as early as possible!

Indications for Use

- Clinical criteria
- Mechanism of injury
- Difficult access
- Time or distance factors

Summary

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