

Medical equipment and drugs



Lao PDR Integrated Emergency Response Training 2025

Chiang Khong Crown Prince Hospital, Chiang Rai Province, Thailand.
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Medical equipment and drugs

Legal Framework and Guidelines



- There are national and international recommendations for the manufacture of medical equipment and drugs
- First responders emergency kits often follow guidelines from professional societies or the government
- These are more general guidelines and have no technical specifications
- Example: WHO – International Medical Guide for Ships



Medical equipment and drugs

Equipment Selection

- Adapt your equipment list based on:
 - Operational setting (urban, rural, mountain...)
 - Population treated (adults, children, specific pathologies)
 - Time before arrival of professional backup teams



Medical equipment and drugs

Equipment Selection

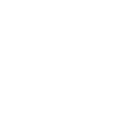
- Transport-related constraints:
 - Weight
 - Volume
 - Shock resistance (fragile equipment)
 - Temperature sensitivity (refrigerated drugs)
 - Safety



Medical equipment and drugs

Stock Management, Supplies and Checklists

- Establish a minimum supply checklist suited to the field
- Regular checks: expiration dates, integrity, replenishment
- Secure and accessible storage
- Track usage for restocking



Storage

Medical equipment



Storage Drugs



Medical equipment and drugs

First aid kit

- Disposable gloves
- Surgical or FFP2 protective mask
- Thermometer
- Scissors, tweezers, safety pin
- Sterile compresses
- Roll of adhesive tape
- Stretch bandages
- Fabric triangle for sling
- Pre-cut adhesive bandages
- Transparent adhesive bandages
- Emergency blanket
- Antiseptic such as chlorhexidine
- Saline solution
- Makeshift tourniquet or tourniquet (fabric and piece of wood)
- Hemostatic bandage
- Compression bandage
- Glucose or sugar
- Hydroalcoholic solution
- Garbage bag

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Practical Example – Motorcycle Accident

- Situation: unconscious victim with active bleeding from arm
- Equipment used: gloves, tourniquet, hemostatic dressing, bandage, blanket, glucose
- Steps:
 - 1. Self-protection (gloves, sanitizer)
 - 2. Stop bleeding (tourniquet)
 - 3. Stabilize (bandage), protect (blanket)

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Medicalization



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Medicalization – Additional Equipment

- Administrative material: patient records, pens
- Hygiene: masks, sanitizer, wipes, gloves, sharps container
- Diagnostics: manual BP cuff, stethoscope, otoscope, glucose reader, ECG, pulse oximeter, thermometer
- Infusion: catheters, needles, syringes, IV lines, saline
- Wound care: dressing kit, sutures, stapler, tourniquets
- Aerosols: inhalation chamber, nebulizer, O2 bottle, Guedel airway
- Resuscitation: AED

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Medicalization – Technical Equipment

- Monitoring and resuscitation
 - Monitor, ECG, AED
- Ventilation & oxygen
 - Ventilator, O2, suction, BVM, masks, aerosols
- Airway management
- Laryngoscope, Guedel, endotracheal tube, Eschmann bougie
- IV access
 - syringes, needles, IV catheters, sharps container



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Drugs Used in Medicalized Emergency Response

-  Pain management: Paracetamol, Morphine, Methoxyflurane, Midazolam, Diazepam
-  Circulation: Adrenaline, Noradrenaline, Amiodarone, Nitroglycerin, Heparin, Tranexamic Acid, Furosemide
-  Respiratory: Salbutamol, Ipratropium, Anti-H1
-  Coma: Naloxone, Glucose 30%, Midazolam, Diazepam
-  Paralysis: Suxamethonium () , Rocuronium (30°C)
-  Antibiotics: Ceftriaxone
- Fluids: Saline



Infusion kit



Asthma kit





Helicopter bag



EVACARe

