



MERT

Medical Emergency Response Team

Manual



ASEAN MERT Exchange Training
17-21 June 2019 Phetchaburi, Thailand

Military Medical Emergency Response Team (M-MERT)

Handbook

Index

Abbreviation	1
A. Introduction	2
B. Objectives	2
C. Mission	2
D. Basic of allocation	2
E. Capabilities	2
F. Organization	3
G. Concept of Operations	4
H. Mobilization of M-MERT personnel and Equipment	4
I. Response, Roles and responsibilities	5
J. Logistics	8
K. Planning for M-MERT	8
L. Preparation	9
Annex A Flow chart of communication	10
Annex B Procedures	11
Annex C Training	14

Abbreviation

ACMM = ASEAN Center of Military Medicine

ACMM CO = ASEAN Center of Military Medicine Coordination Officers

ACMM LOs = ASEAN Center of Military Medicine Liaison Officers

ADMM = ASEAN Defence Minister's Meeting

AHA Centre = The ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management

AMS = ASEAN Member State

BODs = Board of Directors

CIQs = Custom Immigration Quarantine

CT = Counter Terrorism

EOC = Emergency Operation Center

HADR = Humanitarian Assistance Disaster Relief

MED POC = Medical Point of Contact

MMS = Military Medical Services

MNCC = Multinational Coordination Center

MOOTW = Military Operation Other Than War

NFP = National Focal Point

POC = Point of Contact

TOR = Term of Reference

VTC = Video Teleconference

A. Introduction

A.1 ASEAN Defence Ministers' Meeting (ADMM) has adopted the concept paper on establishment of ASEAN Center of Military Medicine (ACMM) and its term of reference (TOR) in order for ACMM to be the central node in military medical activities among AMS, dialogue partners and relevant agencies. The ACMM was established in Bangkok, Thailand and officially inaugurated in April 2016.

A.2 In accordance with article 13 of the standard operating procedures (SOPs) of the ACMM for general administration (2016), SOP-001, which was adopted at 2nd ACMM Board of Directors' (BODs) meeting in Chonburi, Thailand; the ACMM shall develop SOPs for the support of Military Operations Other Than War (MOOTWs).

A.3 This Military Medical Emergency Response Team (M-MERT) is initiated to be utilized as guidelines for Humanitarian Assistance and Disaster Relief.

B. Objectives

B.1 To standardize the concept of operations of military medical emergency response team.

B.2 To harmonize the humanitarian assistance and disaster relief operations among ASEAN countries.

B.3 ASEAN Member States can use as a guideline for preparation on HADR operation.

C. Mission

M-MERT conduct operations in warm zone or semi risky areas, in order to Military Operation Others Than War (MOOTW) of the Armforces which include Humanitarian Assistance and Disaster Relief, counter terrorism, peace and order within the country and peace support operations.

D. Basic of allocation

M-MERT is a task force that employ to affected area to provide emergency medical services.

E. Capabilities

E.1 Establish the casualty collecting point within warm zone and provide out medical care for outpatient less than 80 cases per day and be able to hold 5 patients for observing within 24 hours

E.2 Triage for mass casualty, provide emergency medical service as well as critical care with limitation

E.3 Be able to employ 2 teams as necessary

E.4 Cooperate with special medical operation team in hot zone for 2 litter or 4 ambulatory patients

E.5 Request aero medical evacuation with rotary wing as necessary

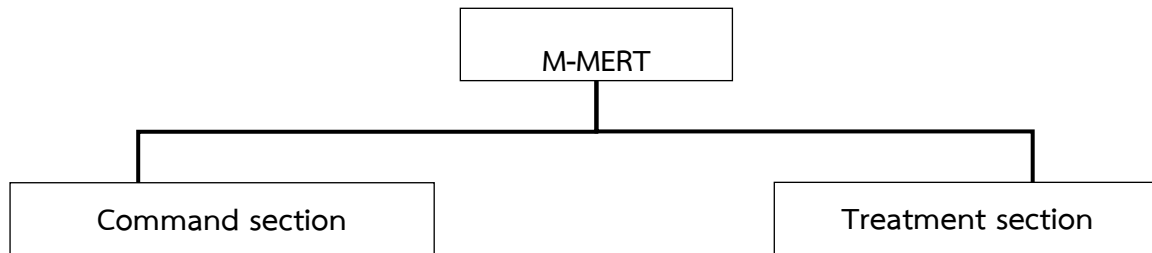
E.6 100% mobility for domestic operation and need to be supported for international operation

E.7 Operate Independently for 72 hrs. without resupply

E.8 Evaluate medical threat and assess potential health risks for the affected population

F. Organization

M-MERT is a task force unit that compose of 2 sections that include command section and treatment section



F.1 Command section responsible to command control and supervise medical operation of M-MERT as well as support to treatment section. There are three people perform in this section; team leader, communication Non-Commissioned Officer, maintenance Non-Commissioned Officer. In this section might ask for more information for necessary information that includes medical facilities medical personnel, leader and related agencies that we could request for additional assistance. Conduct situation report (SITREP) to Headquarters and coordinate in case of emergency situation. Prepare for alternative and emergency plan for M-MERT.

F.2 Treatment section

- 1) Establish the casualty collecting point, triage, treatment and prepare patient for medical evacuation/ transfer to safe areas.
- 2) Coordinate with special medical operation team and conduct medical evacuation both ground and air transportation.

F.3 Members

Position	Corps	Number	Note
Team leader	Medical	1	Achived military training / OAC
Doctor	Medical	1	
Doctor	Medical	1	
Nurse	Medical	1	
Nurse	Medical	1	
Nurse	Medical	1	
Nurse	Medical	1	
NCO (Pharmacist)	Medical	1	
Practical Nurse/Combat Medic	Medical	1	Could be combat medic if
Practical Nurse/Combat Medic	Medical	1	Practical nurse is not
Practical Nurse/Combat Medic	Medical	1	available
Combat Medic	Medical	1	
Combat Medic	Medical	1	
Combat Medic	Medical	1	
NCO (Communication)	Medical	1	
NCO (Maintenance)	Medical	1	
Driver	Transport	1	
Total		17	

G. Concept of Operations

According to the activation levels of manage of disaster in disaster prevention plan 2015. The level is classified into 4 levels which compose of level 1 to 4. M-MERT will be employed for Disaster relief operations for the large-scale disaster (level 3) and catastrophic disaster (level 4). In addition, M-MERT could be employed for counter terrorism, which is attacked by chemical agent, engage to a high-density area where expect number of casualties.

H. Mobilization of M-MERT personnel and Equipment

M-MERT should do the following:

- 1) Pre deployment phase
 - a. Prepare for departure within 24 hours after receiving information
 - readiness of personnel (personal items, vaccination if needed)
 - Medical equipment checklist

- loading list

b. Review information about the situation and the affected country and conduct medical information process and prepare medical intelligent preparation of the battlefield

2) Deployment phase

a. Report to ICS and MEOC

b. Set up the medical facility within 30 minute and be ready to perform medical operations

c. Response to situation by CSCATTT

3. Post deployment phase

a. Check medical assets

b. Check up for medical personnel

I. Response, Roles and responsibilities

I.1 Response

M-MERT response to medical assistance in the affected areas. M-MERT assess medical need and report to Medical Emergency Operation Center (MEOC). The significant information is prepared to ICS and others medical team; moreover, M-MERT prepare to response by “CSCATTT”

- **C Command and Control** for medical team that operate in the affected area

- **S Safety of medical personnel**

- **C Communication** Chanel and frequency, call sign

- **A Assessment** by METHANE

- M Main disaster
- E Exact location
- T Type of incident
- H Hazards
- A Aggress and Egress
- N Number and Type of casualties
- E Emergency services required at the scene

- **T-Triage** ** Note

- **T-Treatment**

- **T-Transfer**

** Note : guideline for MASS triage

M= Movable

A = Assesment

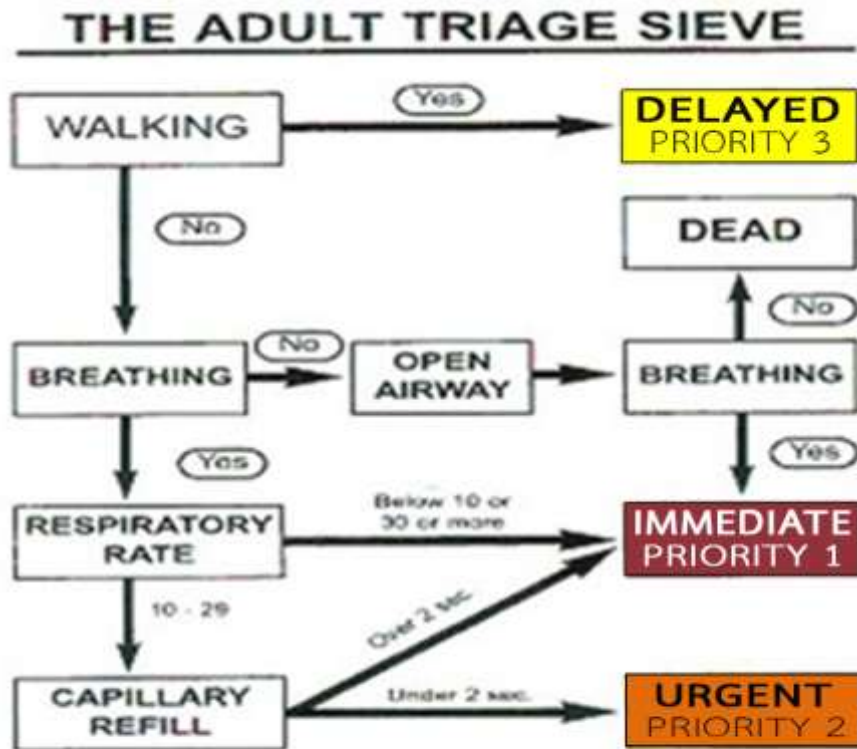
S = Sieve see figure 1

S = Sort see figure 2

1. Who is able to walk, please go to the green zone → green

2. Who need any help please rest your hand → yellow

3. go to casualty that no response for triage red and black, not breathing → black



If you are unable to obtain a capillary refill and the pulse is over 120 beats per minute then the patient is **PRIORITY 1**.

Figure 1 Triage sieve

REVISD TRAUMA SCORE	
GLASGOW COMA SCORE	CODED VALUE
13 - 15	4
9 - 12	3
6 - 8	2
4 - 5	1
3	0
RESPIRATORY RATE	CODED VALUE
10 - 29	4
> 29	3
6 - 9	2
1 - 5	1
0	0
SYSTOLIC BP	CODED VALUE
> 89	4
76 - 89	3
50 - 75	2
1 - 49	1
0	0
PRIORITY	SCORE
DEAD	0
IMMEDIATE 1	1 - 10
URGENT 2	11
DELAYED 3	12
EXPECTED //	1 - 3

Figure 2 Triage sort

I.2 Roles and responsibilities

a. Team leader responsibilities

- Establish contact with the Representative, the Disaster Focal Point and the disaster coordinator for the ICS
- Establish contact with MEOC / ICS
- Establish contact with other agencies involved in the health sector
- Planning and supervise M-MERT
- Manage all resources within unit for maximizing efficiency
- Prepare daily situation reports and send them to ICS, MEOC, AMEDD Headquarters
- Report before demobilizing from AO

b. Doctor and nurses

- Situation assessment and report to team leader
- Triage sieve or Triage sort on scene care
- Triage START at casualty collecting point
- Treatment
- Transfer

c. Combat Medic

- Response to Doctor and nurse for triage, treatment and assist transfer casualty
- Response to loading parking and so on.

J. Logistics

J.1. Communication items (responsible by communication NCO)

- a. Prepare network of communication, call sign, tel and name list
- b. Prepare radio and battery, ensure it workable
- c. Contact M-MERT member closely
- d. Maintain close communicate to commander
- e. Assist teamleader for coordinating and recording
- f. Assist teamleader for communication from outside to member
- g. Collect and update situation to commander as well as obstacle and problem
- h. Flow chart and Call sign see annex A

J.2 Facilities responsible by maintenance NCO and communication NCO

- a. set up working areas and resting areas
- b. install communication asset and generator
- c. maintenance all items and equipment
- d. prepare food and water for M-MERT
- e. keep an eye on WASH (Water, sanitation and hygiene)

J.3 Medical Supply

- a. Medical items and medical supply is managed appropriately
- b. Medical Logistics plan for additional assistance from hospital near by.
- c. See annex B

K. Planning for M-MERT

Planning is paramount before deployment to affected areas. M-MERT should be splitted into two teams for maximizing efficient and take turn for resting. Position of nurses and combat medic should be able to replace each others; however, support and treatment team should clearly separate.

The alternative plan in case of inadequate resources, and any obstacles should be prepared. Make a request for supporting if necessary. A plan that also includes additional back up generator access is also important. Emergency water management must take into account.

Law enforcement and hospital security personnel must have a well-coordinated plan for maintaining access and egress route approaching and surrounding medical treatment facilities. The onslaught of affected people, family members, media and health workers must be controlled.

L. Preparation

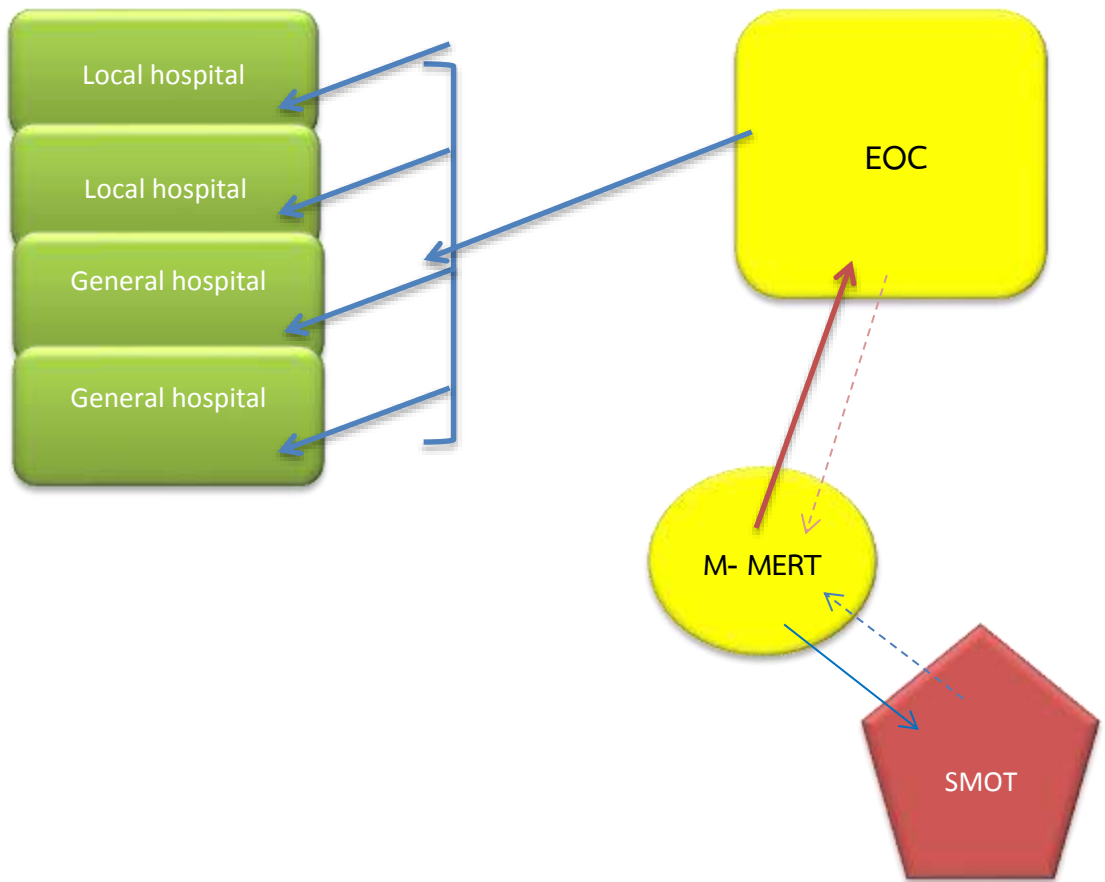
10.1 Support system

- 1) Basic operational needs for survival that include food and non-food items
- 2) IT, Radios and Communication items - radio, telephone, fax computer etc.
- 3) Engineer items - generator
- 4) Transportation - mean of transport- ambulance, truck,
- 5) Stationary for back office Medical treatment system

10.2 Medical equipment and medical supplies

- 1) Items for respiratory system
- 2) Items for circulation system
- 3) Fracture and immobilization
- 4) Protective gear for infection control
- 5) Others Medical items as needed

Annex A
Flow chart of communication



Annex B

1. Procedure for M-MERT to do before delivers the casualty to destination:

1. Difficult airway: Surgical Airway
2. ICD
3. Needle Thoracostomy
4. Vascular access: Cutdown, cavafix, triple lumen
5. Suture
6. Pericardiocentesis
7. Umbilical catch

2. The alternative plan for unexpected situation:

1. Main equipment breakage eg. car breakdown, electric generator out of order
2. Robbery
3. Threats from local
4. Accident of team staff

3. Injured casualty belonging storage system:

There are steps as follows:

1. List patient's property by identifying according to the noticeable, such as gold-plated necklace, watch, ring, etc.
2. Have a witness
3. Photograph as evidence.
4. If the location to send the belongings is clearly known, send the patient's property to the ambulance with the recipient's name and sender as evidence. The notes with the belongings need to include the following:
 - Sent to patients
 - Stored in the envelope
 - Kept with the M-MERT team

In this regard, the property collection system will be done in each patient depending on the patient's condition. To prevent loss of assets in the event that the receiver is not owner themselves, such as;

1. The unconscious or deceased patient, with details in the wrist band attached to the patient
2. In the case of the patient being aware of the condition, the patient should sign and find a place to store assets near the patient

4. Sanitation

The system of infection control that is suitable for use during the M-MERT team's mission. Medical device and equipment must be boiled for sterilized. For the infectious waste suggest using the burning method.

5. List of medicines, Medical supplies and Equipments are needed to Standardize and Draft According to the Level of MERT Team. (The Following tables are example of Thai MERT Team)

- Table 1 -

No.	List of medical and pharmaceutical for first aid.	Total	Unit
1	Adrenaline 1 : 1,000	5	Amps
2	NAHCO3 (50 cc.)	2	Amps
3	10 % Calcium gluconate (10 cc.)	2	Amps
4	Dexamethasone/Hydrocortisone	5	Amps
5	Diazepam (10 mg.)	5	Amps
6	50 % Glucose (50 cc.)	5	Btls
7	Morphine/Pethidine	10	Amps
8	Atropine	5	Amps
9	Amiodarone	5	Amps
10	Buscopan (Hyoscine Butylbromide)	5	Amps
11	Isosorbide Dinitrate Sublingual	20	Tabs
12	Aspirin	10	Tabs
13	Nitroglycerin	10	Sheets
14	Isosorbide Dinitrate Spray (in case of ischemic Heart Disease)	1	Btls
15	Loperamide	20	Caps
16	5 % D/NSS 1,000 cc.	2	Btls
17	NSS 1,000 cc.	2	Btls
18	RLS, 1,000 cc.	2	Btls
19	5 % D/W 500 cc.	1	Btls
20	2 % Xylocaine gel	1	Tube

Note: a. In the case of field training, medication arrangement in pharmaceuticals will label as mock instead of real medicine.

b. No.7 need to request form local support as needed

c. need to put medication for infection, geriatrics and obstetric cases as needed.

- Table 2 -

No.	Life-saving	Total	Unit
1.	Automated External Defibrillator	1	Machine
2.	Mobile Respirator	1	Machine
3.	Mobile Suction	1	Machine
4.	Blood pressure monitor with headphones	1	Machine
5.	A bag of medical equipment.	1	Bag
6.	Medicine bag	1	Bag
7.	Ambu bag	1	Set
8.	Scoop stretcher	1	Set
9.	O ₂ tank with pipe *	2	Tank
10.	O ₂ tank spare with regulator (for Patients Transfer) *	1	Tank
11.	Spinal Board	1	Sheet
12.	Minor Operation set include Labor Set	2	Set
13.	Suture	10	Set
14.	IV set	20	Set
15.	Splint Wood/Pneumatic Splint for Hand and Leg	2	Set
16.	Hard cervical collar	10	Set
17.	Larygoscope with Blade	1	Set
18.	Endotracheal tube No.8(2), 7.5(4), 7(3), 6(1), 5.5(1), 5(1), 3(1), 2.5(1)	1	Set
19.	Mouth gag (Size) #2, #3, #4	5	Piece
20.	Macgill's forceps	2	Piece
21.	Hand Wash Gel	1	Set
22.	Personal Protective Equipment eg. Mask, goggles, apron, boot	According to the number of people	
23.	Sterile gloves and Disposable gloves size S , M , L , XL	1	Box
24.	Wrist Label (Red, yellow, green, blue)	200	Piece
25.	Tape for blocking the designated work.	2	Roll
26.	Emesis or Plus Basin	1	Piece
27.	Oximeter	1	Machine
28.	Glucometer & strip	1	Machine
29.	Infected garbage bags	5	Bag
30.	Bed Linen	5	Piece

Note : In case of international operations No.9 and No.10 should be support by Effected Country

Annex C

Training

1. Aim

In order to shape personnel of the Military Medical Emergency Response Team (M-MERT) to organize a medical unit to respond to a disastrous situation on time with the same standard and effective.

2. Purpose

2.1 To establish the standard of knowledge and practice of the medical team responding to the compound of the Military Medical Emergency Response Team

2.2 To use in response to the policy of Military Medical Emergency Response Team in providing humanitarian assistance, disaster relief (HADR) and military medicine (MM)

3. The training consists of 2 parts:

- 1) theoretical training and practice
- 2) Field training exercise

3.1 Theoretical training

3.1.1 Structure of the mission, planning, capabilities, M-MERT

3.1.2 Preparation unit and of the M-MERT readiness to set lead the team into the field

- 1) Communication
- 2) Coordination
- 3) Reinforcement

3.1.3 Necessary medical operations by the M-MERT set in a disastrous situation

- 1) Sorting
- 2) Medical treatment
- 3) Patient Preparedness for Evacuation/transfer

3.2 Field training exercise: performing in the simulation situation of the following:

- 1) Landslide
- 2) Building Collapse
- 3) Chemical Leakage
- 4) Mass Casualty

4. Evaluation process Practice in a given situation

- 1) Evaluate the determination of location, suitability
- 2) Evaluate the coordination / reporting to the process to Commander or the Army Disaster Relief Center
- 3) Evaluate the sorting of sick patients in the accident area / district collecting sick patients
- 4) Evaluate the medical treatment according to the urgency of the patient
- 5) Evaluate the repatriation / forwarding and moving of patients in the incident area



MERT Manual

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