




**Emergency Medical Teams in the Field:
Experiences and Learning**



www.nationaltraumacentre.nt.gov.au



STRATEGICALLY LOCATED



Darwin to:

- Dili 718 km (1hr)
- Denpasar 1759 km (2hrs)
- Jakarta 2736 km (3.5 hrs)
- Adelaide 2609 km (3.5 hrs)
- Perth 2651 km (3.5 hrs)
- Brisbane 2846 km (3.5 hrs)
- Sydney 3146 km (4 hrs)
- Melbourne 3140 km (4hrs)
- Singapore 3345 km (4.2hrs)



***“An Australian Medical Assistance Team (AUSMAT) is an official Australian Government multidisciplinary healthcare team deployed in response to national or international disasters where assistance is requested by the impacted government.*”**

EMERGENCY MEDICAL TEAMS

- Specify an International minimum standard for medical teams responding to disaster
- Self-sufficiency
- Can be a government, charity, military or international organisation
- http://www.who.int/hac/tech_guidance/preparedness/emergency_medical_teams/en/



Type 1 Mobile

Provide outpatient initial emergency care of injuries and other significant health care needs.

The team, including all equipment, can be easily moved throughout the mission deployment.



Type 1 Fixed

Same as Type 1 Mobile but work out of a fixed structure and provide up to 12 hours per day of care, 7 days a week.



Type 2

Provide emergency care including surgery, 24 hours per day.

Deploy field hospitals with at least 20 beds and can replace or support small district hospitals.



Type 3

Provide inpatient referral care including intensive care and complex surgery.

Provide large 40-100 bed facilities and can support or replace tertiary hospitals.



Specialized Teams

Specialize in a specific medical area. May be as small as two or three senior specialists, or a specialist facility eg. Ebola or rehabilitation.

Must bring appropriate equipment and supplies with them.

EMT PHARMACY REQUIREMENTS

- Comply with
 - WHO Guidelines for Drug Donations
 - WHO Essential Medicines List
- Prior permission to import
- Proper donation/disposal/export
- Cold chain
- Treat both communicable and non-communicable diseases present

EMT PHARMACY REQUIREMENTS

Type 1

- Treat 100 outpatients/day for a 2 week deployment
- Must include:
 - Oral/parenteral analgesia
 - Antibiotics
 - Tetanus prophylaxis

Type 2

- As Type 1 plus medicines appropriate for:
 - Inpatient
 - Anaesthesia
 - Surgery

AUSMAT TEAM DEPLOYMENTS:

- 2009 ASHMORE REEF, EXPLOSION
- 2010 PAKISTAN, FLOODS
- 2011 CHRISTCHURCH, EARTHQUAKE
- 2013 SOLOMON ISLANDS, DENGUE
- 2013 PHILIPPINES, TYPHOON
YOLANDER
- 2015 VANUATU, CYCLONE PAM
- 2016 NEPAL, EARTHQUAKE
- 2016 FIJI, CYCLONE WINSTON



NCCTRC DAY-TO-DAY BUSINESS

- Vaccination Clinic
- Stock Rotation
- Medicine governance
- Licensing
- Review and design of kits
- Maintenance of clinical skills



PRE-DEPLOYMENT ACTIONS

- Country-specific changes
 - Likely presentations eg Malaria
 - Standard drug list
 - Import/export license
- Final preparations
 - Final packing
 - Manifest
 - Temperature monitoring
 - Computer database
- Review of AUSMAT staff
 - Vaccination status
 - Medical conditions
 - Allergies



ON DEPLOYMENT ACTIONS

- Storeman/technical role
 - prepacking, imprest supply, dispensing
- Clinical impatient review
- Drug Information
- MOH/other EMT liaison
- Recording and reporting medicine usage



POST DEPLOYMENT ACTIONS

- Analysis of medicine use
- Assurance of stock quality
- Gap analysis/risk register
- Staff survey
- Medicine kit rebuild




NON COMPLIANCE TO REQUIREMENTS

- Phenytoin versus levetiracetam
- Benzyl benzoate versus permethrin cream

EXAMPLE OF IMPORTANT MEDICATION PREFERENCES




CASE STUDY-DEVELOPMENT OF KIT




2010
PAKISTAN
PAKISTAN FLOODS

- » REALISED A NEED FOR AN INFORMED PHARMACY KIT FOR SOD
- » BASED ON IEHK AND ICRC DOCUMENTATION





- » MODIFIED
 - To locally available medicines
 - To allow rotation through local hospital for cost effectiveness
 - Scaled for likely patient numbers
 - Changed to convenient preparations



2013
PHILIPPINES
TYPHOON HAIYAN

- » DEPLOYMENT HIGHLIGHTED LACK OF NON-COMMUNICABLE DISEASE MEDICINES (NCD)
- » REVIEW OF WHO ESSENTIAL MEDICINES LIST
 - Population modelling to shape assumptions related to our region, eg. Likely percentage of diabetic patients
 - Addition of NCD medicines

CASE STUDY-DEVELOPMENT OF KIT



2015
VANUATU
TC PAM

- » DEPLOYED MEDICINE KIT RETURNED TO AUSTRALIA
- » WAX COATED BOXES COLLAPSED
 - Purchase of new durable, secure and colour classified storage boxes to replace wax coated boxes that were originally chosen because they were light weight and disposable.



before

Light weight and disposable option
Chosen size comfortable for porters



after



2016
FIJI
TC WINSTON

AUSMAT Fiji Response gave rise to:

- » CONSIDERATION OF EMT1 MOBILE TEAM REQUIREMENTS
 - Boxes have evolved to include innovative custom designed shelving systems to convert a box into an immediate use cupboard system with removable shelving
 - Purchase of portable medicine packs
 - Considerations around restocking




before













after

Shelving for organization and management
stickers for ease of identification

THE MEDICINE CACHE MK2+



 x7 FULL SIZED SHELVED SPACE CASES	 x1 MATERNAL & CHILD HEALTH	 x1 SURGICAL SUPPLIES	 x1 PALLET OF IV FLUIDS	 x1 PALLET OF ORAL REHYDRATION SOLUTION
 x7 HALF SIZED SHELVED SPACE CASES	 x4 RAPID RESPONSE KITS	 x2 CABINET	 x2 DANGEROUS GOODS BOXES	 x1 MEDICAL FRIDGE

Refrigerated stock issues



THANK YOU