

PLENARY SESSION I: MEDICAL SUPPORT IN OPERATIONS

PL1

HEALTH SERVICES SUPPORT IN COUNTER INSURGENCY WARFARE IN MALAYSIA

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Medical support in Counter Insurgency Warfare follows the basic principles of Health Services Support in Combat. However, due to the nature of the operations and the environment under which it is fought, planners have to consider several imperatives when developing Counter Insurgency Medical Support Plan. Forbidding climate, difficult terrains and limited visibility can quickly wear the soldiers out. Jungle combat environment subjects personnel to severe physical and mental stress. The abundance of disease vectors have harmful effects on the soldiers. Disability caused by heat, humidity and tropical diseases requires special emphasis on force health protection measures. The manner in which medical support is provided depends on the tactical operations. Medics sometimes have to perform duties and conduct operations that are beyond their scope of training. In some situations, medics have to be sent far forward to improve response time. The difficulties of ground medical evacuations make air evacuation a primary mode of transportation of casualties. In some cases the only means of evacuation was by litter which can only carry patients for a few meters before needing rest. Adjustments due to weather, terrain and vegetation have to be made. The security threats caused by insurgents have to be considered throughout the medical mission. In most cases, it is difficult to visualize the battle field. In the provision of health care services to the troops, medical personnel need to be trained in field hygiene, combat trauma life support, aeromedical evacuation and basic tactics in jungle warfare. They must be in excellent physical fitness. They also have to be trained in psychological operations and have to perform several medical civic action projects to win the hearts and minds of the local population. Intensive training, good intelligence, appropriate risk management and good preventive measures help to prevent illnesses and injuries among the troops. This paper presents a detail description of the experiences gained and lessons learnt during the insurgency in Malaysia from 1948 to 1960 and 1967 to 1989. It will also discuss some health services support considerations before, during and after deployment.

PL2

EQUIPMENT OPTIONS FOR MEDICAL CARE IN EXTREME CIRCUMSTANCES

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Modern medicine has increasingly become dependent on essential services such as electricity, water, sterilization services, piped and bottled gas supplies, drug and equipment re - supply and servicing. Much of the equipment provided for modern hospitals and even pre - hospital care is based on the assumption that such essential services will always be present. For hospitals in developed nations there are many lessons in resilience that can be learned from practice in developing nations where natural and man made disasters can have serious consequences. Military battlefield experience is also relevant. The vulnerability of modern medical equipment in the civil hospital setting brings into focus the need to be able to continue to practice safe medicine in difficult circumstances. Such 'extreme medicine' may be required in a number of situations including:

- (1) conventional urban medical practice where support services break down as a result of natural or man - made disasters or other situation which produce a casualty overload.
- (2) during epidemics in urban and rural areas.
- (3) emergency medical care in contaminated zones, following release of a toxic chemical.
- (4) war zones, where medical support always requires special equipment and training, together with specialized logistic support.
- (5) humanitarian aid operations in developing countries, where equipment transported from developed nations may be inappropriate and unsupportable due to infrastructure and local socio - economic and climatic conditions
- (6) wilderness and other remote location medicine such as mountain and sea rescue. In order to provide a level of care that is equivalent to that found in conventional urban medical practice the following are required:
 - (1) an understanding and awareness of the problems by professional medical bodies.
 - (2) special planning and training for medical support formations to be able to apply modern medical care under extreme conditions.
 - (3) a logistic infrastructure that can respond quickly to the requirements of extreme conditions.

(4) suitable equipment that can be used in extreme conditions .
In most extreme medicine situations there are requirements for:

- (1) life support equipment (airway, ventilation and circulatory support).
- (2) options for mass ventilation (following chemical exposure and epidemics where conventional facilities may be overwhelmed).
- (3) Anesthetic and operating equipment (field surgery and anesthesia).

(4) Essential equipment for continuing high-dependency care (essential intensive care). The equipment used in extreme conditions must be:

- (1) autonomous.
- (2) simple to operate and intuitive.
- (3) robust, allowing easy transportation and deployment.
- (4) versatile.
- (5) capable of operating under extremes of temperature, humidity and other climatic conditions such as desert.

Specific equipment required in extreme medicine includes:

- (1) Airway management devices, including emergency non – surgical access.
- (2) Artificial ventilation both for emergency, transport and basic ICU use.
- (3) Autonomous field anesthetic equipment.
- (4) Monitoring equipment.
- (5) Vascular access and provision of iv fluids using autonomous, no – gravity – dependent delivery systems.
- (6) Emergency pneumothorax and wound drainage equipment.
- (7) Immobilization and patient handling options.

This presentation will consider the equipment requirements for medical responses in extreme circumstances, based upon the above analysis with special reference to military and humanitarian aid operations.

