

FIELD MEDICINE

FUNDAMENTALS OF MULTI-TIER MEDICAL SUPPORT PLANNING FOR LOW INTENSITY CONFLICT IN PAKISTAN

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ABSTRACT

This study was aimed to visualize the frequency and type of imminent terrorist events and plan a flexible medical support hierarchy capable of effectively responding to terrorist scenarios with focused, adaptive and efficient medical support doctrines. Efficient medical support system reduces mortality, raises morale and neutralizes the effects of terrorist incidents. Medical support in low intensity conflict (LIC) is necessary to be revitalized in line with modern operations requirements. After thorough literature search all available standing operating procedures (SOP), were reviewed for medical support in LIC. To be effective, the medical support system ought to be very well carved, well rehearsed, ever evolving, innovative and practical. It is ought to be flexible and futuristic to accommodate difficult challenges, yet plausible and practical enough to conform to the ground realities. Deliberate and focused endeavors at multiple tiers involving diverse organizations with singularity of aim and purpose i.e. to render sickness preventive, health promotive and disease curative facilities where ever the nation calls in line with the splendid traditions of Pakistan Armed Forces.

Keywords: Military, terrorism, planning.

INTRODUCTION

Within the framework of Pakistan's peculiar relationship with its neighbours possessing hegemonic obsessions, terrorism has become a viable threat. In addition, global security paradigm has been dramatically altered after 9/11¹.

Consequently, there is dire need to delve into the phenomenon of terrorism and evolve blue print of effective response, failure of which can engender calamitous consequences. It is in such environment that nations can either sink into the oblivion of history or emerge stronger to claim their rightful place in the new world order².

The most significant challenge in terrorism preparedness and response initiative is planning to respond to the unknown. No one can predict the magnitude of the next terrorist attack or when and where it will happen. The diverse terrorist situations necessitate that the response policy be analyzed critically prior to its implementation because un-thoughtful and

impulsive counter measures may lead to their self defeat³.

Military medical services, being among the first responders after a terrorist disaster, are required to evolve and strategize effective, efficient and promptly executable medical support protocols in conformity with the military strategy designed to out-manuever and defeat an enemy. An ideal medical support plan should have all necessary elements needed for effective and efficient response for complete spectrum of terrorist acts and conflict scenarios. This includes management of injury, transport of the injured, a communications network, optimum readiness of receiving hospitals and a well rehearsed qualified team at each stratum of medical care. In addition, the plan needs to be in conformity and collaboration with civil health departments to ensure integration at national and local levels for optimum medical support response.

Medical evacuation is one of the major missions of the medical element, Joint Task Force-Bravo (ME-JTF-B) in Honduras, which operates in a low intensity conflict environment. ME-JTF-B conducted 10 missions during the primary author's deployment. Critical examination of these missions led to several performance improvements. One of the most important aspect was that of close command and control of every deployment by

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the hospital commander and the chief administrator⁴.

DISCUSSION

This review is to delineate fundamentals of multi-tier medical support planning for terrorism. The paper is unfolded as per following contours/tiers:

- National level
- Military medical services level
- Military hospital level
- At the scene of terrorist act

National Level

The realistic planning and preparedness should be initiated at National level. It necessitates creation of a government-public-private entity (including federal, military, and public health experts) that will collaborate with Red Cross and Crescent, Community Health Centers, Social Workers, NGOs and hospital care providers as well as teachers and religious officials. The essential components of preparedness are⁵:

- **Prioritization.** Colossal resources (financial, human, equipment, time) are required to be dedicated at National level to amicably prepare to respond to terrorist events. The central government must reorder its priorities and balance Terrorism with other Public Health issues.
- **Timeline.** The urgent need to develop a National Strategy to mitigate the risk and impact of terrorist events upon public health necessitate an accelerated planning timeline.
- **Evolving Strategies.** Planning for the unknown risk of terrorist events as well as the changing threats necessitate a strategy framework that should be strong enough to provide clear direction, but flexible enough to accommodate evolving priorities.
- **Budget Allocation.** Sufficient budget from federal government health authorities be allocated to those projects which will best support the anti-terrorist strategy. The resources and elements of military medical services

alone cannot be a panacea for diverse variety of threats imposed by terrorism. Instead it entails a collaborative / combined effort of all health organizations since most of the conflicts fall in the tri-angular politico-socio-military area.

- **Trained Workforce.** Varied terrorist scenarios require that a Terrorist response workforce be generated comprising of a variety of disciplines and professionals. Specific attention should be given to develop coordination between following four specialized sectors: -

- Public health
- Clinical staff
- First response medics.
- Law enforcement agencies

Human Resource Development. It is prudent to evolve a certification and competency-based training and education system for health professionals to ensure that have the specialized knowledge, skills and attitudes in consonance with their roles in terrorism preparedness and response. Medical educators and medical specialty boards/societies should develop medical education curricula tailored to cater for diverse aspects of terrorism.

- **Evaluation of Training.** Mechanisms need to be developed to evaluate whether recipients of training are actually able to effectively perform the tasks for which they have been trained. This entails performing frequent simulations and exercises to measure the effectiveness of training and the competency of workforce segments.
- **Coordinated Response.** In the event of a terrorist attack, all tiers of medical services including military/civil and federal/public should be able to respond in an integrated and perfectly synchronized form.

Military Medical Services Level

It is prudent, to envision frequency and type of imminent terrorist events and plan a

flexible medical support hierarchy capable of effectively responding to terrorist scenarios with focused, adaptive and efficient medical support doctrines.

Medical resources cannot be deployed everywhere in combat zones. Resources must be judiciously planned and optimized for the many, rather than dispersed for the few.

Casualty survival depends upon rapid evacuation and early treatment. In many urban terrorist incidents, law enforcing agency members reach the incident site before medical teams. Such scenarios necessitate that basic first aid / life saving protocols be known to non medical personnel also. This is an important training role to be played by local medical authorities.

Medical support planning can be done according to various functional phases of casualty care. These phases can be divided into pre-attack, immediate post attack / self aid, buddy aid, initial medical care, decontamination and expert medical care at hospital. Field medical support is rendered with these echelons of care, with increasing capabilities, and more sophisticated equipment towards the rear.

Modern principles of advanced trauma life support entail dispersing resuscitative surgical teams widely around the combat / conflict zone in a forward leaning posture. Planners also ought to arrange complex multidisciplinary medical teams, intensive care and definitive care/ reconstructive surgery in a manner to bring care forward to casualties. Consequently, Forward Treatment Centers (FTCs) be placed accordingly.

Military medical planners must also prepare for care of the civilian population at risk, including pregnant women and young children.

Military Hospital Level

Mortality after a terrorist event has been described as having a "tri-modal distribution"^{3,6}.

a. The first peak of deaths occurs within minutes of the event from non-survivable

injuries, even with the most advanced medical resources immediately to hand.

b. The second peak may account for some 30% of deaths in the first few hours after injury. Death is most often due to hypoxia and hypovolumic shock. This group stands to benefit the most from excellence in trauma care.

c. The third peak, of up to 20% of trauma deaths, occurs late after the injury, from sepsis, multi-organ failure, and other complications.

During a major terrorist act all area hospitals both military and civilians will be involved. They may run short of essential medications, blood supplies, and staff. All hospitals should have resource sharing and resource enhancement plan as part of medical support plan in conjunction with civil health departments, police, fire, and emergency medical services.

Rapid diagnosis and prompt treatment minimize medical and psychiatric complications. Like treatment of physical trauma, those suffering from emotional trauma/psychiatric problems (like post traumatic stress disorder) be treated appropriately in an expert psychiatric facility.

In case of use of NBC agents, the medical care will include specific procedures and equipment as follows:-

a. Adequate personal protective equipment for hospital staff in case of NBCW threat.

b. Supplies, procedures/protocols, and designated external areas for decontaminating patients prior to entry into the treatment area.

c. Specialized laboratory facilities.

d. Adequate supplies of specific antidotes.

Physician Specific Issues in Planning for Terrorist Acts

a. List of health care providers be available with contact information and location.

b. Within each hospital, all specialists should participate in developing the internal response capabilities of their departments and rehearse to work as a harmonized team.

c. The specialists should participate in the education of colleagues, hospital staff, and administration.

d. Concerned medical licensing and quality control inspecting authorities to include the evaluation of hospital plans for terrorism and other conflicts as part of the periodic accreditation and licensure visits and annual inspections.

e. Doctors and other health professionals should also be well versed with ethical and legal issues of terrorism response.

At Scene of Terrorist Act

Medical Response and Health Protocols: An effective medical response at a terrorist incident site depends on good communication and mutual coordination between various units / health agencies. This is essential to bring some order to the mayhem prevailing at that moment⁷.

Survival at the scene of Terrorist act is in direct proportion to the efficient and effective provision of basic life and limb saving medical care and immediacy / availability of personnel trained in these protocols as most of the injuries are lethal⁸.

The first members of the emergency medical services to arrive on the site should make a rapid assessment of following and inform their control room accordingly⁹.

- a. On site hazards (actual and potential).
- b. Access to the site.
- c. Estimates of the number and main types of injuries/causalities.
- d. Services and resources which are present or required.

At the site of accident, certain key decisions are:

- a. Identification of hospital (or Advanced Dressing Station / Forward Treatment Centre) to which the injured can be taken.
- b. Ambulance arrangements.
- c. Helicopter landing site(s).
- d. Rendezvous point or points for all responding personnel, which may be some

distance from the scene in the event of another terrorist incident.

e. Marshalling area for assembling vehicles and equipment.

f. Body holding area which is under cover and protected from public view

g. Media liaison point¹⁰

Triage is the mainstay for effective medical decision making and helps to arrange casualties in priority order to ensure the most effective use of limited medical resources and minimize morbidity and mortality¹¹. Triage criteria should be determined in advance and practiced. It is important to identify the priorities earlier¹².

Concept of Buddy Aid is of paramount significance. It is the care given by non-medical personnel to fellow personnel who are not able to care for themselves. Since immediate care within "Golden Hour¹³" is of colossal importance in saving life and limbs of casualties, buddy care is the determining factor in the success of treatment. Unit commanders must ensure that all personnel have adequate training to perform buddy aid. Health professionals must therefore develop services for victims¹⁴.

Arrangements / considerations at a major terrorist scene also include setting up an inner cordon to secure the immediate terrorist scene and provide a measure of protection for personnel working within the area. All those entering the inner cordon should report to a designated cordon access point. People must have an appropriate level of personal protective equipment (if required) before entering the inner cordon. Persons leaving the inner cordon must register their departure¹⁵.

Medical personnels are trained regarding the principles of triage, ethical codes, etc as they are often surprised with the number of casualties, logistics issues and many other matters¹⁶. Efficient medical support system can help them in many ways.

CONCLUSION

Efficient medical support system is a force multiplier. It reduces mortality, raises morale and neutralizes the effects of terrorist incidents.

But to be effective, the medical support system ought to be very well carved, well rehearsed, ever evolving, innovative and practical. It ought to be flexible and futuristic to accommodate capricious challenges, yet plausible and practical enough to conform to ground realities. This entails deliberate and focused endeavours at multiple tiers involving diverse organizations with singularity of aim and purpose i.e. to render sickness preventive, health promotive and disease curative facilities where ever the nation calls in line with the splendid traditions of Pakistan Armed Forces.

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