FREQUENCY OF MEDICAL COVERS AND DISEASES ENCOUNTERED IN FIELD BY A FIELD MEDICAL UNIT OF PAKISTAN ARMY

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ABSTRACT

Objective: To determine the frequency of medical covers and diseases encountered in the field by a field medical unit of Pakistan Army.

Study Design: Descriptive study.

Place and Duration of Study: The Study was conducted in 61 Medical Battalion Multan, from Jan 2013 to Dec 2013.

Patients and Methods: All the medical help demanded either in the form of nursing assistants (NA) or medical officers (MO) or advanced dressing station (ADS) or forward treatment centre (FTC), by a competent authority of HQ Log 2 Corps, during complete one year of 2013 (January 2013 to December 2013).

Results: A total of 90% of all medical covers were in-station and 95% of them required NA only. Ten percent of all medical covers were out-station and 98% of them required MO also. Eighty percent of the diseases faced in field were gastroenteritis, 15% upper respiratory tract infection (URTI), 5% were heat exhaustion, trauma, foot rot, arthropode / vector borne diseases.

Conclusion: Prompt first aid and speedy evacuation is the essence of medical cover. Basic life support (BLS) trained nursing staff and speedy, reliable and fast ambulance is the core of medical evacuation. MO is only to be employed where distance from any other medical or surgical facility is more than 2 hours. Water source in field to be screened for coliform count under responsibility of concerned engineer detachment or packed water bottles to be provided from the supply detachments.

Keywords: Field (Fd), Medical Battalion (med bn), Medical Officer (MO), Nursing assistant (NA).

INTRODUCTION

Medical Battlion (Med Bn) has pivotal role in either offensive or defensive operations, by looking after the health of the dependent formations. There are a number of factors which can badly affect military exercises or deployment, like social, psychological and environmental factors which are further aggravated by diseases. However, continuous modernization of medical facilities has reduced disease related deaths in military exercises over last few decades[1]. By examining the nature of diseases and types of medical covers faced by a Med Bn rationalization of employment of nursing assistants (NA) and medical officers (MO) as well as redefining their job descriptions may be done. Also concrete methods and policies may be adopted to redefine the medical covers requiring either NA or MO which in return may reduce the deficiency of general duty medical officers in the field units.

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PATIENTS AND METHODS

All types of medical support demanded officially through concerned HQ Log 2 Corps were taken as medical covers. It included both in-station as well as out-station covers with or without MO as well as advanced dressing station (ADS) and forward treatment centre (FTC) during complete 1 year of 2013. Diseases faced in the field exercise / deployment during the same tenure by soldiers were also recorded. Separate registers for each type of medical cover were being maintained with number and types of patients if any for both in station and out station duties were recorded.

Study variables measured were the frequency of medical covers and diseases encountered in field by the field med unit. Statistical package for social scinces (SPSS) version 12 was applied to analyze the data. Descriptive statistics included mean standard deviation and variance. A $p<0.05$ was considered statistically significant, t-test was the test of significance.

RESULTS

The study was carried at Multan based field ambulance (Fd) taking in account of all the medical covers and diseases encountered during field exercise of complete 1 year of 2013. Total of 340 medical covers were provided during the said time, 306 were in-station and 34 out-station.

A total of 90% of medical covers were in station and out of them 95% required NA. Ten percent of the medical covers were out stationed and 98% of them required an MO. Major diseases of the field were diarrhoea (80%), upper respiratory tract infection (15%) and rest were (5%) trauma, heat exhaustion, foot rot, arthropod / vector borne diseases.

No casualty / emergency ever was reported during this whole tenure from in-station medical covers, which were primarily provided by NA alone. Whereas, fd deployed units in longer duration of stay presented with emergency cases of angina pectoris, acute appendicitis, acute renal colic, which required first aid and emergency evacuation to nearest combined military hospital (CMH). Results shown in figures 1 & 2.

DISCUSSION

Med Bns are busy round the clock in a number of field activities with major bulk being medical covers either in-station or out-station, employing either single NA along with ambulance or MO in form of either ADS or FTC. In-station medical covers mostly constitutes physical efficiency test (PET), games, unit competitions, food testing, en route covers to units passing through area of responsibility, night route marches, helipad covers and VIP covers. Most of the in-station medical covers are provided by NA along with ambulances, however, MO is mostly employed in regimental efficiency test (RET), ammunition / weapon firing practices and food testing. Out station exercises encompassing major troop's movement are provided with ADS and FTC, equipped with relevant facilities.

Commonest disease encountered in the field was diarrhea, similar episodes of gastrointestinal illnesses were reported among British soldiers due to Norwalk like virus in Afghanistan[2-4]. Infectious diseases are mostly followed by vector borne diseases. Dengue fever in Haiti, malaria during Somalia and Afghanistan operation and

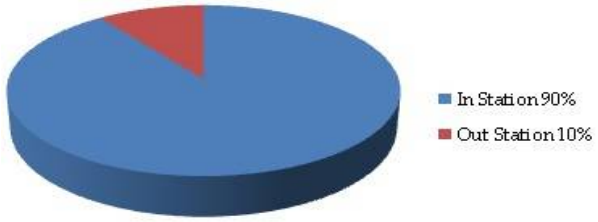

Figure-1: Frequency of Medical covers by 61 Med Bn during 2013.

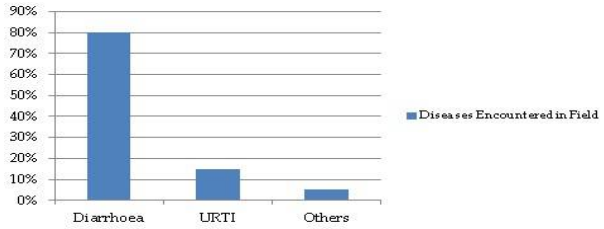

Figure-2: Frequency of diseases encountered in field by 61 Med Bn during 2013.

leishmaniasis in Iraq and Afghanistan were reported in all such deployments[5-8]. Droplet transmitted diseases like upper respiratory tract infection, tuberculosis and meningococcal infections are commonly encountered in field deployment[9-12]. Upper respiratory tract infections and its complications are known to be substantially reduced by use of adenovirus vaccines [13-17].

Compared to scarce medical resources and with almost any military activity requiring medical cover there is a need to rationalize and redefine medical covers. Medical officer may be

deployed only, when out-station exercise/ activity is involved, large number of troops are involved (equivalent to Bn strength), and when field deployment is more than 2 hours from the closest CMH/ FTC/ ADS. Rest of the medical covers may be provided through first aid trained NA and reliable fast moving ambulances. Role of MO in Fd exercises is to be restricted to ADS and FTC's only. Regular refresher courses like basic life support (BLS)/advanced life support (ALS) may be made compulsory for both MO and NA at least once in a year from the dependent CMH on line of 1122 (of Punjab government). Increasing number of NA trade or merging all trade into basic NA trade.

Family medicine, infectious disease specialists, public health specialists and traumatologist trades should be introduced within general duty medical officers. Such facilities would drastically improve the hygiene of camping areas and more so will render useful feedback and changes in future deployment.

CONCLUSION

The essence of medical cover is immediate first aid and earliest evacuation to surgical facility. This concept demands efficiently trained NA and good, fast, reliable evacuation transport. Thus presence of medical officer beyond any surgical or medical set-up would be just wastage of trained man-power. MO should be deployed where distance from other medical or surgical facilities is more than 2 hours. Moreover, water source in the field should be screened for coliform count or packaged water bottles should be provided from the supply detachments.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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