

Health Perspective of Local and United Nation Personnel Reported in Bangladesh Level-II Hospital in Liberia

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Abstract

Introduction: Liberia is one of civil war-ravaged country, where peace process started by United Nation (UN) in 2003. Bangladesh is also included in peacekeeper's mission including medical services and sent a Level-II Hospital named Banmed 10 which started works in Liberia in June 2013 and provide medical support to UN personnel as well as local people and civil military cooperation (CIMIC). Pictures of health problems of these personnel are drawn in this study.

Objectives: To find out the disease pattern of natives and multinational UN personnel as well as local people visiting Level-II Hospital, Banmed-10.

Materials and Methods: It was a descriptive type of observational study conducted among 6906 patients from 18 Jun 2013 to 31 March 2014. Data were collected from the outdoor/indoor medical records and documents. Relevant data are sorted out and entered in computer for necessary calculation. Results are arranged in appropriate tables showing percent or proportion.

Results: Common diseases are found in UN personnel and Liberians such as Fever (Nos), Malaria, RTI, Diarrhoea, Backache, Arthritics, Hernia and others. Fever (Nos) most common 83.7% among the locals and 65.3% among the UN personnel. Malaria 16.3% among the locals and 11.3% among the UN personnel. Some special cases were also found like Lassa and Ebola.

Conclusion: Bangladesh level-II Hospital has been providing medical support to UNMIL personnel as well as to local people as they are highly dependent on it due to heavy destruction of their medical facilities during civil war. Bangladesh earns commendable reputation by their high professionalism, quality service and dedication to the responsibility.

Key-words: United Nation (UN), United Nation Mission in Liberia (UNMIL), Bangladesh Medical-10 (Banmed-10).

Introduction

Liberia is one of the West African Country. It had passed a civil war of 14 years from 1989 to 2003. The country suffers a lot from this bloody civil war. Maximum government installations have been damaged. Health system is also one of them. To restore peace and stability regional and international community come forward to stand by the Liberia. The Economic Community of West African states (ECOWAS) initiated the peace process and ultimately United Nation (UN) took the responsibility as United Nation Mission in Liberia (UNMIL) in 2003¹. Bangladesh is also included in this peacekeeping mission.

Bangladesh sent a level-II Hospital with this mission named as Banmed. Each year Banmed rotated and chronologically Banmed-10 started working in Liberia in June 2013. Banmed provide the medical support to UN personnel of UNMIL under UN mandate^{2,3}. As civil-military cooperation (CIMIC)-activity according to UN mandate maintain a sustainable good relation with the local population, besides treating UN personnel, Banmed also provides treatment to the locals in need and emergency. So various categories of personnel are reporting to this hospital-UNMIL military, UNMIL civil and local people. Pictures of health problems of these personnel are drawn in this study of about last 9 months observation.

Bangladesh Army Medical is working outside Bangladesh. This level-II Hospital is set in Liberia³. It is a west African state. After war ravage in Liberia Bangladesh has been providing medical support to local people in addition to UN peacekeepers through level-II Hospital. Liberian health infrastructure was damage in civil war conflict. People are not getting proper treatment during illness or injury. Health problems deepen with migration of refugees among neighbouring countries like Ivory coast, Guinea, and Sierra Leone. In this helpless situation local Liberian get their hope in this Bangladeshi Small Hospital. It is located in the centre of the country⁴. The country has 15 counties. This Hospital is situated in one of the largest counties, named Bong county which is almost central region of the country⁴. People are coming day to day in emergency need as well as Hospital is arranging medical

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outreach to meet the need of the people. UN personnel of multinational forces are the authorized clients of this hospital. Thus, it gives a scope to view the picture of health pattern of these natives and multinationals i.e. of UN (United Nation) personnel as well as local Liberians.

The people of Liberia face enormous challenges after 14 years of civil war (1989-2003)⁵. Due to the continuing instability and violence, the majority of Liberians lived in Cote d'Ivoire up until 2002 when the unrest and violence dramatically affected the well-being of Liberian refugees and they were violently forced out of the region. More than 200,000 people are estimated to have been killed since 1989, while more than a million people were forced into exile as refugees. Liberia's civil war resulted in approximately 215,000 refugees at the end of 2001; 50 to 80% were women⁶.

Communities lack basic infrastructure, including water and sanitation, electricity, roads, schools and health services-all of which contribute to the spread of disease and premature mortality through unhealthy practices and untreated ailments, making it critical for the Government of Liberia (GOL) and donors to quickly address the scarcity, uneven quality and inequitable distribution of health services⁵.

Results

Outdoor patients were maximum 6746 (97.7%) and admitted indoor patients were only 160(2.3%). Among the outdoor, local people were 5315 (77%) and UNMIL outdoor patients were 143 (20.7%) (Table-I)

Table-I: Distribution of patients by different categories (n=6906)

Ser	Categories	No of pts	%
a.	Outdoor local population	2066	29.9%
b.	Outdoor UNMIL personnel	1431	20.7%
c.	Outreach programme local population	3249	47.1%
d.	Admitted pts UNILM personnel	160	2.3%
Total		6906	100%

Table-II: Sex distribution of patients of local and UN personnel (n=6906)

		Male	%	Female	%	Total	%
a.	Local population	2255	42.4%	3060	57.6%	5315	100%
b.	UNMIL personnel	1457	91.6%	134	8.4%	1591	100%

Among the local patients, Female were more i.e. 3060 (57.6%) than male 2255 (42.4%). Among the UNMIL personnel male were more 1457 (91.6%) than female 134 (8.4%) (Table-II).

Table-III: Distribution of outdoor patients by disease categories (n=6906)

Ser	Disease Name	UNMIL		CIMIC		Total	
		No	%	No	%	No	%
a.	Fever (NOS)	145	10.1	618	11.6	763	11.3
b.	Malaria (CL/Specific)	77	5.4	120	2.3	197	2.9
c.	Respiratory disease (RTI, URTI, Cough, TB and Asthma)	189	13.2	923	17.4	1112	16.5
d.	Urinary disease (UTI and AGN)	100	7	881	16.6	981	14.5
e.	Gastro-intestinal disease-GIT (PUD, Pain abdomen, Colitis, Dysentery, Diarrhoea, Dm, and Liver disease)	153	10.7	1066	20.1	1219	18.1
f.	Skin disease (dermatitis and Allergy)	62	4.3	184	3.5	246	3.7
g.	General weakness (Bodyache, Myalgia, and Headache)	76	5.3	503	9.5	579	8.6
h.	Back Pain (LBP and Neckache), Joint disease (Arthritis< joint pain, and Knee pain)	132	9.2	537	10.1	669	9.9
i.	Surgical cases (Hernia, lipoma, burn, fracture, and anal fissure, wound/cut injury)	128	9	206	3.9	334	5
j.	Dental disease (Dental caries)	143	10.0	42	0.8	185	2.7
k.	Others	226	15.8	235	4.4	461	6.8

Table-III depicts that fever Not Other Specified (NOS), Malaria, Respiratory diseases, Gastrointestinal diseases, Back pain were common health problems in both UNMIL and local personnel. Respiratory Diseases (RTI and others) were more in locals 923 (17.4%) than UNMIL personnel 189 (13.2%). Fever (NOS) and Malaria cases were more in UNMIL personnel 222 (15.5%) than local Liberian people 738 (13.9%). GIT diseases (Diarrhoea, dysentery and others) were more common in local Liberians 1066 (20.1%) than UNMIL personnel 153 (10.7%).

Table-IV: Distribution of fever cases for UNMIL and local (Liberian) by clinical types (n=960)

Ser	Clinical types	UNMIL		Local	
		No	%	No	%
a.	Malaria (CL)	25	11.3	120	16.3
b.	Malaria (F)	52	23.4	-	-
c.	Fever (NOS)	145	65.3	618	83.7
	Total Fever cases	222	100	738	100

Table-IV showed that 77 Malaria cases out of 222 Fever cases were from UNMIL personnel and 120 Malaria cases out of 738 Fever cases were from local people.

Table-V: Distribution of indoor patients by disease categories (n=160)

Ser	Disease Name	UNMIL	
		No	%
a.	Fever (NOS)	26	16.3
b.	Malaria (CL/Specific)	34	21.3
c.	Respiratory disease (RTI, URTI, Cough, TB and Asthma)	11	6.9
d.	Urinary disease (UTI and AGN)	04	2.5
e.	Gastro-intestinal disease-GIT (PUD, Pain abdomen, Colitis, Dysentery, Diarrhoea, Dm, and Liver disease)	24	15.0
f.	Skin disease (dermatitis and Allergy)	0	0
g.	General weakness (Bodyache, Myalgia, and Headache)	01	0.6
h.	Back Pain (LBP and Neckache), Joint disease (Arthritis< joint pain, and Knee pain)	06	3.8
i.	Surgical cases (Hernia, lipoma, burn, fracture, and anal fissure, wound/cut injury)	24	15.0
j.	Dental disease (Dental caries)	0	0
k.	Others	30	18.8
	Total	160	100

UNMIL personnel were mostly admitted for Fever (NOS) 26 (16.3%), followed by Malaria 34 (21.3%), Gastrointestinal diseases 24 (15.0%), Surgical cases 24 (15.0%) and Respiratory diseases 11(6.9%)(Table-V). Maximum fever cases were from Pakistan (78) and least from Ghana (15) (Table-VI)

Table-VI: Distribution of fever (NOS) and Malaria cases for UNMIL personnel by contingent (n=222)

Ser	Contingent	Malaria (CL)	Malaria (F)	Fever (NOS)	Total
a.	Bangladesh	02	06	30	38
b.	Ghana	01	03	11	15
c.	Nigeria	02	03	16	21
e.	Pakistan	03	22	53	78
f.	Liberia (UN staff)	08	06	30	44
g.	Others (UNPOL/Local Staff)	09	12	05	26
	Total	25	52	145	222

Discussion

The single largest contributor to Liberia's dismal health rankings is malaria. According to the malaria indicator survey conducted in 2006, malaria accounts for 40% of clinic visits and the number one cause of hospital deaths, especially in children under five⁷. Four (4) in ten (10) Liberians (39%) were reported as having fever. The proportion with fever is highest among children under 5 (56%) more what more common among women (42%) than men (37%). There is little difference in the proportion of people with fever among rural and urban residents⁸. In this study Male are more (91.6%) than Female patients (8.4%) among UNMIL and just reverse i.e Female are more (57.6%) than Male patients (42.4%) among local population. The reason is obvious as troops contributing country send the male troops largely in their contingent than female counterpart.

Historical surveys have shown overall malaria prevalence rates of up to 80%. Data from the 1990s showed that, among those who access health services, malaria is the leading cause of outpatient attendance (40-45%) and inpatient deaths. In Liberia, *Plasmodium falciparum* accounts for more than 90% of all malaria infections. *P. malaria* and *P. ovale*, alone or mixed with *P. falciparum*, are responsible for the remaining malaria burden. The under-five mortality is 235/1000, and at least 17.8% of these deaths are attributable to malaria (MCD, Routine Malaria Surveillance Data, 1993-1999). The overall prevalence rate of malaria has increased from 34.6% in 1987 to 50% in 2000 (LDHS, 2000). In 2003, malaria contributed 55% of the morbidity of diseases under surveillance in Liberia in August-November, According to weekly surveillance reports. The disease affects children disproportionately; in a survey of five clinics in Monrovia

in November, 41% of malaria patients were children under 5 years of age, who make up an estimated 16% of the total population⁹. In this study total malaria cases are 197(7.6%) in both UNMIL and local population. Among the local population it is 120(2.3%). Among UNMIL admitted patient's malaria cases are 34(21.3%). All malaria cases which are tested are *pl. Falciparum*, no other species are found on testing. Malaria cases are more among Pakistani and Bangladeshi nationals as troops contributed by these two countries in this location of Liberia is more. Findings are similar to the other survey reports mentioned above. Seemingly it is seen that among local population malaria is less but actually not, it is due to limited no of locals are allowed in limited days moreover they are also not tested for malaria rather treated as simple fever cases.

In Liberia ALRI (acute lower respiratory tract infection) is one of the most common causes of morbidity and mortality in children under 1 year old and one of the three major causes of morbidity in all age groups. A prevalence survey in 2000 showed 29% prevalence rate of pneumonia among children under five years old (Liberia Democratic Households Survey). In 2001, according to the MoH outpatient morbidity report, 12.2% of all cases were ALRI. In Monrovia alone, from 18 August 2003 to 21 September 2003 (5 epidemiological weeks), 9727 cases of ALRI were reported (average 1945 cases/week). This is based on data collected from medical NGOs (data that represent only the population those have access to health centres run by NGOs). This period corresponds to the rainy season, when the incidence of ALRI is expected to be higher. ALRI is considered to have widespread distribution. However, climate condition with lower temperatures (rainy season or altitude) could give rise to a higher incidence, commonly the case with large population displacement. In this study findings,

Respiratory diseases among the UNMIL and local people combined are 1112 (30.6%) and among the local personnel are 923 (17.4%). Among admitted UNMIL personnel, Respiratory diseases are 11(6.9%). This findings commensurate with other survey reports above. Respiratory infections are less among the UNMIL personnel 189(13.2%) as outpatient and 11(6.9%) as inpatient because they always remain in a standard living condition with optimum nutrition.

According to the Liberia Demographic Health Survey in 2000, the diarrhoea prevalence rate increased slightly from 22.5% in 2000. The MoH outpatient morbidity report of 2001- based on outpatient morbidity data from 11 countries- indicates that diarrhoea cases represent 6.9% of all outpatient cases. This study result shows that Gastrointestinal (GIT) diseases are 153 (10.7%) among UNMIL personnel and 1066 (20.1%) among local populations. It is more common among local Liberians than UNMIL. UNMIL personnel admitted as indoor cases due to

Gastrointestinal diseases are 24(15%). The study results consistent with other survey reports of Liberia stated above.

In this study skin diseases and surgical cases especially, accidental injuries are also common 246 (7.8%) and 334 (12.8%) respectively. Skin diseases are 62(4.3%) in UNMIL personnel and 184 (3.5%) in local Liberians in outpatient department. Surgical cases especially accidental injuries are 128 (9%) in UNMIL personnel and 206 (3.9%) in local Liberians. Skin diseases are more common 184(3.5%) among locals than UNMIL 62(4.3%), although percent figure assumes more in UNMIL due to percent calculation from less total patients of UNMIL. In Liberia specific case studies are very less. Some survey reports are considered to discuss the other diseases discussed in previous paragraph.

Other very small number of peculiar fever cases is also treated in this hospital. Peculiar because these can't be specified but very difficult to manage with poor outcome. They are African troops, one from Nigeria and another from Ghana. Nigerian died and Ghanaian was transferred to level III Hospital. Although they are -ve for Lassa/Ebola (Ebola test only for Nigerian patient) still it is assumed that they might be suffered from any serious VHF (viral haemorrhagic fever). Even for that suspicion the Nigerian one was not shifted from this hospital. Lassa and Ebola are sporadic in Liberia. They causes dangerous outbreak time to time. The internationals and nationals are always remaining in tension and panic about this type of deadly outbreak.

Conclusion

Bangladesh level-II Hospital has been providing medical support to UNMIL personnel as well as to local people as they are highly dependent on it due to heavy destruction of their medical facilities during civil war. Bangladesh earns commendable reputation by their high professionalism, quality service and dedication to the responsibility.

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