
BEEN THERE, DONE THAT.....

An RMO in Sierra Leone

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Introduction

'The CO would like a word, could you be in his office in 30 minutes?' the phone call from the adjutant came at 1530hrs during an afternoon review of downgraded personnel. It wasn't just a word, these things never are, but an informal warning about a possible deployment to Sierra Leone at short notice. I was greatly relieved to hear the CO state 'medical is going to be a priority on this one'. This sounded promising. I was then informed that the rece party was already preparing to leave.

So started a very interesting and challenging deployment to one of the most medically hostile areas of the world, to live in field conditions in a training camp inhabited by locals with a World Health Organisation (WHO) life expectancy of around 27yrs. We were to deploy a training team to Benguema Training Camp 30 miles south of Freetown, based on a reinforced company and train 1000 screened recruits of the Sierra Leone Army (SLA). This article discusses some of the medical lessons which were learnt at all stages of our deployment.

Pre-deployment

Sometimes the importance of exposure to operational planning during their Entry Officer's Course is not entirely clear to young future RMOs and I must admit to having shared some of this ambivalence at the time. However, the medical estimate, completed after a firm mission statement is of course critical and I am now a convert! The medical mounting instruction was valuable and certainly enabled all the basic planning to be started; but I feel the medical intelligence assessment allows the medical planner sight of the factors that are going to be important and will allow tailoring of the medical plan.

Vaccinations were of course essential, it was fortunate that the Battalion had recently deployed on overseas training exercises and the total number of deficiencies was small. *It was stressed to all those short-listed for deployment that the vaccinations they were about to receive were the same as tourists venturing on safari slightly further east in Africa.*

Malaria was starting to become topical in the news at the time of our deployment and

it was obvious that Sierra Leone was a very high risk area. The campaign to increase compliance through sound education was started by the excellent, short notice, package given by the mobile health advisory team as part of the UNTAT training. All ranks were then briefed collectively and individually by the RMO. I believe it is very important to stress the seriousness of *Falciparum malaria* when considering the side effect profile of mefloquine. It is also important to be honest about minor side effects being relatively common. It was interesting that once in Sierra Leone the locals and UN strongly advocated mefloquine and it was universally accepted as the best antimalarial. Ideally everyone would be started on their antimalarial tablets on the same day, but because of the large number of attachments this was never going to happen.

Peripel was less unpleasant than I thought it would be but does need a good 24hrs, weather allowing, to dry. I am convinced that Peripel impregnation of clothing has a dramatic effect on bite reduction. One of the most dramatic examples of its qualities as an insecticidal repellent was the absence of 'Tombu fly' larvae in our soldiers. One UN officer had 40 of these African bot flies removed in one sitting. Having to dip your clothing during the busy preparation for deployment is inconvenient, it was therefore essential to log all ranks completing this task.

It is important from the outset that deploying troops develop a culture of effective health promotion at all levels in the chain of command. To help maintain this I was very glad to have an experienced environmental health technician (EHT), WO1 Southam, who joined us in the deployment phase. His passion for preventative health resulted in a number of useful initiatives. The first of which was issuing insect repellent at the baggage check-in so that every soldier had a tube in his pocket when he hit the ground.

During the remainder of the preparation period I was able to ponder the variables in the med plan and bounce these off the OC of the FST (Field Surgical Team). The FST was due to follow if required, although it was clear that much work had been done to facilitate our use of the UN Field Hospital in Freetown.

Deployment

It was fairly sobering being airlifted at dusk into an SLA training camp, to be greeted by an expanse of grass and unexploded ordnance and what was to become our camp for the duration of the mission. (Fig 1) At moments like that, Royal Engineers become more important than doctors in maintaining health and they did not let us down. Our water supply had been completed prior to our arrival and our latrines dug. This activity had the secondary advantage of disturbing the cobras in our camp who promptly left and did not return. Fortunately they had obviously been briefed on correct snake etiquette, unlike the spitting cobras in one of the UN camps that put up more resistance to eviction.

During this early phase the Parachute Regiment was withdrawing and our headquarters was establishing itself. It was time again to revisit the medical plan and establish the primary care facilities and pre-hospital emergency care matrix. There were considerable British resources available

initially and as the taskforce withdrew our plans were set in place. A dental team, the EHT and a bedding down facility enhanced our Regimental Aid Post (Fig 2). The modular system of medical equipment worked well, but it is vital that augmentations are made after a sound medical estimate. Work is underway on the tropical module which is welcomed and the shortcomings of the primary care module were overcome by producing our own local equipment scale for a medical centre module. Each deployment is of course different and the system needs to remain flexible to adapt to this. We were lucky to persuade the chain of command to allow us to use 3 DRASH tents, which provided an excellent working environment. The UN hospital in Freetown was an excellent facility, built around what was the old British Military Hospital and recently fully developed by an Indian millionaire and opened by an Indian Field Hospital whose staff were both helpful and highly professional.

As our soldiers arrived, they were all given an arrival brief and re-acquainted with the military and medical threats. We were keen to establish a system for monitoring and assisting compliance with mefloquine. We initially started a daily 'LARIAM parade' but it proved impossible to get all personnel in one place at one time despite the CSM's best efforts. We settled on a system which placed responsibility on commanders to report daily to the Regimental Aid Post (RAP) and notify the duty medic, after witnessing their men taking their tablets. This was ticked off on a master board and the RMO then 'named and shamed' non-compliant personnel, in the evening 'O' group. The plentiful supply of really unpleasant jobs and the firm convictions of the chain of command ensured that the system worked. There was a 'no questions asked' policy on issuing further mefloquine and insect repellent from the RAP to ensure that compliance



Fig 1 The entrance to the British camp with the RAP in the background



Fig 2 Inside the RAP treatment area



Fig 3 Jungle casualty evacuation training

was not affected by junior soldiers losing these items.

Our mission was to provide routine medical support to our own troops only but I started a regular daily liaison visit to the SLA medical centre in the camp. This was a fascinating experience with malaria, typhoid, dysentery, syphilis, schistosomiasis and dental abscesses being the regular complaints. In past months there had been epidemics of chickenpox and measles with an anecdotal high mortality rate. We encountered an outbreak of shigella dysentery among the SLA fairly early on in the deployment which at its height was affecting 90 new cases a day among our recruits. We assisted with re-hydration, and antibiotics for the severest cases and focused on trying to improve the SLA recruits' hygiene. I wasted a good deal of time trying to be a little too Northern European in approach until I realised that the western medical model of disease spread was completely alien to the majority of the SLA recruits. I had made a fundamental error and we had greater success explaining what we wanted and asking the SLA medics to produce a locally acceptable explanation. The outbreak was contained.

Our DNBI rates remained low throughout our deployment. The priority of maintaining hygiene was fully supported at all levels and hand washing, foot inspections, correct use of nets, application of repellent, swing fogging, and digging drains all became part of camp routine. Initially this was a little forced but it soon became accepted by all. Malaria continued to be the major threat and having established good chemo-prophylaxis compliance, the emphasis changed to bite avoidance. We instigated a regular medical intelligence report in the daily O groups to maintain awareness of disease.

There were sporadic cases of Lassa fever during our deployment and this was typical for the area. Some of our officers had social contact with Sierra Leoneans who subsequently died of this infection but human to human spread is rare without exchange of bodily fluid. Fortunately this did not occur to my knowledge!

We were lucky to experience no major trauma to British soldiers during our tour. Our evacuation time to the UN hospital was sufficiently quick by road that helivac was a luxury not a necessity. The UN hospital used European blood obtained on contract which was actually screened to a higher level than British supplied blood.

The SLA medical centre at the training camp was the intermediate facility between minimal provision for front line troops and their field hospital located in Freetown. One 24 hour period saw the arrival of some 38 battle casualties, with injuries ranging from gun shot wounds to the chest to psychiatric disturbance. Only a small number were brought by vehicle, and the rest had made their way by foot for at least 30km. These

casualties had triaged themselves but many now required surgery for debridement of wounds that had the characteristic smell of infection. Organisational and medical assistance was given and it became obvious that any future assistance in restructuring the SLA medical services was going to be a considerable task.

HIV rates were stressed firmly at pre-deployment briefings and again regularly during the tour. To my knowledge we had no STD issues and I would like to think the message got through. Probably only time will tell.

Table 1 shows the diseases of operational importance in Sierra Leone, I concluded that it was very rare to find an unpleasant disease or parasite that was not prevalent in West Africa.

Falciparum malaria	Meningococcal meningitis
Diarrhoeal illness/dysentery	Cholera
Typhoid and paratyphoid fever	Viral hepatitis
Leishmaniasis	Schistosomiasis
Trypanosomiasis	Yellow and other arboviral fevers
Lassa fever	HIV
Tick and flea typhus	Plague
Bancroftian filariasis	Onchocerciasis
Brucecellosis	Anthrax
Numerous other worms and parasites	

Table 1 Diseases of operational significance in Sierra Leone.

Post deployment

It was clear that it would be essential to maintain our efforts in health promotion through redeployment and into the leave period when our soldiers would need to continue their mefloquine. The Commander British Forces wrote to each soldier stressing the importance of continuing their mefloquine for a further 4 weeks. The CO wrote to next of kin asking their assistance in reminding soldiers to take their pills. This is surprisingly effective. Everyone was issued with a malaria warning card (Fmed/568) and had their 4 mefloquine tablets checked prior to leave. We also had the wording on the malaria warning card translated into 6 languages corresponding to countries that would be likely leave destinations for our soldiers. The recording of compliance was maintained by moving the board to the guardroom and soldiers rang in on taking their pills.

Summary

We enjoyed a very low level of DNBI during our deployment and no soldier had to be returned to the UK on medical grounds. None of the measures employed to reduce disease were complicated or new and most were merely common sense. The implementation does however require firm conviction by the chain of command. As in virtually all conflicts the greatest threat to a deployed force continues to be disease.