Occupational Health Development in the Army

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ABSTRACT

Occupational Health (OH) in the Army is provided as part of an integrated primary healthcare service. When compared to the International Labour Organisation criteria for the provision of OH, it can be seen that the Army provides all of the OH elements expected in a large national organisation. However, there is a need to enhance the clinical element of the service and to provide a focus for implementing OH policy at unit level. The use of qualified OH nurses based at GP group practices and providing a visiting service to units would rectify this balance as this would enable workplace assessments to be carried out on a regular basis, enhance the ability to carry out occupational health assessments and facilitate health surveillance data collection. The result would be the improved delivery of OH services to Army personnel, thus helping to maximise the number of soldiers and officers fit to carry out their military duties.

Introduction

Despite great advances in modern technology, arguably the most important element of the fighting machine – the human – has remained essentially unchanged from the first time that Armies were formed. In order to ensure that the human component works to his or her best capacity there has to be a significant investment in support services. As with mechanical systems, the best way to ensure that the human component of the fighting machine functions optimally is by implementing suitable preventive, monitoring and servicing strategies, thus minimising the chances of breakdown. This requires a multidisciplinary approach from several different agencies, including the health services.

Occupational Health (OH) is the branch of the health services concerned with the inter-relationships between work, health and ill health. This includes the effect that a worker's (ill)health can have on his or her ability to carry out work and the way that the work environment can affect his or her health. In order to ensure that soldiers can work and fight to their optimal capacity

there must be appropriate OH support to enable them to carry out their duties unimpeded by illness or injury. This paper will explore the way in which the OH services are provided to Army personnel using external criteria as a benchmark. It will also suggest a future model for improving the delivery of that service through the employment of OH trained nurses working within Primary Care, supporting the GPs and providing a link to the other OH specialists.

The Role Of Occupational Health Services

In 1950 a joint International Labour Organisation (ILO)/World Health Organisation committee defined the purpose of an occupational health service as being "to promote and maintain the physical, mental and social wellbeing of all staff" (1). This highlighted the importance of maintaining health and acknowledged the multidisciplinary approach that is required to provide a complete OH service.

In order to provide such an OH service the ILO also identified the types of activities that should be provided by large national multinational organisations (2), which are summarised in the first two columns of Table 1. These include the surveillance of individual workers by means of pre-employment and periodic in-service health assessments to enable the systematic identification of at-risk groups. This also requires risk assessments of the workplace to be carried out to identify and quantify the biological, chemical, physical and ergonomic hazards present. OH expertise should also be provided in planning future working environments to ensure that health risks are minimised. Large organisations should also ensure that suitable first aid and treatment services are available for the workforce. Whilst there has been a steady move towards preventive rather than treatment services, the latter remains important in those countries where suitable national healthcare service is not widely accessible. In all environments there is also a role for education and health promotion to continually work towards improving the health of the workforce.

Over the last 15 years since the ILO criteria were published additional roles for OH professionals have developed in areas

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Table 1. ILO recommended OH Services for large national/international organisations

	Method of Implementation in National/International Organisations	Method of Implementation in the Army Medical Services
Surveillance of the individual worker's health in relation to work.	<ul style="list-style-type: none"> - Pre-employment health examination. - Periodic health examination. - Specific examination of selected groups of workers. 	<ul style="list-style-type: none"> - PULHHEEMS System (Pre-Service, In-Service, Release examinations) - Medical Boarding System - Special Medical Examinations
Provision of curative services for occupational diseases/accidents.	<ul style="list-style-type: none"> - Diagnosis and treatment of occupational diseases. - Treatment and first aid for occupational diseases. 	<ul style="list-style-type: none"> - Primary Health Care Service - Occupational Medicine (OM) specialists at Formation Level - Defence Secondary Care Agency (DSCA)
Provision of general healthcare services.	<ul style="list-style-type: none"> - Diagnosis and treatment of non-occupational diseases. - Vaccination of employees. 	<ul style="list-style-type: none"> - Primary Health Care Service - DSCA
Securing future working environment.	<ul style="list-style-type: none"> - Strategies for occupational health programmes. - The planning of new or changed workstations / practices / work organisation. 	<ul style="list-style-type: none"> - Specialist medical staff advice to commanders at all levels - Environmental Health Team (EHT) support
Surveillance of the current working environment.	<ul style="list-style-type: none"> - Walk-through surveys with guidance checklists. - Risk assessment of chemical / physical / ergonomic hazards. - Psychological / psychosocial assessments. 	<ul style="list-style-type: none"> - Regimental Medical Staff - EHT - Health and Safety (H&S) Officers - OM staff (Formation and Command level)
Advice on the control of hazards at work.	<ul style="list-style-type: none"> - Ergonomic / climate / dust exposure / chemical hazards / noise. - Personal protective equipment (PPE). 	<ul style="list-style-type: none"> - EHT - OM staff (Formation and Command level) - H&S Officers
Health education and health promotion.	<ul style="list-style-type: none"> - General health information to the workers. - Information about healthy lifestyle / health promotion. - Information / training in first aid. 	<ul style="list-style-type: none"> - Primary Health Care - Health Promotion staff, where available

concerned with rehabilitation, epidemiology and legislation. As modern organisations work with very lean manning margins, there is an increasing need to get staff back to work as soon as possible following illness or injury, which has resulted in greater demands for suitable rehabilitation facilities. An increased requirement to be able to demonstrate evidence based practices has also resulted in a marked rise in the demand for data on individual employees and their workplace, requiring specialist epidemiological skills to provide meaningful interpretation to that information. Increasingly complex health and safety legislation in the workplace also requires specialist OH advice and support to provide a defence against an increased readiness of both employees and public to resort to litigation at an early stage.

In order to provide such a wide range of services, OH teams have to be multidisciplinary. The past emphasis on doctor-based treatment services has been replaced by OH professionals working together in truly multidisciplinary teams involving the following: doctors, nurses, occupational hygienists, toxicologists, ergonomists, social workers, psychologists, epidemiologists, safety officers and lawyers. No single organisation can sustain such a

Table 2. Individual and Organisational Benefits Provided by OH Services

- Ensuring individuals are 'fit for work'.
- Decreased sickness absence, through management of long term sickness and overseeing occupational rehabilitation.
- Improved workforce motivation.
- Improved productivity.
- Improved efficiency.
- Decreased staff turnover and operating costs.
- Legal compliance.
- Decreased risk of costly litigation.
- Improved risk management.

wide range of staff, therefore, a core OH team of doctors, nurses and possibly occupational hygienists is usually maintained, with access to the more specialised services on a contractual basis.

Whilst accepting the intellectual argument for providing OH support for their workforce, most organisations require more tangible evidence of the benefits of investing in OH services. This evidence can be difficult to measure directly, though the benefits of promoting and maintaining a healthy workforce can be demonstrated for both the organisation, and the individual, in a number of ways as shown in Table 2. These factors all add up to greatly improved cost effectiveness of the organisation.

OH Provision In The Army

It is clear that the ILO/WHO definition of the purpose of an OH service is also valid for the Army, where personnel have to be physically and psychologically 'fit' and capable of deploying on military operations worldwide, often at short notice.

If the services provided by the Army Medical Services (AMS) are compared to the criteria set by the ILO it can be seen that all of the areas are covered, at least in part and in many cases are exceeded, as shown in the third column of Table 1. In common with the other two Services, the Army provides an OH service that is integrated into the Primary Health Care service. The bulk of OH care is provided within medical centres using doctors, nurses and combat medical technicians. This includes provision of treatment services for occupational and general conditions, routine work related health surveillance, health education and health promotion. It is only when complex cases are encountered or certain specific assessments are required that specialist OH staff may have to be consulted.

The surveillance of the current working environment is one area of OH provision in the Army that has traditionally relied largely on regimental medical staff, especially the Regimental Medical Officer (RMO), who is the Commanding Officer's medical adviser. However, the increasing use of Group Practices and the demands of specialist training as GP Specialist Registrars has resulted in many RMOs spending significantly less time within their units, reducing the opportunity for them to carry out basic workplace assessments. The basic OH provision is further degraded through the reliance, in many locations, on sessional

NHS GPs and civilian medical practitioners who are not contracted to provide OH support outside the confines of the medical centre.

The Environmental Health teams (EHT) provide a crucial element of the OH provision down to unit level, being able to carry out more specialised workplace assessments than the regimental medical staff. The EHT also provide advice on the control of hazards in the workplace and assist in the planning of future safe working environments in addition to their other non-OH related roles. However, they do not have clinical training and, therefore, are limited in the degree of health surveillance they can provide. In addition, as divisional assets, EHTs are often not available to carry out routine workplace assessments at unit level.

Both health surveillance and workplace assessments are areas of OH provision that can be provided by more than one member of an OH team, though this has yet to be fully exploited within the Army, where the clinical functions all fall to the MOs with EHTs as the only available supporting OH staff. This presents an unbalanced element to the Army OH service, which would be rectified by increasing the OH support that can be provided down to unit level. OH nurses would fill this capability gap being able to carry out workplace assessments and being capable of providing nearly all forms of health surveillance, with the few exceptions requiring examinations to be carried out by an HSE appointed doctor. Potential roles for OH nurses in Army OH are shown in Table 3.

Discussion

There are a number of advantages in providing an integrated primary healthcare service, which includes General Practice, Occupational Medicine, Environmental Health and Physiotherapy. Most notable is the ability to provide a holistic service for the patients, with an increased awareness of OH issues amongst the health professionals who provide the initial patient contact. A truly integrated service will also provide seamless service for patients with the free flow of relevant information between the various specialists.

However, in an integrated service there can be difficulties in getting the correct balance between the preventive and the treatment services. With limited resources there is always pressure to focus on treatment which has immediate visibility, to the detriment of long term benefits accrued from preventive strategies. The same resourcing constraints limit the training time and staff availability for OH related activities that may not appear to be relevant to core General Practice care.

The emphasis placed on patient

Table 3. Potential Army OH Nursing Roles Within Primary Care

OH Services	Potential OH Nurse Roles within Army Primary Care
Surveillance of the individual worker's health in relation to work	- Carrying out routine In-Service PULHHEEMS - Initial assessment of personnel presenting with work related disorders
Provision of general healthcare services	- Coordinating immunisation programmes
Securing future working environment	- Providing specialist OH advice to COs
Surveillance of the current working environment	- Carrying out workplace assessments - Coordinating Health Surveillance programmes (Morbidity surveillance, Audiometry, Respiratory Function Testing, Skin assessments)
Advice on the control of hazards at work	- Providing advice to Unit COSHH officers
Health education and health promotion	- Hearing Conservation, Manual Handling, Occupational Stress Management
Management of long term sickness absence	- Coordination of support services and rehabilitation for long term sick/downgraded personnel

confidentiality by the GMC (3) has also made it more difficult for GPs in the Army to reconcile their core primary care role with their wider OH responsibilities. Whilst the principles underpinning the GMC directives are sound, the framework is based on the UK civilian model of having GPs working independently from OH services and in circumstances where it is possible to differentiate between the two elements of healthcare provision.

It may be that the drive for patient confidentiality and the pressures of service provision placed on Army GPs, compounded by the increasingly specialist training requirements in both General Practice and Occupational Medicine are such that it will be necessary to consider formally separating these two elements of primary care provision. However, whilst taking this route may make it easier to satisfy the civilian model of primary care provision, it would undermine the quality of the total healthcare package provided by the AMS. One of the frequent observations made in civilian OH services concerns the difficulty in getting useful information flow between the GPs and OH teams. This can result in patients being placed at increased risk at work because the OH team have not been made aware of relevant illnesses or conditions which have been reported to the GP. Likewise, patients may have unnecessary investigations or inappropriate treatment because the GP has not been made aware of health issues discovered by the OH team. It is also very difficult to provide an effective and efficient rehabilitation service unless all of the contributors to the primary care team can work together.

If the integrated approach in the Army is to be maintained, it is suggested that the best way forward is to increase the OH support to the primary health care teams rather than to become pressurised into separating what are complimentary aspects of military medical care. From examining the way in which the AMS provide the OH services identified by the ILO/WHO committee, it can be seen that there is little specialist OH support at unit level. The existing focus for specialist trained OH staff is at Divisional level and above, concentrating on OH policy issues. However, in order to ensure that the policies are carried through into practice it is also necessary to have an additional focus on clinical OH service provision.

OH provision relies on multidisciplinary teams, with the clinical element being provided by both doctors and nurses. These are frequently nurse-led in civilian practice, using OH physicians for referrals when required. This is a model that offers a suitable level of expertise for first line investigations and surveillance, with further specialist advice available from OH doctors as required.

The requirement for a clinical OH service, with specialist OH physicians based on regional medical centres supported by OH nursing staff, is one of many issues that are being considered by the Primary Healthcare Review team at the Army Medical Directorate. This would ensure that OH policy is implemented and that there is also a suitable route for data collection and the passage of OH information back to inform the policy making process, thereby enhancing an important element of the audit process.

Conclusions

The Army provides a range of OH services within an integrated primary care setting. These services exceed the requirements of the ILO criteria in a number of areas, in addition to providing extra services such as rehabilitation. In order to provide greater coordination of the various elements of OH services at unit and medical centre level and to assist the GP staff, it is recommended that the clinical component of the OH service should be enhanced, with particular emphasis on the use of qualified OH nurses. This would ensure that there is suitable representation of OH issues down to unit level and that specialist advice can be provided in the workplace. The presence of specialist staff in the workplace would also assist in data collection for audit purposes and provide a means of education for the workforce on OH issues. The net effect would be an enhanced OH service to military personnel, whilst still maintaining an integrated approach to primary healthcare.

References

1. International Labour Organisation/World Health Organisation Joint Committee. International Labour Organisation, 1950.
2. International Labour Organisation. *Occupational Health Services Convention and Recommendations*, Nos 161 and 171. Geneva International Labour Organisation, 1985.
3. General Medical Council. *Protecting Patients, Guiding Doctors. Confidentiality: Protecting and Providing Information*.