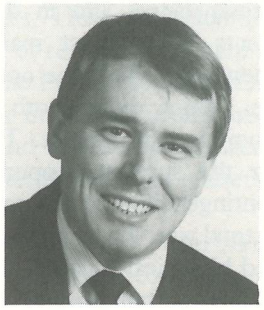
Ann R Coll Surg Eng (Suppl) 1995; 77: 251–256

For Debate

Civilian surgeons and the support of the Armed Forces



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There is a stark contrast between the stable and protected lives which we enjoy in Britain, and the conflicts which scar much of the globe. These often overwhelm the individual good that we do as surgeons for our fellow citizens. Bosnia, Somalia, Angola, Rwanda, Afghanistan, the Lebanon, Chechnya and Cambodia provide just a few examples of the chaos that flourishes when social discipline collapses and the panga, bomb, bullet, shell and landmine prevail.

One way in which British trained surgeons can help to ameliorate the ensuing suffering is by service overseas in theatres of conflict. Surgeons may proceed as individual volunteers with non-governmental organisations (NGOs) such as the International Red Cross, or Médecin sans Frontières. NGOs are flexible and obtain access to the many regions which are closed to government agencies. However, they usually lack the resources, strategic mobility and military logistic support with which governments can act in strength when the political will exists.

An alternative way for a civilian surgeon to make an extracurricular contribution is through military service as a Reservist. The British Armed Forces are widely respected for their disciplined intervention in conflicts and disasters, and continue to need surgical teams to function effectively. The continuing contraction of the Defence Medical Services (DMS) and the closure of military hospitals in particular has created difficulties for the Armed Forces in the training and retention of enough Regular (full-time employed) surgeons to meet routine commitments, let alone major crises (*1*). Indeed, the full-time employment of large numbers of such surgeons may not be the most effective use of a valuable and scarce national resource. There is an urgent need for a debate within the profession as to whether civilian surgeons can substitute for Regular military surgeons, in what circumstances, and to what extent, within the current framework of civilian surgical practice.

It is now publicly recognised by Government and by the Defence establishment that more effective recruitment and employment of medical reservists is desirable. The public support which was expressed for the mobilisation of reserves during the Gulf War helped to overcome an institutional resistance to the use of military reserves in circumstances short of total war which has persisted since Suez. There has nevertheless been a long and honourable history of association between British civilian surgeons and the Armed Forces. As a nation we are in hock to our martial and expeditionary history. There were two mass mobilisations of the civilian medical services, in 1914–1918 and 1939–1945, and the modern National Health Service was built and staffed by those returning home with the wisdom and experience inculcated by the second World War. Fifty years later, comparatively few surgeons with a working knowledge of military matters and the special circumstances of military surgery remain in British civilian practice.

The supervisory bodies for British surgery, the Royal Colleges of Surgeons, in conjunction with the Defence Medical Services, have a responsibility to the nation's service personnel to ensure that high quality surgical care is available wherever and in whatever circumstances they are sent to serve. The challenge and the opportunity for all surgeons is to consider how the provision of surgical skills within the Regular Forces can be maintained in a realistic and mutually beneficial way for the Armed Forces, for the National Health Service and for the individual reservist. New attitudes and co-operation will be required both in the Defence hierarchy and in the civilian surgical body.

This paper will consider the problems in the recruitment and retention of reserve surgical personnel from the perspectives of the Armed Forces, of the individual reservist and of the National Health Service employer. How may reserve military service be reconciled

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with a civilian surgical career and be an aid to personal and professional development?

The special requirements of military surgery

There are significant differences between civilian and military practice of surgery. In contrast with civilian super-specialisation, military surgeons are required to have a broad surgical training and the pragmatism, flexibility and skills to operate safely in suboptimal circumstances and in difficult and dangerous environments. They must maintain, update and disseminate knowledge about the optimum treatment of war casualties, which differs both qualitatively and quantitatively from civilian practice. They must maintain viable plans for the surgical support of the Armed Forces in all contingencies and environments, from distant brushfires to total war. They must also prepare for nuclear, chemical and biological warfare.

The military surgeon must therefore become familiar with military organisation, culture and skills. Experience has shown it to be essential for efficiency and morale that the front line medical services are staffed by personnel subject to military training, discipline, command and control. Support in military operations from civilian volunteer, neutral or second national medical units may be a bonus but it is unlikely to be a substitute for British military resources.

Surgical research also has a significant place in the DMS brief. Subjects include the surgical management of battlefield trauma, which introduces severe wound contamination and treatment delay. Military practice mandates consistency and simplicity in treatment policies, which must be continually re-evaluated and updated as new drugs, knowledge and equipment becomes available. New weapon systems produce new patterns of wounding, for example through multiple fragmentation, or laser induced retinal damage, for which new treatment and protective strategies must be devised. Protective strategies for nuclear, biological and chemical (NBC) warfare must be developed, while manned flight, marine operations and subsurface activities pose specific physiological challenges.

A surgical High Readiness Reserve?

New political thinking about the future use of military reserves envisages a hierarchical structure of reserves, where specialists such as NHS surgeons can be called upon to support operational deployments. The published proposals for the flexible use of reserves envisage four levels of capability, which apply to surgeons as to other reservists (*2*). At the first level (Level 1) of activity, the Regular Forces, including a few reservists serving on short-term engagements, will meet peacetime obligations. At Level 2, a voluntary call out of Volunteer Reserves would meet a limited operational objective such as was the case in the Gulf War. At Level 3, a compulsory call out of all reserves would meet an urgent national crisis, and at Level 4, there would be an enhancement of defence capability to give a greater mobilised capability, such as occurred in 1914 and 1939.

In practice, the requirements for a reconstituted surgical reserve fit two categories. The High Readiness Reserve (HRR) of surgeons (Levels 1 and 2) would be available to deploy at reasonable notice in support of routine military and United Nations operations. Reservists with a lesser call out liability (Level 3 and 4) would be available for major mobilisations. Individuals would switch between these levels according to personal and professional circumstances, thus preventing the emergence of a two-tier reserve.

How many reserve surgeons would the Defence Forces need to meet current requirements? The Regular Army employs around 50 full-time surgeons of all specialties. These are supplemented in peacetime by civilian specialists on contract and locum duties in military hospitals. The Royal Navy and RAF employ fewer surgeons from a small and contracting hospital base. It seems most unlikely that all regular surgeons would be replaced with civilians, but even if 50 per cent of employed surgical capacity were substituted by Level 1 and 2 reserves, then at most no more than 30 surgeons of all specialties would need to be withdrawn from the total UK civilian surgical pool (*3*) at any one time.

With regard to Level 3 and Level 4 reservists, the largest 'consumer' of reservist surgical skills is the Territorial Army. This has the stores to provide some 2000 beds in up to 11 reserve hospitals on full mobilisation, although the Gulf mobilisation only drew upon a fraction of this nominal capacity (one TA hospital of 600 beds was deployed to Riyadh). Each of these hospitals is planned with a nucleus of five trained surgeons. There is also a requirement for 12 independent general and specialist reserve surgical teams. The practicalities of mutual support, skills mix (for example, general and orthopaedic surgery), 24-hour cover and redundancy for incapacitation mandate two surgeons and supporting staff per independent team.

Realistic mobilisation estimates for another conflict on the scale of the Gulf War might thus require approximately 80 civilian surgeons for the TA, and 20 more for the RAF and Royal Navy, to be militarily trained and available for Level 1 and 2 service within weeks or months, as in 1990.

The impact of ATLS on planning requirements

Surgical skills have always been relatively scarce in war, and have been husbanded and concentrated in dressing stations, field and general hospitals which may be some distance from the point of wounding. An expansion of the reserve pool of surgeons would allow more effective implementation of the Advanced Trauma Life Support (ATLS) doctrine, which the Armed Services have been active in promoting. ATLS requires that where possible, skilled resuscitation should be undertaken within the hour of wounding, ie, the 'golden hour' of opportunity. While this is rarely attainable in wartime conditions (6–12 hours is common even with air superiority and close helicopter support), the role of advanced resuscitation teams is worthy of further evaluation. Such teams require fit and adaptable individuals with sound military training and

surgical skills. The provision of ATLS competent teams would allow greater forward deployment and flexibility to medical planners. Such teams have been deployed in the Gulf War and in Bosnia, but there is as yet no uniformity of agreement about their value in modern high intensity and high mobility warfare.

The way forward

It is thus possible to foresee and estimate the requirement for a mixture of Regular and attached Active Reserve surgeons undertaking routine military work, with a surge reserve military medical capability which may be met in a number of ways. The active reserve surgeons may be employed on short, fixed-term military appointments, which might be an operational deployment, for example in Bosnia, or in the few remaining service hospitals. Reserve surgeons in training might also be employed in research establishments, on surgical training courses, or on international civilian attachments, for example to trauma centres or aid agency hospitals. Further reserves may be temporarily withdrawn from civilian employment at a few weeks notice, in circumstances where public support was sufficient to compensate for the local disruption caused, as was the case during the Gulf War.

The current numbers, age and skill mix of surgeons in reserve military service fall short of this desirable capability, and the situation is likely to deteriorate further with contraction of the Regular and Reserve Forces unless remedial action is taken. The Armed Forces need a modern and flexible approach to the recruitment and retention of reserve surgeons with the right age and skills profiles. Surgical recruitment needs to be more focused and coherent than in the past. Unfortunately, the 'Dad's Army' image of reserve service has been a powerful disincentive to potential recruits, and has not encouraged reservists to publicise their activities among their civilian colleagues. A number of changes should be considered, among which the following are possible.

A. Management of the reserve surgeon

(i) Recruitment

Surgeons enter the RAMC Reserve at various stages in their careers, and for a variety of reasons. There is a creative tension between the need for specific skills and experience, and the likelihood that reserve service will generally appeal to younger and less experienced surgeons. A successful surgical recruitment policy needs to be sufficiently flexible to attract surgeons of all grades, including consultants. Also important is the retention of those surgeons once recruited. New structures may be necessary for the active management of the careers of specialist reservists so as to ensure their long-term participation. A reduced turnover of reserves may be of as much value as an increase in recruitment to secure an optimum size for a new surgical reserve.

(ii) Geographical issues and central supervision

The historical pattern of reserve military recruitment has been through local (territorial) units, overseen by a variety of administrative headquarters, staffed largely by regular military and non-surgical personnel. However, surgical trainees may work in many different hospitals and geographical locations, thus making continuous service difficult with regionally organised reserve units during training. A central recruitment and supervisory regime for reserve surgeons therefore commends itself. The transfer of the responsibility for the recruitment and deployment of all reserve surgeons to the Professors of Military Surgery (Army, Navy and Air Force) would provide a direct link with the Royal Colleges. This would facilitate the joint supervision and support of reservists and help to raise the status of the Reserve. The Professors of Military Surgery would also command the immediate professional loyalties of the reserve surgeon and would be best placed to liaise with the civilian bodies on professional matters.

(iii) Military training requirements for reservists

Because a military surgical reservist must be competent to work within military command, planning and disciplinary constraints, he or she must be sufficiently familiar with the workings of the Armed Forces to be an effective team member. This mandates a basic military training course of two to four weeks after recruitment. Continuation training on a planned basis can be integrated with service in medical units or with other Regiments, Corps or branches of the Armed Services, including specialist training with airborne or marine units, for example. The training requirements of individual surgical reservists will vary with previous service and experience, but will include an annual requirement for attendance at occasional weekend symposia and military skills courses. The time-honoured fortnightly annual camp may come to be of less value than of integrated periods of surgical service at longer time intervals.

(iv) Professional skills of reservists

Civilian surgeons are an educated, disciplined, flexible, adaptable and self-motivated group, and NHS surgeons in most specialties undergo the broad training which is necessary for military surgery. An NHS general surgical trainee will often acquire experience in orthopaedics, urology, cardiac, thoracic, vascular and neurosurgery. Few British surgeons obtain much experience of major and ballistic trauma, and this is one area where specific educational effort may need to substitute for practical experience. Nevertheless, the general technical expertise of reserve surgeons is kept in a high state of readiness through their civilian employment, and at no cost to the Defence budget.

(v) The individual reservist's perspective

A number of factors will influence the decision of the NHS surgical trainee to volunteer for reserve military service and for inclusion in the active service pool. Among important issues are the following:

(a) Contractual obligations

Acceptance of the terms and conditions of service and the training on offer places the volunteer under contractual obligations in response to call up, military law, and to

security matters. To avoid misunderstanding and subsequent discontent in an HRR system, the Armed Forces, the volunteer and his or her employer will need to draw up and regularly revise a contract with the DMS specifying periods and conditions of HRR availability. Such a tripartite contract has not hitherto been explicit.

(b) Remuneration

A reservist in training or on active service receives a standard rate of pay appropriate to rank and professional skills. During training, this can be useful supplementary income, but it does not start to compare with the income from the equivalent time in private practice. The remuneration of consultant reservists on active service is a particular problem which was highlighted during the Gulf War mobilisation. NHS consultants may have substantial financial and practice commitments which cannot be easily shelved, and for which the Treasury will not offer full compensation during time spent in service. It is thus for each reservist to balance the losses and gains which may stem from service, just as do the many surgeons who give their time and energies to other public bodies, such as the Royal Colleges.

There can be no guarantees against risk to life and limb in service. Additional costs are incurred by the reservist in relation to surcharges on insurance policies, and in making provisions against premature death or disability in service.

(c) The frequency and duration of active military service

How much time can an NHS surgeon spend in reserve service? This will clearly depend upon the individual's career intentions, the civilian employer's support, and military and political requirements.

High Readiness Reserve status must be expected to impose a minimum period of service. This might be six months for surgical trainees, which in turn might be included within a regional training rotation. This period might extend to 18 months if the service were linked to a higher certificate of emergency or trauma medicine (*4*), to military surgical research or to unique military clinical experience in substitution for a conventional higher surgical degree. Such periods would have to be sufficient to provide a return to the Forces for the training costs and effort invested in the reservist. Subsequent HRR service might be for shorter periods. A surgeon with a specified HRR call out liability might even continue in his civilian post during this period, but with contingency arrangements in place at work against a rapid call up.

Although an employer, the Defence Medical Services and individual reservists may plan well in advance for periods of HRR service, problems may still arise. Some contingencies require very rapid responses, for example disaster relief. Importantly, HRR service does not guarantee that the surgeon will gain clinical experience. For example, during Operation Desert Storm, while predicted casualty flows were large, the actual surgical workload was minimal (*5*). Such a posting could thus not confidently command the 'recognition' of the Royal Colleges for Higher Surgical Training. Local political conditions, as in Bosnia, may dictate that even when surrounded by civilian casualties, the military surgeo may be seriously constrained in the work that can be undertaken. The carrot of clinical trauma experience cannot thus be held out as the sole criterion for the recruitment of reservists.

Political circumstances are particularly important. The British know well how to send their sons and daughters to major wars, and pass this collective knowledge down the generations. When public support and media coverage is overwhelming, as in 1990/91, few employers would dissent from the national will and disenfranchise a volunteer from re-employment on demobilisation. In contrast, continuous 'trickle down' service such as for Bosnia might be less acceptable and cause much greater personal difficulties for reservists.

(d) Welfare and family issues

Among the HRR surgical pool will be married officers and parents. Family considerations will weigh heavily with many reservists in determining their service commitments. Regimental and Unit cohesion and family welfare support is an important feature of Service life which does not naturally extend to the families of reservists. While organisations such as the SSAFA (Soldiers, Sailors and Airmen's Families Association) exist to care for the dependants of servicemen, the Forces have not previously paid great attention to the needs of the reservist's family. This matter will need to be addressed, as family support and pressures will be a key factor in the working of the HRR.

B. Management of the regular service surgeon

Surgeons will always be needed on full-time employment contracts with the RAMC, for clinical, planning and command purposes. The immediacy of some military events and day-to-day managerial considerations dictate that there must always be a core of uniformed surgeons under command. The composition of this pool is more open to debate. It might be composed of full-term career surgeons or of trained surgeons on short service commissions (three to five years), and a mixture o surgeons in training and surgeons of consultant status.

(a) Regular military surgeons in higher surgica training

The case for retaining higher surgical training in th Armed Forces looks increasingly weak. In order to attai accreditation, the majority of military surgical trainee already spend much of their higher surgical training i NHS hospitals. They must stand comparison in terms c clinical skills with their NHS contemporaries, and wit regard to higher surgical degrees if they are later t compete in the civilian job market. During militar service they experience even more domestic instabilit than do NHS trainees. The rapid recall of militar surgeons from NHS posts in emergencies disrupts th relationship between the DMS and the host NH institutions.

There are a variety of solutions to this problem. It ma

become necessary to abolish the training of surgeons by the DMS altogether. This function may in any case be disappearing *de facto*. The DMS would then focus on the recruitment and employment of NHS trained surgeons on shorter or longer term contracts, and specific 'special to role' supplementary surgical training. The Regular Forces will need to continue to hold the contracts for that cadre of 'natural' military surgeons who find both surgery and the military life in their blood and who have the aptitude for military command appointments. These surgeons would be answerable to the DMS but would still spend much of their training time in the NHS.

An approach worthy of detailed evaluation would be to combine a larger cadre of NHS trainees on short-term military contracts (6–18 months), with a cadre of Regular surgeons. With adequate planning, this should produce a realistic number of surgeons available for immediate operational deployment from both groups. Closer integration of NHS and DMS training rotations is thus to be commended and would appear to be inevitable. Military surgeons in training will interchange freely with their NHS counterparts in more structured and stable rotations. NHS surgeons would become more familiar with military surgery, which may provide recruitment and public relations benefits for the Services.

The ongoing integration of military surgical facilities into local NHS hospitals will help in this respect, as has begun in respect of military hospitals in Plymouth and Frimley Park, for example. The physical integration of NHS and DMS facilities will provide the framework for better mutual understanding and the interchange of personnel. However, the development of this process will pose new problems at the local level. Should military staff be fully integrated into the duty rota? If so, how will this affect the hospital when military staff are detached for operational reasons? What role would military consultant staff have in teaching, management and private practice? Would individual regular military consultant surgeons receive 'permanent base' postings to specific NHS hospitals?

(b) Military consultant surgeons

There remains a requirement for fully trained consultant surgeons in full-time DMS employment, although the closure of military hospitals will reduce the number needed and the professional opportunities for those remaining. Military life differs considerably from employment in the NHS, in that there is continued job mobility and family disruption between UK and overseas postings. There is less continuity of clinical practice for the surgeon, as both the surgeon and the service population are regularly on the move, although this is to an extent offset by the service lifestyle and the breadth of professional experience on offer. There is little opportunity to develop a special interest or to supplement income through private practice.

Is interchange of surgeons between civilian and military life necessary or possible at consultant level? It seems unlikely that many British graduate surgeons of consultant status would opt for late entry into the services after a training career in the NHS except in unusual personal or professional circumstances. However, the more flexible environment of consultant job mobility which is emerging in the civilian sector may help in this regard. The availability of fixed term consultant contracts within the Services will attract some NHS higher surgical trainees, including overseas graduates. However, there is a risk that such a career option may be seen merely as a fast track to consultancy. While the planning of the DMS is in a state of flux, it is difficult to know whether the recruitment and retention of career military consultant surgeons will be a problem in future. However, an explicit expression of support from the Royal Colleges for the process of consultant mobility between the Forces and NHS Trusts may help to persuade a sufficient number of UK graduates that this is a worthwhile and rewarding career option.

C. The civilian employer's perspective

The success of a new contract between the civilian and military sectors depends upon the attitude of the civilian employer, usually the NHS Trust or University. This determines the confidence with which the individual can seek extended leave in the knowledge of continued NHS employment or re-employment. In 1990, volunteer reservists were obliged to break their civilian contracts and accept standard military contracts. A new form of tripartite 'continuum' contract between the DMS, the reservist and the civilian employer (for example, allowing continuity of pension rights) would help. The civilian employer would then be able to plan for and offset additional costs, for example of locum cover. Financial inducements from the Treasury to employers are likely to be necessary to allow Trusts to substitute specialist skills during a reservist's absence. Trust managers with reservists on their payroll need to be fully involved with the DMS in forward planning.

The favourable opinion of Trust management teams in support of the HRR concept will be influenced by the experience of individual reservists and its practical consequences. Abstract concepts such as 'character development' will count for less than tangible measures of professional development from military service. These may include both clinical factors such as caseload, and evidence of the acquisition of organisational and managerial skills which the Forces are well placed to provide.

D. The role of the professional bodies

The creation and maintenance of a surgical HRR requires the clear support and involvement of the Royal Colleges of Surgeons. A surgeon should not perceive that civilian professional advancement will be unreasonably hindered by reservist status, otherwise suitable recruits will not be forthcoming. Reserve service may well have been regarded in the past by appointments committees as evidence of eccentricity or of a lack of NHS commitment, and this perception must change. Positive discrimination for reservists would be wrong. Nevertheless, a statement by the Royal Colleges that a defined period of HRR service was considered in principle to be an acceptable

component of a training rotation or to be a substitute for a period of research in certain circumstances, would be important. The current restructuring of NHS higher professional training following the Calman report provides an opportunity to introduce the proposed changes. To this end, formal agreements will need also to be sought with the Regional Post-Graduate Deans for the incorporation of HRR slots in appropriate training rotations. Such arrangements should be spread as widely as possible through the NHS to minimise disruption to individual hospitals and districts.

E. Future opportunities for the Armed Forces

The Armed Forces have a challenge to develop their relationships with NHS employers and health service professionals. The NHS is now a key component in the planning of third line (base hospital) peacetime health care, military casualty treatment and rehabilitation. The need for closer involvement of a significant number of senior NHS surgeons in military medical matters is clear. Much greater use could be made of service resources and training facilities in fostering this relationship. For example, specifically tailored, professionally orientated seminars could be offered by the Forces to NHS surgeons and managers. The medical schools are another point of contact at which students may be introduced to the processes of disaster and crisis planning, the concepts of triage and mass casualty handling, and their implications for civilian and military doctors.

Conclusions

Modern surgical practice mandates a substantial resource of well trained surgical reserve specialists to support a nucleus of Regular Service surgeons. The Defence Medical Services need more such reservists to maintain a range of capabilities. The actual numbers needed will vary from year to year as circumstances change, but a few dozen individuals with the appropriate skill mix should be sufficient to meet the requirement.

An improvement in military surgical recruitment from the very large potential recruitment base in the United Kingdom is likely to be attainable if imaginative but practical steps are taken to use the existing human resources of the DMS and the NHS more effectively. The much greater likelihood of active or United Nations service will bring a change in the nature of the reserve recruit, and the option of active service is likely in general terms to be a positive recruitment tool, both quantitatively and qualitatively. The opportunity should expand significantly the pool of trained and motivated volunteer surgeons available to the DMS for the effective surgical support of military operations.

Innovation requires organisational and conceptual changes within the Defence Medical Services, in the Royal Colleges and other professional bodies, and within the NHS, but the changes envisaged should not be expensive to implement. Better surgical support for service personnel in peace and war can be achieved by changes in attitudes and by better exchanges of personnel and ideas between the civilian and military branches of the profession. The armed services remain an important and highly regarded national asset, and the servicemen and women whose lives are regularly put at risk deserve the very best surgical support. Open discussion of the problems and opportunities which have arisen is the first step to the creation of a new organisation within which British surgeons can continue to play their own worthwhile part in world events through the millennium.

Acknowledgements

The opinions expressed in this article are the personal views of the author. They do not seek to represent the official views of the Ministry of Defence, but they do incorporate the very broad spectrum of views which were afforded the author as a result of an earlier internal MoD discussion paper which was circulated in 1994 in response to Reference 2.

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Biographical note

The author has held Commissions in the Regular and Territorial Armies since 1975 in parallel with his civilian career in General Surgery. He has served with a variety of Regimental and Royal Army Medical Corps units, and with a combined reserve and regular army field surgical team attached to the 4th UK Armoured Brigade during Operation Desert Storm in 1991.