

ORIGINAL PAPERS

Reflections on medical aspects of ISAF IX in Afghanistan

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Abstract

This paper is a personal review of my experience as the Medical Adviser in the NATO Headquarters of International Assistance Force (ISAF) in Afghanistan from August 2006 to February 2007. It is in 5 sections, medical plans and operations, clinical issues, supporting the Afghan Security Forces Medical Services, supporting Health Sector Reconstruction and Development and preventive medicine. It concludes with a short summary of personal lessons.

Glossary of Abbreviations

ANA – Afghan National Army	IC – International Community
ANSF – Afghan National Security Forces	ICRC – International Committee of the Red Cross
BPHS – Basic Package of Health Services	ISAF – International Security Assistance Force
CJMED – Combined Joint Medical Branch	MEDAD – Medical Adviser
CN – Counter Narcotics	MEDCAP – Medical Civil Action Programme
COMISAF – Commander ISAF	MEDEVAC – Medical Evacuation
CSTC-A – Combined Security Transition Team – Afghanistan	NATO – North Atlantic Treaty Organisation
DENTCAP – Dental Civil Action Programme	NGO – non-Governmental Organisation (s)
EPHS – Expanded Programme of Hospital Services	OMLT – Operational Mentoring and Liaison Team
ETT – Embedded Training Team	OPLAN – Operational Plan
GoA – Government of Afghanistan	USAID – United States Agency for International Development
HQ ARRC – Headquarters Allied Rapid Reaction Corps	VETCAP – Veterinary Civil Action Programme
IA – International Agencies	WHO – World Health Organisation

Introduction

The author deployed to Afghanistan as the Medical Adviser (MEDAD) for the NATO headquarters in charge of the International Security Assistance Force (HQ ISAF) from August 2006 to February 2007. During this time NATO mission expanded to include responsibility for all international military forces in the whole of Afghanistan. This paper reflects on my experiences during this tour. It starts by summarising the overall campaign during ISAF IX and is then broken down into 5 sections: medical plans and operations, clinical issues, supporting the Afghan Security Forces Medical Services, supporting Health Sector Reconstruction and Development and preventive medicine. The paper ends by discussing my own personal lessons learned and looking to how these experiences might influence medical support to military operations in the future.

Background

“My guiding intent is, through our actions and a linked information operation firmly rooted in substance, to reinforce the people of Afghanistan’s belief that long-term peace and growing economic prosperity from which everyone can benefit is possible if they continue to give their government, and its international partners, their support and encouragement.

ISAF in partnership with the GOA and the IC, is to think and plan for the long-term future of Afghanistan, seizing short-term

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opportunities as they occur but always in a way that is in step with the long-term vision for the country. We are to focus on action that actively assists the GOA in nurturing and further developing the consent of the people to the GOA (our centre of gravity) and its international partners, not least NATO. Respect for the people of Afghanistan and their faith is to be central to all we do.

Within this framework, ISAF will:

- 1. In step with GOA’s National Development Strategy, concentrate on those activities that will most clearly and quickly assist the GOA in its drive to establish the sustainable economic growth on which the future of the country depends. Some examples of this approach include:*
 - (a) Helping ensure the security of mineral resources, border crossing points, and the transport network, water and power supplies.*
 - (b) Supporting the GOA in the development and prosecution of its CN campaign.*
 - (c) Assisting in the GOA’s economic and human resource development strategy so as to enable Afghanistan to become increasingly self-sufficient.*
- 2. Work to resolve conflict and reduce tension within Afghanistan, focusing on the holistic defeat of the residual insurgency threat to the country. Supporting and helping to train the ANSF to a standard that will enable them in time to assume full responsibility for the internal and external security of the country will be critical to success.*

ISAF is to be prepared to respond positively to requests to help the GOA and International Agencies (IA) with its guidance,

advice and coordinating skills as required, in order to assist actively in the achievement of these aims."

My Main Effort is to extend and deepen the areas in which the GOA and IAs/NGOs can safely operate in the interests of the people of Afghanistan, enabling the ANSF increasingly to take the lead in achieving this aim. In this way too I will seize the initiative against those who oppose the GOA through violent means, by using appropriate and well considered measures – including the robust use of force should it be necessary – at times and in places of my choosing thereby forcing them to respond to my design."

This is the Commander ISAF, General Richards', statement of his overall intent in order to understand the background to the ISAF mission and his approach to the conduct of the operation. In essence this is a military counter-insurgency operation being undertaken in support of the Government of Afghanistan (GoA) in order to allow the other agencies of the Government and the International Community (IC) to support the development of the country.

During the course of 2006, HQ ISAF managed the unification of the NATO mission in Afghanistan by including the Southern region and Eastern region as subordinate Regional Commands (to match Region Commands Capital, North and West). This also changed the command relationship over forces by introducing direct command authority for all Regional Commands over all ISAF forces operating in each region. HQ ISAF thus became the in-theatre operational headquarters responsible for the politico-military interfaces between NATO, the Government of Afghanistan and International Organisations. In addition HQ ISAF was also the theatre tactical headquarters responsible for day-to-day management of international military operations across Afghanistan in conjunction with the Afghan National Security forces. This evolution is summarised in Figure 1.

The head of ISAF military medical services was responsible for the co-ordination of medical support to all ISAF military forces, assistance to the development of the Afghan National Security Forces Medical Services in conjunction with the United States forces and assistance to the development of the Afghan civilian health sector in conjunction with the Afghan Ministry of Public Health and all International Agencies and Non-Government Organisations in working in this field. At the completion of 'Stage 4', ISAF has 20 military field hospitals across Afghanistan

providing 31 surgical teams, 220 general beds and 48 intensive care beds, 4 CT scanners, and 60 general practitioners.

Medical Plans and Operations

Medical plans and operations should be driven by a formal military medical estimate of the medical support requirement and took place during a visit to Afghanistan in May 2006 for 3 weeks to undertake a formal medical estimate for the Stage 3 and Stage 4 transitions on behalf of NATO. The most important outcome of this study was to raise the profile of the two additional tasks for the ISAF medical services, namely assistance to the Afghan National Security Services medical services and support to health sector reconstruction and development. These are implied tasks within COMISAF's intent and represent the medical services contribution to the exit plan for military forces.

The geography of Afghanistan is one of extreme contrasts from the mountains of the Hindu Kush in the centre, North and East to the deserts of the West and South. It is also a huge country with areas of sparse population and very limited infrastructure. The medical support challenge can be described in four dimensions: distance, terrain, weather and opposing forces. Afghanistan is approximately one third larger than Iraq with approximately one third of the number of international military forces. This distance means that most medical evacuation is undertaken by aircraft. The mountains of the Hindu Kush dominate the physical geography of Afghanistan and significantly constrain ground and air movement. In the winter many of the key airports are affected by bad weather and in the summer the high temperatures and altitude limit helicopter operations. Finally, aircraft are regarded as high value targets by opposing forces and thus helicopter medical evacuation missions may need to be conducted in a very high threat environment. These factors are summarised in Figure 2.

Medical support planning in this environment is a balance between medical treatment capability and medical evacuation capability and so requires a close relationship between medical staff and air operations staffs as both medical facilities and medical evacuation aircraft are in short supply across international military forces. ISAF requires a military presence dispersed across the country and so the medical support plan has to match this but without diluting medical capabilities. This results in a laydown of emergency medical capabilities across the country supported by a helicopter and fixed-wing aircraft evacuation service. In urban areas

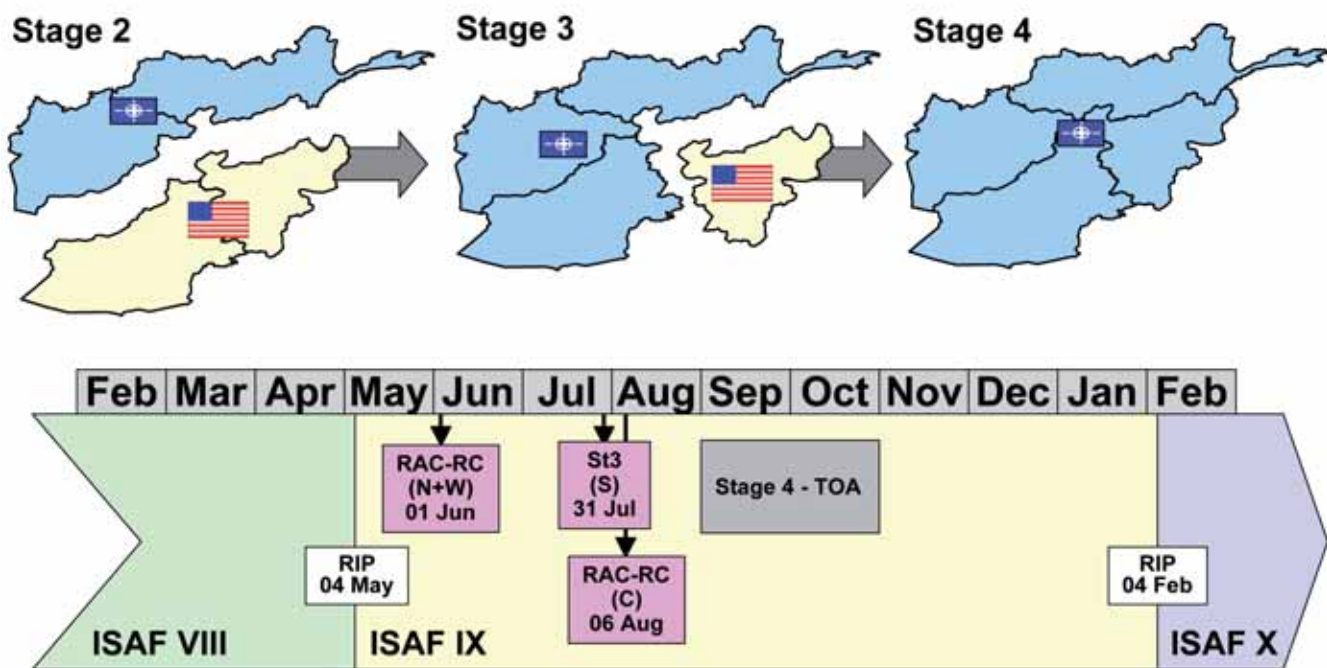


Figure 1 2006 – A year of transitions

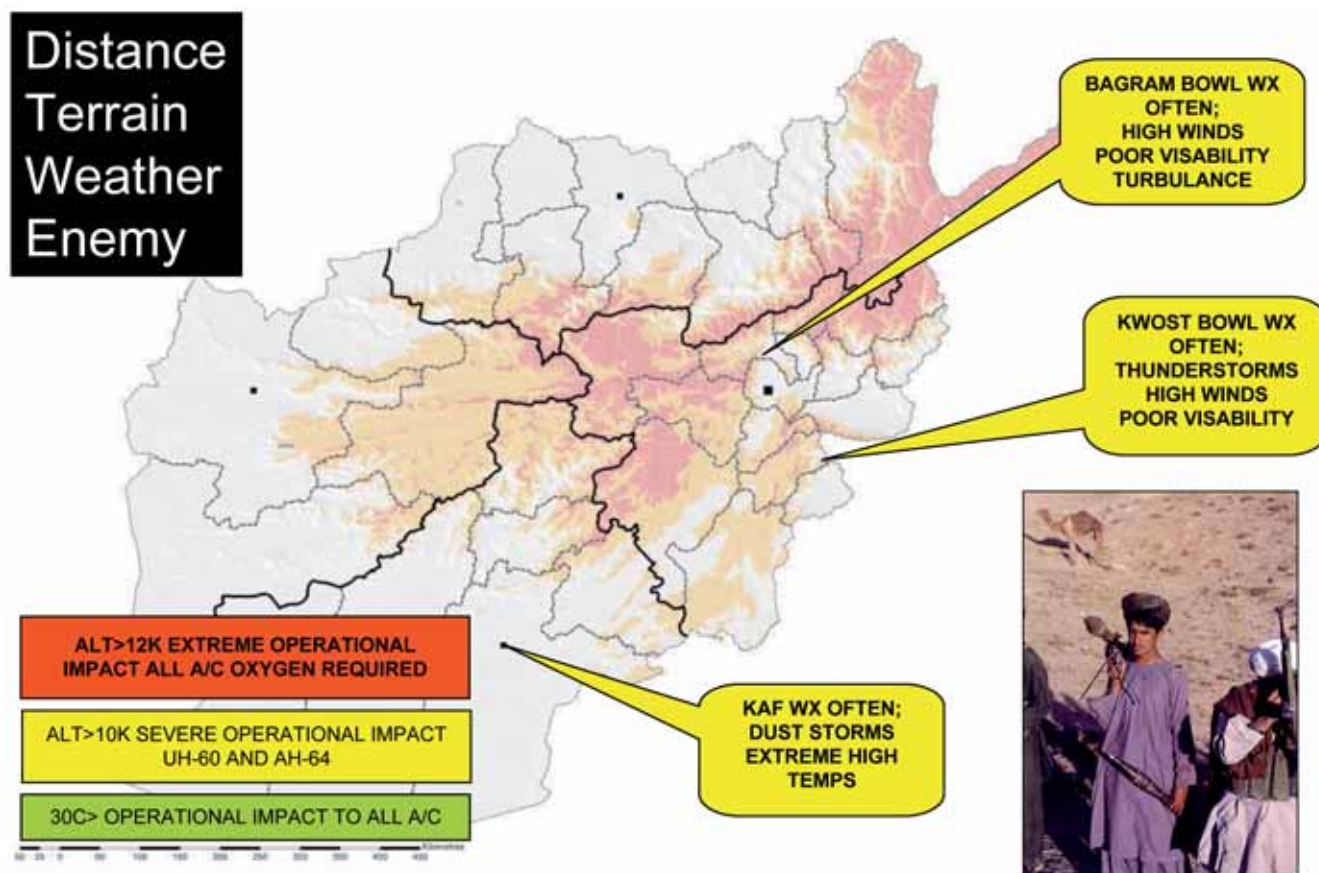


Figure 2 Environmental Effects on ISAF Operations

there is a military ground ambulance service for the retrieval and transfer of casualties. The military threat necessitates that ground ambulances are protected by armour and that all medical helicopters are accompanied by a helicopter gunship. This threat also requires the response to incidents involving casualties to be led by J3 operations staffs with medical services in support rather than a '999' service controlled by 'medics' that has evolved in the benign peace-support environment of NATO operations in the Balkans. The network of medical facilities matches the medical support plan for other counter-insurgency campaigns such as Vietnam and Northern Ireland. As these medical facilities mature, they have become increasingly capable and located within hardened infrastructure in order to protect staff and patients from both the weather and the threat of attack from indirect fire by mortars and rockets. This evolution is not reflected in current NATO doctrine and requires a new concept to describe the evolution of medical support arrangements for a prolonged military campaign.

The increasing capability of dispersed medical facilities and the challenges associated with medical evacuation requires a change in clinical approach from that of an automatic evacuation chain to that of holding casualties unless the patient's outcome will be substantially improved by transfer to another clinical facility. This particularly applies at night, during the heat of the summer, or the bad weather of the winter, when there might be substantial risk to the aircrew and aircraft undertaking the medical evacuation mission. This is discussed in more detail in the section on clinical considerations.

A feature of military operations in Afghanistan is that the company group has become the unit of manoeuvre with Task Forces being created from multi-national sub-units. This means that the normal doctrine of Role 1 (primary care and emergency care) being focussed at battalion level does not apply and that nations need to provide Role 1 capability at company group level. This should normally be medical officer led and include armoured ambulances for casualty evacuation from point of wounding to a helicopter landing site. Every deliberate tactical operation required

a specific medical plan and emphasised the need for experienced medical planning officers who can interpret J5 planning and J3 operations at all levels in the ISAF command structure. During the early stages of this tour, there was evidence that a number of medical commanders were unaware of the key ISAF operational documents and were unfamiliar with the military processes for planning and execution of operations.

The nature of the terrain and the need to engage opposing military forces in their sanctuaries, requires a re-deployable medical reserve (ideally a Role 2 Light Manoeuvre similar to a US Forward Surgical Team) that can be used to provide an intermediate medical facility between Role 1 and Role 2 Enhanced or to reinforce medical facilities in line with the Commander's Main Effort. There were two occasions when medical capability was re-distributed in the Area of Operations. The first was the move of a nursing augmentation team from Region North to Region South after a mass casualty incident, both to provide a respite for the medical staff and also to augment capacity in preparation for a second phase in the operation. The second was the move of a surgical capability from Region South to Region West to enhance medical support for a kinetic operation. This move was backfilled by the move of an anaesthetic nurse from Region North to Region South to enable the operation of a second surgical table (a second surgeon was already in place along with a supervising anaesthetist).

The ISAF IX period saw the introduction of direct NATO funding for 'theatre-enabling' medical facilities. NATO has never previously procured operational medical facilities and so the process has yet to be clearly defined. A number of nations, US, Germany, UK, France, Spain and Holland, have procured bespoke, hard-walled fixed infrastructure medical facilities to support operations in Afghanistan. This experience provides NATO with a number of design options. Our initial experience suggests that a procurement project of this scale (approximately Euros 8-10 million per facility) requires a specific project team that utilises clinical, engineering and building expertise to specify, design, procure and supervise construction of these common-funded

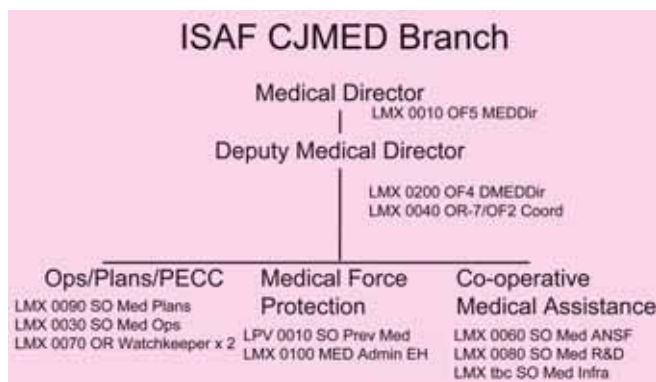


Figure 3 – ISAF CJMED Branch Structure

medical facilities. Finally, there will need to be a process for ensuring satisfactory clinical performance to ensure that these facilities meet the NATO standard. This last point will be covered further under clinical lessons.

Finally in this section on medical plans and operations it should be noted that practical experience proved the requirement to increase the staff of the medical branch in ISAF Combined Joint Medical Branch (CJMED) from 4 people at the beginning of 2006 to 12 by the end. The ISAF CJMED structure is shown in Figure 3. The medical operations desk was manned on a 24 hour basis and moved into the Joint Operations Centre to sit next to the Combat Rescue Co-ordination Cell to ensure synergy between medical and air staff in the management of medical evacuation tasks. The manning for this branch came from a number of NATO nations with a significant medical presence in Afghanistan.

With the expansion of roles and influences for the ISAF medical branch, medical staff were involved in every pan-headquarters planning meeting and contributed to outputs from CJ1 – personnel, CJ2 – intelligence, CJ3 – operations, CJ5 – plans, CJ9 – civil-military co-operation, CJEngineer and the Joint Effects Branch. In fact medical is more of a combat support than a combat service support staff function and has more synchronicity with all other staff branches than with CJ4 – logistics and emphasises the importance of the medical function being a separate staff branch though fully engaged within the headquarters structure. The span of command increased the breadth of issues for the ISAF CJMED staff and increased the responsibility for Region Commands to deliver tailored solutions to each individual problem. This increases the need for effective information management and standardised processes through Standard Operating Procedures. At least 2-3 days of each week were spent visiting a regional headquarters and a monthly ISAF Medical Advisers meeting was also instituted, as well as designation of a specifically nominated Deputy MEDAD in order to ensure clarity of responsibility during absences. The medical reporting system was revised to include a twice-daily bed



Figure 4 Enhanced First Aid

state and a weekly text medical assessment report alongside the pre-existing data reports. The biggest challenge was routine communication across at least 4 different IT systems, especially as not all regional medical staff had access to these IT systems. We attempted to reduce this friction by issuing a 'html-written' CD containing the complete medical knowledge system to regions – once we had revised all the documentation.

Clinical lessons

The key clinical lesson 'reinforced' is that effective first aid saves lives. This was emphasised in a small a number of cases where difficulties in providing simple first aid measures (usually due to enemy fire) contributed to loss of life. Figure 4 shows examples of the number of adjuncts that some nations have recently introduced to improve control of bleeding, including haemostatic agents, elasticated pressure bandages and improved tourniquets. These should rapidly become the international standard. Whilst trained first aiders can use this extra equipment, their use by medical staff deployed forward with company groups should be considered to be the international standard of 'best practice'.

There was national variation in the command state given to ISAF for each medical unit. In reality this had little relevance as ISAF was unlikely to order any medical facility to move. The medical laydown was based on national understanding of the medical support requirement for their own area of responsibility. The main cause of friction was variation in national rules of eligibility for entry to field medical facilities for ISAF forces, Afghan Security Forces and Local Nationals. The ISAF OPLAN was carefully worded in order to ensure primacy for ISAF forces but included access to ISAF medical facilities in life, limb or eye-sight threatening emergencies for all other populations on the basis of clinical need in accordance with the Geneva Conventions. During the course of the ISAF IX tenure, NATO expanded the eligibility criteria to include Afghan National Army (ANA) soldiers when conducting joint operations. In essence, the ANA currently has no field medical system and so ISAF is under-writing medical evacuation (MEDEVAC) and initial medical care for the ANA across Afghanistan. This is a reality and is essential to the moral component of the ANA fighting power. The increasing use of civilian personnel, both within the ISAF mission but also in support for the international mission, needs to be accompanied by a recognition that organisations employing these individuals need to establish formal arrangements for the provision of medical care. This is particularly important in respect of strategic aeromedical evacuation as many civilian services will not retrieve patients from Afghanistan. Nations need to recognise that access to the military medical capability has an important role in maintaining the consent of the local population, particularly in the unfortunate instance of casualties from collateral damage. We also need to acknowledge the importance of having a minimum level of clinical activity in ISAF medical units in order to familiarise the clinical staff with each other and the operational environment and also to maintain clinical focus.

The process of patient transfer between medical facilities raised a number of issues and emphasised the important role of medically qualified staff in the headquarters controlling such missions. Whilst the 'default setting' should always be to support medical staff in forward locations, it is important to ensure that the clinical benefit for a patient is balanced against the risk to the aircrew and aircraft during a medical evacuation mission. There were a number of anecdotal stories of risky MEDEVAC missions being undertaken for patients who either walked off the aircraft on arrival or who were immediately discharged from hospital after clinical assessment. On the basis of our experience, the tasking of forward MEDEVAC by helicopters should remain on the basis of a simple '9-liner' report but the movement of patients from one medical facility to another should be supported by a full clinical report and,

if possible, clinician to clinical communication. This procedure is even more complex for injured or sick local nationals who, ideally, might be treated in a national referral hospital. The Afghan health system has not yet evolved to provide anything like the full tertiary-care referral service of a Western nation and so considerable clinical judgement is required to determine whether a patient transfer from an ISAF regional hospital to a Afghan national hospital is likely to improve the clinical outcome for the patient. In addition to the clinical issues, such a patient transfer involves the movement of the patient's relatives to provide personal care in the receiving hospital, confirmation that the family can pay for any drugs needed (as about 70% of drugs are purchased by patients) and a plan for the return of the patient to their home location after completion of care. Our experience of a number of patient transfers proved that, in spite of our best efforts, even the simplest thing can go wrong.

A programme of hospital visits were initiated to improve the situational awareness of the health sector in Kabul in order to better advise ISAF medical staff about the realities of the Afghan health care system prior to requesting a patient transfer. This required the development of a template for hospital assessments and a method for archiving the information to enable medical personnel in follow-on rotations to access the information. Whilst the focus was on clinical capability relative to ISAF medical facilities, it was also valuable in order to make comparisons between Afghan facilities at a local or regional level and those in Kabul to determine appropriateness of patient transfers. Finally, these assessments also identified areas for development funding that we communicated to international donors working in the health sector.

The requirement to hand-off Afghan patients (ANA and civilians) from ISAF hospitals to local medical facilities raised a debate about the extent of clinical care ISAF hospitals could and should provide. It was absolutely clear that ISAF was not going to arrange for the transfer of Afghan patients outside Afghanistan and therefore local national patients were going to be either discharged home or handed-off to hospitals in Afghanistan at either provincial, regional or national level. Criteria for provision of medical care to local nationals were 'culturally sensitive and locally appropriate'. The absence of any Western style, ventilated intensive care bed in the whole of the public health system in Afghanistan is the most significant constraint to patient hand-off. This led to a discussion about how to ensure pre-deployment preparation and communication to senior clinical staff of the challenging ethical issues they were likely to face. I took a number of videos of Afghan hospitals in order to aid this process. Two clinical scenarios that certainly require consideration are burns and head injuries, particularly in children. In both cases the management of the acute phase in severe cases is within the clinical capability of the majority of ISAF medical facilities but, for survivors, is likely to lead to substantial challenges in long-term care and rehabilitation that may be beyond the capability of local medical facilities and beyond the financial resources of the patient's family. Senior clinical staff need to be aware of their responsibilities to appropriately triage such patients and to recognise that a pain-free, dignified death locally within the family environment might be better than a long, drawn-out demise with possibly a complicated patient transfer to a distant hospital away from relatives and the consequent challenge of burial in accordance with religious customs.

The final clinical issue was the measurement of clinical performance of ISAF medical treatment facilities. Not only are these facilities multi-national units but also they are used by multi-national forces and so there needs to be a transparent process for demonstrating effective clinical performance in order to provide assurance to nations that their forces will receive adequate medical care if required. During the ISAF IX period there was a complaint by the commander of one medical unit about the performance of a national team within his facility. In this example there were a number of patient transfer requests and unusual clinical

interventions that demonstrated that clinical output of the facility fell short of the standard required by the doctrinal capability statement for the unit. At present there is not a clear process of clinical accountability for multi-national units and this example demonstrated the need for a Ministry of Defence level steering group between the troop contributing nations to be responsible to NATO for clinical performance. The introduction of NATO common-funding for the financing of critical theatre-level medical facilities provides a mechanism to impose penalties on nations that fail to meet the required standard but also introduces a responsibility upon NATO to have a system that monitors clinical performance. NATO should also consider adopting a clinical performance management system similar to the US Joint Theatre Trauma System to enable sharing of clinical experience and best practice between medical facilities. This might require the employment of clinical consultants in a medical leadership role in HQ ISAF, similar to such roles played by experienced clinical personnel in medical staff branches in the Second World War, Korean War and Vietnam Wars.

Supporting the development of Afghan Security Forces Medical Services

As stated by COMISAF in his intent, NATO supports the crucial role of the Afghan Security Forces in establishing a safe and secure environment for the people of Afghanistan. The United States provides the capital investment and has provided the training and mentoring through Embedded Training Teams (ETTs). Increasingly NATO will share this role at the tactical level through the use of Operational Mentoring and Liaison Teams (OMLTs). My approach to the use of ISAF medical forces in support of the development of the Afghan Security Forces Medical Services was based on four strands: medical support to OMLTs, direct patient care, liaison and situational awareness and finally training and mentoring. The primary mission was ensuring the medical support to ISAF OMLTs. This is done in two ways: firstly to ensure that all personnel are properly prepared for preventive medicine aspects of living alongside Afghan soldiers and secondly by ensuring the OMLTs know how to access the ISAF medical system.

NATO has committed to providing key tactical enablers for the Afghan National Security Forces including direct patient care through medical evacuation and treatment. This is a significant commitment for the ISAF medical community but is essential for the maintenance of morale for Afghan soldiers and policemen. Approximately 50% of patients in ISAF medical facilities are Afghan security forces or civilians. The United States has invested a considerable sum of money into the development of the ANSF medical services including a substantial refurbishment of the National Military Hospital and the construction of 4 regional hospitals. This will create the infrastructure for an ANSF regional and national medical treatment system but the programme requires substantial educational support for ANSF clinical and paramedical personnel in order to make the best use of the new facilities. There is considerable potential for using ISAF medical staff to provide the foundation for such a mentorship programme in all locations. ISAF has been given approval for the use of the WHO e-learning toolkit for Integrated Management of Emergency Surgical Care and this will form the basis of a curriculum for the mentorship of these new hospitals. It is clear that this is a medium-term commitment that needs to endure through rotations of clinical staff. Although demanding energy and enthusiasm, improving the clinical capability of ANSF hospitals should facilitate the hand-off arrangements of ANSF casualties and Local Nationals and eventually lead to MEDEVAC missions delivering Afghan casualties directly to these facilities. In developing this concept it has become clear that we need an appropriate reference point by which to measure progress and that some of our developmental plans have been hampered by our

Western models – perhaps we should investigate military medical services in India or Pakistan in order to create a different model for the future ANSF medical services? This is particularly important when we consider the relationship between military medical services and civilian health services as the model developed in Afghanistan includes officer's families as beneficiaries of the military health care system.

As ISAF IX developed, the relationship between ISAF and the Afghan Ministry of Defence grew stronger. This culminated in the joint ANA/ISAF planning effort for Operation OQAB that was reflected across all ANA/ISAF staff branches. ISAF, in conjunction with the US, introduced a fortnightly medical planning conference into planning alongside the ANA general staff. This was reflected at a regional level with regional medical advisers being made responsible for facilitating co-ordination between ISAF field hospitals, OMLT and ETT medical staff and ANA Corps and Garrison medical leaders.

As NATO expanded the international military training teams for the ANA with OMLTS, these teams included medical staff to provide medical care for the OMLTS themselves. These medical personnel might also be used to provide first aid training and mentoring in military primary care for ANA medical services staff. It is clear that these ISAF medical personnel need a policy framework in which to operate and that they need to have an awareness of the programme for the development of the ANA medical services. Our experience suggests that this requires a NATO mobile medical training team who can provide guidance and direction in a 'train the trainer' role by providing a link between the US led mentoring teams working at the ANA MOD level and the NATO OMLTs working at the tactical level with ANA Kandaks (battalions) and Brigades. This NATO mobile medical training team can also assist with the development of common doctrine and training aids for use by all OMLTs (including the existing US Embedded Training Teams) and balance the use of US doctrine and training against NATO or other national military reference material. One example might be to make use of the agreement from the ICRC to use the ICRC manual - First Aid in Armed Conflicts - as the basic reference manual for first aid training for the ANA, Afghan National Police and even the civilian ambulance services. All of these training ideas need to be balanced with the reality that the development of the Afghan Army is limited by the level of education and literacy amongst the population, difficulty in paying soldiers a wage that reflects the risks that they face and the cultural reality that fighters have a substantially higher social standing than medics.

As our experience in mentoring and training developed, it became clear that many ISAF medical facilities (and indeed many other organisations) were employing Afghan medical staff as interpreters. Whilst this meets a short-term need for communication, it undermines the development of the health sector by removing critical human capability and capacity from the health sector. This is unlikely to change in the near future, but medical units especially should be imaginative in the employment of interpreters rather than just using them as a bridge between the patient and a Western healthcare provider. The diagram in Figure 5 summarises the current paradigm and proposes a new model focusing on empowering Afghans to care for Afghans. This does require a different approach from our medical staff and is actually considerably more difficult to achieve compared to providing clinical care within a Western medical paradigm.

Supporting Health Sector Reconstruction and Development

Afghanistan has amongst the worst population-level health indicators in the whole world. As an institution, the ISAF military medical services are one of the largest international medical

- **New Model**
 - Afghans to care for Afghans
 - Focus on building human capacity
 - Requires more imagination and skills

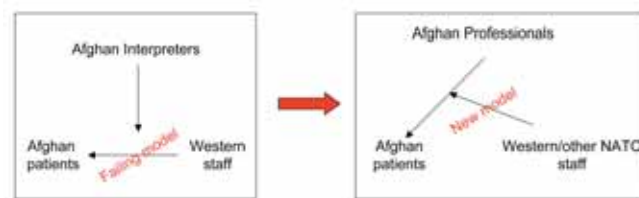


Figure 5 – A New Paradigm for Mentoring and Education in the Health Sector organisations operating in Afghanistan. The use of this capability in support of health sector reconstruction and development is both a military task and a professional obligation. The engagement of ISAF medical services in Health Sector Reconstruction and Development is based on 4 strands: liaison and situational awareness, facilitation of resources, training and mentoring, and direct patient care.

The Afghan Ministry of Public Health, with the technical support of the international community, has a comprehensive strategy for development derived from a 'Basic Package of Health Services' for primary and community care and an 'Expanded Programme of Hospital Services' for hospital care. The majority of the BPHS services are funded by 3 agencies; the World Bank, the European Union, and USAID. The actual delivery of services is contracted out to a range of NGOs. The Ministry of Public Health provides central management for the health sector and provincial directors of health through the provincial health co-ordinating committees conduct local management. The ISAF organisational management mirrors this with central command, delivered through provincial reconstruction teams. The creation of a concept of operations and guidance for civilian health sector engagement, including writing a substantial Annex on this subject for the PRT handbook, was one of the key developments during ISAF IX.

ISAF does not have direct access to development funds but does have the responsibility to assist PRTs to access background information on the Ministry of Public Health policies and programmes to ensure that any investment by PRTs in the health sector conforms to local needs and national plans. It is particularly important to ensure that any new medical facilities are supported by sustainable equipment, medical consumables and healthcare staff. During the course of ISAF IX a particularly strong relationship was built up between ISAF medical staff and the US Combined Security Transition Command – Afghanistan (CSTC-A). This provided access to substantial US funds for development of the health sector to complement the existing funding arrangements through USAID. Both ISAF and CSTC-A medical personnel had regular meetings within the Ministry of Public Health. ISAF CJMED staff became involved in high level discussions on health planning issues such as: certification, registration and training of health professionals; balance between public and private sector health care; national medical procurement policy; emergency planning; and health sector contracting. We found that ISAF has the potential to act as a powerful facilitator between stakeholders in the Afghan health sector and actually can be considered as a relatively impartial contributor without some of the political and funding pressures of UN agencies and NGOs. As described earlier, ISAF medical personnel were also involved in visiting local healthcare facilities to assess clinical capabilities but this also led to proposals for development of these facilities. This engagement with the Ministry of Public Health became a substantial full-time commitment for one of the CJMED staff and emphasises the need for some military medical staff to have a professional background in international public health. The first Afghan Emergency Planning Conference

for the health sector, shown in Figure 6 is one successful example



Figure 6 Emergency Planning Conference

of this co-operation.

At a local level, many ISAF medical facilities established partnership arrangements with local healthcare facilities. In Maymaneh the Norwegian medical staff developed a training programme in anaesthesia to increase the capability of local medical staff to undertake surgical procedures. This programme was expanded to other civilian medical facilities in conjunction with the World Health Organisation. In Kunduz and Fayazabad the medical staff conducted visit programmes to local facilities and provided shared care and medical training within local hospitals. These initiatives became embedded into the normal workload of the ISAF medical facilities and therefore, by being an expected part of the role of medical staff, were maintained across the rotation of individuals. These projects highlighted a number of small but significant points of good practice to be shared across the theatre including: prescribing full courses of treatment for patients but store the drugs in a plastic bag on a IV stand next to the patient so that the dispensing of the drugs to the patient can be monitored; include relatives in the training of simple nursing practices such as dressing changes; consider using payment for translating services as an incentivisation payment for retaining interest of local medical staff in key patients; in addition to medical and nursing care look at support to technical services such as laboratory, x-ray and sterilisation.

ISAF was approached by the WHO and Afghan Ministry of Public Health to be a partner in supporting the international campaign to eradicate polio. Afghanistan is one of only four countries in the world in which polio remains endemic. The WHO sponsored vaccination programme is hampered by perceived and actual threats to the local vaccination teams. Both the Ministry of Public Health and the WHO wish to improve access of the vaccination teams to un-immunised populations by encouraging parties to the insurgency on both sides to respect the humanitarian and impartial role of these teams. This led to a discussion on how to ensure ISAF military operations did not pose a threat to the vaccination teams and also consideration of the role of Afghan military and police in providing security compared to minimising their presence during a vaccination programme. This issue is further complicated by the multitude of potential parties in the opposing forces and the challenge of countering their anti-vaccination propaganda. ISAF agreed to minimise military operations in the vicinity of vaccination activities and to ensure that all ISAF forces were aware of the material that indicated vaccinations teams in order to not impede their work.

A number of military medical units conducted visits to rural villages to offer medical, dental and veterinary support. The use of military health service personnel to undertake these 'MEDCAP', 'DENTCAP' and 'VETCAP' activities is controversial. On the positive side, they provide access to health care that might

otherwise not be available and they provide an opportunity for military forces to engage with the local community and provide a practical benefit at an individual level. On the negative side, single, one-off medical treatments are unlikely to have any significant health outcome and there have been allegations that these activities have been driven by the military objectives in gathering intelligence rather than any health care benefit. Overall, there seems to be consensus that these village visits can be beneficial to the local community and can be used to provide security to enable access to these communities by local healthcare workers who can be given training and mentoring by ISAF military medical staff. We need to develop a policy framework and number of practical examples of good practice so that these visits are beneficial to all parties. We also need to engage in the debate over the concept of 'humanitarian space' in a counter-insurgency campaign that supports a legitimate, internationally recognised government. Certainly the use of national security forces in support of expansion of access to health care could be seen as an increase in the capacity of the government to provide security for its people rather than an encroachment of military forces into 'humanitarian space' but we do need to recognise the right of NGOs to be weary of engagement with military forces if this is likely to undermine their charter or their perceptions of security.

Preventive Medicine

The biggest challenge in managing preventive medicine for ISAF forces is establishing the principle that the medical adviser to COMISAF has the authority to be informed of national preventive medicine measures and of any outbreaks of ill-health amongst ISAF forces. Although the ISAF preventive medicine staff officer wrote a comprehensive handbook on preventive medicine, there was anecdotal evidence of inadequate preventive medicine measures in a number of ISAF bases and incomplete reporting of outbreaks of infectious disease. HQ ISAF issued 3 preventive medicine special orders during ISAF IX on: prevention of heat illness, prevention of malaria and prevention of cold injuries. There were two incidents requiring specialist occupational advice. The first concerned the prevention of altitude sickness for personnel involved in the recovery of a pilot's body from a high altitude crash site. The second involved advice regarding the conduct of a dive for recovery of equipment lost during a flash flood.

Personal lessons

I will close by reflecting on my personal 'lessons-learned' and consider what I might have done differently. The most critical component of team preparation was establishing the best branch structure to suit my style and then ensuring the branch was fully manned. In barracks my branch is only established for 3 personnel and the ISAF medical branch was 10 (increased to 12 by the end of ISAF IX). Ensuring the branch was fully manned involved negotiation with higher NATO headquarters and national headquarters. In taking over a pre-existing operation, it is vital to ensure comprehensive understanding of the operational and cultural environment. HQ ARRC conducted a comprehensive pre-deployment training package, including two pre-deployment mission-rehearsal exercises. This was invaluable, but not all my augmentees were able to attend. I also produced a pre-deployment self-study package that contained a considerable number of unclassified background documents that especially covered the Afghan health sector. I held two pre-deployment medical meetings for my staff plus augmentees. In addition, with at least one of my staff, I attended all the NATO operations planning conferences for ISAF for 8 months prior to deployment.

During deployment

Building and maintaining the team is the most challenging aspect of running a branch, particularly when we are living and working

together in one place. It was noticeable that changeover periods were stressful for the whole branch as even the change of single individuals requires psychological adjustments from the whole team. I found that internal communication became both more difficult and more important as the team grew bigger. We developed a routine of daily 'branch updates' that focussed on the next two days and big issues, and weekly 'branch meetings' that covered all ongoing issues and looked out in detail for a two week period. This rhythm complemented the whole headquarters rhythm and worked to keep us all in touch across the domains of our responsibility. In my view a multi-national staff branch should reflect the balance of national contributions in the force and, whilst language and understanding require more effort, is vital to utilising all sources of influence to ensure maximum co-operation by subordinate units.

The deployment especially emphasised to me the importance of having doctors within the medical staff function. Most of the difficult decisions, especially related to medical evacuation, were concerned with specific clinical issues that cannot be resolved by non-clinical staff. I was lucky that there were 3 doctors in the staff during my time. This meant that at least one was always available in the headquarters compound to support the medical operations staff. This clinical role extended to engagement with the external audience, both within ISAF forces and with the ANSF Medical Services and the Ministry of Public Health.

My final personal observation is the importance of development and maintaining personal relationships across the chain of command. Locally in Kabul, I met the Command Surgeon from CSTC-A at least twice per week and the Minister of Public Health and ANA Surgeon General once per week. I made a determined effort to visit as many medical facilities as

possible, but with 5 Regional Commands, 19 Field Hospitals and an unreliable air transport system this really meant that I was only able to visit each Regional Command once every 1-2 months and provincial field medical units once during my tour. Externally, ISAF had weekly video-conferences with NATO headquarters and we were visited by medical staff from NATO once during my tour. I also attended two external medical conferences. Achieving an effective leadership environment amongst all of these stakeholders requires time, both prior to deployment and also during deployment; and also emphasises the need for a minimum period of deployment between 4 and 6 months to ensure that robust personal relationships can be established in order to enable progress.

Conclusions

The expansion of the NATO mission in Afghanistan, through Stage 3 to Stage 4, to encompass the whole country has far reaching implications for all national military medical services in NATO. This is now the largest deployment of international military medical services since the Second World War and requires multinational commitment to ensure continued success. The medical function is probably the most integrated multi-national capability and delivers the best expeditionary medical care ever provided to military forces. The successful prosecution of the multi-national counter-insurgency campaign requires NATO medical services to also make important contributions in developing the Afghan Security Forces medical services and in supporting the development of an effective civilian public health system. I believe the medical branch of ISAF IX has laid the foundations for the successful delivery of this whole military medical mission.