

Chapter 13

COMBINED HEALTH SERVICES SUPPORT OPERATIONS

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INTRODUCTION

Future military operations are likely to be conducted in a combined, joint, interagency, or multinational (CJIM) environment. This chapter examines the opportunities and challenges associated with partnering in a CJIM environment to deliver the military medical mission. The chapter opens by considering the strategic purpose of coalitions or alliances and how they enhance efficiency and effectiveness in health service support. The chapter then examines the principles of multinational medical support and the compromises nations must accept if this type of operation is to be successful. The United States and the United Kingdom (UK) have participated in multinational integrated

medical units (MIMUs) over the past 2 decades, and lessons learned in these operations will be highlighted in the MIMU section. It is vital to consider efforts in working and partnering with the medical services of indigenous security forces as part of the CJIM environment, which will be introduced in the section on indigenous forces. Health sector capacity building, however, is too big a subject to cover fully here. This chapter will focus on generic organizational learning; readers should consult higher command authorities and legal staff before entering into formal relationships with other nation's medical services.

WHY COALITIONS OR ALLIANCES?

The international order is defined by the existence of sovereign states with unitary authority within their geographical boundaries. Relationships between sovereign states are determined by international law and states' obligations within the alliances and agreements they have made in the global arena. It is extremely unlikely that any future conflict will be characterized by a single sovereign nation from the developed world entering a conflict with another single nation. Most developed nations' security strategies^{1,2} are underpinned by the treaties and alliances that govern the balance of power among nations. For the United States and the UK, the two primary alliances are the United Nations (UN) and the North Atlantic Treaty Organization (NATO). However, there are many other alliances, often based on regional or technical security cooperation requirements. The ABCA Armies program (United States, Great Britain, Canada, Australia, and New Zealand) was set up in 1947 to optimize interoperability, training, and equipment among the English-speaking armies that fought together in World War II. Similar arrangements are in place for other services: the Air and Space Interoperability Council for air forces, AUSCANNZUKUS for navies, and Five Eyes for intelligence.

Nations are highly likely to seek international partners when they plan to use military force as an instrument of national power. Thus, nations invest a considerable amount of time and resources in building relationships with their allies to achieve the maximum effectiveness of collaborative action during combat. This enables the mobilization of political opinion, the summative action of military force, and sharing of costs (money and casualties) so that the cumulative effect in mobilizing power against an

adversary is synergistic.

Effective coalition or alliance collaboration is especially important and effective in military medicine, for the care of military casualties is not dependent on unique differences determined by political boundaries, and most nations have difficulty mobilizing the medical staffing and resources to manage their casualty flow independently. Between nations within long-standing alliances, medical collaboration is likely to focus on interoperability so that both nations can care for casualties of the other nationality, and each can have complete confidence in the other's competence. These goals are most critical when the total deployment of medical services can be reduced by burden sharing between nations. In areas where developed-world military forces are attempting to have a stabilizing effect, it is likely there will be a medical capability-building requirement. Exhibit 13-1 lists examples of current military medical alliances and organizations.

In addition to collaboration on the organizational design of the medical support system, it is also important to consider the value of clinical information exchange between nations. This includes conventional mechanisms of knowledge exchange such as clinical conferences and publication of results of clinical research. Some alliances have more structured mechanisms such as standardization agreements for clinical practice, clinical equipment, and information exchange between nations. Therefore, it is essential that military medical personnel have the organizational and interpersonal skills to be effective in working with medical personnel from other nations and cultures as part of their contribution to effective coalition and alliance operations.

EXHIBIT 13-1**CURRENT MILITARY MEDICAL ALLIANCES AND ORGANIZATIONS**

International Committee of Military Medicine. Purpose is to maintain and strengthen the bonds of professional collaboration between members of the armed forces medical services of all states.

http://www.cimm-icmm.org/index_en.php

North Atlantic Treaty Organization Committee of the Chiefs of Military Medical Services. The senior committee for medical care within NATO. Acts as the central point for the development and coordination of military medical matters and for providing medical advice to the NATO Military Committee.

<http://www.coemed.org/comeds>

Confédération Interalliée des Officiers Médicaux de Réserve (Interallied Confederation of Medical Reserve Officers). To contribute positively to the organization and readiness of the military health services of NATO member nations, thereby enhancing their effective function both nationally and internationally. Further, to promote in every possible way the standardization and interoperability of those medical services during peace or war.

<http://www.ciomr.org/>

Asia-Pacific Military Health Exchange. Annual conference for military healthcare professionals from across the Indo-Asia-Pacific region to discuss health topics affecting the region and to collaborate on issues such as disaster response, medical readiness, and improvements in the delivery of healthcare.

<https://community.apan.org/conf/apmhe/>

American British and Canadian Australian Armies (ABCA) Quadripartite Working Group on Health Service Support. Working group of health service support representatives of participating armies; principal activity involves the progression of standardization tasks on health service support issues identified and prioritized by armies.

HISTORICAL EXAMPLES OF MILITARY MEDICAL COLLABORATION

Almost all military operations of the 20th and early 21st century have been based on coalitions or alliances. This short section will highlight some key observations about the breadth of issues addressed as part of combined medical planning. The military medical histories of both World War I and World War II contain descriptions of the inter-allied coordination mechanisms for medical care of each nation's casualties. This was especially important on the western front in both wars to ensure both effective dispersion of military casualties in the United Kingdom as the strategic base for the British Armed Forces, and the strategic embarkation of North American casualties (US and Canadian) prior to the long sea journey back to their home nation.

After World War II, conflict shifted to Asia. Japan became an important strategic hub for allied casualties during the Korean War. The conflict in Vietnam introduced the complexity of medical capacity-building for

indigenous security forces and the consideration of using military medicine to help care for civilian casualties of the conflict. In Western Europe during the Cold War, NATO developed sophisticated mechanisms for coordinating the medical evacuation system as part of military planning to counter the threat of invasion by Warsaw Pact forces from the east. Figure 13-1 shows a comparison of command arrangements published in the 1986 *NATO Interoperability Handbook*.

The campaign to liberate Kuwait was the biggest military operation of the late 20th century. In addition to the UK and United States, New Zealand, Norway, Romania, Singapore, and Sweden contributed medical units to the coalition. These units were integrated into the medical plan and contributed particularly to the medical treatment of enemy prisoners of war.³⁻⁵

International peacekeeping efforts in the Balkans during the 1990s were initially conducted under UN command but shifted to NATO control after the Dayton

**POINTS OF ENTRY (ANSPRECHSTELLEN)
COMMAND/STAFF (KOMMANDO/STAB)**

	BRIGADE			DIVISION			CORPS (KORPS)			RCZ/COMMZ		
	GE	US	UK	GE	US	UK	GE	US	UK	GE	US	UK
Command Kommando	Brig Arzt - Brig Gef St (R) Zelle San St	Kp-Chef SanKp (Kp-SanSt (D))	Med Co Cdr (Med Bn Cdr)	Div Arzt - Div Gef St (R) Zelle SanSt	Kdr-SanSt (Div Ustg Kdo) Div Ustg Bn Med Co Cdr (DISCOM) DSA	Div San Kdr Commander Medical Division	Korps Arzt - Korps Gef St (R) Zelle SanSt	Sanitäts Brigade (Korps Ustg Kdo)	K San Kdr Commander Medical Corps		Sanitätskommando (HQ des Kriegsschau- platzes) MEDCOM Cdr (TA HQ)	Amee San Kdr Commander Medical Army
Staff Coordination	Brig Gef St (R)	Brig Gef St (R)	Bde Surg Command Post (R)	Div Surg - Division Command Post (R) Medical Cell (Div Surg Sec)	Div Arzt Div Gef St (R) (G1)	Div San Kdr Commander Medical Division	Korps Surg - Korps Command Post (R) Medical Cell (Corps Surg Sec)	Korps Arzt Korps Gef St (R) Zelle Korps Arzt Corps Surg-Corps CP Corps Surg Sec	K San Kdr Commander Medical Corps		Sanitätskommando (HQ des Kriegsschau- platzes) MEDCOM Cdr (TA HQ)	Amee San Kdr Commander Medical Army
Stab	Bde Surg - Brigade Command Post (R) Medical Cell (Bde Surg Sec)	Bde Surg Command Post (R)	Div Brig: über Div Kdo via Div Hq Selbständige Brig: Kdr Brig Field Ambulance Independent Brig: Comd Field Ambulance	Div Surg - Division Command Post (R) Medical Cell (Div Surg Sec)	Div Gef St (R) (G1) Division CP (G-1)	Div San Kdr Commander Medical Division	Corps Surg - Corps Command Post (R) Medical Cell (Corps Surg Sec)	Corps Surg - Corps Command Post (R) Medical Cell (Corps Surg Sec)	K San Kdr Commander Medical Corps		Sanitätskommando (HQ des Kriegsschau- platzes) MEDCOM Cdr (TA HQ)	Amee San Kdr Commander Medical Army
CIMIC/TA-Host Nation Support	SanStoffz VVK Gef St VVK			LSO VVK Gef St VVK								
ZMZ/Unterstüt- zung durch das TerrH	Medical Staff Officer VVK Command Post			Senior Medical Officer VVK Command Post								

Hinweis: In der US/UK-Heer nimmt der Kdr des dem Großverband zugeordneten Sanitätstruppenteils in der Regel die Aufgaben des LSO im Großverband wahr. US/UK Koordination für Einweisungen in GE LazEinr und andere Unterstützungen wird mit dem TerrKdo oder dem ihm nachgeordneten WBK, VVK und VVK vollzogen. Diese Kommandobehörden sind ebenfalls verantwortlich für zivile Transportleistungen, Krankenhaus-Einweisungen, öffentlichen Gesundheitsdienst einschli. Veterinär- und Labordienste. GE Koordination für US/UK-Unterstützung wird von den aufgezählten Kdo/Stäben vollzogen. Diese Übersicht ändert keine bestehenden bilateralen (Kriegs-) Gast-Nationen-Unterstützungsabkommen. Sie ergänzt diese Dokumente durch Hinweis auf Ansprechstellen in der Kdo-Struktur.

Note: In the US/UK Army the Commander of medical units usually has as a second hat the task to act as the Senior Medical Officer for the headquarters in command (charge). US/UK coordination for GE military hospitalization and other services is accomplished with the Territorial Army Command or its subordinate Military District, Region, and Sub-Region Commands. These commands are also responsible for coordination of civil transport, hospitalization, public health, vet and lab services. GE coordination for US/UK services are accomplished through command channels as indicated. This chart does not change existing bilateral (wartime) Host Nation Support requirements, rather, it supplements those documents by indicating the points of entry into command channels.

Figure 13-1. Comparison of NATO medical command arrangements.

Reproduced from: NATO Interoperability Handbook. London, UK: British Army; 1986: Figure 4-1. Army Code No. 71376, February 1986.

Peace Accord. NATO also acted as the alliance mechanism to command military operations in Kosovo. NATO provided the forum for coordinating medical support arrangements, including coordination with indigenous health systems and international agencies.⁶ This included the development of MIMUs in Sipovo, Bosnia and Camp Bondsteel in Kosovo.⁷

The initial phase of Operation Iraqi Freedom, the invasion of Iraq, was a bilateral operation involving the UK and United States. The number of coalition troops from contributing nations varied during the subsequent counter-insurgency campaign. However, the United States provided the leadership framework for the organization of medical support across the theater of operations, including the medical capability program for Iraqi security forces.

In Afghanistan, NATO and the United States operated alongside each other until it became a unified theater command during 2006 under the UN-mandated International Stabilisation Afghanistan Force (ISAF). Medical support was coordinated at the strategic level

by the Allied Command Operations Headquarters in Mons, Belgium. Operational coordination was achieved through multinational medical steering groups for each ISAF region and organized by the NATO Joint Force Command at Brunssum. The medical director and joint medical staff branch at ISAF headquarters in Kabul directed in-theater medical support.⁸

The same type of coordination occurred in the clinical domain. In the First World War, lessons from the medical treatment of casualties were shared at a series of inter-allied medical conferences in 1917, and common clinical treatments were published in a series of collaborative books.⁹ During World War II, the UK and United States actively coordinated in medical research. The most prominent example of this collaboration was the introduction of penicillin as the first true antibiotic.¹⁰ This collaboration is currently maintained through a broad series of NATO medical working groups that produce NATO standardization agreements. The research community collaborates through health and medical research groups within

the NATO Technical Co-operation Council Programme. The shared experience of combat casualty care between the United States and UK in Iraq and

Afghanistan has led to fully transparent information exchange between both nations' joint theater trauma registries.

PRINCIPLES OF MULTINATIONAL MEDICAL SUPPORT

Coalitions or alliances exist to increase the collective effort of nations to achieve their aims. The nations involved agree to delegate authority to coalition/alliance commanders for defined purposes and tasks. However, nations are likely to retain a sovereign veto over activities conducted by their forces, including rules of engagement and risk. Thus, nations are likely to nominate a "national contingent commander" who executes this authority within the coalition. Nations retain responsibility for the provision and quality of medical support to their forces even if they have delegated the arrangements for delivery of this medical support to a coalition or other nation.¹¹

Multinational medical support aims to provide a solution to the challenges of providing medical support to the CJIM operating environment through collaborative planning, coordinated deployment, and mutually agreed employment of the medical force. This has the potential to provide greater efficiency in the use of medical resources by reducing duplication, and to promote greater effectiveness by making niche specialist national capabilities available to the whole entitled population at risk.

Multinational medical support is underpinned by formal processes and procedures agreed upon by all nations. NATO has the most sophisticated hierarchy of such agreements, which are formally published as standardization agreements. These agreements are intended to be binding on alliance nations, so medical personnel employed on NATO operations must be familiar with these documents in addition to national medical policies and procedures. ABCA bases its standardization on NATO documentation and has published its own *Coalition Health Interoperability Handbook* as high-level guidance.¹² The UN also has specific guidance for the medical support arrangements and standards for its peacekeeping operations.¹³

Nations may contribute to multinational medical support in one of four ways¹⁴:

- **Coexistence.** Medical capabilities exist concurrently at the same time and in the same place in the military operation. Even at this low level of interaction, it is important to have an agreed-on means of communication between medical units. This situation may occur because the variation in capability, language,

and clinical practice is so great that it is not practical for military patients to be shared between facilities.

- **Cooperation.** Specific arrangements have been made to allow exchange of information between national medical facilities. Also, national contingent commanders may make their medical facilities available to patients from other nations.
- **Coordination.** In these circumstances, national medical facilities have been formally declared as part of the multinational force and therefore the medical staff in the coalition/alliance command chain have specific authority over national medical facilities. This might include the authority to direct the admission of patients to the facility or to move the facility in accordance with the coalition/alliance commander's plan.
- **Integration.** Nations may agree to combine medical resources into an integrated medical force such that all medical capability of the force is under a unified command. This might be at a task-force level, whereby nations contribute discrete medical forces (eg, an ambulance troop from one nation and medical detachments from other nations under a single command headquarters); or it might be at the level of a MIMU, in which personnel from more than one nation are employed in a single unit.

The coalition/alliance command system must include a medical staff branch with sufficient medical staff to provide medical advice to the planning process, to coordinate medical operations and evacuation, to collate medical reports, and to provide technical guidance to the military force. The command surgeon/medical director (there is a difference between US and NATO terminology for the same role) must establish the extent of his or her authority over each medical unit in theater. It is likely that Role 1 (immediate medical support to battalion or smaller elements) will be a national responsibility, and Role 2 and 3 (deployed hospital care) may have a stronger command relationship to the coalition headquarters. Figure 13-2 shows a combined, joint medical evacuation rehearsal of concept drill in Afghanistan.

MULTINATIONAL INTEGRATED MEDICAL UNITS

Because human physiology and pathophysiology are the same regardless of nationality or ethnic background, casualties can receive medical care independent of the national provider. Military medical units may be formed with contributions from more than one nation as MIMUs. These have successfully delivered coalition medical support in many operations, particularly in Afghanistan. In Kandahar, the NATO Role 3 facility was successively led by Canada and then the United States, incorporating medical personnel from Canada, the United States, the UK, Australia, Holland, and other countries, from all three service branches of each nation. In Helmand, the UK led the Camp Bastion Role 3 facility, incorporating personnel from the UK, United States, Denmark, Estonia, and other nations.

Successful operation of a MIMU is dependent on effective leadership and staff coordination from the defense ministry or department down to functional level within the unit itself. The NATO experience has demonstrated the value of a multinational medical management steering group (MMMSG), chaired by the coalition strategic headquarters and attended by representatives from each nation and the in-theater command chain. The MMMSG owns the formal technical agreement that binds each nation to the MIMU and supervises the detailed coordination of the capability requirement, the joint manning document and credentialing arrangements, the financial arrangements, the force generation and rotation arrangements, and the dispute settling mechanism.

The MMMSG will establish the command arrangements and the contribution of personnel by each nation. In addition to the key role of the commanding officer,



Figure 13-2. Combined, joint medical evacuation rehearsal of concept drill, Regional Command South, Kandahar, Afghanistan 2009.

the UK experience is that the senior clinician (the deployed medical director in UK terminology or deputy commander for clinical services in US Army terminology) has a pivotal role in establishing a collaborative professional forum among the senior clinical staff from each nation.¹⁵ The MMMSG must determine if national personnel are employed as discrete clinical teams or if the clinical teams are to be multinational. The UK experience suggests that it is better to create a single identity for the MIMU by mixing all personnel rather than to risk nations forming national clinical cliques. It is likely that a nation will volunteer to act as lead nation and take responsibility for overall tactical organization of the MIMU. Lead nation responsibility may include coordination of predeployment training, provision of medical equipment, confirmation of credentialing, and development of clinical protocols and procedures.

At a minimum, all nations will need to establish a national contingent commander and a national patient liaison officer. It is the UK experience that it is preferable to conduct organizational and clinical training for the whole contingent before deployment if possible. This allows the contingent to get to know each other, to establish professional relationships, and to identify any variations in clinical practice or professional duties that require clarification to ensure effective teamwork. At a personal level, it is vital to recognize the importance of flexibility and open-mindedness when assigned to a multinational medical unit or as part of a coalition medical force. Everyone is the product of their own national culture, but there is not necessarily a single right way to approach clinical care for patients.

Some countries have clearly prescribed clinical practice guidelines for the clinical management of defined conditions (Joint Theater Trauma System Clinical Practice Guidelines in the United States and Clinical Guidelines for Operations in the UK). Wherever possible, clinical leaders should negotiate an agreement that clarifies which national guidelines are the authoritative reference for clinical practice in a MIMU. Additionally, there is likely to be variation in the employment of clinical specialists, particularly nurses. For example, the US employs certified registered nurse anesthetists and physician assistants to undertake duties that are the prerogative of registered medical practitioners in many countries. These differences will need to be identified and agreement reached on the scope of practice for these clinicians within the clinical team.

Additional variations and issues will need consideration. Trade names for drugs vary among nations, so it is essential that international non-proprietary

names be used for all prescriptions. International variation in testing and accountability for blood products is likely to require the administration of national blood products to casualties from specific nations if the national blood supply systems can support it (otherwise specific dispensations may be required). Finally, it will be necessary to establish a

mechanism for mediation of differences of practice between clinicians in order to ensure that variations in individual clinical practice do not undermine confidence in the multinational medical system. The command team should set up internal team meetings to ensure effective collaboration and accommodate national sensitivities.

INDIGENOUS SECURITY FORCES AS PART OF A COALITION

As stated earlier, it is highly likely that local or indigenous security forces will be part of a coalition operation. The mission may involve capacity-building with these forces, including supporting the development of their medical capabilities. Security operations will likely be conducted with indigenous security forces alongside international coalition forces. This type of coalition medical activity is very different from working with established Western partnerships. The international coalition may allow indigenous casualties to be treated by coalition medical units in an emergency, but it is highly unlikely that the local medical capability will be sufficiently competent to treat international casualties. Therefore, it will be necessary to establish collaboration and coordination mechanisms that include the medical services of indigenous security forces. This collaboration can be divided into two types: medical planning and medical capability development.

The principles of planning for medical arrangements for indigenous security force casualties are no different from those that apply to international coalition forces. A clinical pathway from point of injury to rehabilitation is required, including coordination for medical evacuation from the field and transfer from coalition facilities to indigenous facilities. It is possible that the local medical system is different for the army and police, so arrangements for casualties from these services may vary. Coalition medical staff will need to consider the ethical issues associated with handing over indigenous casualties to medical facilities with lower capabilities and the possibility of worse patient outcomes. This is a matter partially controlled by International Law, Protocol 1, 1977, of the Geneva

Convention (see Chapter 6, *The Law of Armed Conflict and Military Medicine*), as well as by rules of engagement issued by higher headquarters.

It is imperative that medical officers become aware of these rules prior to taking up their duties, as well as knowing how to obtain exceptions to them (see the discussion of rules of engagement and ethically driven exceptions in Chapter 5, *Military Law and Ethics*). There may be value in establishing a formal framework for analyzing ethical issues such as the “four-quadrant” approach (medical implications, patient preferences, quality of life, contextual factors) so that the clinical team has an agreed-upon methodology for examining these issues.¹⁶ Figure 13-3 shows a coalition medical planning meeting in Kandahar in 2010 attended by representatives from the UK, United States, Canada, Afghan army, Afghan public health department, and the US Agency for International Development.

The subject of indigenous medical capability development for partner security forces is too great to cover fully within this chapter. However, a number of key issues should be considered within the subject of coalition/multinational medical support. Medical capability development must be underpinned by a strategic analysis of the requirement and subsequent plan that includes an assessment of the resources needed to achieve the desired outcomes. Ideally this would be agreed upon by the coalition and include the assignment of international medical forces to the tasks. This plan should cover all of the DOTMLPF (doctrine, organization, training, materiel, leadership, personnel, facilities) domains of a capability solution. Local partners should also agree to the plan, which should be sensitive to local cultural and clinical practices.

KEYS TO SUCCESS IN MULTINATIONAL MEDICAL COLLABORATION

The foundations for success are based on the cultural alignment of the collaborating nations. Medical support is underpinned by the provisions of international humanitarian law and the Geneva Conventions, which dictate the ethical behavior of medical personnel during conflict. Medical support should be based on collaborative planning that provides for all casualties

of conflict, including international coalition troops, indigenous security forces, civilians, and enemy combatants. The role of medical organizations and personnel in this effort will be determined by coalition agreements and national limitations. The coalition medical leadership team will need to understand these agreements and limitations by seeking information

through formal and informal channels.

All members of the coalition medical leadership team need to understand their own and partner nations' doctrine and clinical practice, including anything covered by international agreements.¹⁷ This requires a significant amount of predeployment preparation. The team will need to invest in developing personal relationships, which requires a substantial amount of time out of the office visiting coalition medical facilities and units. All personnel need to be sensitive to differences in national culture, even if speaking a common language. In the end, leadership success is based on appealing to a sense of collective commitment to caring for patients that transcends national politics.



Figure 13-3. Medical planning for Operation Hamkari, Kandahar, Afghanistan, 2010. UK, US, Canadian, Afghan army, and Afghan public health representatives are collaborating.

CONCLUSION

Coalitions and alliances are the most likely frameworks for future military operations. These are built from continuous exchange and dialogue among personnel from all the nations involved. It is vital to commit time and resources to enable the development of personal relationships among the multinational personnel, which provide the foundations for success. These relationships range from formal senior-level

talks, through information sharing at conferences, practicing interoperability in military exercises, and down to individuals attending education courses in each participating nation. The medical services are ideally positioned to be exemplars in this field because of a strong focus on patients, a culture of knowledge sharing, and having few political or security constraints.

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