

1. THE MILITARY ADVANCED REGIONAL ANESTHESIA AND ANALGESIA INITIATIVE: A BRIEF HISTORY

“He who would become a surgeon should join the army and follow it.”

—Hippocrates

The history of warfare parallels the history of medical advances. In the field of anesthesia, wars have resulted in marked technical, chemical, and procedural advances, including the first battlefield use of inhalational anesthesia (Mexican-American War), first widespread use of anesthetics and inhalers for the application of inhaled anesthetics (US Civil War), use of the eye signs chart for safe monitoring by lay practitioners (World War I), development of specific short course training centers for predeployment anesthesia training (World War II), and the establishment of military anesthesia residency programs in response to shortages of specialty trained doctors (Korean War). The current wars in Iraq and Afghanistan are no exception to this historical trend (Figure 1-1), and perhaps the most significant advance resulting from these conflicts is the Military Advanced Regional Anesthesia and Analgesia Initiative (MARAA).

MARAA is the collaborative effort of like-minded anesthesiologists who perceived a need for improvement in battlefield pain management. Deployed military anesthesiologists recognized a disconnect between battlefield and civilian analgesic care that needed to be bridged. As one provider put it, “pain control in Baghdad, 2003, was the same as in the Civil War—a nurse with a syringe of morphine.” Colonel (Retired) John Chiles was the first to voice the potential benefit of increasing the use of regional anesthesia in the Iraq war. With Lieutenant Colonel Chester Buckenmaier, Chiles started the Army Regional Anesthesia and Pain Management Initiative in 2000. Dr Buckenmaier administered



Figure 1-1. *As Long As There Is War, There Will Be Wounded*, by Lieutenant Michael K. Sracic, MD, MC, US Navy, 2008.

the first continuous peripheral nerve block in Operation Iraqi Freedom on October 7, 2003. Upon his return, Buckenmaier, Chiles, Lieutenant Colonel Todd Carter, and Colonel (Retired) Ann Virtis created MARAA, following in the tradition of the Anesthesia Travel Club created by John Lundy to rapidly disseminate research advances to practitioners.

MARAA’s purpose is to develop consensus recommendations from the US Air Force, Army, and Navy anesthesia services to implement improve-

ments in medical practice and technology that will promote regional anesthesia and analgesia in the care of military beneficiaries. The organization also serves as an advisory board to the individual service anesthesia consultants to the surgeons general (see the MARAA charter, the attachment to this chapter). Initial support was provided indirectly by the public’s demand for better pain control for wounded soldiers and directly via congressional funding through the John P Murtha Neuroscience and Pain Institute, the Telemedicine and Advanced

TABLE 1-1
ATTENDEES AT THE FIRST MEETING OF
THE MILITARY ADVANCED REGIONAL
ANESTHESIA AND ANALGESIA INITIATIVE

COL John Chiles, Army	Service Consultant
LTC Chester Buckenmaier, Army	Service Consultant designee; MARAA President
Lt Col Todd Carter, Air Force	Service Consultant
CAPT Ivan Lesnik, Navy	Service Consultant
CDR Dean Giacobbe, Navy	Service Consultant designee
MAJ Peter Baek, Air Force	Service Consultant designee

Technology Research Center, and the Henry M Jackson Foundation. The first MARAA meeting was held in February 2005 (Table 1-1).

As the service primarily responsible for transporting wounded soldiers from the battlefield to the United States, the Air Force supported the initiative and almost immediately issued a memorandum outlining specific directives to Air Force providers based on MARAA recommendations. By October 2006 MARAA meetings had grown to include over 30 senior military anesthesiologists. Nursing support of anesthesia was recognized early on, and a certified registered nurse anesthetist from each service was added to the board in April 2006. Initial meetings focused on approval of the Stryker PainPump 2 (Stryker; Kalamazoo, Mich) for use on Air Force military aircraft and the need for patient-controlled analgesia pumps on the battlefield and on evacuation aircraft. The organization developed a series of training modules and consensus recommendations on pain management for anesthesiologists preparing for deployment (available at: www.arapmi.org).

MARAA also spearheaded the regional anesthesia tracking system (RATS), designed to provide real-time continuous pain management information on patients from Iraq to the United States. RATS is currently being integrated into the Army's online Theater Medical Data Store as part of the military computerized patient record. These initiatives have led to greater pain control for wounded soldiers, and their success has been widely recognized in professional and lay journals from Newsweek to Wired magazine.

The need for comprehensive pain management has recently been recognized at the national legisla-

tive level with the introduction (and passage by the House May 26, 2008) of HR 5465, the Military Pain Care Act of 2008, which will require that all patients at military treatment facilities be assessed and managed for pain throughout their recovery period. In addition, all patients must be provided access to specialty pain management services, if needed. If the bill is passed, MARAA is in position to organize its implementation.

Already, MARAA is expanding its role beyond improving the care of military beneficiaries by encouraging civilian attendees at its Annual Comprehensive Regional Anesthesia Workshop (Figure 1-2),

Figure 1-2. MAARA Annual Workshop faculty; l-r: Scott M Croll, Alon P Winnie, Chester Buckenmaier.



held at the Uniformed Services University of the Health Sciences in Bethesda, Maryland. This year marks the 7th year of the workshop, directed by Dr Buckenmaier and taught by senior anesthesiologists from around the nation. This year's faculty included doctors Alon P Winnie, Northwestern University; Andre P Boezaart, University of Florida; John H Chiles, former anesthesiology consultant to the Army surgeon general and currently at INOVA Mount Vernon Hospital; Laura Lowrey Clark, University of Louisville; Steven Clendenen, Mayo Clinic; Scott M Croll, Uniformed Services University and Walter Reed Army Medical Center; John M Dunford, Walter Reed Army Medical Center; Carlo D Franco, Rush University; Ralf E Gebhard, University of Miami; Roy A Greengrass, Mayo Clinic; Randall J Malchow, Brooke Army Medical Center; Karen C Neilsen, Duke University; Thomas C Stan, Far Hills Surgery Center; and Gale E Thompson, Virginia Mason Medical Center.

Although the recognition of MARAA's success has so far been directed to its immediate achievements—improved and systematic pain control for wounded soldiers—its ultimate contribution may be broader in scope. Patient care is a multispecialty team effort that MARAA recognizes. Therefore, MARAA solicits, evaluates, and appreciates input from other physician subspecialists and from nursing providers; much of the spring 2006 meeting was devoted to astute flight nurse observations collected by Lieutenant Colonel Dedecker, a US Air Force nurse in charge of the Patient Movement Safety Program. MARAA meetings remain open to any person interested in attending, and all meeting notes, data, and recommendations are freely available. As impressive as MARAA's contributions to patient care have been, history may view its greater contribution as a modern model of how a small group of persons with vision and energy can dramatically improve an entire field of care.



**CHARTER OF THE
MILITARY ADVANCED REGIONAL
ANESTHESIA & ANALGESIA
JUNE 2005**

ARTICLE I: NAME AND OBJECT

1. Name. The name of the organization is "Military Advanced Regional Anesthesia & Analgesia (MARAA)."
2. Object. The object of the organization is the promotion of regional anesthesia and improved analgesia for military personnel and dependents at home and on the nation's battlefields.
3. Purpose. The organization will work to develop consensus recommendations from the Air Force, Army, and Navy anesthesia services for improvements in medical practice and technology that will promote regional anesthesia and analgesia in the care of military beneficiaries. The organization serves as an advisory

board to the individual service anesthesia consultants to the surgeons general.

ARTICLE II: MANAGEMENT

The organization will consist of the anesthesiology consultant of each military service (or their designee) and a second appointee by each service anesthesiology consultant (six member board). Each member of the organization has one vote on issues that require agreement/collaboration between services. All decisions will be made by a simple two thirds majority. Issues that fail to obtain a two thirds majority consensus will be tabled and re-addressed at the next meeting called by the President of the organization.

ARTICLE III: DIRECTORS

The organization will select a President of the organization from organization members each fiscal year by simple majority vote. The President will be responsible for soliciting meeting issues from members and setting meeting agendas. The President will be responsible for generating organization position 'white papers' on decisions made by the organization. The position white papers will provide each service anesthesia consultant with collaborative recommendations for issues considered by the organization. The President can assign the writing of decision papers to committee members. The president will have final editorial authority over any white paper recommendations submitted to the service anesthesiology consultants.

ARTICLE IV: MEETINGS

1. Meetings. The organization will meet twice yearly. One formal meeting will be at the Uniformed Services Society of Anesthesiology meeting during the American Society of Anesthesiology conference. A second meeting will be scheduled during the Spring. Meetings will be coordinated by the organization president. Organization members can send proxies to attend meetings in their place (proxy voting is allowed) if approved by that member's service anesthesiology consultant. Teleconferencing is an acceptable means of attending a meeting. Meetings will only be held when a quorum of members (or their proxies) are available. A quorum will be defined as a majority of voting members with representation from each service.

2. Special Meetings. The president can call for a special meeting by organization members on issues requiring prompt attention.

3. Conduct of Meetings. Meetings will be presided over by the President or, in the absence of the President, a member of the organization designated by the President.

4. Meeting Agenda. The President will provide members with the meeting agenda one week prior to scheduled meetings. Members may add new items to the agenda during meetings with the President's request for 'new business'. Meetings will be concluded with review of old business.

ARTICLE V: ORGANIZATION SEAL

The organization seal is represented at the head of this document.

Amendment 1 (6 April 2006): The voting MARAA membership will include one CRNA vote per service. Representatives will be chosen by each service's anesthesiology consultants. There will now be 9 total votes (2 physician and 1 CRNA per service).