Chapter 24

THE DEPLOYED PAIN SERVICE

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INTRODUCTION

Pain, the oldest physical affliction of humankind, is an unavoidable consequence of battlefield trauma. Recent advances in pain management have led to a greater understanding of the pathophysiology of pain, yet there is still no panacea for its management. Without the appropriate management of pain, an individual may suffer considerable and unnecessary physical and psychological distress, which may result in deleterious effects upon wound healing, rehabilitation, and mental state. Inadequate analgesia is also associated with a higher incidence of chronic pain complications.[1]

The nature of trauma experienced in the military operational environment may result in severe and varied types of pain. These casualties will benefit from the involvement of advanced pain management techniques and services. It is vital therefore that in addition to simple analgesia, the plethora of sophisticated pain management options available in nondeployed hospitals (Role 4) are not only accessible on deployment, but are also appropriately and effectively implemented.

Safe utilization of advanced analgesic techniques requires a structure enabling continuing medical education, assessment of efficacy, reporting of adverse events or near misses, implementation of guidelines issued by professional bodies,[2] and continuous service development. The acute pain service (APS) team has responsibility for the conduct of this wide range of tasks.

GOVERNANCE

The deployed clinical team has a responsibility to their patients, but at the end of their deployment responsibility is transferred. Short deployments may lead either to "re-invention," with lack of corporate knowledge, or personnel may resist development of services because they are unlikely to see positive outcomes during their tenure. For these reasons the deployed APS is governed external to the deployed environment, by a specialist interest group (SIG) or team who are able to provide a consistent education package, consult subject matter experts for advice, and develop the deployed service over the medium to long term. This structure provides the necessary governance in which the service can develop to the highest standards. The different roles and responsibilities between the deployed APS and the SIG are listed in Exhibit 24-1.

DEPLOYED STRUCTURE: THE MULTIDISCIPLINARY TEAM

Often pain, and its causes and effects, are complex in nature and require a variety of specialists' input for effective treatment; the effective management of pain requires a multidisciplinary approach. At minimum, the administration of effective analgesia requires a licensed prescriber or practitioner and the ability to

EXHIBIT 24-1

RESPONSIBILITIES OF THE SPECIALIST INTEREST GROUP AND THE DEPLOYED ACUTE PAIN SERVICE

Specialist Interest Group

- Develop and maintain an effective standard operating instruction for the deployed pain service.
- Develop the deployed acute pain service in the medium to long term.
- Education: take a lead role in enabling effective predeployment training.
- Audit/research: provide oversight and facilitation as required.
- Subject matter experts: provide advice and assistance as required.

Deployed Acute Pain Service

- Implement an effective pain management strategy.
- Deliver clinical acute pain service.
- Provide ongoing education to deployed personnel.
- Audit key performance indicators in pain management.
- Identify areas for service improvement to the special interest group.

supply, dispense, administer, and monitor the effects of therapy. A deployed APS, however, requires broader representation to fulfil its wider responsibilities, including education, audit, service development, and research, in addition to the fundamental role of pain assessment and management.

The composition of the multidisciplinary team may be influenced by the size of the deployed footprint and its capability, but broadly should include the following elements:

- **Lead clinician.** Often a specialist in anesthesia (the management of acute pain being within the remit of all anesthetic practitioners). Familiarity with advanced pain management techniques and an appropriate skill set, including management skills, equips the anesthesiologist to perform this role.
- **Pain nurse.** A dedicated member of the nursing cadre with advanced training in pain management techniques. The pain nurse is an essential component of the pain team, effective in providing a link between nursing staff and clinicians. The pain nurse role involves direct patient care with assessment of patients and pain management, as well as education, the conduct of audit, and liaison with all members of the pain team.
- **Ward nurse/pain management champion.** Each hospital ward should identify a nurse pain management "champion" to serve as the ward liaison to the APS and the primary resource for ward nurse pain education and support. The ward nurse pain champions are a valuable resource for outcomes feedback on APS pain management programs.
- **Pharmacist.** An integral member of the pain team, responsible for supplying and dispensing medications. Clinical care includes reviewing prescriptions and providing advice and information to the clinical team.
- **Physiotherapist.** The role of the physiotherapist is two-fold: (1) Functional mobility is associated with reduced postoperative complications, and the physiotherapist has a role in assessing pain during therapy, ensuring pain is managed effectively to allow compliance with treatment. (2) Additionally, specialist techniques such as transcutaneous nerve stimulation, acupuncture, and massage may be accessible through deployed physiotherapy. While such techniques may not be appropriate to major injuries from battlefield trauma, the provision of these type of services may impact upon force generation, assisting in retaining soldiers in theater who otherwise might be aeromedically evacuated for further care.
- **Deployed aeromedical team.** Evacuation of patients to points of definitive care may require utilization of aeromedical assets. The aeromedical team, who must have an open dialogue with the APS, influences pain management techniques used in the field hospital environment to provide continuity of analgesia during the evacuation phase. Analgesic regimens should incorporate a secondary mode in the event of failure of the primary mode in long evacuation flights. Replacement of advanced analgesic catheters in flight is challenging and often not achievable. Electromedical equipment must be certified air-worthy to fly on military aircraft.
- **Command representation.** Usually the responsibility of the senior nursing officer, representation by the hospital command chain at APS team meetings provides oversight of current issues relating to pain within the facility, and can influence members of the hospital administration, personnel, and equipment supply in relation to delivering pain service.

This list of team members is not exhaustive, and the management of pain also involves broader disciplines such as mental health, religious support, and welfare services. The important positive psychological impacts these services can bring for a patient must not be overlooked in the management of pain; however, accessibility may vary depending on the nature of the deployed operation.

CLINICAL FRAMEWORK: THE STANDARD OPERATING INSTRUCTION AND CLINICAL PRACTICE GUIDELINE

A pain management system is multimodal in utility and multidisciplinary in composition. For any such system to operate at its most effective, it is imperative that each component understands both its relation to, and the functioning of, the other component parts. All members of the pain service must understand their role and that of their colleagues, and have the same expectations regarding any intervention. For this reason a clinical framework or guideline is necessary for an effective pain management service.

A standard operating instruction (SOI) or clinical practice guideline (CPG) should address roles and

responsibilities and provide continuity in assessing pain, managing pain, prescribing medications, and using advanced analgesic techniques. In addition, a clinical framework may be extended to provide for theater-specific requirements such as the management of pain in children or local nationals when facilities at forward places of care may influence decisions and techniques.

The ownership of the SOI/CPG should reside with the SIG, which is able to update the SOI with developments in techniques and procedures and deliver these updates to deploying troops through timely predeployment education packages. The SOI/CPG in place at the medical treatment facility should align with the lead nation for the facility. For example, the United Kingdom (UK) is lead nation of the multinational clinical team at the UK Medical Treatment Facility at Camp Bastion, Afghanistan, and its clinical SOIs were delivered by the UK and conform to UK clinical governance.

PREDEPLOYMENT TRAINING

For medical units, an element of predeployment training includes clinical and moulage training in teams. For pain elements, there are two aspects of predeployment training:

1. Providing education on pain management, SOI/CPGs, and equipment.
2. Enabling the pain team to form and develop its role prior to deployment.

Pain Education

While every member of the deploying force should be current in their clinical practice, when the force is assembled from a disparate cohort there will be local differences to this practice, not only from one hospital to another but also from one nation to another. For example, some staff may have a background in which pain scoring is measured from 1 to 10, and others may be more familiar with a 0-to-3 system. Examples of international differences may be as simple as drug names (eg, paracetamol/acetaminophen).

Predeployment training in pain management can range from formal lectures to informal workshops (Figure 24-1) and should cover the intended pain management standard procedures for use in deployment, including familiarization with equipment not previously encountered.

Team Training

The pain team on deployment would be considered small in relation to comparable civilian acute pain services. Although led by a consultant in anesthesia, it relies heavily on a pain nurse and a link nurse identified in each key clinical area (emergency department, operating room, critical care unit, and wards). Identifying team members prior to deployment enables them to develop working relations both within the team and with other members of the deploying medical facility.

Figure 24-1. The author conducting continuation pain training, Operation Herrick (UK deployment to Afghanistan, 2002–present); 2011.

Figure 24-2. Deployed pain service meeting, Operation Herrick (UK deployment to Afghanistan, 2002–present); 2011.

TEAM ROUNDS AND MEETINGS

The primary responsibility of the deployed pain team is to conduct daily pain rounds and provide consultation and intervention as required for the management of acute pain. The APS should also maintain a routine presence in general surgical rounds. The benefits of conducting a regular pain round include providing oversight of all pain management and specialist input when advanced analgesic techniques are utilized. Rounds also provide a sense of pain management continuity that surgeons and other specialists appreciate, engendering confidence in the activities of the APS. Daily pain rounds not only raise awareness of pain, its assessment, and its treatment within the clinical team, but also reassure the patient that pain is a focus of care, not to be ignored or poorly managed.

Pain management group meetings (Figure 24-2) should be a regular feature of an enduring medical operation. This forum provides an environment to identify areas of good practice and areas of concern where improvements may be made. Any reported serious untoward incidents involving pain management should be identified, investigated, and be reported on locally and through the relevant reporting chains. The need for any ongoing training may be identified and an implementation plan agreed to, and audit utilized to clarify areas requiring service improvement or to assess the effect of service improvements.

CONCLUSION: ENABLING CHANGE

Many ideas and innovations in acute pain management are generated within the operational environment. When personnel return to their home duty posting, these ideas are often not developed and disappear with the departing personnel. The collective role of the pain management group is to consolidate these innovations, develop them locally as applicable, and report back to the lead governance structure by way of the SIG. In this way corporate memory is retained and service development continues, improving and refining the deployed management of pain.

REFERENCES

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