

PRIMARY CARE AND HEALTH SERVICES SECTION

Original Research Articles

Organizing Health Services for Patients with Chronic Pain: When There Is a Will There Is a Way

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ABSTRACT

Setting. Due to its magnitude as a health problem, its associated burden, and the viability of modes of intervention, chronic pain (CP) should be considered a priority within health care systems. The lives of many patients with CP are devastated by this problem and health care professionals have a responsibility to assist them in reducing their suffering. Countries, regions, and systems differ considerably with regard to how they organize, administer, and finance services for CP patients.

Objective. In this review, we highlight initiatives in three jurisdictions—France, Australia, and the Veterans' Health Administration in the United States—which demonstrate that when there is a will there is a way to change health care services for patients with CP. This work is a synopsis of a health technology assessment report we completed on behalf of the Quebec Health Services and Technology Assessment Agency (<http://www.aetmis.gouv.qc.ca>) at the request of the Ministry of Health and Social Services in Quebec, Canada, to inform policymakers at various levels of the health care system.

Design. A literature search of published and unpublished “gray” literature was used to identify organizational themes according to structure, process, and outcome elements of health care services. For each theme, literature was reviewed in a qualitative manner; in addition, “real world” information was sought from example jurisdictions that have prioritized management of CP. Our conclusions point to key issues to consider when organizing health services for CP patients.

Key Words. Chronic Pain; Health Care Services; Health Care Delivery

Chronic Pain is like a toxic spill, with damage that eventually spreads far beyond the original site. Neglect one local disaster—a back injury, a twisted knee—and it can metastasize into more pain. More pain poisons the joy and the vitality of one individual, whose suffering then seeps into the lives of family members. Pain can destroy a wide radius of lives in the same way that clear cutting erases the history of a forest. (Jackson [1])

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Introduction

Chronic pain (CP) is a major health problem because of its prevalence internationally [2,3], associated disability [3,4], and the extensive use of health care services by CP patients [3,5–7]. Despite the high prevalence and negative impact of CP, its medical management has been neglected for many reasons [8–10]. These relate to a tendency to view CP as a symptom rather than a disease, minimal training in medical schools, a tendency to approach CP with an acute care rather

than chronic illness model, and reluctance to prescribe opioid medication. Numerous studies have shown that the clinical management of various chronic (noncancer) pain conditions remains unsatisfactory (e.g., [3,11–14]).

Based on our reading of the scientific literature, and clinical practice with CP patients, we have identified certain challenges with respect to the management of CP. These need to be kept in mind when considering the organization of services for CP patients:

- Optimal management of CP is a complex and slow process; a “wait and see” period often follows initiation of treatment.
- In general, CP patients are considered challenging to treat and their case management is time-consuming; the nature of reimbursement policies for physicians, in particular, may discourage them from taking care of these patients.
- For some types of CP, early intervention is often essential to prevent the development of disability; “reactive” rather than “preventive” care contributes to chronicity.
- Access to several types of health care services is usually necessary during the care process; these different forms of care often need to be provided concurrently.
- It is common for access to care to be limited, for waiting times to be long, and for regional variations to exist in availability of diagnostic and treatment services.
- Pain services are frequently fragmented, lacking the integration of a multidisciplinary team of providers.
- Communication difficulties and differences in care models can isolate medical and rehabilitative disciplines.
- Psychological services and care by other allied health professionals (e.g., physiotherapists, occupational therapists) are often limited or unavailable.
- Treatments provided to CP patients are not always evidence-based.

In this article, we aim to demonstrate that when there is a will there is a way to change health care services for patients with CP. This review is based on a health technology assessment report on organizational issues in the management of CP, written for the Quebec Health Services and Technology Assessment Agency at the request of the Ministry of Health and Social Services in Quebec, Canada

(AETMIS, 2006; <http://www.aetmis.gouv.qc.ca>). Our report examined organizational issues in the management of CP patients in order to inform policymakers at various levels of the health care system. A literature search of published and unpublished “gray” literature (e.g., from websites) from January 1990 to February 2005 was used to identify organizational themes according to structure and process elements of health care services. For each theme, literature was reviewed in a qualitative manner; in addition, “real world” information was sought from three example jurisdictions: France, Australia, and the Veterans’ Health Administration (VHA) in the United States. Herein we highlight initiatives in these three jurisdictions, which have all made improvement of health services for CP patients a priority. Many of the documents cited are not easily accessed by academics or clinicians working with this patient population, as most of the information we present was extracted from websites of governments, pain societies, universities, and health care organizations. Our conclusions point to key issues to consider when organizing health services for CP patients.

Example Jurisdictions Prioritizing Management of CP

Jurisdictions (i.e., countries, states/provinces or specific health systems) differ considerably with regard to how they administer and finance services for patients with CP. In the following section, we provide a description of the changes made to the management of CP in three example jurisdictions. These jurisdictions were selected for several reasons: 1) they have made a clear commitment to CP health services and their quality control; 2) they provide services to all members of a specific region or group; and 3) they have published or placed documents on the Internet which allowed us to examine their initiatives.

France

The French Minister of Health committed to improving the overall management of persistent CP by initiating a national pain program in 1998 (<http://www.sante.gouv.fr/htm/actu/douleur/prog.htm>). The establishment of multidisciplinary structures for CP evaluation and treatment throughout France was financed, predominantly at a tertiary care level. The second phase (2002–2005) of the program prioritized pediatric, post-

operative, and migraine pain.¹ Hospital pain committees responsible for continuing professional education, promotion of interhospital and hospital-city networks, and coordination of pain services have been formed (http://www.cnr.fr/article.php3?id_article=357; <http://www.satelnet.fr/arhra/douleur.htm>). France relies heavily on the Internet to disseminate policy and procedures, including materials for patients and professionals (e.g., clinical guidelines). A guide to organizing pain management in health establishments has also been published [15].

Australia

Since the mid-1960s, Australia has been a leader with regard to pain services [16]. The 1970s and 1980s witnessed the development of multidisciplinary resources for severe, persistent pain as well as acute pain programs. Since then, efforts have been made to manage routine pain problems by the appropriate specialty and refer more complex cases to specialist pain services. Various initiatives have aimed to improve pain management such as education for junior doctors, development of treatment protocols, and promotion of interaction between multidisciplinary pain clinic (MPC) staff and referring specialists [16,17].

United States VHA

The VHA is responsible for health care for military veterans across the United States, which number about 25 million persons (http://www.va.gov/about_va/). Working closely with the Institute for Healthcare Improvement, the VHA launched its National Pain Management Strategy (http://www1.va.gov/Pain_Management/page.cfm?pg=11) in 1998 [18]. The VHA's vision encompasses acute and chronic pain at all levels of health care for veterans, with system-wide goals of comprehensiveness, standardization, integration, and accountability. A coordinating committee and a liaison person in each of the 21 Veterans' Integrative Service Networks (VISN) were established to structure the strategy's implementation [19].

¹In March 2006, the French government renewed their commitment to improving care for patients with CP with a plan for 2006–2010 (http://www.cnr.fr/IMG/pdf/plan_douleur06_2010.pdf accessed December 10, 2006). They identified four priorities: vulnerable populations (i.e., children, elderly, and terminally ill patients); education for health professionals; better use of analgesic medications and nonpharmacologic interventions; and restructuring patient pathways. A total of 26.74 million euros have been dedicated to the 5-year plan.

Working groups, chaired by committee members, are responsible for specific aspects of the strategy (i.e., clinical guideline development, pharmacy guidelines, outcome measurement, research, education).

Structure: How Health Care Services are Organized

Health care systems are generally structured according to a hierarchy of levels at which care is delivered. Such levels can be ordered with increasing specialization in terms of human resources, facilities, and equipment as one moves through the hierarchy. The hierarchical model of services is conceptually linked to the notion of *stepped care*, in which patients progressively receive more complex, specialized, and, often, costly interventions according to need [20]. Gallagher [21] provides an excellent overview of organizational models of the care of CP, including a critique of how and why systems fail patients on a regular basis. Table 1 summarizes the types of structures for pain management in the three example jurisdictions.

In France, “consultation services” provide multidisciplinary assessments and treatment recommendations for patients with persistent pain [22]. Multidisciplinary pain “units” evaluate and treat pain and include designated space for procedures, group psychotherapy, support staff, and access to hospital beds or day hospitals (<http://www.satelnet.fr/arhra/douleur.htm>). Pain “centers,” found within university teaching hospitals, address pain management, medical research, and health professional education (<http://www.univ-st-etienne.fr/stephado/du/courdu/arcad.htm>). Pain centers must be multidisciplinary and involve specialized

Table 1 Health care structures for CP patients in the example jurisdictions

France	Australia	Veteran's Health Administration*
Consultation services	Multidisciplinary pain clinics	Single discipline or modality-oriented outpatient clinics
Pain units		Multidisciplinary (or interdisciplinary) pain clinics
Pain centers		Outpatient clinics Inpatient programs Pain centers (CPRP) Pain consultation teams

* Using Clark, 2004a and b [24,25]; note that there is some variation in the names of the structural categories described in the VHA documents we consulted.

Source: Agence d'évaluation des technologies et des modes d'intervention en santé (AETMIS). Management of chronic (noncancer) pain: organization of health services (AETMIS 06-04). Report prepared by Patricia L. Dobkin and Lucy J. Boothroyd; Montreal: AETMIS, 2006.

CP = chronic pain; CPRP = Chronic Pain Rehabilitation Program; VHA = Veterans' Health Administration.

full-time clinicians, including physicians with specific training in pain (e.g., neurologists), and mental health practitioners (e.g., psychologists, psychiatrists; <http://www.satelnat.fr/arhra/douleur.htm>). The numbers of centers and units have increased since inception of the national pain program [23].

A 2002 document by the Australian Pain Society on CP services describes how to structure a multidisciplinary pain management program, which includes cognitive-behavioral therapy, graduated activity, patient education, and lifestyle modification (<http://www.apsoc.org.au/pdfs/APSpainProgs.pdf>). MPCs are established in all the Australian states (a directory can be found at <http://www.apsoc.org.au/facility.html>).

In the VHA, different structures enable patients with pain to receive care at various levels of the system, according to the type and duration of pain. Clinics and multidisciplinary pain teams have been formed [19], as shown in Table 1. These structures vary in available services, required resources, and types of patients treated, and are mainly found in outpatient settings. Multidisciplinary pain consultation teams advise the referring physician or assist in case management, without providing treatment *per se* [24,25].

There are elements in the three jurisdictions that are consistent with the "Pain Medicine and Primary Care Community Rehabilitation Model" proposed by Gallagher [21]. All call for the use of pain medicine specialists who act as consultants to general practitioners (GPs) and/or specialists. As discussed in the process section, they also promote the use of clinical guidelines ("algorithms") to inform practice. The timeliness of treatment and the importance of involving patients in self-care is noted by Gallagher and addressed in the changes made in France, Australia, and the VHA. Finally, there is a consensus for the usefulness of multidisciplinary teams for patients who do not respond to single-modality treatment plans.

Training of Health Care Providers

High-quality professional education is essential for effective and efficient care of both acute and chronic pain. The example jurisdictions have all initiated educational programs for health professionals specific to pain. Since the inception of France's national pain program, a module on pain management and palliative care has become mandatory in medical school and specialist pain training has been reinforced (<http://www.sante.gouv.fr/htm/actu/douleur/prog.htm>; <http://www.social.gouv.fr/htm/actu/secur/980922ej.htm>). Enhanced education for other health professionals (e.g., nurses, physiotherapists) and hospital-based continuing education has been emphasized (<http://www.univ-st-etienne.fr/stephado/du/courdu/arcad.htm>). Teaching documents have been placed on the Internet (<http://www.sante.gouv.fr/htm/actu/douleur/prog.htm>). An interuniversity diploma has been developed to harmonize education for health care professionals (http://www.sante.gouv.fr/htm/dossiers/prog_douleur/suiviplan0104.pdf).

Advanced formal training in pain medicine is available in Australia (<http://www.fpm.anzca.edu.au/>), an example being found at the Pain Management and Research Institute of the University of Sydney (<http://www.painmgmt.usyd.edu.au/html/dipcurriculum.htm>). Many Australian MPCs offer continuing education programs for GPs [16].

Current goals of the VHA include achieving a system-wide standard of practice through the fostering of clinical competency and awareness of pain. The VHA Office of Academic Affiliations has established advanced clinical training in pain management [19]; specific residency training within various specialties (e.g., anesthesiology, psychiatry, neurology) is available. VISN representatives are involved in the production and distribution of training materials to their facilities. The VHA website contains Internet-based educational tools for staff members, who are encouraged to participate in pain conferences, national satellite broadcasts, and system-wide teleconferences.

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Process: How Services Are Provided

Referral

Referral by a GP is required for a CP patient to access a specialist or pain clinic. Patients should be referred to such services within the first few weeks or months after the onset of pain, depending on its type, when improvement is not evident. CP patients are likely to move back and forth from one level of a hierarchical structure of care to another over time; thus, referral protocols should be used to coordinate movement of patients through the service levels (e.g., [26]). The VHA Pain Management Strategy includes the facilitation of a national referral system to ensure access to appropriate services (http://www1.va.gov/Pain_Management/page.cfm?pg=11).

Interdiscipline and Interlevel Communication

Given that patients with CP are examined and treated by various health care professionals, inter-

discipline (e.g., GP and physiotherapist) and inter-level communication (e.g., GP and medical specialist) is essential. When test results or treatment summaries are not forwarded to other health care providers, the patient's care may be compromised. Unfortunately, this aspect of care is often overlooked and patients are left to manage their own cases; some patients are unable to do so adequately.

Communication between the various levels of the health care system in France is considered crucial for successful management of CP (<http://www.satelnet.fr/arhra/douleur.htm>). MPCs in Australia are expected to keep close communication with referring GPs [26]. Moreover, metropolitan MPCs in Australia have a responsibility to interface with regional/remote pain specialists. The Faculty of Pain Medicine at the Australian and New Zealand College of Anesthetists is committed to facilitating this relationship, through such initiatives as the rotation of trainees to regional centers and telemedicine. For VHA patients treated in comprehensive multidisciplinary outpatient clinics, information is relayed back to the referring physician [25]; (<http://www.vachronicpain.org/Downloads/CPRPMan2005%20for%20web.pdf>).

Evidence-Based Pain Management

The goal of evidence-based clinical practice guidelines is to provide directives for care delivery that adhere to up-to-date practices according to research and clinical findings. In part due to the multidisciplinary nature of pain treatment, encompassing general medicine, anesthesiology, surgery, physiotherapy, and psychology among others, a large number of clinical practice guidelines exist. France (<http://www.has-sante.fr>), Australia (<http://www.nhmrc.gov.au>), and the VHA (http://www1.va.gov/pain_management) have made clinical practice guidelines for pain management accessible on the Internet. However, guidelines are not always well received or applied.

A study which examined the implementation of guidelines within the United States Army medical system is instructive in this regard [27]. In a demonstration project in four military medical centers, practice guidelines for lower back pain were introduced using a multifaceted "systems" approach that included educational initiatives for GPs and patients. Process and outcome evaluations were carried out, involving prospective tracking of service delivery and clinical practices (e.g., pain medication prescriptions, referrals) and site progress

reports and visits, among other methods. Results indicated that, overall, guidelines were not incorporated into practice in a sustainable manner, and this was related to a number of factors including a lack of leadership commitment, inconsistencies in implementation practices across sites, staff turnover, and suboptimal timing: the project was launched before systematic methods to monitor progress (and give feedback to sites) were fully in place. The examination of such factors, however, led to improvements in methods and informed the subsequent Army-wide introduction of the guidelines.

Discharge and Continuity of Care Plans

As few CP patients are cured, complete "discharge" from health services is unlikely to occur. By the time an acceptable level of pain management is obtained, both patients and their caregivers may have lost sight of who is responsible for care, particularly if a long time has elapsed between first referral and initiation of intervention(s), and end of treatment(s). In the Chronic Pain Rehabilitation Program in the VHA, a pain center that incorporates an intensive inpatient component and outpatient activities, follow-up care needs are recorded and implementation plans are developed as part of discharge procedure (<http://www.vachronicpain.org/Downloads/CPRPMan2005%20for%20web.pdf>).

Monitoring Patient Outcomes

The monitoring of patient outcomes is important to gauge the success of pain management methods and programs, and as an indicator of the impact of structure and process elements in care delivery. Patient outcomes advocated by the IMMPACT group—an international consortium of pain experts concerned with measurement issues for pain research [28]—include measures of pain, function, quality of life, and satisfaction with treatment. In our literature search, we did not find evidence of these being systematically measured in France. Auquier and Arthuis [22] noted that effectiveness studies of pain centers were lacking in France. Nonetheless, promotion of patient satisfaction surveys is part of the national pain program, as indicated in the implementation guide [15]. A 2002 survey of nine MPCs by the Australian Pain Society (http://www.apsoc.org.au/quest_pre.htm) found that all examined psychological functioning, all but one studied pain perception, and all but one other measured physical

functioning, but there was little uniformity in specific measures used. We did not find additional information on the measurement of patient outcomes in Australia, which may be partly related to the relative “compartmentalization” of pain and health care services according to separate states and territories, and by public and private care, in this country.

In contrast, patient outcomes are linked to continual monitoring and improvement of performance in the VHA: their measurement is central to an overall vision of accountability and the National Pain Management Strategy (http://www1.va.gov/Pain_Management/page.cfm?pg=11). The VHA Pain Outcomes Toolkit explains how to collect patient data (<http://www.vachronicpain.org/Downloads/TOOL%20KIT%20OUTCOMES%20FINAL2.PDF>; request online at <http://www.vachronicpain.org/Pages/POQReq.htm>), and demonstrates validity and reliability [29]. Notably, electronic monitoring of pain assessment and effectiveness of interventions is being implemented in the VHA. Clinical research is an important part of the VHA’s pain management strategy [30]. The overall vision for accountability requires that patient outcomes be linked to continual performance monitoring and improvement, and thus their measurement is central to the global pain management strategy.

Evaluation

Program Implementation

Program implementation refers to both structure and process elements being in place, and can be measured through outcomes at the patient, provider or system level. The progress of France’s pain program is followed by a national committee representing several disciplines and interest groups [31] (http://www.sante.gouv.fr/html/dossiers/prog_douleur/suiviplan0104.pdf). Evaluative efforts have examined the use of scales to measure pain, use of pain medications, and availability of pain treatment protocols (<http://interclud.aphp.fr/ext/comiteap-hp/comit2.pdf>), for example. Activities of the French hospital pain committees are linked to quality assurance and facility accreditation (http://www.cnr.fr/article.php3?id_article=357). The VHA National Pain Management Strategy Coordinating Committee is mandated to establish goals, accountability mechanisms, and an implementation timeline, among other responsibilities (http://www1.va.gov/Pain_Management/page.cfm?pg=11).

Process Evaluation

Process evaluation is integral to quality control of health care delivery, and examines a wide range of outcomes such as waiting times, use of clinical practice guidelines, integration of services, and documentation of treatment plans (<http://www.jcrinc.org>). All VHA facilities are required to monitor outcomes (http://www1.va.gov/pain_management/docs/VHAPainDirective_03.pdf). Pain assessment and care plans, including patient education activities, are documented. According to a 9-month collaborative project between the VHA and the Institute for Healthcare Improvement, frequency of assessing pain increased by 10% (to being measured 85% of the time) once the “Pain as a 5th Vital Sign Toolkit” was implemented [18]; (<http://www.va.gov/oa/pocketcard/Section1.asp>). Distribution of patient education materials almost doubled (from being given to 35% to 62% of patients). For patients with at least mild pain, frequency of documenting care plans increased by 20% (to being recorded for 78%).

As the above sections on evaluation and outcome monitoring show, we did not find publications from the three example jurisdictions that explicitly made connections between organizational innovations and patient outcomes. When we looked more broadly at the published scientific literature, however, we found research evidence that supports a number of the structure and process elements developed and supported by France, Australia, and the VHA, such as increased access to specialized care and multidisciplinary teams [32,33]; improvement of communication between care providers and coordination of care [33–37]; use of guidelines [17,38]; and training of health care providers [39]. In addition, a recent review, not available at the time of our research, highlights the strength of the evidence in support of comprehensive pain programs [40]. While the object of the review can be considered a “treatment approach,” these programs require the will and the means to support the structures and processes required by two critical elements in particular: the interdisciplinary and integrated nature of care provider teams, and the ongoing monitoring of outcomes.

The Patient as a Partner in Care

As for those living with other chronic illness (e.g., diabetes [41]), persons with CP need to have a central role in their own health care. In France, all new inpatients are provided with printed material on their rights and responsibilities with respect to

pain (<http://www.sante.gouv.fr/htm/actu/douleur/prog.htm>). Other public information campaigns in France focus on migraine and chronic headaches, pediatric pain, and CP services. In Australia, a book for patients with pain [42] addresses quality of life. Pain educational materials in the form of CDs, books, and videotapes are distributed to VHA patients [19].

Conclusions

Reflecting upon the initiatives made by our three example jurisdictions, we have reached conclusions for clinicians and health care policymakers to take into account when considering how to provide health care services to patients with CP. Regardless of whether CP is considered a symptom or a distinct clinical entity, the fact remains that the lives of many CP patients are devastated by this problem and providers within health care systems have a responsibility to reduce their suffering. The example jurisdictions have invested in the organization and financing of CP management. As recently highlighted by Gatchel and Okifuji, “the multiple stakeholders involved in the health care process add a political dimension to pain assessment and the treatment process” ([40], p. 781). These stakeholders include patients, care providers, health care managers and organizations, compensation bodies, other third-party payers, and governments. As noted in France and the VHA in particular, organizational change in health care delivery can occur when there is leadership and will at the decision-maker level.

Our conclusions are grouped below according to theme.

Structure

- The three example jurisdictions organize pain services according to a hierarchy, with increased specialization and multidisciplinary care as the patient moves to upper levels. This structure facilitates stepped care, such that patients progressively receive more specialized interventions, as needed.
- The timeliness of diagnosis and treatment of CP is important at the primary care level [21], where possible (e.g., using medications, rehabilitative and physical medicine, and behavioral medicine, as needed). MPCs are intended for more complex persistent pain. The most comprehensive type of pain clinic involves research and training in addition to patient care, as seen in examples from the VHA and France.

- As promoted in the three example jurisdictions, pain education for physicians and allied health professionals at all levels of the health care system is essential for optimal management of CP patients.

Process

- Integrated multidisciplinary care is ideal for CP management at all health service levels (e.g., close collaboration between primary care physicians and physical medicine/rehabilitation practitioners, and between multiple care providers in specialized clinics). This model is promoted in the three example jurisdictions and by the International Association for the Study of Pain [43]. Interprovider communication, care pathways, and discharge protocols need to be fostered to ensure continuity of care.
- Chronic pain patients need to be active in their health care through self-management strategies; we note that this is formally recognized in the VHA and France.

Outcomes

- Chronic pain patient outcomes need to be systematically monitored and analyzed to ensure quality of care. The VHA is especially notable in this regard.
- As particularly shown in France and the VHA, information technology and the Internet provide means to track outcomes and distribute information to health professionals and the public.

Future Directions

Our review of the organizational aspects of CP management and our in-depth look at three example jurisdictions reveal some important future directions for research:

- There is a clear need for applied CP research that examines the impact of structure and process components of health care services on patient, provider, and system outcomes.
- Effective methods of facilitating evidence-based practice in CP need to be identified.
- More information regarding cost-effectiveness of differing treatment approaches is required.
- Policymakers need data pertaining to safe and acceptable wait times for CP diagnosis and treatment. Related to this matter is the pressing need to improve access to health care services [21].

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