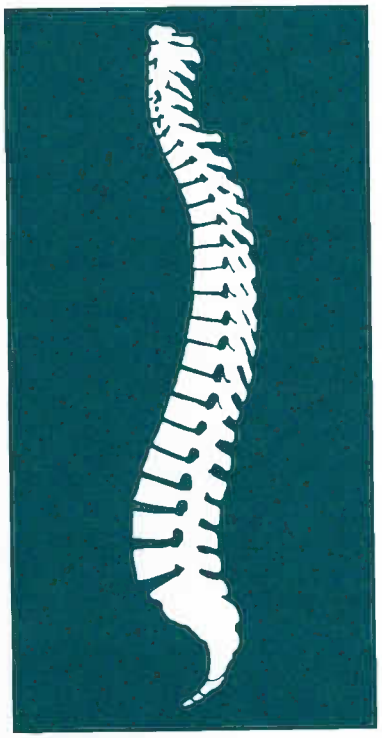
THE CHIROPRACTIC REPORT

www.chiropracticreport.com Editor: David Chapman-Smith LL.B. (Hons.) September 2000 Vol. 14 No. 5



PROFESSIONAL NOTES

FICS, Sydney, and Sports Chiropractic

Italy's premier football club AC Milan has relied upon sports chiropractors for the past 20 years, and Como chiropractor Dr Jean-Pierre Meersseman is presently the director of its medical staff. Tennis legend Martina Navratilova always traveled with a personal chiropractor in her champion years, and the past four US Olympic teams have had chiropractors on their medical teams.

However it is only during the past five years that sports chiropractic has truly come of age, and at the Sydney Olympics this month nearly all athletes will have access to chiropractic services.

• Dr George Dragacevich of Sydney, who has extensive experience with the elite Australian swimming squad, is with the host team of Australia.

• Dr Andrew Klein from Minneapolis is the official chiropractor for the US Olympic team, and will be assisted by others such as Dr Dean Clark from Oregon (track

continued on page 4

BACK PAIN GUIDELINES FROM DENMARK

A New Level of Acceptance and Integration of Chiropractic Services

A. INTRODUCTION

THROUGH its National Board of Health Denmark has recently published clinical guidelines for the prevention and management of low-back pain.[1] These are of importance to all chiropractors because:

• Scandinavian countries generally, and Denmark specifically, have been at the forefront of clinical research for back pain.

• The 14 member multidisciplinary panel involved, led by Claus Manniche, MD and having Peter Kryger-Baggesen, DC as the representative of the Danish Chiropractors' Association (DCA), includes many researchers and clinicians of international repute.

• The new Danish guidelines are part of a comprehensive report that addresses not only issues of effectiveness, as in previous national guidelines in the US and elsewhere, but also cost-effectiveness and the reorganization of health professionals providing care for patients with back pain — and in doing this they recommend a more prominent role for chiropractors than any other guidelines yet published.

• Finally and most importantly, these guidelines have been received as authoritative in Denmark, and are already being acted upon. "There is so much new demand for chiropractors in hospital back clinics and interdisciplinary primary care centers," says Dr. Henrik Laugesen, DCA President, "that the chiropractic profession cannot meet it." Copenhagen University Hospital and Ringe Hospital, Fyn, both of which have large back pain centers, are two hospitals that have been advertising for more chiropractic consultants than are available.

This issue of the Report makes further introductory comment on back pain and guidelines then reviews the Danish guidelines and their significance.

B. LOW-BACK PAIN AND GUIDELINES

2. **Back Pain.** In national health care systems throughout the world back pain is common, poorly managed and very expensive—both in terms of direct treatment costs, and the indirect costs of disability and lost productivity. In the words of British orthopedic surgeon Gordon Waddell, MD, opening his acclaimed new text *The Back Pain Revolution*, "Back pain is a 20th century medical disaster".[2]

This sorry state of affairs led to major developments during the 1990s including:

a) Greatly increased research into the comparative effectiveness and cost-effectiveness of different methods of treatment of back pain.

b) Systematic review of this evidence by experts. The most recent and authoritative review is that by Dutch epidemiologists van Tulder et al. published in *Spine* in 1997.[3]

c) Government-led national projects by multidisciplinary expert panels to assess the research and clinical experience in order to establish clinical guidelines for the effective management of patients with back pain. The first major guidelines, produced in tandem and providing the starting point for later guidelines, were those in the U.S.[4] and the U.K.[5] in 1994. The U.K. guidelines were updated in 1996 by a panel led by Waddell.[6] Until recently the latest evidence review and national guidelines were from New Zealand.[7]

3. All of these guidelines, and the international clinical research upon which they are founded, have provided endorsement for the chiropractic approach to management of most patients with back pain—based upon spinal adjustments/manipu-

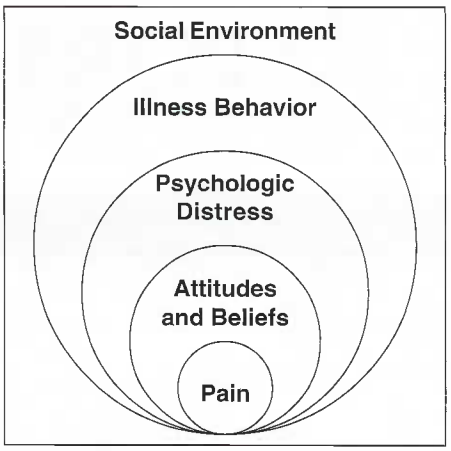


Figure 1 A biopsychosocial model of back pain

From Waddell et al, 1984.[13]

lation, patient reassurance and earliest possible return to activities of daily living including modified work, as opposed to rest and standard medical and surgical treatments. The back pain "revolution" that Waddell speaks of, found in all the guidelines and at the heart of not only his text but others such as Kirkaldy-Willis's *Managing Low-back Pain*,[8] is the fundamental change from:

a) A biomedical model—looking for a specific *structural* cause of back pain (e.g. fracture, disc herniation, inflammatory disease) and, if none can be found, relying upon rest and natural remission; to a

b) Biopsychosocial model—illustrated in Figure 1. On this model the vast majority of back pain — over 90% of cases — arises from *functional* pathology (i.e. mechanical problems of the joints and muscles) rather than structural pathology, but is also greatly aggravated by psychosocial factors. The causes of back pain for most patients are functional or mechanical pathology (bio), psychological factors (psycho), and factors related to lifestyle, work, and how patients and society have learned to view back pain (social).

The whole basis of management must change from rest to early activity. Rest is both inappropriate and harmful, with its adverse effects including slower healing, daily loss of muscle strength and demineralization of bone, decreased physical fitness, increased psychologic distress and depression, and increased difficulty in starting rehabilitation. Helpful effects of early activity include promotion of bone and muscle strength, improved disc and cartilage nutrition and avoidance of psychological problems.

4. This new model is seen in all the national guidelines for management of back pain. Therefore for example the 1996 UK *Clinical Guidelines for Management of Low-back Pain*[6] have these principal recommendations:

Assessment
- Carry out diagnostic triage. (*This means a differential diagnosis between simple backache, nerve root pain and possible serious spinal pathology.*)
- X-rays are not routinely indicated in simple backache
- Consider psychosocial factors.

Drug Therapy
- Prescribe analgesics at regular intervals, not p.r.n.
- Start with paracetamol. If inadequate, substitute NSAIDs (e.g. ibuprofen or diclofenac) and then paracetamol-weak opioid compound (e.g. codydramol or coproxamol). Finally, consider adding a short course of muscle relaxants (e.g. diazepam or baclofen).

Bed Rest
- Do not recommend or use bed rest as a treatment of simple back pain.
- Some patients may be confined to bed for a few days as a consequence of their pain but this should not be considered a treatment.

Advice on Staying Active
- Advise patients to stay as active as possible and to continue normal daily activities
- Advise patients to increase their physical activities progressively over a few days or weeks.
- If a patient is working, then advice to stay at work or return to work as soon as possible is probably beneficial.

Manipulation
- Consider manipulative treatment within the first 6 weeks for patients who need additional help with pain relief or who are failing to return to normal activities.

Back Exercises
- Patients who have not returned to ordinary activities and work by 6 weeks should be referred for reactivation/rehabilitation

5. The 1997 New Zealand *Acute Low-Back Pain Guide for Clinicians and Patients*[7] provides the following advice:

The Chiropractic Report is an international review of professional and research issues published six times annually. You are welcome to use extracts from this Report. Kindly acknowledge the source. Subscribers may photocopy the Report or order additional copies (.75 cents each – minimum of 20 copies plus shipping) for personal, non-commercial use in association with their practices. However, neither the complete Report nor the majority or whole of the leading article may be reproduced in any other form without written permission.
Subscription: for rates and order form, see page 8. For information on orders call 1-800-506-2225, or telephone 416-484-9601, fax 416-484-9665.

Changes of mailing instructions should be sent to The Chiropractic Report, 3080 Yonge Street, Suite 5065, Toronto, Ontario M4N 3N1, telephone 416-484-9601, fax 416-484-9665. Printed by Harmony Printing Limited, 123 Eastside Drive, Toronto, Ontario, Canada M8Z 5S5.
ISBN 0836-144

Acute low-back pain is:
- common
- self-limiting in most people
- best managed by good assessment, explanation (and reassurance), advice about staying active and expectations of recovery
- best managed (where necessary) with simple analgesics and/or manipulation
- best managed by advice against bed rest for more than two days

Recurrent low-back pain is:
- fairly common
- probably best treated in a similar way to acute low-back pain episodes

Chronic low-back pain is:
- a major cause of disability that can leave a person miserable and unemployable
- very difficult to treat
- almost certainly easier to prevent than treat
- often associated with psychosocial risk factors

6. **Clinical Guidelines**. Clinical or practice guidelines, to use the definition of the US Institute of Medicine (IOM),[9] are:

"Systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances". The whole move to evidence-based healthcare and clinical guidelines in recent years is controversial, some regarding it as of fundamental importance and the road to improved healthcare, some as a major threat to clinical freedom and the path to bureaucratic control of practice. However, whatever your view, there is agreement that guidelines are here to stay.

a) They are based upon two sources of information—firstly the scientific literature, with greater weight being given to higher quality research, and secondly clinical experience based on the widest possible professional and patient consultation. This means that any credible guidelines for conditions that are managed by a variety of health professionals, such as back pain, must have these professions represented on the guidelines panel.

b) Good guidelines should have these qualities, as defined by the IOM (1992)[9] and the UK National Health Service (1994)[10]:

- State clearly the population they apply to, and exceptions.
- Be scientifically valid and robust.
- State the strength of evidence for each recommendation.
- Be user-friendly and suitable for use by all grades of staff.
- Note areas where patients should be involved in decisions about their health care.
- Point out the implications for health care process and provision.
- Be suitable for clinical audit.
- State the review date so that the guideline stays up-to-date.
- Have documented support.
- Have plans to distribute and implement the guidelines.

c) The primary goal of guidelines is to improve standards of care by bringing the most up-to-date knowledge to clinical practice in a form that is easy to use.

d) The process of guideline development has now been well refined. The biggest challenge is to have health professionals understand and adopt guidelines—to change their settled habits of clinical practice to be consistent with current knowledge.

One example of this is the difficulty of shifting primary care physicians from their traditional model of rest for back pain to early activation. In France a Paris Task Force looking specifically at the newly accepted role of early activity in the management of back pain has suggested that "a major education campaign aimed at the entire range of health care professionals . . . as well as a major public education campaign through the mass media" will be necessary if its recommendations in favor of early activity are to be heard and accepted.[11]

A second example is early referral of patients for skilled spinal manipulation—all of the back pain guidelines make this recommendation, but this requires very significant changes in attitude and practice for many physicians.

With this background we now turn to consider the new Danish guidelines.

C. Danish Guidelines

7. These guidelines are the work of a multidisciplinary panel representing all relevant groups in Denmark, the members of which are given in Table 1. They appear in a report titled *Low-Back Pain: Frequency, Management and Prevention from an HTA Perspective*[1] prepared by the Danish Institute for Health Technology Assessment (DIHTA), an affiliate of the National Board of Health. The guidelines panel worked over a three year period to August 1998 and the DIHTA Report was first published in 1999 then given international distribution in English in June, 2000.

8. This project was different from previous back pain guidelines in two significant respects:

a) Firstly there was no complete reassessment of the scientific literature. Some literature was searched to clarify a few points in dispute, but it was accepted that a current international consensus on the research and the best evaluation and management of back pain had been established by the national guidelines in the U.K.[4] and the U.S.[6] and systematic reviews by Van Tulder et al.[3] and Nachemson.[12]

b) Secondly, the project had a more focussed and comprehensive goal than previous national guidelines. This was to provide a *health technology assessment* for the management of low-back pain in Denmark, meaning an evaluation and recommendations on four matters:

- *technology*—best methods of management from a clinical perspective (i.e. the focus of past guidelines).
- *patients*—assessment of their interests (e.g. freedom of choice, access, cost).
- *economics*—a detailed analysis of the present cost of back pain in Denmark, and the potential savings and economic impact of changing health care services to be consistent with best guidelines/technology.
- *organization*—what steps should be taken in education, practice and continuing education of chiropractors, physicians, physiotherapists and others to reorganize the delivery of health care for back pain patients.

Table 1: Members of the Danish Panel

Professor, Chief Physician Claus Manniche MD, (Chairman)*

*Economic Affairs Anni Anjær-Jensen**

*Assistant Manager Anni Olsen**

Relaxation Therapist Anni Fog - Danish Relaxation Therapists

Physiotherapist Kirsten Williams - Danish Physiotherapy Association

Chief Physician Finn Biering-Sørensen, MD - Danish Epidemiologic Society

Peter Kryger-Baggesen, DC - Danish Chiropractors Association

Chief Physician Claus Mosdal, MD - Danish Society of Neurosurgeons

Hospital Director, Chief Physician Hans Christian Thyregod, MD - Danish Society of Orthopaedic Surgery

Chief Physician Erik Martin Jensen, MD - Danish Rheumatological Society

Niels-Frederik Pedersen, MD - Danish Society of General Medicine

Chief Physician Svend Lings, MD - Danish Society for Occupational and Environmental Medicine

Chief Physician Lars Remvig, MD - Danish Society for Musculoskeletal Medicine

Professor, Chief Physician Tom Bendix, MD - The Arthritis Association

* Members appointed by the Health Technology Assessment Committee of The Danish National Board of Health.

continued on page 6

continued from page 1

& field) and Dr Mike Foudy from California (swimming), appointed by divisions within the team.

• The Canadian Olympic team's two official DCs are Dr Wilbour Kelsick of Vancouver and Dr Robert Willson of Barrie and three others with the team include Dr Mark Lindsay of Ottawa (track & field) who is Atlanta gold medalist Donovan Bailey's chiropractor.

• Many other team chiropractors include Dr Plinio Barreto of Rio de Janeiro for the Brazilian Olympic team and Dr Jelloul Belhouari of Casablanca for the Moroccan team. Dr Belhouari treats several of Morocco's track & field world champions, including Hicham El Geurrouj, the men's 1500 meters and 1 mile world record holder (3:43.13). Under an arrangement approved by the Association of National Olympic Committees (ANOC) at its annual meeting last May, some 30 sports chiropractors will be affiliated with national Olympic teams and available to most athletes.

This level of acceptance has not arisen by chance, or simply because of the important work of sports chiropractors at all levels of amateur and professional sport. The driving force behind these achievements — including the latest approval by the ANOC — has been the Fédération internationale de chiropratique sportive (FICS), the international organization representing sports chiropractic which is based in the IOC city of Lausanne, Switzerland. Some background facts on FICS are:

• It was formed in London in 1987 and its first presidents were Dr Stephen Press (USA) and Dr Noel Patterson (Australia). Current leaders are Dr Daniele Bertamini (Italy), President; Dr Brian Nook (USA), First Vice-President; Dr Enrique Benet-Canut (Mexico), Second Vice-President; and Dr Roland Noirat (Switzerland), General Director.

• From the outset, FICS' main activities included the development of postgraduate education in sports chiropractic at a uniform high standard internationally; arranging for the inclusion of appropriately qualified chiropractors in sports medicine teams for national and international competitions; coordinating the political organization of sports chiropractic internationally; and participation in international sports organizations and activities right through to the Olympic level.

• Initially FICS had individual DC members from each country. To be consistent with other international sports medicine organizations, its members are now national chiropractic sports councils — FICS continues to promote the formation of such councils.

• The biggest early achievement of FICS was its acceptance as an associate member by the General Assembly of International Sports Federations (GAISF) in 1991. This body represents all the major international sports federations and has been the basic platform for making athletes' representatives aware of the importance of having qualified sports chiropractors available during training and competition.

• During the past ten years FICS has developed a close and continuing relationship with the International Olympic Committee. It was as part of this relationship that FICS moved its headquarters in 1998 to Lausanne, the Olympic city and home to 15 major international sports federations. It was at the personal invitation of H.E. Juan Antonio Samaranch, OIC President, that a FICS delegation led by Dr Bertamini addressed the ANOC at its annual meeting last May and gained support for the wide availability of chiropractic services for athletes at the Sydney Olympics.

The profession — and athletes — owe a great debt of thanks to those few leaders in sports chiropractic who had the vision and the will to serve that lie at the foundation of FICS's success. These leaders have traveled the world as volunteers at their own cost and we applaud them. *Contact for more information*: Daniele Bertamini DC, President, FICS, chemin de la Joliette, 1006, Lausanne, Switzerland; *Tel*: 41 21 612 933; *Fax:* 41 21 617 3016; *E-mail:* fics@worldcom.ch.

North America

1. **US — *ACA et al* vs. *Trigon Healthcare, Blue Cross and Blue Shield Association et al.*** The November 1999 issue of this Report discussed the important lawsuit being brought by the American Chiropractic Association against the US Department of Health and Human Services (DHHS), alleging that the DHHS was responsible for illegal restrictions on access to chiropractic services by Medicare patients enrolled with HMOs, in part by allowing chiropractic services to be delivered by MDs, DOs and PTs contrary to law and the clear intent of Congress.

On August 19, after many months of fruitless negotiations with Blue Cross/ Blue Shield and its affiliate insurers across the US who have been partners with the DHHS in this matter, a second major and related lawsuit was filed in the US District Court, Virginia. In this the ACA, five Virginian chiropractors, and 18 Virginian seniors/Medicare patients denied access to chiropractic services seek compensatory and punitive damages and other relief against Trigon, the second largest publicly traded Blue Cross/Blue Shield plan in the US, and the national Blue Cross/ Blue Shield Association. Specific allegations in the complaint, prepared by ACA General Counsel George McAndrews, includes "a pattern of racketeering activity that includes extortion, mail fraud, wire fraud and securities fraud and that violates the *Racketeer Influenced and Corrupt Organizations Act* (RICO)", and "an unlawful uncompetitive combination and conspiracy among Trigon companies, medical doctors and the Blue Cross and Blue Shield Association that violates the anti-trust laws of the United States."

"This is the chiropractic profession's first assault on the discriminatory practices under managed care and insurance reimbursement as it is exhibited in the policies of Blue Cross and Blue Shield, so it's an historic action", said Thomas Daly, legal counsel to the American Chiropractic Association.

After thorough research of the evidence, the ACA holds powerful cards in its hand and a major, exciting and very expensive battle lies ahead in these two watershed lawsuits. This Report, like

many ACA members and others, is committing $100 per month to the ACA's National Chiropractic Legal Action Fund for the duration of this litigation. To offer your support, contact the ACA at: *Tel: (703) 276-8800; Fax: (703) 243-2593; E-mail: memberinfo@amerchiro.org.*

2. **US — PT Education in Manipulation**. A 1998 survey of US physical therapy schools, for a Master's thesis referenced in a recent article by Stanley Paris, reports that 100% of PT schools have a course on joint mobilization (techniques without thrust) in the curriculum but that only 21% have instruction in joint manipulation (with thrust). Interestingly, the reluctance of PT schools to teach thrust techniques is "attributed to the belief that the therapeutic skill of manipulation (thrust) cannot be obtained at entry level". (Paris SV. *A History of Manipulative Therapy Through the Ages and Up to the Current Controversy in the United States*, J Manual & Manip Ther, 2000; 8(2):66-77.)

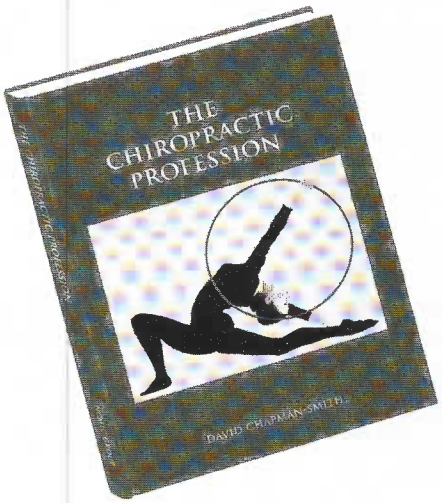
EUROPE

1. **Denmark — Infantile Colic**. Following the publication of last year's Danish trial reporting the effectiveness of chiropractic management of infants diagnosed as having colic (see the November 1999 issue of this Report), Denmark's health visitor nurses, who visit new mothers and their infants under the Danish health care system, asked for formal direction from the Department of Health on whether or not they should be recommending chiropractic management of infantile colic to mothers. In a reply published in the Spring issue of their association's journal, the Department of Health has confirmed that this is appropriate. It is also noteworthy that the April 2000 issue of *Evidence-Based Nursing* (Vol 3, No 2), co-published by the U.K. Royal College of Nurses and British Medical Journal publishing groups, carries an abstract of the colic trial and a very positive commentary from reviewer Francine Margolias RN EdD, Associate Professor, Medical University of South Carolina, Charleston. *Source: Danish Chiropractors' Association.*

2. **Finland — Growing Acceptance of Chiropractic**. The first chiropractor to establish a practice in Finland was Palmer graduate Dr Ragna Valli of Pori in 1968. Today, the Finnish Chiropractors' Union (FCU) has 38 members and the practice of chiropractic has been recognized and regulated by law in Finland since 1994. These and other facts were recently presented by Dr Raine Mäkelä, President, FCU, in a paper given at the 13th World Congress on Medical Law, sponsored by the World Association of Medical Law and held August 6–10, 2000 in Helsinki. The meeting was attended by 800 delegates who included many leaders from Finland's Department of Health and health care community.

Unlike Denmark and Norway, there is no public reimbursement for chiropractic services in Finland, under the National Health Insurance Scheme. Other concerns are that the chiropractic legislation only gives limited protection of title (only graduates from accredited schools can call themselves *koulutettu kiropraktikko* or *qualified chiropractor* but in a political compromise others

continued on page 8



The Chiropractic Profession, by David Chapman-Smith, NCMIC Group, West Des Moines, Iowa, 2000. 164 pages, hard back, single copy US$49.95 plus shipping, 5 copies US$100.00 plus shipping. *More information and orders*: NCMIC Group Inc., Tel: 1-877-291-7312, Fax: 1-515-282-3347.

Commissioned by the NCMIC Group under a grant administered by FCER, this is a major new book on chiropractic for others in the health care system, the media, patients, and the general public.

"*How often have you wanted a book that explains chiropractic in reasonable and rational language . . . that you could be proud to send to anyone? Well, that book is here now. Giving copies of this book to individuals and groups who 'need to know' can go a long way toward promoting a better understanding of . . . and support for . . . your personal practice and the entire chiropractic profession.*" Lou Sportelli, DC, President NCMIC.

"*Unlike any other book . . . it provides a concise and informative review of all relevant information on the chiropractic profession in one volume. . . a well-balanced, clear and detailed description of the chiropractic profession today.*" Wayne B. Jonas, MD, Director, NIH Office of Alternative Medicine (1995-1998).

"*. . . a balanced, authoritative, comprehensive picture of this important field of health care . . . essential reading for anyone involved in the regulation, oversight or evaluation of chiropractors or related health professions.*" Clement Bezold, PhD, Consultant, World Health Organization, and President, Institute for Alternative Futures.

"*. . . gives an excellent snapshot of the profession at the turn of the century, which should help practicing chiropractors place their profession in perspective and understand the direction it is likely to take . . .*" Scott Haldeman, DC MD PhD, chiropractor and neurologist.

In other words the purpose of this exercise was pragmatic, to adapt internationally accepted management guidelines to Danish conditions to make concrete improvements to the health care system.

9. The impetus for this work was the same as in other countries—the prevalence and high cost of back pain (" . . . every fifth Dane will experience low-back pain during a 14 days period . . . low-back pain has such a high prevalence that an episode should almost be classified as a normal occurrence") and the wide and unacceptable variation in how-back pain was being managed. Major changes in effectiveness, patient satisfaction, and cost were likely with reorganization of the currently available services.

10. Importantly, the multidisciplinary panel "reached agreement on all important issues". This has given the DIHTA Report and its recommendations comprehensive government and professional support, and as a result the recommendations are being acted upon. This is integrating chiropractic services into the center of mainstream care for back pain in the Danish health care system as explained below.

11. **Technology/Guidelines**. In the section of the report giving clinical guidelines, each treatment method is assigned to one of three chapters which respectively list treatments as:

a) Generally Recommended—manual therapy; back school/group training/ergonomics; pain relieving medication; exercise therapy according to McKenzie; exercise therapy/fitness.

b) Recommended in Certain Conditions—injections in muscles/trigger points/ligaments/joints; epidural injections; acupuncture; massage and heat/cold therapy; back surgeries; bed rest; TENS.

c) Cannot be Recommended—corsets, traction, ultrasound/laser/short wave therapy.

Each treatment method is then evaluated under the subheadings *Technology* (a description of the treatment), *Contraindications*, *Documentation* (what the scientific evidence says), *Risk Evaluation* and *Cost*.

12. *Manual Therapy*. Spinal manipulation ("pushing a motion segment beyond its normal passive range of movement by means of a thrust"), mobilization, manual traction, myofascial release and muscle energy techniques are all expressly included within the generally recommended treatment 'manual therapy', which is defined as "all procedures where the health professional uses his/her hands in order to influence the joint complex as well as the surrounding tissues. Treatment is given in order to relieve pain and improve function." Manual therapy is recommended:

a) For patients with acute pain and functional limitations of more than 2 to 3 days duration.

b) For acute exacerbations of recurrent or chronic low-back pain and functional limitation.

c) As one element of a broader strategy for chronic low-back pain problems.

d) As an element of a conservative treatment regime for many patients with nerve root irritation/disc problems.

Contraindications given for manual therapy are cancer, inflammation, infection and serious and/or progressive nerve root irritation. Where the pain "is determined to be of functional origin", but there is "structural weakness of the bones or joints" (e.g. severe degeneration, osteoporosis, joint displacement), manual therapy is appropriate but "treatment should be appropriately modified".

As to risk, it is concluded that "manual treatment is generally a very safe treatment when relevant contraindications are addressed." Cost is described as "moderate" on a 3 point scale of low, moderate, and high, with manual treatment being ambulatory and given "in the primary health care sector".

Finally it is noted that manual therapy is often combined with other treatment methods—such as "exercise in the case of chronic pain" and "soft-tissue treatment and medication in the case of acute pain".

13. Space limitations preclude detailed discussion of other treatment methods, but key points include:

a) Under *back school* there is a comparison of 'traditional back school' (dominated by 'be careful' messages such as sit and lift correctly, avoid bending forward) and 'modern back school' (emphasizing fear avoidance and 'ignore the pain as much as possible'). Only the latter has proven benefits in prevention and treatment, and is recommended.

b) With respect to *medication* the first step is to "evaluate if there is in fact a need for pain-relieving medication." If there is, "use a stepladder approach"—firstly non- prescription pain relievers (e.g. paracetamol); if there is no effect after 1 to 2 days move to NSAIDs; next to a combination of both; next to tramadol or codeine. Muscle relaxants "have no place in the treatment of low-back pain" because "the possible clinical benefit is overshadowed by the risk of physical and psychological dependency even after short periods of usage." This contradicts the UK Guidelines.

c) *Exercise therapy*, as in past guidelines, is found to be of no proven value with acute pain patients, but is recommended after 6 weeks and as a preventive measure for patients who have experienced recurrent pain.

d) Strict criteria are given for all forms of *surgery*. Disc surgery should not usually be performed "before conservative therapy has been attempted for 4 - 6 weeks." Stabilising back surgeries, because of limited evidence of effectiveness, high cost and complications "can only be recommended in particularly well-chosen cases" and should be performed at a few specialist centers only.

e) In its conclusions the DIHTA recommends that a range of treatments should "definitely disappear from the health care system's handling of low-back pain" and these include bed rest other than 1–2 days in extreme cases, the use of corsets, hospital-based traction using an apparatus to stretch spinal structures, and soft-tissue treatment using ultrasound/laser/short wave therapy.

14. **Organization of services**. In Denmark chiropractic services are an integral part of the present health care system. They are regulated by law and funded on a similar basis to medical and physiotherapy services—with part funding by each of the government's public health insurance, by private insurance and by a patient user fee or co-payment. The DIHTA Report explains that, for back pain, the general medical practitioner (GP) and the chiropractor are the "two ports of entry to the public health system" with 2 of 3 patients contacting GPs initially and 1 of 3 a chiropractor.

The Report acknowledges that "cooperation between the different health professionals that deal with low-back pain is unsatisfactory", and that many other aspects of the system need improvement. However, notwithstanding these matters, the Report achieves and contains "interdisciplinary agreement" on general principles for better organization of care, including:

a) Examination and treatment procedures should be similar regardless of how the patient chooses to contact the health care system.

b) As much as possible all treatment should take place "in the primary sector and in the patient's own area."

c) In general referral to specialist care, or specialist centers and hospitals, should not occur "before diagnosis/ treatment in the primary sector has been tried."

d) Except for suspicion of bone fracture after trauma, patients should not consult emergency wards as most do not have professionals with the necessary evaluation skills.

e) Hospitalization, with its cost, labelling of the patient, inactivity and the loss of self-determination, should be avoided except in cases of serious back disease.

f) During treatment "close cooperation among the relevant professionals in primary care is important". This should include exchange of records, including x-rays and other diagnostic information, and results. Ultimately a shared patient record and electronic communication should be established.

g) An efficient system is dependent upon all recognized health professionals being aware of the educational background and professional capabilities of the others. For these and other reasons "interdisciplinary courses and professional development should be strengthened."

At the undergraduate level that has already happened for chiropractors and physicians—chiropractic education in Denmark is at the University of Southern Denmark in Odense, where students share the majority of their classes during the first three pre-clinical years with USD's medical students. However "common postgraduate courses for physicians, chiropractors and physiotherapists should be expanded" to promote cooperation, understanding and more common ground in management of patients. Courses should involve other relevant professionals "such as psychologists and relaxation therapists."

In other words, Denmark has become the first country to reach an historic milestone — the chiropractic, medical and physiotherapy professions have all acknowledged and agreed through their official representatives to government that they will work together with mutual respect and with the government to integrate their education and practice on one evidence-based national model of management of low-back pain.

15. **The Patient's Perspective**. Many of the recommendations on improved organization, including access to primary care practitioners who share information and work as a team with a common approach to management, are important to patients. However the DIHTA Report goes much further, recognizing that patients' attitudes and active involvement are of great significance in the field of back pain, and recommending:

a) For the general public, much better information on the prevention and management of back should be provided through a specific, ongoing government-led public relations campaign. This is similar to the recommendation of the Paris Task Force, already mentioned.

b) For patients, there should be early receipt of thorough and individualized information about their back pain and its treatment, to encourage their active participation in treatment decisions and their continuance of activities of daily living despite some initial pain.

Appropriate information should be developed for use by all health professionals. Information should be repeated with each patient, and a health professional should allocate 1–2 hours for this important aspect of management during initial visits. Such patient education is so important that "it should be perceived as an independent service and paid for accordingly " by public and private insurance.

16. **Cost/Economics**. A detailed analysis of the cost of low-back pain to Danish society is made, and findings — which represent "similar data" to those from "other Western countries" — include:

a) The total annual cost is approximately 10 billion Danish Kroner (US$1.5 billion — the population of Denmark is 5.2 million), comprising DKK 3 billion in direct treatment costs and DKK 7 billion in disability and other indirect costs. This is approximately 50% of the total cost of "musculoskeletal disease" (DKK 21.2 billion) which is the second highest cost after psychiatric disease and is more costly, for example, than heart and vascular disease (DKK 17.8 billion) and cancer (DKK 16.1 billion) which rank third and fourth in cost to society.

b) Back pain causes far more activity limitation, sick-leave, job change/loss and health related disability pensions than any other disorder.

c) The number of hospital days for "back illness" has remained constant in Denmark since the mid-1980s despite the fact that hospitalization for most of this illness "has been shown to be unnecessary or even contributory regarding the promotion of illness behaviour."

d) Very large savings can be achieved through acting on the recommendations in the DIHTA Report, principally through reducing chronic pain and its indirect costs.

e) There is a similar analysis of the significant cost differences of alternative treatment protocols. For example:

1. For a patient with uncomplicated acute low-back pain, four weeks of primary care treatment is less costly if the patient consults a chiropractor (DKK1,325) rather than a GP with referral for physiotherapy (DKK1,836). If spinal X-rays are necessary, the cost for a chiropractor (DKK370) is 74% less than if ordered by a GP in a hospital (DKK1,440).

2. If the 10,000 patients treated annually for disc herniation receive good conservative care, approximately 7,500 or 75% will not require surgery or hospitalization. Even for those requiring surgery, better coordination of primary care will avoid duplication of services, reduce waiting times and more than halve treatment and disability costs. Additionally, the report points out, there is a greater degree of patient satisfaction and chance of achieving a complete cure and maintenance of work capacity for these disk herniation patients.

17. **Other recommendations**. The DIHTA Report has many other recommendations not mentioned, including research and methods of encouraging health professionals to adopt the guidelines. It concludes that "a massive effort" on several fronts is warranted and necessary — and that is now underway in Denmark.

D. Conclusion

18. In many jurisdictions governments, workers compensation agencies, employers and others are working to develop better guidelines for the management of back pain in order to improve quality of care and reduce unacceptable disability levels and cost. With the DIHTA Report Denmark, building on past efforts in other countries, has provided a strong evidence-based interdisciplinary model for success.

The Report also supports for the conclusions of Canadian health economists, Professor Pran Manga et al. from the University of Ottawa in their government-commissioned study in 1993. They concluded that there were potential savings of "hundreds of millions annually" in Canada if there was better integration of chiropractic services in the management of back pain, and that

"In our view, the constellation of the evidence of:

(a) the effectiveness and cost-effectiveness of chiropractic management of low-back pain.

(b) the untested, questionable or harmful nature of many current medical therapies.

(c) the economic efficiency of chiropractic care for low-back pain compared with medical care.

(d) the safety of chiropractic care.

(e) the higher satisfaction levels expressed by patients of chiropractors.

together offers an overwhelming case in favour of much greater use of chiropractic services in the management of low-back pain."[14] TCR

References

1. Manniche C et al. Low-back Pain: Frequency Management and Prevention from an HDA Perspective. Danish Health Technology Assessment 1999; 1(1).
2. Waddell G. *The Back Pain Revolution*. Churchill Livingstone, Edinburgh, 1998.
3. van Tulder MW, Koes BW, Bouter LX. Conservative Treatment of Acute and Chronic Nonspecific Low-back Pain. Spine 1997;22:2128–56.
4. Bigos S, Bowyer O, Braen G et al. *Acute Low-back Problems in Adults. Clinical Practice Guideline No.14*. AHCPR Publication No. 95-0642. Rockville, MD; Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services, 1994.
5. Rosen M, Breen A et al. Management Guidelines for Back Pain Appendix B in Report of a Clinical Standards Advisory Group Committee on Back Pain, Her Majesty's Stationery Office (HMSO), London, 1994.
6. Waddell G, Feder G, et al. *Low-back Pain Evidence Review*. London, England: Royal College of General Practitioners, 1996.
7. New Zealand Acute Low-back Pain Guide, and *Guide to Assessing Psychosocial Yellow Flags in Acute Low-back Pain*. Accident Rehabilitation and Compensation Insurance Corporation of New Zealand and the National Health Committee, Wellington, NZ, 1997.
8. Kirkaldy-Willis WH, Bernard TN, eds. *Managing Low-back Pain*. 4th edn. Churchill Livingstone, New York, 1992.
9. Field MJ, Lohr KN, eds, *Guidelines for Clinical Practice: From Development to Youth*. Institute of Medicine, National Academy Press, Washington DC, 1992
10. Effective Health Care: Implementing Clinical Guidelines, N Report No. 8: Can guidelines be used to improve clinical practice? National Health Service Executive, Leeds, 1994, 1–12.
11. Abenhaim L, Rossignol M et al. The Role of Activity in the Therapeutic Management of Back Pain: Report of the International Paris Task Force on Back Pain, Spine 2000; 25(4S):1S-33S.)
12. Nachemson A. *Back Pain—Causes, Diagnosis and Treatment*, Statens Beredning för Utvärdering (SBU), Report No. 108, 1-122, Stockholm, 1992.
13. Waddell G, Main CJ, Morris EW, DiPaola M, Gray ICM. *Chronic Low-back Pain, Psychologic Distress and Illness Behaviour*, Spine 1984; 9: 209–213.
14. Manga P, Angus D et al. The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain. Pran Manga & Associates, University of Ottawa, 1993.

Finland *continued from page 5*

can also call themselves chiropractors), and chiropractors do not yet have the right to sign disability certificates. Dr Mäkelä drew attention to these matters but also to the widespread public and interprofessional acceptance of chiropractic services. He, like a number of other Finnish chiropractors, works in a multidisciplinary clinic with MDs and PTs. Other chiropractic papers presented at the meeting addressed the legal recognition of chiropractic in Europe generally (Mr David Chapman-Smith, Secretary-General, World Federation of Chiropractic) and chiropractic practice in France (Dr Benoît Rouy, l'Association Française de Chiropratique).