

Laboratory diagnosis in Ontario and the need for reform relative to the profession of chiropractic

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The purpose of this paper is to provide an historical review of the progression of events within the jurisdiction of the province of Ontario related to the issue of laboratory diagnosis and the profession of chiropractic. The provisions of relevant legislation, task forces, Councils, reviews, consensus statements, Commissions and committees, are highlighted and discussed during respective time periods. Chiropractors had entitlement to order and perform laboratory tests until 1972 when a regulatory amendment, made without consultation with the chiropractic profession, precluded their continuing entitlement. Chiropractic patients require access to diagnostic laboratory services and equitable access to necessary laboratory services should be restored and preserved. This is consistent with the academic institutional accreditation standards of chiropractic education and the jurisdictional regulatory mechanisms of chiropractic practice and is consistent with both protecting and enhancing the public interest. (JCCA 1997; 41(4):205-220)

KEY WORDS: chiropractic, manipulation, legislation, laboratory, diagnosis.

Cet article vise à donner un aperçu historique de l'évolution, dans la province de l'Ontario, d'un sujet qui touche la profession chiropratique : la pose d'un diagnostic à l'aide d'essais en laboratoire. Les dispositions émanant des lois, groupes d'étude, Conseils, réformes, Commissions et comités ad hoc, sont mises en relief et font l'objet de discussions aux périodes correspondantes. Jusqu'en 1972, les chiropraticiens avaient le droit d'ordonner et d'effectuer des tests de laboratoire; à cette époque, une modification au règlement, adoptée à l'insu des chiropraticiens, les a privés de ce droit. Les patients faisant appel aux chiropraticiens ont besoin de services de diagnostic en laboratoire; il faut donc être équitable et, pour ce faire, il faut rétablir et préserver l'accès à ces services de laboratoire nécessaires. Cette position respecte les normes d'accréditation académique institutionnelles établies par les maisons d'enseignement chiropratique et les mécanismes juridiques de réglementation de la pratique chiropratique. Elle est de plus compatible avec la protection et l'amélioration de l'intérêt public. (JCCA 1997; 41(4):205-220)

MOTS CLÉS : chiropratique, manipulation, législation, laboratoire, diagnostic.

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Introduction

Ontario is undergoing a period of health care reform which will have substantial impact on the health system and its constituent elements, including providers and consumers. The Premier's Council on Health Strategy¹ (1987-1991) identified five health goals within their overall Vision of Health statement (Figure 1). At that time, the goals were to:

- 1 shift the emphasis to health promotion and disease prevention,
- 2 foster strong and supportive families and communities,
- 3 ensure a safe, high quality physical environment,
- 4 increase the number of years of good health for the citizens of Ontario by reducing illness, disability and premature death,
- 5 provide accessible, affordable, appropriate health services for all.

In 1991, the Premier's Council on Health, Well-being and Social Justice agreed to continue the work of the former Premier's Council. It seems that reform needs to revisit these goals as the health of patients may be challenged adversely and current practices may not be consistent with the previously identified goals. In the context of health system reform, of which health care is but one part, some of the issues being addressed are: cost controls,

Figure 1
Premier's Council on Health Strategy (1987-1991)
Vision of Health

We see an Ontario in which people live longer in good health, and disease and disability are progressively reduced. We see people empowered to realize their full health potential through a safe, non-violent environment, adequate income, housing, food and education, and a valued role to play in family, work, and the community. We see people having equitable access to affordable and appropriate health care regardless of geography, income, age, gender, or cultural background. Finally, we see everyone working together to achieve better health for all.

Table 1

Drugless Practitioners Act, 1925
Laboratories Regulation, 1972
Ontario Council of Health 1973
Health Professions Legislation Review 1982-1989
Premiers Council on Health Strategy 1987-1991
Manga Report 1993
Ontario Chiropractic Services Review 1994
Regulated Health Professions Act, 1991 (proclaimed 1993)
Chiropractic Act, 1991 (proclaimed 1993)
Laboratory and Specimen Collection Center Licensing Act, 1990
Clinical Guidelines for Chiropractic Practice in Canada 1994
Laboratory Services Review 1994
Report on the Health of Canadians 1996

utilization measures, referral base, hard caps, resource allocation, provider mix, cost effectiveness, conflict of interest, patient choice, regional disparity in providers and duplication of services. These and many other issues are being addressed in the midst of fundamental change to the system which envisions and emphasizes cost containment and deters continued funding infusions.

As part of the government's health reform initiatives, in 1992, the Ministry of Health undertook to initiate the Laboratory Services Review.² Reform includes surveying the constituent elements of the health system, including the laboratory services system, comprehensively and fairly. The intent is to formulate a more effective and efficient system while preserving quality and access. The issues considered were utilization of services, cost of services and funding, system development and system management. Provincial expenditures on laboratory services in 1992 were approximately \$1 billion per year.² What follows is a chronological review of related issues respecting chiropractic and laboratory services. The provisions of relevant legislation, task forces, Councils, reviews, consensus statements, Commissions and committees, are highlighted and discussed during respective time periods (Table 1).

Drugless Practitioners Act 1925

Prior to the proclamation of the Regulated Health Professions Act, 1991 (RHPA) on December 31, 1993 chiropractors were regulated under the Drugless Practitioners Act³ (DPA), as were masseurs, physiotherapists, drugless therapists (naturopaths) and osteopaths. Drugless therapists (naturopaths) and osteopaths continue to be regulated under the DPA. The system of treatment that was followed by chiropractors from 1925 until 1993, was "the treatment of persons by the relief of interference with the normal functioning of the nervous system of the body by the adjustment or the manipulation or both of the articulations and the tissues thereof, more especially those of the spinal column and when necessary with the aid of, exercise, light, thermotherapy, hydrotherapy or electrotherapy".³ Chiropractors, osteopaths and drugless therapists were not legislatively prohibited from ordering or performing laboratory tests under the DPA.

Laboratories Regulation 1972

In 1972, chiropractors were prohibited legislatively from ordering or performing laboratory tests.¹⁷ They were precluded from any entitlement by a regulatory amendment that proceeded without consultation with the chiropractic profession. As a result of the amendment, the *ordering* of laboratory tests was subsequently restricted to medical practitioners and dentists. The *performing* of tests became a matter of licensure. The amendment gave the Ministry of Health the authority to regulate medical laboratories in Ontario by way of licensure and inspection. As a matter of practicality, one could argue that this has fostered unnecessary delays in rendering a timely diagnosis in those circumstances where laboratory testing is required for chiropractic patients, and has promoted the unnecessary duplication of services.

Council of Health 1973

In 1973, the Ontario Council of Health, the senior advisory body to the Minister of Health at that time, submitted its report of the Task Force on Chiropractic⁴ which reviewed the issues of scope of practice and educational requirements for chiropractors in Ontario. The Task Force studied the function of the chiropractor, methods of diagnosis and treatment, and possible chiropractic practice arrangements. It recognized that a feature of chiropractic has been direct accessibility to it by the general public.

The Council recommended that the scope of practice for chiropractors be defined as follows:

"Chiropractors may undertake the care of the spine and immediately related anatomical structures with respect both to the maintenance of health, and the differential diagnosis and treatment of mechanical disorders of spinal origin. The method of practice is to advise and treat persons for such disorders by the adjustment or manipulation of the spine and related structures, with the aid, when necessary, of:

- (a) light therapy
- (b) heat therapy
- (c) water therapy
- (d) electric therapy
- (e) mechano therapy

Chiropractors may use x-rays for diagnostic purposes within the regulations enforced in the Province. It is not the intention that chiropractors treat non-mechanical disorders of the spine, nor diseases in organs and systems anatomically remote from the spine; nor is it intended to exempt a chiropractor from his duty to recommend that the patient consult a medical practitioner if medical treatment is appropriate" (Recommendation 1).

Council further recommended that since chiropractors function as primary health practitioners with direct patient access, that chiropractors be regulated through licensing by a regulatory body under the Health Disciplines Board (Recommendation 2).

In Part II, the Ontario Council of Health requested the Task Force to relate the scope of practice to *educational requirements* and to prepare *educational objectives*. The primary purpose of developing chiropractic educational objectives was to provide a basis for task force considerations and recommendations relating to the educational level and resources needed to meet the requirements of the chiropractic scope of practice. The Task Force recommended that basic science requirements for pre-clinical chiropractic education be patterned after those for other primary contact health care practitioners. Within the 13 general objectives enunciated which pertain to issues such as diagnosis, responsibilities, knowledge, skills and competencies, objective #6 describes laboratory qualities and capabilities as follows (Appendix C):

The student should demonstrate:

"competence in using laboratory and x-ray in diagnosis and management of disorders of spinal origin.

- (a) utilizing appropriate tests and procedures,
- (b) performing selected tests,
- (c) interpreting test results."

Within the 27 specific objectives concerning clinical chiropractic in terms of skills and knowledge required in diagnosis, therapy planning and patient management, objective #18 describes the following:

"Identify the significance of the following diagnostic tests and outline the necessary steps to be taken if an abnormality is found:

routine urinalysis, complete blood count, blood sedimentation rate, latex fixation, uric acid, alkaline phosphatase, acid phosphatase, glucose tolerance."

Council was of the opinion that these objectives should equip the graduate not only to provide the basic services suggested by the scope of practice, but also less explicit essential services necessary to properly serve the public in the complex interrelated world of the health disciplines (p. 26). Recommendation 4 (Part II) made by the Task Force that basic science requirements for pre-clinical chiropractic education be patterned after those for other primary contact health care practitioners (p. 15), is an endorsement of both the general and specific educational objectives. The Ontario Council of Health adopted the recommendations of the Task Force.

With respect to the degree of diagnostic skill required, the Task Force took the position that it was essential that the chiropractor be enabled to distinguish all disorders that fall within his/her own scope of practice from those which should be referred to other health disciplines. The Task Force further recognized that in certain areas related to medical and surgical subspecialties such as rheumatology and orthopedics, that the diagnostic skill of the chiropractor should approach that of the physician.

Health Professions Legislation Review (1982-1989)

This Review (HPLR) commenced in 1982 and was charged with making recommendations to the Minister of Health with respect to:

- 1 which health professions should be regulated,
- 2 updating and reforming the Health Disciplines Act,
- 3 devising a new structure for all legislation governing the health professions, and
- 4 settling outstanding issues involving several professions.⁵

In excess of 75 health provider groups initially requested regulation. Following an exhaustive process, 24 professions eventually satisfied the requisite criteria for inclusion, after much spirited debate. In creating a new model or system of regulation, the Review sought to have broad public interest prevail over more narrowed health provider interest. The purpose of professional regulation was to advance the public interest, not the interests of the professions. The monopoly model of practice created a hierarchy, restricted evolution of professions and inhibited collaborative relations. The new model fostered protection of the public, greater accountability of professionals, and access to safe choices in health care. The Review's recommendations aimed to advance the public interest by:

- 1 protecting the public, to the extent possible, from unqualified, incompetent and unfit health care providers,
- 2 developing mechanisms to encourage the provision of high quality care,
- 3 permitting the public to exercise freedom of choice of health care provider within a range of safe options, and
- 4 promoting evolution in the roles played by individual professions and flexibility in how individual professionals can be utilized, so that health services are delivered with maximum efficiency.⁵

In order for the public to benefit from having similar rights in relation to all regulated health professionals, an omnibus Health Professions Procedural Code coupled with an individual Professional Act specific for every regulated profession or clustered professions was proposed. The Review further believed that self regulation is the regulatory system of choice for Ontario, as long as safeguards protect the public interest.

Manga Report 1993

As part of its health reform agenda, the Ontario govern-

ment fully funded this review examining the effectiveness and cost effectiveness of chiropractic management of low back pain.⁶ The report deals with the issues of the appropriateness of increased utilization of chiropractic services in Ontario, and the effect of limited funding on access. It notes that greater emphasis is being placed on the evidenced based allocation of limited resources. Of particular interest are the findings that, on the evidence, spinal manipulation provided by chiropractors is shown to be more effective than alternative treatments for low back pain and further that chiropractic management of low back pain is more cost-effective than medical management. As well, the evidence indicates higher satisfaction levels are expressed by patients of chiropractors. The authors of this report made several recommendations to government with respect to reform.

Amongst their recommendations are:

- 1 There should be a shift in policy to encourage and prefer chiropractic services for most patients with low back pain.
- 2 Chiropractic services should be fully insured under the Ontario Health Insurance Plan. This would bring a shift from medical to chiropractic management that can be expected to lead to significant savings in health care expenditure.
- 3 Chiropractic services should be fully integrated into the health care system, and hospitals, managed groups and long term care facilities should employ chiropractors.
- 4 Hospital privileges should be extended to all chiropractors, respective of patients' needs.
- 5 Chiropractors should have access to all pertinent patient records and tests from hospitals, physicians, and other health care professionals.⁶

Ontario Chiropractic Services Review 1994

The report of the Ontario Chiropractic Services Review Committee (CSRC) was finalized in November 1994.⁷ The Committee's participants included representatives from the Ministry of Health and the Ontario Chiropractic Association. This report represented one of the most extensive reviews of chiropractic services in Ontario. It presented several significant recommendations that would benefit both the healthcare system and individual patients. Among the many recommendations related to delivery and funding of chiropractic services in Ontario, recom-

mendations consistent with Ontario's health care goals, several directly impact laboratory services.

In general, the recommendations call for better integration of chiropractic services within Ontario's healthcare system, and removing or minimizing inappropriate barriers to access. More specifically and with respect to laboratory diagnosis, the CSRC recommended:

"that chiropractors should be able to order a limited range of laboratory tests as specified by the College of Chiropractors of Ontario, and that the performance of these tests should be an insured service under OHIP" R6.1⁷

At the time, and as a minimum, the list of laboratory tests required in chiropractic practice as agreed upon in 1988 by the College of Chiropractors of Ontario (CCO), the Ontario Chiropractic Association (OCA), and the Canadian Memorial Chiropractic College (CMCC) appear in Table 2 (Appendix N of Review). This list was later amended in a further submission to the Ministry of Health in 1996.¹⁶

The reader is advised that this list of tests for chiropractic practice was considered separate and distinct from the laboratory tests required for chiropractic education which was deemed to be more extensive. The standards of chiropractic education are determined and enforced by the Council on Chiropractic Education Canada (CCE), the national educational institutional accreditation body. The standards of chiropractic practice in Ontario are determined and enforced by the College of Chiropractors of Ontario (CCO).

Regulated Health Professions Act, 1991

The Regulated Health Professions Act (RHPA), which arose from the HPLR, was given royal assent on November 25, 1991 but not proclaimed into law until December 31, 1993. In the province of Ontario, regulated health care practitioners are delegated an entitlement to self governance, the provisions of which are set out in the Regulated Health Professions Act, 1991. There are 21 profession specific Acts listed in Schedule 1 with 24 professions currently having been granted such entitlement.⁸

The reader is advised that several professions are clustered together: podiatry with chiropody, speech language pathology with audiology, and registered nurses with registered practical nurses. While osteopathy and medicine

Table 2
Laboratory tests required in chiropractic practice
(Appendix N)

Urinalysis – Urine Chemistry
Routine
Pregnancy test(immunological test)
Bence-Jones protein
Haematology
Complete blood count(CBC)
Erythrocyte sedimentation rate(ESR)
Microbiology
Gram stain
Culture and sensitivity
Serology/Immunology
Anti-Nuclear Antibody(ANA)
C-Reactive Protein
Chemistry
Total bilirubin
Glucose
Total Serum Protein
Protein Electrophoresis
Uric Acid
Total Calcium and Ionized(free) calcium
Inorganic Phosphorus
Potassium
Magnesium
Creatinine
Urea Nitrogen(BUN)
Cholesterol(total) and High Density
Lipoprotein(HDL)
Triglycerides
Acid Phosphatases
Alkaline Phosphatases
Aspartate Aminotransferase(AST)
Alanine Aminotransferases(ALT)

were originally clustered, the relevant provisions respecting osteopathy have not been proclaimed into law and so the profession of osteopathy currently remains regulated under the Drugless Practitioners Act.

It is a statutory duty of the Minister of Health to ensure that the health professions are regulated and co-ordinated in the public interest, that appropriate standards of practice are developed and maintained **and that individuals have access to services provided by the health professions of their choice and that they are treated with sensitivity and respect in their dealings with health professionals.**⁸

In a complex system of identifying health care services, the provision of which carry significant risk of harm to the public, only certain members of certain professions are authorized by statute to perform all or portions of controlled acts, subject to various exemptions, delegations and exceptions. The RHPA sets out 13 controlled acts, the ordering or performing of which require statutory authority in the course of providing health care services to an individual. The controlled acts are listed below.⁸

Controlled acts (RHPA section 27 subsection 2)

- 1 communicating to the individual or his or her personal representative a diagnosis identifying a disease or disorder as the cause of symptoms of the individual in circumstances in which it is reasonably foreseeable that the individual or his or her personal representative will rely on the diagnosis.
- 2 performing a procedure on tissue below the dermis, below the surface of a mucous membrane, in or below the surface of the cornea, or in or below the surfaces of the teeth, including the scaling of teeth.
- 3 setting or casting a fracture of a bone or a dislocation of a joint.
- 4 moving the joints of the spine beyond the individual's usual physiological range of motion using a fast, low amplitude thrust.
- 5 administering a substance by injection or inhalation.
- 6 putting an instrument, hand or finger,
 - i beyond the external ear canal,
 - ii beyond the point in the nasal passages where they normally narrow,
 - iii beyond the larynx,
 - iv beyond the opening of the urethra,
 - v beyond the labia majora,

- vi beyond the anal verge, or
- vii into an artificial opening into the body.
- 7 applying or ordering the application of a form of energy prescribed by the regulations under this Act.
- 8 prescribing, dispensing, selling or compounding a drug as defined in subsection 117(1) of the Drug and Pharmacies Regulation Act, or supervising the part of a pharmacy where such drugs are kept.
- 9 prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses other than simple magnifiers.
- 10 prescribing a hearing aid for a hearing impaired person.
- 11 fitting or dispensing a dental prosthesis, orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning.

- 12 managing labour or conducting the delivery of a baby.
- 13 allergy challenge testing of a kind in which a positive result of the test is a significant allergic response.

Currently in Ontario, chiropractic is one of 24 health professions enjoying the privilege of self governance as statutorily defined within the RHPA. Chiropractic is one of 6 professions under the RHPA and profession specific acts, statutorily authorized as having the right to perform and communicate a diagnosis to an individual in the course of providing health care services (chiropractic, dentistry, medicine, optometry, psychology, podiatry). In addition, medical geneticists recently gained such authority by way of exemption. Naturopaths as well are exempted from the controlled act provision in the RHPA.

Schedule 1
Self governing health professions

Health Profession Act	Health Profession
Audiology and Speech-Language Pathology Act, 1991	Audiology and Speech Language Pathology
Chiropody Act, 1991	Chiropody
Chiropractic Act, 1991	Chiropractic
Dental Hygiene Act, 1991	Dental Hygiene
Dental Technology Act, 1991	Dental Technology
Dentistry Act, 1991	Dentistry
Denturism Act, 1991	Denturism
Dietetics Act, 1991	Dietetics
Massage Therapy Act, 1991	Massage Therapy
Medical Laboratory Technology Act, 1991	Medical Laboratory Technology
Medical Radiation Technology Act, 1991	Medical Radiation Technology
Medicine Act, 1991	Medicine
Midwifery Act, 1991	Midwifery
Nursing Act, 1991	Nursing
Occupational Therapy Act, 1991	Occupational Therapy
Opticianry Act, 1991	Opticianry
Optometry Act, 1991	Optometry
Pharmacy Act, 1991	Pharmacy
Physiotherapy Act, 1991	Physiotherapy
Psychology Act, 1991	Psychology
Respiratory Therapy Act, 1991	Respiratory Therapy

related to diagnosis and rely on the DPA for statutory authority. In the course of providing health care services to an individual, only 5 professions have the statutory right to use the title "doctor" (chiropractic, dentistry, medicine, optometry, psychology).⁸

The performing of laboratory testing, within the controlled acts scheme, impacts on the second controlled act. There are several professions in the jurisdiction of Ontario with the statutory right to either order or perform the controlled act of "performing a procedure on tissue below the dermis" (i.e. venipuncture, see Table 3). Reform measures have been implemented with respect to the profession of midwifery and their patients, and shortly reform measures will benefit the patients of nurse practitioners, allowing the patients of those practitioners access to the health benefits of laboratory testing.

We were unable to determine which laboratory tests the profession of dentistry was entitled to order or perform on its own authority. While the provisions of the Laboratory and Specimen Collection Center Licensing Act precludes drugless therapists (naturopaths), naturopaths are exempted by regulation under the RHPA and rely on the provisions of the Drugless Practitioners Act for authority to both order and perform laboratory testing. This is not an insured service under Ohip. Laboratory technologists in Ontario cannot act on the orders of a naturopath unless a physician countersigns the order. Naturopaths send patient specimens to laboratories in the U.S. for testing.

Table 3
Professions currently authorized to perform or order the controlled act related to venipuncture.

Profession	Order	Perform
Medicine	yes	yes
Dentistry	yes	
Nursing		yes
Medical Laboratory Technologist		yes
Midwifery	yes	
Nurse Practitioner	proposed	proposed
Naturopathy	?	?
Osteopathy	?	?

Chiropractic Act, 1991

Each profession specific Act sets out the respective scope of practice and controlled acts, if any, authorized to that profession. Within the Chiropractic Act, 1991⁹ the scope of practice outlined in section 3 is as follows:

- " The practice of chiropractic is the assessment of conditions related to the spine, nervous system and joints and the diagnosis, prevention and treatment, primarily by adjustment, of,
 - (a) dysfunctions or disorders arising from the structures or functions of the spine and the effects of those dysfunctions or disorders on the nervous system; and
 - (b) dysfunctions or disorders arising from the structures or functions of the joints."

Further, in section 4, while engaging in the practice of chiropractic, a member is authorized to perform the following controlled acts:

1. communicating a diagnosis identifying, as the cause of a person's symptoms,
 - i a disorder arising from the structures or functions of the spine and their effects on the nervous system, or
 - ii a disorder arising from the structures or functions of the joints of the extremities.
2. moving the joints of the spine beyond a person's usual physiological range of motion using a fast, low amplitude thrust.
3. putting a finger beyond the anal verge for the purpose of manipulating the tailbone."

Chiropractors are charged with a statutory duty of performing a diagnosis in the course of providing health care services to an individual.

Laboratory and Specimen Collection Centre Licensing Act (LSCCLA)

In reviewing the provisions of this legislation,¹⁰ formerly part of the Public Health Act, section 5 in particular provides certain relevant definitions. As set out in section 5, a

"laboratory means an institution, building or place in which operations and procedures for the microbiological, serological, chemical,

hematological, biophysical, immunohematological, cytological or pathological examination of specimens taken from the human body are performed to obtain information for diagnosis, prophylaxis or treatment, but not including simple procedures prescribed by the regulations that are carried out by legally qualified medical practitioners exclusively for the purpose of the diagnosis and treatment of their patients."

And further, a

"specimen collection centre means a place where specimens are taken or collected from the human body for examination to obtain information for diagnosis, prophylaxis or treatment, but does not include a place where a legally qualified medical practitioner is engaged in the practice of medicine or surgery or a laboratory that is established, operated or maintained under a licence under this Act."

The establishment, operation or maintenance of a laboratory or a specimen collection centre is permitted only under the authority of a licence. Every owner and operator of a laboratory or specimen collection center is statutorily directed to ensure that no tests are performed in a laboratory other than tests authorized by licensure and that no specimen taking or collecting is carried out in the specimen collection centre other than specimen taking or collecting authorized by licensure. The penalties for contravention of these provisions include on conviction, fines and imprisonment for a term of not more than one year.¹⁰

Regulation 682 made under the Laboratory and Specimen Collection Center Licensing Act provides further details with respect to laboratories. Section 9. (a) provides that the owner and operator of a laboratory shall ensure that the staff of the laboratory,

- "examine specimens from humans only,
 - i at the request of a legally qualified medical practitioner or a dentist,
 - ii at the request of a midwife, in respect of a test specified in Appendix B, or
 - iii at the request of an insurer or an agent within the meaning of the Insurance Act, in respect of HIV Antibody testing.

Further in section 13,

"every legally qualified medical practitioner who performs laboratory tests for the exclusive purpose of diagnosing or treating his or her own patients in the course of his or her medical practice is exempted from the provisions of section 5 to 17 of the Act and this Regulation."

Under this current legislation governing the operation of laboratories, physicians who perform laboratory tests

Simple Procedures listed in Regulation 682 Appendix A

Urinalysis	Acetone, qualitative Bilirubin Urobilin Concentration and dilution test Pregnancy test, immunologic Routine, including microscopic
Haematology	Bleeding time Bone marrow film Clotting time C.S.F. cell count and smear Red blood cell count Red blood cell morphology Reticulocyte count White blood cell count White blood cell differential count Haematocrit Haemoglobin Nasal smear for eosinophils Sedimentation rate
Microbiology	Pinworm, scotch tape Stained or Gram smear Sperm motility Trichomonas, wet smear KOH Fungus preparation
Serology, Immunology	Heterophil antibodies, slide test
Chemistry	Blood glucose determination Stool for occult blood

on their own patients are exempt from the licensing requirements. The intent of this legislation was to permit physicians to perform and bill specific "simple procedures" as listed in Appendix A of Regulation 682.

Despite the intent to limit physician testing, physicians have been allowed to perform and bill for other tests listed in the Schedule of Benefits and are not limited to the simple procedures defined in the regulation.² The number of services performed and billed increased 158% between 1982/83 and 1990/91. For the same period, the payments increased 286%. In 1990/91 payments to physicians for tests performed on their own patients were \$14.7 million. Physicians are not governed by the Laboratory and Specimen Collection Centre Licensing Act and Regulations and are therefore not subject to licensing or inspection and are not required to participate in proficiency testing.²

In operating a laboratory, Canadian Red Cross blood donor clinics are exempted by regulation. Pharmacies are exempted by regulation with respect only to the performance of immunologic tests for pregnancy.

Regulation 683 sets out further duties with respect to specimen collection centres. Section 5 (d) provides that every licence that is issued to establish and operate or maintain a specimen collection centre is subject to the condition that,

- (d) "the centre take specimens from a patient only at the request of a legally qualified medical practitioner, a dentist or a midwife."

Regulatory amendments necessary to incorporate midwifery and provide entitlement to laboratory testing of midwifery patients followed the Minister's directive to the Health Professions Legislation Review (HPLR). Appendix B of Regulation 682 lists some 35 tests that midwives may order. During this same time period the profession of chiropractic was not given similar consideration with respect to restoring entitlement to laboratory testing.

Current inconsistencies in the application and enforcement of the Act include home testing for HIV, calcium, cholesterol, glucose, and pregnancy.

Clinical Guidelines for Chiropractic Practice in Canada 1994

In the U.S. in 1992, the Congress of Chiropractic State Associations commissioned a consensus conference on Guidelines for Chiropractic Quality Assurance and Prac-

tice Parameters,¹¹ in an ongoing effort to provide practitioners with improved guidelines for practice. Shortly thereafter, a Canadian conference with similar consensus methodology and intent was commissioned by the Canadian Chiropractic Association.¹² Chapter 5 of the extensive document deals with the issue of laboratory procedures. The guidelines acknowledge chiropractors as primary health care providers who have a professional responsibility to assess their patients and provide a diagnosis of their presenting complaints. Laboratory diagnosis for which chiropractors are trained, plays a valuable role in assisting to determine appropriate care. Education in laboratory diagnosis is a mandatory component of the curriculum in accredited chiropractic colleges and of licensing board examinations in Canada and the USA.

The guidelines recommend that the appropriate role of laboratory procedures in chiropractic practice is for diagnosis, screening and patient management. Clinical tests are utilized to aid in the diagnostic process, to screen for early recognition of health problems, and to monitor patient progress and outcomes. A further recommendation is that laboratory procedures are appropriate when the information available from the history, clinical examination and previous evaluation is insufficient to adequately address the problem. The guidelines acknowledge that the decision to order, perform or refer for a given test or procedure assumes that the results will appreciably reduce the uncertainty surrounding a given problem and significantly change the pre-test probability that a disorder is present.¹²

Laboratory Services Review (LSR) 1992-1994

The Minister of Health initiated a review of the laboratory services system as part of health system reform. Any proposed changes were to lead to a more effective, efficient and managed system while preserving both the quality and access to necessary laboratory services.² The review focussed on the issues of utilization of services, cost of services, system development, and system management.² The Review was guided by the principle that all stakeholders' interests must be given fair and reasonable consideration and that the Review must be comprehensive. However, **the Review specifically chose not to address the access of regulated, primary care providers to appropriate laboratory services:** i.e. access to a specified test menu which is supported by appropriate

clinical guidelines and standards of practice for each profession.²

The terms of reference for the Laboratory Services Review reflect three specific objectives for laboratory services:

- 1 to develop a comprehensive policy on the management of laboratory services which assures quality of service measured in terms of health outcomes, that is, the right laboratory test on the right person, at the right time and at the right cost contributing to a positive outcome in patient care.
- 2 to ensure that all Ontario residents have access to quality laboratory services.
- 3 to ensure that necessary changes in laboratory services are managed in a fiscally responsible manner.²

The Review concluded that laboratory investigation is integral to patient care, disease prevention and health promotion. With respect to clinical management of illness, laboratory investigations assist in the detection, diagnosis, exclusion or monitoring of disease. With respect to disease prevention or health promotion, laboratory testing assists in the maintenance or improvement of health status. The Review took the position that appropriate utilization of laboratory services must be measured in terms of benefit to the patient and improvement in health outcomes.²

Laboratory services in Ontario are currently supplied

by five services providers (Table 4) at an annual cost of approximately \$1 billion dollars or about 7% of the provincial health care budget.² The Review notes that clinicians, in their view, are confronted with an increasing array of clinical laboratory tests, with few clinical practice guidelines on appropriate utilization of these laboratory tests. The outcomes of appropriate utilization of laboratory testing must be measured in terms of both patient benefit and health system improvement. In order for the system to be accountable to patients, patient focused, rather than provider focused strategies are required in a system attempting to balance cost containment with quality and access.

One of the interesting recommendations of the review is the establishment of a centralized interactive database and electronic links for laboratory service requesters and providers. This may make available to clinicians, information on a patient's previous laboratory testing history. An interactive database could allow for utilization management, portability of patient laboratory results between health care settings and assist with avoiding unnecessary repeat testing. Which practitioners gain lawful access to the database should be addressed in the context of what is best for the patient.

The most commonly ordered laboratory services for fiscal 1990/91 represent 28 tests which together account for 76% of the volume of laboratory services performed for physicians in Ontario. The Review noted that physicians encounter a proliferating assemblage of clinical

Table 4

Provider of laboratory services	Estimated yearly expenditures (1992 statistics)	Funding support
Private laboratories	480 million	fee for service basis as defined in Schedule of Benefits within hospital global budget
Hospital-based laboratories	460 million	program of Ministry of Health
Public health laboratories	33 million	fee for service basis as defined in Schedule of Benefits
Physician's office-testing	14 million	fee for service basis contractual arrangement with Ministry of Health
Hospitals in common laboratories	13 million	
TOTAL	1,000 million	

laboratory tests, for which they seldom have formal training. The clinician is often at a loss concerning the selection, sequence and frequency of ordering the many assays available.² Further note is made of a study in Canada that found 57.4% of physicians surveyed increased their laboratory ordering practices due to medicolegal considerations despite the fact that many felt these increases were excessive.

In identifying the barriers to achieving effective utilization of laboratory services in Ontario, the Review clearly noted the absence of standards, guidelines, protocols or practice parameters for utilization of laboratory tests which reflect current research and methodology, and advised that such strategies should be implemented and should include continuing education.²

In a joint submission to the Review, the College of Chiropractors of Ontario (CCO), the Canadian Memorial Chiropractic College (CMCC), and the Ontario Chiropractic Association (OCA), conjointly took the position that chiropractors should be permitted access to laboratory services on behalf of their patients.¹³ It was their common view that laboratory system reform must accommodate the laboratory diagnosis needs of patients of all health professionals so that resources are used most effectively, and the quality of care patients receive from all sources is optimized.¹³ The Minister of Health has a statutory duty to ensure that individuals have access to health services provided by the health professions of their choice, and where a health profession is unable to utilize the full range of diagnostic methods appropriate to its scope of practice, there is a barrier to access, and freedom of choice is denied. Thus, it may be argued that chiropractic patients are denied freedom of choice of health professional because chiropractors are not permitted to order or perform laboratory tests. Freedom of choice has been implicitly recognized by the Ministry of Health by way of recent amendments to regulations which enable midwives to order laboratory tests.

The submission further outlined and renewed the arguments that chiropractors were able to request laboratory tests in Ontario until 1972 when the Laboratories Regulation limited the requesting of laboratory testing to physicians and dentists. There had been no prior consultation with the chiropractic profession and in 1973 the Ontario Council of Health recommended to the Minister that in the interests of patients, chiropractors should be authorized to

request specified tests relevant to their scope of practice. This issue remained unresolved throughout the formulation and enactment of the Regulated Health Professions Act, and the Laboratory Services Review had not addressed this issue, contrary to its stated intent. The conjoint submission further detailed that chiropractors are primary health care practitioners to whom patients have direct access, who are charged with statutory entitlement to perform a diagnosis.

Report on the Health of Canadians

This report was prepared by the Federal, Provincial, and Territorial Advisory Committee on Population Health whose role was to advise the Conference of Deputy Ministers of Health on national and interprovincial strategies that could be considered to improve the health status of the Canadian population and to provide a more integrated approach to health.¹⁴ In 1994, Canada spent an estimated \$72.5 billion on health, or \$2,478 per person. While health expenditures have risen dramatically since 1975, the rate of growth has slowed significantly in the 1990s as a result of health reforms and cost containment measures.¹⁴ In identifying actions to be taken to make continued improvements in overall population health, the report identifies that one of the challenges to be addressed is, **respective of health services, ensuring appropriate and affordable health services, accessible to all.** Using an evidenced based approach helps to ensure that health services are focused on the most efficient and effective ways to achieve meaningful improvements in population health. Access to health services proven effective has a positive impact on population health while unnecessary or ineffective interventions may harm the health status of the population.¹⁴

Service provider expansion

As part of health care reform, the Ministry of Health considered ways to provide more comprehensive and cost effective primary health care and realized that the Province of Ontario had not made the best possible use of registered nurses or encouraged the development of new nursing knowledge.¹⁵ In 1994, the Ministry initiated the Nurse Practitioner Project, the implementation of which necessitated amending regulations under the Regulated Health Professions Act, 1991, the Nursing Act, 1991, and the Laboratory and Specimen Collection Centre Licensing

Act. Proposed amendments would enable nurse practitioners:

- 1 to communicate a diagnosis of a disease or disorder that the nurse practitioner has the knowledge, skill and judgement to treat in accordance with conditions set out in regulation ,
- 2 to order the application of diagnostic ultrasound,
- 3 to order laboratory tests from a specific list of tests (approximately 90 tests),
- 4 to prescribe drugs from a specific list (approximately 111 drugs),
- 5 to order x-rays.¹⁵

The proposed amendments for nurse practitioners are consistent with the spirit and intent of the RHPA.

Discussion

Anticipated health outcomes respective of laboratory services which are cost effective measures include:

- 1 minimizing or eliminating unnecessary duplication of service,
- 2 increasing the likelihood of providing a more correct diagnosis which reduces misdiagnosis and prevents inappropriate treatment,
- 3 reducing the time required to render a correct diagnosis,
- 4 providing appropriate care sooner which reduces unnecessary delay in instituting appropriate treatment,
- 5 shifting from an institutional based model to a community based model reducing patient hospitalization where appropriate and shifting to outpatient care,
- 6 implementing an intrasystem shift in utilization of providers respective of specific health conditions.

Such measures save precious dollars and improve management both of specific health conditions and of the system in general. For those professions which are self governing, the RHPA has given them the statutory authority for instituting quality assurance mechanisms that will enforce accountability measures.

Under the DPA, chiropractors were not prohibited from ordering or performing laboratory tests on their patients. A laboratories regulatory amendment made in 1972, without consulting the chiropractic profession, precluded their continuing entitlement. The intent of this amendment was

to provide the Ministry of Health with a mechanism to license and inspect all medical laboratories which were previously unregulated. Medical practitioners and dentists were exempted by regulation, while other practitioners were not given equal consideration. As a matter of practicality, this has fostered unnecessary delays in rendering a timely diagnosis in those circumstances where laboratory testing is required, and has promoted the unnecessary duplication of services. Chiropractors must refer their patients to medical practitioners for necessary laboratory testing. What is particularly interesting is that the 1972 Laboratories Regulation which precluded the chiropractors's right to laboratory testing was contradictory to the recommendation being made by the Ontario Council of Health Task Force in 1973. As well, Council made recommendations regarding the issues of scope of practice and educational requirements for chiropractors acknowledging their primary contact role and direct accessibility, including competence in laboratory capabilities.

The HPLR in 1989 unfortunately, made no recommendations directly relating to other legislation that affects scope of practice and in particular made no recommendations concerning the Laboratory and Specimen Collection Center Licensing Act or the Health Insurance Act, **despite assurances given by the Minister of Health and the co-ordinator of the HPLR** (personal communication, 1986). The Minister confirmed that "the Review [HPLR] will be addressing scope of practice questions and considers laboratory privileges to be a scope question". The HPLR co-ordinator confirmed that the Review [HPLR] will deal with the issue of chiropractic use of laboratory diagnosis". However, in 1987 the Task Force on the Implementation of Midwifery in Ontario reported to the Minister who directed the Review to incorporate the Task Force's recommendation relating to regulation of midwives. This necessitated amendments to the regulations under the Laboratory and Specimen Collection Center Licensing Act permitting midwives to order laboratory testing. While this is consistent with the Review's recommendations of advancing the public interest by "promoting evolution in the roles played by individual professions and flexibility in how individual professionals can be utilized, so that health services are delivered with maximum efficiency", it is done so selectively. This is contrary to the spirit and intent of the RHPA and continues to adversely affect patients in Ontario by restricting both

access and freedom of choice respecting laboratory diagnosis.

The extensive recommendations of the Manga Report in 1993 serve to intensify the need for restoration of full clinical practice rights in order to benefit the patient in the most effective and cost effective manner.

The Ontario Chiropractic Service Review in 1994, recommended that chiropractors be able to order a range of laboratory tests as specified by the regulatory agency, and that the tests be insured services.

Under the RHPA, it is a statutory duty of the Minister of Health to ensure that the health professions are regulated and co-ordinated in the public interest, that appropriate standards of practice are developed and maintained and that individuals have access to services provided by the health professions of their choice and that they are treated with sensitivity and respect in their dealings with health professionals.⁸ It is within this context that the Minister's statutory duty should be examined, relative to equitable access by chiropractic patients and the removal of the barriers to access respecting laboratory diagnosis.

Under the Chiropractic Act, it is clearly evident that chiropractors, not only have an obligation and a duty to perform a diagnosis, they have a statutory right entrenched in law. **This in our view includes laboratory services and laboratory diagnosis.** Chiropractic patients continue to be severely disadvantaged by unnecessary delays, the system bears the expense of duplicated services and chiropractors are hampered in performing their duties.

The Clinical Guidelines for Chiropractic Practice established in 1994, recommend that the appropriate role of laboratory procedures in chiropractic practice is for diagnosis, screening and patient management. Laboratory diagnosis for which chiropractors are trained, plays a valuable role in assisting to determine appropriate care. Education in laboratory diagnosis is a mandatory component of the curriculum in accredited chiropractic colleges and of licensing board examinations in Canada.

The Laboratory Services Review was guided initially by several principles, one of which was that the Review must be comprehensive. However, **the Review specifically chose not to address the access of regulated, primary care providers to appropriate laboratory services:** i.e. access to a specified test menu which is supported by appropriate clinical guidelines and standards of practice for each profession. Such a position is not

consistent with the Review's guiding principles. In particular it is contrary to the principle that the provision of services shall be patient-focused, responding to actual needs and that laboratory services shall be accessible, of high quality and offered equitably to all. System improvement is severely eroded without this issue being properly and fairly addressed.

The terms of reference of the Review were framed to apply to all Ontario patients however their application has been applied primarily to medical patients and continue to set aside the interests of patients attending other primary care practitioners. The conclusions of the Review however, are clearly consistent with the Clinical Guidelines for Chiropractic Practice document.

The Report on the Health of Canadians acknowledges that respective of population health, one of the strategies of improving health status is ensuring appropriate and affordable health services, **accessible to all.**

The spirit and intent of the RHPA respects the consumer's right to access a range of safe and effective health care options. The proposed amendments for nurse practitioners are consistent with that intent, and enhance innovative utilization of health professions in a health care system which is demanding better service at lower costs. As with midwives, the proposed amendments for nurse practitioners enhance and are consistent with the public's right to exercise freedom of choice of health care provider, even at the expense of one profession's economic interests, power or status over another. Innovative initiatives and service provider expansion should not be viewed as add-ons to the system, but instead should be viewed as efficacious and cost effective resource reallocation measures within a cost containment mentality that offers realistic and practical solutions which are patient focused.

As technological advances are made and implemented into clinical practice, both patients and the health system supposedly derive substantial benefit. The patient receives a faster, more correct diagnosis and the most appropriate care is implemented in a more timely fashion. The health system benefits by avoiding costly delays that result in later stage treatment strategies which are usually hospital based. Chiropractic patients require and have a right to equitable access to necessary diagnostic laboratory services. Chiropractic patients have a right to faster, more correct diagnoses and the timely implementation of appropriate treatment, no different from medical patients. Cur-

rently there is a trend to shift from the institutional based model to a community based model, driven in part by economic issues and this will place greater pressures on all primary contact practitioners. Outcome studies will determine efficacy and cost effectiveness, however issues such as point-of-care testing related to the practitioner-patient interface continue to determine immediate practical solutions to potentially costly problems.

Laboratory testing is important to the differential diagnosis of neuromusculoskeletal conditions, and subsequent to history and clinical evaluation, assists in assessing the patients current health status and identifying if the patient is a proper subject for chiropractic care. Laboratory diagnosis is an essential requirement for the correct diagnosis of certain conditions, for assessing conditions contraindicated for chiropractic care and for establishing appropriate therapy regimes.

Laboratory diagnosis is an integral part of chiropractic education and chiropractic practice. As well, it is essential to chiropractic research, clearly an issue insufficiently addressed. Laboratory diagnosis is an integral component of the curriculum at accredited chiropractic colleges. At CMCC, the undergraduate program includes 72 contact hours of instruction in the area of clinical chemistry. The material is taught by qualified clinical chemists whose primary appointments are with the University of Toronto. In addition, students perform a 21 hour clinical clerkship under the supervision of qualified laboratory technologists.

By restoring this statutory right to chiropractors, chiropractic patients would benefit from the immediate feedback of results which increases the likelihood of a correct diagnosis and management, at times even during the same office visit. A finite set of tests, consistent with the authorized acts under the Regulated Health Professions Act, falling within the scope of chiropractic practice under the Chiropractic Act, and defined as insured services under the Health Insurance Act would enhance patient care.

Conclusion/Summary

Chiropractors clearly were not prohibited from performing laboratory testing in the course of providing health care services to individuals until 1972, when a regulatory amendment restricted such activity to physicians and dentists. Currently under the RHPA, laboratory diagnosis falls well within the scope of practice of chiropractic as statutorily defined. The curriculum at CMCC, the aca-

demically institution, continues to provide chiropractic education respective of laboratory diagnosis and is fully accredited by CCE Canada which has established and recognized standards. While utilization of chiropractic services would likely increase with the restoration of entitlement to laboratory testing, this would be offset by a corresponding decrease in physician services and the elimination of unnecessary duplicated services. The issues of access and funding of laboratory services may be considered severally as separate and distinct issues. By restoring the chiropractor's statutory entitlement, he/she is empowered to render a faster diagnosis, a more correct diagnosis, eliminate unnecessary delay and implement more appropriate care in a more timely fashion. This all serves to protect and enhance the public's interest and these principals are consistent with the Council's strategic goals of health care reform. Such strategies maximize the effectiveness and cost effectiveness of a patient's encounter with the health system. Effective outcomes and more equitable distribution of services are benefits to the patient and to the system.

Chiropractors are primary contact practitioners whose clinical practice deals primarily with neuromusculoskeletal conditions. They are currently unable to utilize all the potential tools of their profession. Chiropractors are unnecessarily encumbered and hampered clinically from performing their duties and obligations as primary contact practitioners with respect to laboratory testing. Chiropractic patients are seriously disadvantaged, and possibly jeopardized, by such impractical restraints and are unfairly denied access to services provided by the health professional of their choice. Such encumbrance is not consistent with the health service needs of Ontario's population. Patients are entitled to be treated with greater sensitivity and respect in their dealings with health professionals. All patients have a right to choose their primary contact practitioner, and that right of choice should not be limited. Laboratory diagnosis is not unique to one profession. More direct patient focused priorities are essential to meet patient expectations. Managing the system as opposed to managing any profession's economic interests is more patient focused rather than provider focused and is clearly in the public's interest. Part of reform is to look at the rights of other groups, but any reform measures must respond to the needs of the patient, particularly patient safety.

References

- 1 Premier's Council on Health Strategy. Towards a strategic framework for optimizing health. Province of Ontario, 1991.
- 2 Laboratory Services Review. Report to the Ministry of Health. Province of Ontario, 1994.
- 3 Drugless Practitioners Act. Revised Statutes of Ontario, 1990 Chapter D.18
- 4 Report of the Ontario Council of Health. Scope of practice and educational requirements for chiropractors in Ontario. Province of Ontario, 1973.
- 5 Striking a new balance: a blueprint for the regulation of Ontario's health professions. Recommendations of the Health Professions Legislation Review. Province of Ontario, 1989.
- 6 Manga P, Angus D, Papadopoulos C, Swan W. The effectiveness and cost-effectiveness of chiropractic management of low back pain. Ministry of Health, Province of Ontario, 1993.
- 7 Ontario Chiropractic Services Review. Ontario Ministry of Health. Province of Ontario 1994.
- 8 Regulated Health Professions Act, 1991. Statutes of Ontario, 1991 Chapter 18.
- 9 Chiropractic Act, 1991. Statutes of Ontario, 1991 Chapter 21.
- 10 Laboratory and Specimen Collection Center Licensing Act, RSO 1990, chapter L.1
- 11 Haldeman S, Chapman-Smith D, Petersen D, eds. Guidelines for Chiropractic Quality Assurance and Practice Parameters. Aspen Publishers. Gaithersburg, Maryland 1993.
- 12 Henderson D, Chapman-Smith D, Mior S, Vernon H, eds. Clinical Guidelines for Chiropractic Practice in Canada. JCCA 1994(suppl); 38(1):1-203.
- 13 College of Chiropractors of Ontario. Canadian Memorial Chiropractic College. Ontario Chiropractic Association. Submission to the Laboratory Services Review, 1993.
- 14 Federal, Provincial, and Territorial Advisory Committee on Population Health. Report on the health of Canadians. Meeting of the Ministers of Health, 1996.
- 15 Nurse Practitioners in Ontario - a plan for their education and employment. Ministry of Health, Province of Ontario, 1994.
- 16 Injeyan HS, Gotlib AC, Crawford JP. The clinical laboratory in chiropractic practice: what tests to order and why? JCCA 1997; 41(4):221-230.
- 17 Ontario Regulation 483/72. Public Health Amendment Act 1972. Chapter 80.