



55 St. Clair Avenue West
Suite 806 Box 18
Toronto, Ontario, Canada M4V 2Y7
Toll-Free: 1-888-377-7746
Telephone: 416-326-1550

Interprofessional Collaboration

Scope of Practice Review: Dietitians

Summary & selected highlights from the literature

August 2008

Table of Contents

Background.....	3
Purpose, Approach & Format of the Paper	6
Section 1: Highlights & Analysis of Key Findings	8
Section 2: Summary of the Literature	9
SCOPE OF PRACTICE	9
HEALTH SYSTEM NEEDS & IMPROVEMENT	13
HEALTH OUTCOMES/PATIENT SAFETY/RISK OF HARM.....	14

Background

In June 2007, the Minister of Health and Long-Term Care requested the Health Professions Regulatory Advisory Council (HPRAC) to:

Recommend mechanisms to facilitate and support interprofessional collaboration between health Colleges, beginning with the development of standards of practice and professional practice guidelines where regulated professions share the same or similar controlled acts, acknowledging that individual health Colleges independently govern their professions and establish the competencies for their profession.¹

In the course of preparing an interim report to the Minister, and in conjunction with its review of the scope of practice of nurse practitioners, HPRAC and the Ministry determined that it was necessary to include scope of practice reviews of six professions – dietetics, midwifery, pharmacy, physiotherapy, medical laboratory technology and medical radiation technology – within the context of the advice that was requested regarding interprofessional collaboration. Advice on the first four of these professions was requested by August 31, 2008.

The scope of practice reviews have been carried out in response to the Minister's request for advice on collaboration between colleges in the context of exploring the potential to optimize professional scopes of practice for specific regulated health professionals as a mechanism to enhance quality of care and strengthen the opportunities for interprofessional collaboration at the clinical level. In Ontario, the legislative framework that defines health professions' scope of practice includes the *Regulated Health Professions Act, 1991 (RHPA)* and a series of profession-specific Acts. The *RHPA* contains provisions with respect to the duties and powers of the Minister, the role of HPRAC, a list of controlled acts and other statutory requirements. It also includes a procedural code governing the operation of regulatory colleges.

Each profession-specific Act includes a scope of practice statement. The scope of practice statement in the *Dietetics Act, 1991* states that:

The practice of dietetics is the assessment of nutrition and nutritional conditions and the treatment and prevention of nutrition-related disorders by nutritional means.

The scope of practice statement found in each health profession act provides a generic frame of reference (or parameters) for the practice of each regulated health profession. A regulated health professional may perform his or her profession's authorized acts only in the course of practising within the profession's scope of practice. However, this statutory scope of practice statement is only one element of a profession's scope of practice. Each profession specific act also indicates any controlled acts the profession is authorized to perform, the title or titles restricted to members of the profession and other provisions.

¹ Letter from the Minister of Health and Long-Term Care to HPRAC. June 2007.
http://www.hprac.org/en/reports/resources/HPRACletterJune28_2007.pdf

Accordingly, as part of its review of professional scope of practice HPRAC²:

- analyzes the scope of practice statement and the controlled acts authorized to the profession;
- considers the implications of the harm clause contained in the *RHPA* (which prohibits everyone except health professionals acting within their scope of practice from treating or giving advice with respect to health where serious physical harm may result);³
- considers regulations developed under the profession-specific Act and other legislation that may affect the profession; and
- reviews the standards of practice, guidelines, policies and bylaws developed by the regulatory college.

Collectively, these elements determine the profession's scope of practice and therefore have been considered by HPRAC in its review of the scope of practice for Dietitians.

The profession of Dietitians was invited to submit recommendations articulating proposed changes required to their scope of practice to enhance interprofessional collaboration and assist members in working to the maximum of their scope of practice. The College of Dietitians of Ontario and Dietitians of Canada submitted a joint response to HPRAC's *Applicant Questionnaire* respecting the scope of practice review for dietitians in June 2008. The submission is available on HPRAC's website.⁴

The College of Dietitians of Ontario proposes to amend to the profession's scope of practice statement as follows⁵:

Dietetics is the assessment of nutrition related to health status and conditions for individuals and populations, the management and delivery of nutrition therapy to treat disease, the management of food systems, and building the capacity of individuals and populations to promote or restore health and prevent disease through nutrition and related means.

The College of Dietitians of Ontario and Dietitians of Canada are also requesting an extension of authority under currently authorized controlled acts as follows⁶:

- Communicating a diagnosis that relates to nutrition therapy only when the diagnosis has been confirmed by an authorized healthcare practitioner
- Performing a procedure below the dermis for the purpose of monitoring capillary blood levels
- Making adjustments to insulin or oral hypoglycaemic medications when an existing insulin regimen has been prescribed by an authorized healthcare practitioner
- Psychotherapy as it relates to the dietetic scope of practice.

² See criteria. Review of a Professional Scope of Practice under the *Regulated Health Professions Act*. Health Professions Regulatory Advisory Council. May 2007.

http://www.hprac.org/en/reports/resources/Scope_of_Practice_June_12_2007.pdf

³ s.30 Effective June 4, 2009, or on an earlier day to be established by proclamation, this section will be amended by striking out "physical" and substituting "bodily". See *Health System Improvements Act, 2007*, S.O. 2007, c.10, Sched.M, ss.6 and 75 (1).

⁴ http://www.hprac.org/en/projects/Dietitians_Scope_of_Practice.asp

⁵ College of Dietitians of Ontario and Dietitians of Canada. *Application for Review of the Scope of Practice of Dietetics in Ontario*, June 30, 2008; p.16.

⁶ College of Dietitians of Ontario and Dietitians of Canada. *Application for Review of the Scope of Practice of Dietetics in Ontario*, June 30, 2008; p.20.

Supplemental to these controlled act requests, the profession is proposing amendments to other legislation:

- *Public Hospitals Act*: to add registered dietitians to the list of professionals authorized to order specified treatment and/or diagnostic procedures within dietetic scope of practice
- *Laboratory Specimen Collection Centre Licensing Act*: to add registered dietitians to the list of professionals authorized to order specified tests as prescribed in the regulation, within scope of practice, and limited to those of particular relevance to managing nutrition therapy
- *Health Care Consent Act*: to add registered dietitians to the list of professionals that may act as an evaluator for the purpose of determining capacity, in the homecare setting only, as related to admission to a long-term care home
- *Long Term Care Act*: to specify in regulations that nutritional care is ordered and managed by registered dietitians, including diet orders and enteral and parenteral nutrition therapy

Furthermore, the submission seeks the creation of two new controlled acts, citing risk of harm if these functions are performed by unskilled practitioners:

- Prescribing and managing enteral and parenteral nutrition
- Prescribing and managing a therapeutic diet

HPRAC has established 10 criteria that it considers in reviewing a profession's scope of practice.⁷ Analysis against this criteria takes place at the same time that the Council considers the expansion of a profession's authorized acts in the context of the following core questions:

- *Will an expanded scope of practice encompass a new assessment, diagnostic, treatment or prevention opportunity for the profession that was previously prohibited?*
- *Is this expansion necessary and/or desirable?*

Purpose, Approach & Format of the Paper

This paper summarizes some of the recent literature on dietetics practice as it relates to the changes being proposed. It is not intended to represent an exhaustive review of the literature; rather, it focuses on identifying key documents that may help to inform discussions about and considerations of the scope of practice review for dietitians in Ontario.

This review is being undertaken in the context of a broader review exploring opportunities to advance interprofessional collaboration across health professions. HPRAC's work, in response to a request for advice by the Minister of Health and Long-Term Care, includes a review of scope of practice for a number of health professions that are most directly involved in interprofessional care to ensure that there are no legislative, regulatory, structural or process barriers to members of the professions working to the maximum of their scope of practice or to working in interprofessional settings or teams.

⁷ See Review of a Professional Scope of Practice under the *Regulated Health Professions Act*.
http://www.hprac.org/en/reports/resources/Scope_of_Practice_June_12_2007.pdf

It is recommended that this literature review be considered in conjunction with an earlier literature review⁸ completed by HPRAC in January 2008. That review considered interprofessional collaboration with respect to the legislative, regulatory, policy and structural and organizational issues that can facilitate and support health regulatory colleges and their members in advancing collaboration.

The literature included in the dietetics review comes from diverse sources. Initial reference documents were included in the submissions to HPRAC by The College of Dietitians of Ontario and Dietitians of Canada (June 30, 2008)⁹ Additional literature sources were identified through a literature search focused on the following terms: “scope of practice dietitians” - “enhanced scope of practice for dietitians” - “dietitians and scope of practice” - “dietitians Ontario”. The review included a review of regulatory-related articles using *PubMedline Search*. In addition, supplementary searches were undertaken to identify specific articles from government websites, dietetics associations, and health policy think tanks in an attempt to locate studies related to regulation and dietitian’s scope of practice as identified in some of the literature reviewed. Some of these searches were successful, others were not.

The literature reviewed on the issue has been organized as follows:

- Section 1 provides a high level analysis summarizing some of the key findings arising from the literature included in this review.
- Section 2 summarizes the documents reviewed organized under the following broad themes: scope of practice; health system needs/ improvement; and health outcomes/patient safety/ risk of harm

⁸ See www.hprac.org for the full copy of the literature review: HPRAC. Interprofessional Regulatory Collaboration – A summary of key reference documents and selected highlights from the literature. January 2008.

⁹ College of Dietitians of Ontario and Dietitians of Canada. *Application for Review of the Scope of Practice of Dietetics in Ontario*, June 30, 2008.

Section 1: Highlights & Analysis of Key Findings

- ***Registered Dietitians (RDs) are the health professionals trained to provide expertise on food and nutrition.*** In Ontario, RDs provide nutrition services in a variety of settings including Community Health Centres, Family Health Teams, home care, hospitals, long-term care homes, Diabetes Education Centres, public health, sports and recreation facilities, food industry, academic and research settings, and private practice. In disease prevention and treatment, RDs' expertise in food, nutrition, counselling and education encompasses the complex interactions between nutrients, medications, and metabolic processes.
- ***RDs determine nutrition requirements in both health and disease and establish optimal modality. They have assumed a prominent role in undertaking comprehensive nutrition assessments, and recommending optimal nutrition therapy (including nutrition intake, tolerance, laboratory data, clinical status, etc.).***
- ***There is a paucity of data and literature addressing the issue of scope of practice or enhanced scope of practice for dietitians.*** However, there is a growing number and a variety of interprofessional models of clinical care emerging across the care continuum that recognize the role of dietitians in providing care across the continuum.
- ***While only a limited number of studies have been published, the volume of research on the benefits of dietitian's care is increasing. Studies undertaken in particular care settings and for particular client groups' areas indicate positive results.*** For example, the literature includes some high quality systematic reviews related to dietary interventions provided by dietitians in primary care settings and particularly with respect to certain groups of patients with particular chronic diseases (e.g., managing nutrition therapy for diabetes and co-morbidities such as hypertension and dyslipidemia).
- ***Key findings in the literature support:***
 - ***Dietitian involvement in prescription ensures the optimal therapy is chosen, adverse events are minimized and cost-effectiveness is achieved.***
 - ***Benefits of medical nutrition therapies not only at time of initial diagnosis but at any point during treatment.***
 - ***Necessity of ongoing monitoring.***
- ***There is some evidence supporting –***
 - ***Changes to the dietetic scope of practice as a mechanism for improving the quality of patient care and access to necessary care by qualified registered dietitians.***
 - ***Changes required to entry to practice competencies that include a strong focus on knowledge and application of knowledge in nutrition***

assessment and treatment planning to ensure safety and therapeutic outcomes.

- ***Randomised studies reported in the literature. However, limitations associated with these studies include the following:***
 - primary studies of variable quality;
 - small sample studies;
 - short follow-up;
 - no blinding of participants or providers;
 - outcomes often based on self-report.

- ***Future studies required to:***
 - *Evaluate and assess interventions by different providers to compare similar interventions with similar intensities and durations*
 - *Evaluate contributions of Dietitians working in larger interdisciplinary team-based practices and community health centres.*

Section 2: Summary of the Literature

Scope of Practice

Authors, Title and Publication	Context/Type of Document	Main Findings/Recommendations
<p>Dietitians of Canada. The role of dietitians in collaborative primary health care mental health programs, 2007.</p>	<p>A toolkit outlining the role that registered dietitians play in primary health care mental health programs.</p> <p>Stems from the Canadian Collaborative Mental Health Initiative (CCMHI).</p>	<p>Dietitians are uniquely qualified to identify the nutrition-related needs of patients with mental health conditions and to plan appropriate interventions.</p> <p>Need to expand the mental health content and field experience in dietetics education and training; incorporate basic counselling skills training and therapeutic approaches; education about the numerous nutrition-related side-effects of psychiatric meds; need interdisciplinary education on the inter-relationship of mental illness and chronic disease (i.e. diabetes and depression); more community internship in collaborative practice settings for dietitians in training.</p> <p>Need to incorporate nutrition issues and intervention strategies into clinical guidelines for psychiatric care.</p> <p>Need to promote evidence-based research on nutritional needs of mental health populations, cost effectiveness studies and nutritional research in the areas of diabetes and other chronic diseases.</p>
<p>American Society of Parenteral and Enteral Nutrition. What is a Nutrition Support Professional? As viewed at www.nutritioncare.org on August 9, 2008.</p>	<p>Professional resource describing the role of various nutrition support professionals (NSP) such as physicians, nurses, dietitians, pharmacists.</p>	<p>Multiple healthcare professionals are involved in the provision of nutrition support. Continuing education is crucial to the practice of nutrition support therapy.</p> <p>Nutrition Support Physicians lead the nutrition care implementation structure in many institutions. These physicians must be familiar with all aspects of nutrition care, including patient screening, assessment, development and implementation of a nutrition care plan, patient monitoring, and termination of therapy. Nutrition Support Physicians</p>

		<p>supervise care provided by dietitians, nurses, and pharmacists, and engage in all aspects of direct care of patients' nutrition needs as indicated.</p> <p>Nutrition Support Dietitians' primary roles are to conduct individualized nutrition screening and assessment; develop and implement a nutrition care plan; monitor the patient's response to the nutrition care delivered; and develop a transitional feeding care plan or termination of nutrition support as appropriate.</p> <p>Nutrition Support Pharmacists compound the parenteral nutrition formulation prescribed, and provide direct patient care. In addition to this, they manage the specialized nutrition support program and improve quality by educating other health care professionals, students, patients, and caregivers. Many pharmacists also conduct research or participate in research activities</p> <p>The responsibilities of a Nutrition Support Nurse vary with the practitioner's educational background, position, and practice environment. The scope of practice includes, but is not limited to, the following: directing patient care including intravenous access; education of patients and caregivers, and participation in research activities.</p>
<p>Franz, M.J. et al. Evidence-based Nutrition Practice Guidelines for Diabetes and Scope and Standards of Practice. Journal of the American Dietetic Association, 2008; 108: s52-58.</p>	<p>Article reviewing diabetes medical nutrition therapy (MNT) outcomes, the American Dietetic Association's (ADA) process for developing evidence-based nutrition practice guidelines, recommendations for 2008 guidelines by the ADA and American Diabetes Association, and the scope of practice of</p>	<p>The effectiveness of MNT by registered dietitians has been documented.</p> <p>The article describes the various resources developed for use by dietitians in diabetes care: Scope of Dietetics Practice Framework, Standards of Practice and Standards of Professional Performance.</p> <p>Together with the Code of Ethics of dietetics, these help practitioners determine their level of competence in performing dietetic tasks in diabetes care.</p>

	registered dietitians.	
Fine, Jeff. An Integrated Approach to Nutrition Counseling. Topics in Clinical Nutrition, 2006; 21(3):199-211.		Article promotes an integrated approach to nutrition counselling that includes the technical components of dietetics assessment as well as interpersonal, communication and psychotherapeutic counselling skills. Argues that this improves compliance, clinical outcomes and client satisfaction.
Fuhrman, M.P. et al. The American Society of Enteral and Parenteral Nutrition Standards of Practice for nutrition support dietitians.		<p>The 2000 Nutrition Support Dietitian Standards emphasize the evolving role of the registered dietitian in nutrition support; the importance of interdisciplinary communication, education and cooperation; the importance of continuing education. Promote future expansion into placement of feeding tubes, nutrition order writing and provision of nutrition-focused physical assessment.</p> <p>Scope of Practice of Nutrition Support Dietitian:</p> <ul style="list-style-type: none"> - To support, restore and maintain optimal nutritional health for those individuals with potential or known alterations in nutritional status; - Together with other health care professionals including pharmacists, nurses and physicians. <p>The Nutrition Support Dietitian assures optimal nutrition support through a) individualized nutrition screening and assessment; b) development of a medical nutrition therapy; c) monitoring and reassessment of an individual's response to the nutrition care delivered; d) development of a transitional feeding care plan or termination of a nutrition support plan, as required.</p> <p>The NSD should provide or assist with education and training of patients, caregivers and health care professionals.</p> <p>Competencies are categorized generally under "screening and assessment", "medical nutrition therapy care plan",</p>

		<p>“implementation”; “monitoring”; “reassessment, update and termination of medical nutrition therapy”; “administrative management”; “education, training and communication”; and, “research”.</p>
<p>Olsen, I.E. et al. Dietitian Involvement in the Neonatal Intensive Care Unit: More is Better. Journal of the American Dietetic Association, 2005; 105(8): 1224-1230.</p>		<p>RDs reported involvement in NICU from “being part of the NICU health care team and involved in making nutrition decisions” to “involved in patient care and provides recommendations to the NICU health care team that are usually followed”.</p>
<p>Moreland, K. et al. Development and Implementation of the Clinical Privileges for Dietitian Nutrition Order Writing Program at a long-term acute care hospital. Journal of the American Dietetic Association, 2002; 102: 72-74, 79-81.</p>	<p>Case study of one long-term acute care hospital where a Clinical Privileges for Dietitian Nutrition Order Writing (CPD NOW) program was initiated to address the need for a more efficient and effective way to incorporate registered dietitians’ recommendations into patient care orders.</p>	<p>Author posits that it has been well documented that nutrition intervention is crucial to positive patient outcomes; that RDs are qualified to write medical nutrition therapy plans; and, that the missing link in patient care is the conversion of RD recommendations into nutrition orders.</p> <p>The process at this institution included a review of one year of patient records that included nutrition recommendations by RDs, a review of hospital bylaws, accreditation standards, and development of competencies for RDs. The process involved RD, medical, pharmacy and nutrition services staff.</p> <p>The program included physician participation in that they were required to approve a block of nutrition care orders within defined parameters that could be written into the patient medical record without pre-approval, as dictated by patients’ needs.</p> <p>As a quality improvement indicator, patients’ charts were reviewed three months after implementation of the program and showed a marked improvement in nutritional status compared to before the program, due to more timely initiation of nutrition therapy.</p> <p>Prior to the program, physicians and</p>

		dietitians communicated to obtain or grant permission for nutrition care orders. After its implementation, time was spent discussing patients' conditions, treatment options and expected recovery, etc. RDs felt increased autonomy, professional responsibility and job satisfaction, though physician involvement remained significant.
--	--	--

Health System Needs & Improvement

Authors, Title and Publication	Context/Type of Document	Main Findings/Recommendations
Diabetes Task Force: Report to the Ministry of Health and Long-Term Care, 2004.	Makes recommendations in areas where maximum impact in improving outcomes for people with diabetes and the population as a whole could be achieved.	<p>Among the recommendations:</p> <ul style="list-style-type: none"> - reduce wait times and improve access to comprehensive diabetes education by increasing numbers of registered nurses and registered dietitians over the next three years; recruit beyond the next three years; funding their training in diabetes care; - increase the number of internship positions for dietitians graduating from Ontario universities; remove barriers to internationally educated dietitians; - align registered nurses and registered dietitians with multi-disciplinary, community-based practice teams to improve access to patients; they can provide routine care and alleviate the burden on physicians; - team-based approaches to diabetes management that involves all relevant health professionals (physicians, dietitians, pharmacists, podiatrists, etc.) has been proven effective in ongoing management of the disease; - fund research to enhance the level of evidence for clinical care and delivery of diabetes care.
Naylor, CJ., et al. Does a multidisciplinary total parenteral nutrition team improve patient outcomes? A	Article reviewing the literature on the effectiveness of multidisciplinary total parenteral nutrition (TPN) teams in the provision of TPN to hospitalized adult	<p>Overall conclusion was that the general effectiveness of the TPN team was not conclusively demonstrated.</p> <p>TPN therapy is complex and requires a high level of knowledge and expertise in the management of patients.</p>

<p>systematic review. Journal of Parenteral and Enteral Nutrition, vol.28 No.4, 2004.</p>	<p>patients.</p>	<p>Evidence demonstrates that physicians have minimal training and experience in this area of nutrition support, leading to the development of multidisciplinary support teams.</p> <p>A TPN team can take on many forms but generally comprises a dietitian, nurse, physician and pharmacist.</p> <p>There was evidence that patients managed by TPN teams have a reduced incidence of total mechanical complications; however it is unclear if there is a reduction in catheter-related sepsis and metabolic and electrolyte complications.</p> <p>Limited evidence suggests some financial benefits from the introduction of multidisciplinary TPN teams in the hospital setting.</p>
---	------------------	--

Health Outcomes, Patient Safety/Risk of Harm

Authors, Title and Publication	Context/Type of Document	Main Findings/Recommendations
<p>Pastors, J. et al. The Evidence for the Effectiveness of Medical Nutrition Therapy in Diabetes Management. Diabetes Care, 2002; 25: 608-613.</p>	<p>Article reviewing the evidence of the effectiveness of medical nutrition therapy in diabetes, both as an independent variable and with other components of diabetes self-management training.</p>	<p>The term “medical nutrition therapy” (MNT) was introduced by the American Dietetic Association to better articulate the nutrition therapy process. MNT for diabetes is a four-step process: i) assessment of the patient’s nutrition and diabetes self-management knowledge and skills; ii) the identification and negotiation of individual nutrition goals; iii) intervention involving meal planning approach and educational materials to assist the patient in self-management; iv) evaluation of outcomes and ongoing monitoring.</p> <p>A study conducted by the Institute of Medicine of the National Academy of Sciences in 1999 (U.S.) concluded that evidence supporting MNT as a diabetes intervention existed and recommended to Congress that individualized MNT provided by a registered dietitian with a physician referral be covered by Medicare as part of a multidisciplinary approach to</p>

		<p>diabetes care that includes nutrition, exercise, blood glucose monitoring and medication.</p> <p>Evidence also suggests that MNT is most beneficial at initial diagnosis but is effective at any point during treatment and that ongoing monitoring is essential.</p>
<p>Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. Canadian J Diabetes, 2003; 27 (suppl 2).</p>	<p>A series of guidelines developed using the best available evidence to guide practice in diabetes care</p>	<p>Among the recommendations are:</p> <ul style="list-style-type: none"> - nutritional counselling by a registered dietitian is recommended for people with Type 2 diabetes and with Type 1 diabetes and is equally effective whether given one-on-one or in small group settings.
<p>Controlled Acts Working Group – College of Dietitians of Ontario and Dietitians of Canada. Evidence of Benefits and Risks Associated with the Prescription of Nutrition Therapy, 2005.</p>	<p>A literature review to present evidence on the benefits and risks associated with prescribing nutrition therapy; to support a role for dietitians in prescribing therapeutic diets and enteral and parenteral nutrition.</p>	<p>There are insufficient well-designed trials specific to the prescription of nutrition therapy; most focus on effectiveness of treatment.</p> <p>Dietitians are highly skilled professionals with the competence to prescribe complex nutrition therapy; make highly skilled and science-based judgements that prevent harm and maximize therapeutic outcomes.</p> <p>Dietitians have assumed a prominent role in recommending nutrition therapy while physicians have assumed a dominant role in prescribing nutrition therapy.</p> <p>Entry to practice competencies includes a strong focus on knowledge and application of</p>

		<p>knowledge in nutrition assessment and treatment planning to ensure safety and therapeutic outcomes.</p> <p>Dietitians determine nutrition requirements in both health and disease and establish optimal modality; assessment is a complex activity that requires the assimilation of multiple data sources. Comprehensive nutrition assessments are a fundamental prerequisite for prescription of optimal nutrition therapy.</p> <p>Dietitians conduct ongoing patient assessment of nutrition intake, tolerance, laboratory data, clinical status, etc. because prescriptions must be modified to meet changing needs (i.e. move from parenteral to enteral nutrition to oral diet, etc.)</p> <p>Dietitian involvement in prescription ensures the optimal therapy is chosen, adverse events are minimized and cost-effectiveness is achieved.</p> <p>The translation of therapeutic diet prescriptions into complex nutrition care plans requires a dietitian's ability to design the treatment.</p> <p>With prescriptive authority, dietitians can implement timely nutrition support; since physicians rely heavily on dietitians' expertise, it would be efficacious for the dietitian to assume the prescription of nutrition therapy to expedite care.</p> <p>Only a few studies located for this report compare the prescription of nutrition therapy provided by dietitians versus other health professionals.</p>
<p>Ciliska D. et al., Dietitians of Canada. The Effectiveness of Nutrition Interventions for Prevention and Treatment of Chronic Disease</p>	<p>Twelve primary studies and 221 reviews were included. Of the 221, 48 were rated as strong quality, 44 moderate and 130 weak, although data extraction was not done on the weak reviews.</p>	<p>There is a considerable body of high quality systematic reviews related to dietary interventions that could realistically be provided by dietitians in a primary care setting.</p> <p>In the comparison studies, the dietitian group achieved significant reductions in fat and cholesterol intake and serum cholesterol and</p>

<p>in Primary Care Settings: A Systematic Literature Review, 2006.</p>	<p>Of particular relevance to this project, studies comparing dietary advice given by a dietitian compared with other health care professionals or with self-help materials was reviewed. On this issue, two reports of one systematic review as well as 14 reports of 13 additional primary studies were found. The target population of all studies was adults, except one. Dietitians were compared with doctors, nurses, chiropractors, commercial weight loss programs and self-help materials.</p>	<p>triglyceride levels. The additional primary studies had mixed results of effects for dietitians compared to other providers; only one favoured dietitian advice. No differences in outcomes from dietitian advice compared to cardiac rehabilitation specialists, chiropractors or self-help materials.</p> <p>Limitations: primary studies of variable quality: small sample studies; short follow-up; no blinding of participants or providers; outcomes often based on self-report. However, studies were randomized and most used valid and reliable outcome measures.</p> <p>In future, evaluations of interventions by different providers should compare similar interventions with similar intensities and durations in order to identify true differences by providers.</p> <p>Many interventions require a level of team work and intensity of intervention that will not be possible in typical family physician practices, but feasibility should be evaluated in larger interdisciplinary team-based practices and community health centres.</p>
<p>Cavallaro, V. et al. Influence of Dietitian Presence on Outpatient Cardiac Rehabilitation Nutrition Services. Journal of the American Dietetic Association, 2004; 104(4): 611-614.</p>	<p>Survey of 250 (out of a possible 1,111) randomly selected cardiac rehabilitation centres in the U.S. to determine the impact of registered dietitians on the amount and nature of nutrition services offered to patients.</p>	<p>190 centres responded; 75% of the centres had an RD working in their program, the majority part-time; the centres with an RD working in the cardiac rehabilitation program offered significantly more services on average than those without an RD; in some centres exercise physiologists and registered nurses provided the nutrition services.</p> <p>Respondents' views on the ideal role of the RD in cardiac rehab included: education, one-on-one and group nutrition counselling; guest lectures on nutrition, taste-testing and cooking; health monitoring (weight gain/loss, serum lipid lowering, etc.); assessment and program management (computerized nutrition assessment and self-care management); and motivation efforts.</p> <p>In order to be seen as integral to the cardiac rehab team and a valuable addition, dietitians should strive for a broader scope beyond nutrition alone.</p> <p>Limitations: majority of centres surveyed were</p>

		<p>accredited by the American Association of Cardiovascular and Pulmonary Rehabilitation which requires that nutrition be assessed and evaluated using a diet assessment tool and that this be done by an identified staff person. Although this need not be an RD, many may employ RDs to better meet this requirement of accreditation; sample may not have been representative; surveys may not have been returned by the most appropriate individual at the centre.</p>
<p>Heyland, D.K. et al. Validation of the Canadian Clinical Practice Guidelines for nutrition support in mechanically ventilated, critically ill adult patients: results of a prospective observational study. Crit Care Med 2004; 32(11): 2260-2266.</p>	<p>Prospective observational study of a consecutive cohort of 638 mechanically ventilated adults in 59 ICUs across Canada.</p> <p>To test the nutrition support guidelines (5 out of 17 of them) before their widespread dissemination.</p> <p>Hypothesis: Those ICUs whose practice, on average, was more consistent with the guidelines would have greater success in providing EN.</p>	<p>Risks of providing nutritional support: acquired infection, especially ventilator-associated pneumonia; gut mucosal atrophy; overfeeding; hyperglycaemia; infectious complications – increase morbidity and mortality.</p> <p>Found considerable variation in performance with respect to nutrition support practice and those ICUs that were more consistent with the guidelines had greater success with providing EN (provided more early intervention). Differing levels of training, interest, amount of dietitian support or differences in patient characteristics may account for some of the variation.</p> <p>Limitations: data from observational study is weak; randomized controlled trial would produce better data; did not measure patient outcomes – it may be that variations in practice may not translate into significant variation in patient outcomes.</p> <p>It is not enough to publish evidence-based guidelines. Need to aggressively disseminate and implement them. Otherwise, there will remain a gap between evidence and practice that continues to put patients at risk.</p>