

Institutional objectives for medical education that relates to the community

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The graduate of most medical schools in North America is described as an "undifferentiated physician", but there is no universally agreed upon definition of the term. With the proliferation of subspecialties during the past 30 years, each division or department has its own concept of the undifferentiated physician. The result is strong pressure on curriculum committees to increase curriculum content. The medical faculty of the University of Ottawa used an approach to developing institutional objectives for medical schools that was based on the premise that graduates should possess the knowledge, skills and attitudes of a primary care practitioner in the community, and they accepted an institutional goal and 10 institutional objectives after five revisions of the original proposal. An essential element in the development of the objectives was the use of a list of common medical problems, ranked in order of frequency, as guidelines. The resulting institutional objectives are relevant to current community needs and may be used to project the future needs of the community.

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Les diplômés de la plupart des facultés de médecine nord-américaines sont décrits comme étant des médecins "indifférenciés", même si personne ne s'entend sur la définition du terme. Avec la prolifération de sous-spécialités au cours des 30 dernières années, chaque service ou département a développé sa propre perception du médecin indifférencié. Il en résulte une forte pression sur les comités de curriculum en vue d'augmenter le programme scolaire. La faculté de médecine de l'université d'Ottawa a utilisé pour développer ses objectifs institutionnels une approche basée sur le principe que le diplômé doit posséder les connaissances, les compétences et les attitudes d'un praticien de première ligne oeuvrant dans la communauté. Elle a accepté un but et 10 objectifs institutionnels après cinq révisions de la proposition initiale. Un élément essentiel au développement de ces objectifs a été l'emploi comme ligne directrice d'une liste de problèmes médicaux courants inscrits par ordre de fréquence. Les objectifs institutionnels qui en ont résulté sont applicables aux besoins actuels de la communauté et peuvent servir à projeter ses besoins futurs.

A significant problem facing most North American medical schools is the lack of clear direction in undergraduate curriculum development. Most medical schools state that their goal is to produce an "undifferentiated physician", but there is no generally accepted definition of the knowledge, attitudes and skills an undifferentiated physician must have. This problem has become more significant during the past three decades as medicine has become more technical and more highly specialized. Each new subspecial-

ty adds a long list of knowledge, attitudes and skills that members of that academic discipline consider essential for the undifferentiated physician.

Recently the Association of American Medical Colleges set up three working groups to determine the essential knowledge, the fundamental skills, and the personal qualities, values and attitudes required for the general professional education of the physician. The project was expected to take approximately 3 years. There will be widespread consultation and discussion with most North American medical schools on all the approaches used to determine standards for the general professional education of physicians.¹

Guilbert,² of the World Health Organization, strongly recommended that all medical schools train physicians for the role that they will play in their own society. To apply this philosophy in North America he advocated that the student who receives a medical degree should possess the knowledge, attitudes and skills of a general practitioner in the community. After graduation he or she would then pursue competence as a family physician, specialist or researcher by taking appropriate training that would complement the knowledge and skills that were acquired in medical school.

Since most of the medical faculty were dissatisfied with the curriculum as it was organized, yet development and change were not taking place, in 1980 the University of Ottawa medical school held a 5-day workshop directed by Guilbert to discuss his approach to curriculum development. The workshop was sponsored by the faculty through the office of educational development of

the medical school and was attended by 25 members of the faculty who were considered key individuals in both curriculum development and leadership in the medical school. Although not all those attending the workshop agreed with Guilbert's philosophy or principles, most accepted many of the ideas that he put forward, especially that the medical school should redevelop institutional objectives.

We then attempted to apply Guilbert's principles to the development of a set of institutional objectives for the school of medicine.

Goal

We reviewed the existing objectives of the medical school and developed an institutional goal using Guilbert's principles:

The medical graduate from the University of Ottawa, Faculty of Health Sciences, School of Medicine will possess the basic knowledge, attitudes and skills required of all physicians in our society to preserve health, restore health and to reduce disability and distress to a minimum. The graduate will possess leadership skills and the intellectual ability to critically assess the health science literature. Having achieved these intermediate goals, the graduate will have been prepared to pursue further training to achieve competence and registration as a general practitioner, family physician, specialist or researcher and to maintain competence by a lifetime of self education. Fulfillment of the objectives will occur in an academic atmosphere that fosters scientific creativity, stimulates intellectual curiosity and promotes achievement of academic excellence.

Objectives

The institutional objectives were then written in accordance with the institutional goal (Appendix I). The fundamental principle was that graduates would have the basic knowledge, attitudes and skills considered desirable to practise primary care medicine in the community. If this principle was to have practical value for curriculum development, it was necessary to define the basic knowledge and skills of a primary care physician in the community in which it was expected this physician would practise, in this case eastern Canada or North America.

A two-part list of common and important medical problems seen in North America (Appendix II) was derived from the work of Buttery.³ Buttery had defined the common problems seen by primary care family physicians, pediatricians, obstetricians and internists according to minimum criteria for the frequency with which primary care physicians identified a problem per 1000 visits in the National Ambulatory Health Care Survey conducted in the United States in 1974.

Five other lists were used to add depth to the concept and confirm the validity of the list of common medical problems derived from Buttery's work. Only 1.5% of the least frequently identified problems encountered by physicians in 500 000 patient-visits in Virginia⁴ were not included in the Ottawa list. The results of a study of the problems dealt with by 600 Canadian family physicians in the early 1970s produced by the College of Family Physicians of Canada were compatible with the Ottawa list.⁵ Université Laval had developed institutional objectives based on the common and important problems dealt with by primary care physicians in the province of Quebec.⁶ Their list not only included all the common and important problems but also defined educational objectives to deal with each of the problems. This list was completely incorporated into the Ottawa list to serve as a set of guidelines and was cross-referenced so that the detailed educational objectives for each problem could easily be consulted. To relate our list to problems dealt with in the Ottawa area we sampled by frequency the problems dealt with in 125 000 visits by approximately 12 000 patients registered at the University of Ottawa-Ottawa Civic Hospital family medicine centre. Finally, all of the common problems found in the Canada Health Survey of 1981⁷ were included in the list.

Since each of the five other lists used a different system to define health problems, we selected the International Classification of Health Problems in Primary Care classification as the most current and appropriate.⁸

The important problems listed for Ottawa included some less common

conditions in which immediate or early intervention could alter their natural history. The list also included conditions that were considered appropriate for screening programs, as well as emergency situations that all graduate physicians should be prepared to manage (e.g., cardiopulmonary resuscitation). The core of the list was based on a significance index developed by the College of Family Physicians of Canada in the early 1970s,⁵ and it consisted of 15 conditions. All members of the faculty were then invited to add problems they considered important, using the criteria of ability of available interventions to alter the natural history of the disease and need for emergency intervention.

Although the rank-ordering of common problems was generally similar in each of the six lists, there were some major differences. In the "mark I" draft of our list, therefore, we rank-ordered the 310 problems according to the frequency with which they appeared in the practice profile of the family medicine centre. There was no accepted way to rank-order the list of important problems, so this was not done.

The mark I document contained the institutional objectives and the guidelines of the two-part list as they affected every course offered to the medical students in the 4-year curriculum. This document was distributed to 85 members of the medical faculty, including all department chairmen, all members of curriculum committees and all course coordinators, as well as 12 student representatives.

Comments and criticisms of the mark I document were solicited by a simple questionnaire, which asked faculty members how the application of the new institutional objectives would affect the courses for which they were either directly or indirectly responsible. We also asked the faculty members and students how they regarded the overall principles. Interviews were conducted with all department heads. The dialogue that developed between the authors and the faculty members during 1981 resulted in a major revision of the first document and the subsequent development of three more drafts of objectives, all of which were again widely circulated

for purposes of discussion. The institutional objectives arising from the mark V document were presented to the curriculum committee in April 1982, and after further revision they were accepted by the committee, in September 1982, and finally approved by the faculty council, in November 1982.

Major objections

The distribution of the mark I document drew a strong reaction from both the basic science and clinical faculties. Over 125 letters, comments and briefs were received from faculty members and students. The concept that producing a general practitioner would be the objective for the medical school was not acceptable to most of the faculty. Most faculty members feared that an institutional goal of this type would lead only those aspiring to be family physicians to apply to the medical school, at the expense of research or basic science and the specialties. However, the idea of better defining the knowledge, attitudes and skills of the graduates of our medical school was widely accepted.

The use of lists of common and important problems was accepted best by clinical subspecialists and less by basic science faculty and those in broad disciplines, such as pediatrics and general internal medicine. The rank-ordering of the list was questioned by most of the faculty members, who indicated that the ordering of the 310 problems should be less specific. In response we modified the list to include 13 groups of 25 conditions each. This was acknowledged as an improvement over the first proposal. When the clusters of 25 conditions were compared with the rank order reported from the other studies, the lists proved to be almost equivalent. The lists were then shortened because they were felt to be lengthy, with considerable duplication, but they remained comprehensive. During the fifth review of the material it was decided to rank-order the problems by quartiles, as this was the only division that would likely have any practical application.

The writing of institutional objectives for basic science courses, such

as anatomy or physiology, on the basis of a list of common and important clinical problems was not acceptable to the basic science faculty. There was fear that overemphasis of the clinical aspects of their courses would detract from the importance of basic sciences as disciplines. Consequently, the mark III version of the document did not include a list of clinical problems for each basic science course. Instead, the list of common and important problems was to be used for guidance in developing teaching priorities for all courses; it would be specifically applied only to the clinical courses. Several basic science departments did feel that such lists would be helpful as guidelines in developing their curriculum content. Only the most relevant of the 10 institutional objectives, therefore, were used.

Several clinical departments, including pediatrics and medicine, criticized the list for being too oriented to primary care or family practice and for excluding significant problems that they thought should be dealt with by their departments. The department of pediatrics had developed its own list of common and important health problems, which, when carefully examined, was entirely compatible with the list of common problems but included eight that were less common. These eight conditions were added to the list of important problems.

The department of epidemiology and community medicine expressed the opinion that the list should reflect not only the work that physicians carry out but also the prevalence of general health problems in the community. According to Guilbert's principles it would appear to be more appropriate to base the objectives on the workload of the physician than on the prevalence of health care problems in the community, but the two sets of problems are similar. Members of this department applied to the list the data from the recently completed Canada Health Survey⁷ and found that they were comparable.

Although we have been accused of using too narrow an approach and attempting to convert medical schools into trade schools, we do not accept these criticisms. The knowledge of basic sciences and patho-

physiology necessary to adequately understand the etiology of all conditions on the list, to make appropriate differential diagnoses for each and to start therapy on the basis of a working diagnosis can be developed only as the result of a major academic undertaking and will challenge the most intelligent medical student. Extending these concepts to include preventive medicine adds a further dimension. What the lists should do is reorient the curriculum to a sound understanding of the common and important medical problems of society. There is little question that a graduate who demonstrates the basic knowledge and skills identified in the objectives should be well versed in the principles of medicine. This is a significant change in direction for faculties of medicine, where the proliferation of subspecialties that now account for the majority of clinicians tends to fragment the medical curriculum into ever smaller and increasingly concentrated "capsules".

A further advantage of the list of problems we have developed at the University of Ottawa is that future requirements of medical education may be anticipated so as to meet the needs of society in the year 2000 or beyond. The department of epidemiology and community medicine at our university has agreed to calculate workloads for the year 2000 by using the population base of the family medicine centre and projecting changes in both the population and the prevalence of various illnesses. This approach will allow medical education to become still more closely related to the needs of the community.

White⁹ and other observers of overall directions in medical education have long advocated approaches to curriculum development that are more relevant to community needs. We believe that our approach provides a framework that can be developed with increasing sophistication and will allow planning of medical education on the basis of the needs of the communities that the graduating physicians will serve.

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Appendix I—Institutional objectives adopted by the University of Ottawa school of medicine

1. The graduate will possess the knowledge and skills to identify persons at risk for common and important health problems and to apply appropriate preventive measures, including screening, health education, and other forms of risk reduction.
2. The graduate will be able to diagnose and manage common and important health problems encountered in the population of North America.
 - 2.1 The graduate will be able to demonstrate knowledge of the biological sciences required to explain the function and normal behaviour of the human organism and to explain the current principles of the etiology of common and important health problems.
 - 2.2 The graduate will be able to demonstrate a knowledge of the pathophysiology of common and important health problems.
 - 2.3 The graduate will be able to diagnose common and important health problems. This will require skills necessary:
 - to conduct a medical interview
 - to obtain an appropriate history
 - to conduct an appropriate physical examination
 - to develop a differential diagnosis
 - to order appropriate diagnostic and laboratory investigation to confirm the tentative diagnosis
 - 2.4 The graduate will be able to record appropriate information in a concise and organized manner as in:
 - history
 - physical assessment
 - ward orders and therapeutic prescribing
 - progress notes
 - discharge summary
 - 2.5 The graduate will be able to demonstrate a knowledge of therapeutic principles for the common and important health problems. This includes knowledge of:
 - pharmacotherapy
 - physiatry and rehabilitation
 - all types of supportive therapy and community services available for management of common and important health problems in North America.
3. The graduate will be able to recognize and initially manage the less common but important life threatening or premorbid conditions for which immediate or early intervention can alter the natural history of the illness.
4. The graduate will be able to apply scientific medical theories and concepts to the solution of clinical problems.
5. The graduate will be able to practice self education and self learning. This will include the ability to recognize personal educational needs, to select appropriate learning resources and to evaluate personal progress in performance.
6. The graduate will be able to recognize and propose solutions for common and important moral, ethical and legal problems of medical practice. The graduate's behaviour will be consistent with an acceptable code of professional ethics, such as that published by the Canadian Medical Association (September 1982).
7. The graduate will be able to critically assess approaches to management of health problems and the research methods used in the health sciences.
8. The graduate will be able to function as a competent member of the health care team, demonstrating cooperation, initiative and appropriate leadership skills.
9. The graduate will possess skills to educate patients, members of the community, health care personnel, medical students and physicians in the areas of the graduate's own expertise.
10. The graduate will practice the art of patient care, demonstrating knowledge of the impact of illness on the patient and the patient's family.

Appendix II—The University of Ottawa's list of common and important health problems dealt with in primary care and the departments that should present some aspect of each problem to students

Health problem	Classification code*	Relevant department†	Health problem	Classification code*	Relevant department†
Common problems: first quartile					
Uncomplicated hypertension	401	MED, PED, SUR	Obesity	278	MED, PED, PSY, SUR
Rhinitis (allergic and other)	477 799	MED, PED, SUR	Contraceptive advice	V256	OBG
Pharyngitis (from all causes); upper respiratory tract infection, including strep throat	460	PED, FMD	Cough; bronchitis (acute and chronic)	466 491 7862	MED, PED
Anxiety disorder (state)	3000	PSY, FMD	Well-baby or well-child care (screening examination)	V70	OBG, PED
Depressive disorder	3004	PSY, FMD	Diabetes mellitus (all types)	250	OBG, PED, MED
Prenatal care	V223	OBG	Abdominal pain (all causes)	7890	MED, OBG, PED, SUR
Preventive health examination, without diagnosis (screening examination)	V70	FMD	Otitis media, otitis externa, chronic otitis media, disease of ear and mastoid	3801 3820 3811 3815	PED, SUR, FMD

Health problem	Classification code*	Relevant department†	Health problem	Classification code*	Relevant department†
Lower urinary tract infection (acute and chronic)	595	MED, OBG, PED, SUR	Sebaceous cyst or lipoma	7062	MED, SUR
Congestive heart failure	4280	MED, PED	Contact dermatitis or eczema	2140	MED
Asthma	493	MED, PED		6920	MED
Vulvitis, vaginitis or cervicitis	6161	OBG	Second quartile		
	622		Disease of peripheral nerves	355	MED
Transient situational disturbance: acute stress reaction, adjustment reaction, grief reaction	308	PSY, FMD	Tension headaches	3078	MED, FMD
Back pain without radiating symptoms	7242	MED, SUR	Schizophrenia	2950	PSY
Osteoarthritis of knees, hips or small bones of extremities	715	MED, SUR	Bacterial, viral or allergic conjunctivitis	3720	PED, SUR
Seborrheic dermatitis	690	MED, PED	Back pain (lumbar or thoracic, with radiating symptoms)	7244	SUR, MED
Chronic ischemic heart disease, including angina	412	MED, SUR	Personality or character disorder	3010	PSY
Cholelithiasis, cirrhosis of liver, pancreatitis or other diseases of liver, gallbladder or pancreas	574	SUR, MED	Menopausal symptoms	627	OBG
	571		Back pain, without radiating symptoms	7242	SUR, MED
Headache, including migraine	7840	MED, PED, PSY, FMD	Painful shoulder syndromes	7260	MED, SUR
	346		Advice about insertion or removal of intrauterine device	V25	OBG, FMD
Cellulitis (boil or abscess)	680	MED, SUR	Abnormal lipid metabolism	2720	MED
Normal delivery; pre- and postnatal care (normal and complicated)	V220	OBG, FMD	Hyper- or hypothyroidism; goitre	240	MED, PED
	650			242	
Sinusitis (acute and chronic)	461	SUR		244	
Pneumonia	486	MED, PED	Dizziness	279	
Irritable bowel syndrome	558	MED	Pruritus	7804	MED, SUR
Shoulder syndromes: bursitis, tendinitis or tenosynovitis	7260	PED, FMD, MED	Abnormal involuntary movement	698	MED
	7263			7810	MED
Bruise, contusion, abrasion, scratch or blister	9290	SUR	Hiatus hernia	5510	MED, SUR
Influenza or influenza-like illness, without pneumonia	9180	SUR	Edema	7823	MED
Chronic obstructive pulmonary disease	487	MED, FMD	Neck strain	8470	MED, SUR
	492		Abdominal mass	7890	SUR
Immunization, including all prophylactic immunization	V03	PED, FMD	Anemia (iron deficient, pernicious, hereditary and others)	2820	MED, PED, FMD
Fatigue, debility or malaise (nonspecific)	7801	MED, FMD		2810	
			Cervical injury	2800	
Acne	7061	MED, PED	Monilial infection (all sites)	8470	SUR
Chest pain	7865	MED, SUR		1120	MED, OBG
Viral warts	0781	MED, FMD	Rheumatoid arthritis and allied conditions, including ankylosing spondylitis	1121	
Inflammatory diseases of esophagus, stomach or duodenum, including dysphagia, dyspepsia and gastritis	536	MED, PED, SUR	Inflammation of mouth, tongue or salivary glands	714	MED, SUR
	530		Diseases of peripheral blood vessels, including aneurysms or arteritis; lymphangitis		
	7870			528	MED, PED
	7871		Weight loss	4590	MED, SUR
Lacerations	8890	SUR	Acute myocardial infarction and subacute ischemic heart disease	7832	MED, PSY, FMD
Marital problems	V611	PSY, FMD		410	MED
Abnormal menstruation, including dysmenorrhea, amenorrhea and menorrhagia	6253	OBG	Dermatophytosis	110	MED
	6260		Epilepsy (all types)	345	MED
	6262		Ankle strain	8450	MED, SUR
	6269		Acquired deafness, otosclerosis	387	MED, SUR
Tonsillitis, including peritonsillar abscess	4630	PED, SUR	Gastric ulcer	533	MED
Chronic abuse of alcohol	3031	PSY	Eyelid inflammation or infection	3730	SUR
Osteoarthritis: joint pain, joint swelling or traumatic arthritis	715	MED, SUR	Behaviour disorder (at any age)	3120	PED, PSY
	7161		Infectious mononucleosis	075	MED, PED, FMD
	7194		Nausea and/or vomiting	7870	MED, FMD
	7190		Fever of undetermined cause	7806	MED, PED
Wax in ear	3804	FMD	Disease of nail and nail bed	703	MED, SUR
Insomnia	3074	PSY, FMD	Gout (all manifestations)	274	MED
Viral gastroenteritis	009	MED, PED	Phlebitis and thrombophlebitis (superficial and deep)	451	MED, SUR
Hemorrhoids, proctitis, anal fissure or fistula, or rectal pain	4550	SUR	Affective psychosis	2960	PSY
	5650			2980	
Constipation	5640	MED, PED	Disease of teeth and supporting structures	5200	MED, PED
Sprains or strains of wrist, hand, knee or ankle	840	SUR	Duodenal ulcers	532	MED, SUR
	842		Reduced visual acuity or blurred vision	3690	SUR, PED
	844				
	8450				

Health problem	Classification code*	Relevant department†	Health problem	Classification code*	Relevant department†
Syncope or blackout	7802	MED, PED	Complications of medical or surgical treatment	9980	MED, PED, PSY, SUR, FMD
Family disruption, with or without separation	V610	PSY, FMD	Neoplasms (benign or malignant)	2390	MED, SUR
Impetigo	684	MED	Dyspnea	7860	MED
Parkinsonism	332	MED, SUR	Pediculosis and other parasitic infestations of skin	136	MED
Diverticular disease	5620	MED, SUR	Malignant breast disease	132	
Ectopic heart beat, including heart block (all types)	4276	MED	Urinary frequency	7884	OBG, SUR
Herpes zoster	053	MED	Urticaria, allergic dermatitis	7080	SUR
Adverse effects of medical agent correctly administered	9952	MED, OBG, PED, PSY, SUR, FMD	Benign prostatic hypertrophy	600	MED, PED
Vertiginous syndromes (disorders of labyrinth and vestibular system)	3860	SUR	Diaper rash	6910	SUR
Varicose veins, including complications	454	SUR	Nonspecific disorders of muscles, ligaments or soft tissue	7280	
Disturbance of sensation (paresthesia)	7820	MED	Congenital anomalies of limbs or skeleton; hemangiomas	7540	SUR
Third quartile			Chronic skin ulcer	7580	
Health education counselling	V654	PSY, FMD	Burns and scalds (all degrees)	707	MED, SUR, FMD
Inflammatory or non-neoplastic breast disease	611	OBG	Hernias (inguinal, femoral or abdominal) or groin tenderness	949	SUR
Lesions of external female genitalia	610	OBG	Urinary incontinence (all causes, including stress)	550	PED, SUR
Enlarged or inflamed lymph nodes	629	OBG	Social maladjustment	553	
Seborrheic dermatitis	6830	MED, FMD	Vitamin or other nutritional deficiency	7883	MED, SUR, OBG
Epistaxis	7856		Multiple sclerosis	V624	PSY, FMD
Malignant lymphomas, Hodgkin's disease, leukemia, multiple myeloma	690	MED	Impetigo	2600	MED, PED
Urethritis, prostatitis or benign prostatic hypertrophy	7847	SUR	Viral infections (nonspecific)	3400	MED
Psoriasis	2010	MED	Chronic enteritis, ulcerative colitis or Crohn's disease	684	MED, PED
Eustachian tube inflammation or blockage	600	SUR	Fracture of carpal, metacarpal, tarsal or metatarsal bones	7041	
Hyperkeratotic skin lesions and acne rosacea	5970		Foreign body in tissue or entering orifice	0799	MED, PED
Abnormal urine test results: hematuria, proteinuria or glucosuria	601		Postural hypotension	5550	MED
Alopecia, folliculitis or disease of hair follicles	6961	MED	Viral hepatitis	814	SUR
Pelvic inflammatory disease	3815	SUR	Fourth quartile		
Psychogenic disorder of sexual function	7090	MED	Fractured phalanx of hand or foot	8160	SUR
Arterial blockage or other peripheral artery disease	7910	MED, PED, SUR	Fractured rib	8070	SUR
Corns and calluses	7040	MED	Pleurisy, pleuritic pain	5110	MED
Fracture of radius and ulna, including Colles' fracture	614	OBG	Uterovaginal prolapse	6180	OBG
Laryngitis, tracheitis or disturbances of speech	3027	PED, PSY, SUR	Premenstrual tension	6254	OBG
Abnormal, unexplained blood test result (including glucose level)	4430	MED, SUR	Convulsions (febrile and other)	7803	MED, PED
Urinary calculus	700	MED, SUR, FMD	Knee injury: meniscus, muscles or ligaments	8360	MED, SUR
Atrial fibrillation, flutter or paroxysmal tachycardia; all ectopic heart beats	813	SUR	Feeding problem in infant or elderly person	8440	
Heart murmur	7852	MED	Organic psychosis	7833	PED, FMD
Acquired deformity of limbs, including hallux valgus and varus	7360	MED	Malignant disease of esophagus, stomach, large bowel or rectum	2940	PSY
Ganglion of joint sheaths	7274	SUR	Therapeutic abortion	1510	SUR
Transient cerebral ischemic attack	4350	MED, SUR	Nonspecific eye problems, including pain or blurred vision (all causes)	6360	OBG, PSY
Scabies and other acariases	133	MED	Abuse of tobacco	3780	SUR
Affective psychosis	2960	PSY	Urogenital <i>Trichomonas</i> infection	3051	PSY, FMD
Hysterical and hypochondriacal disorders	3001	PSY	Cancer of larynx, trachea, bronchus or lung	1310	OBG
			Malignant disease of skin or subcutaneous tissue	162	SUR
			Pityriasis rosea	1730	SUR
			Disease of sweat glands	6963	MED, PED
			Gonorrhea (all sites)	7050	MED, PED
			Drug abuse, habituation, addiction	7062	
			Mental retardation	98	MED
				3048	PSY
				317	PED, PSY

Health problem	Classification code*	Relevant department†	Health problem	Classification code*	Relevant department†
Gas problems	7873	MED, PED	Jaundice	7889	MED, PED, SUR
Anorexia	7830	MED	Spontaneous abortion	634	OBG
Atrophy or infection of tonsils and adenoids	474	MED, PED, SUR	Intracranial injury	850	SUR
Pulmonary heart disease	4160	MED	Fracture of spine	805	SUR
Bleeding during pregnancy	640	OBG	Glaucoma	365	SUR
Cataract	366	SUR	Important problems		
Benign uterine tumours (fibroids)	218	OBG	Meningitis (all causes)	A 136	MED, PED
Pyelitis or pyelonephritis, including pyelitis of pregnancy	5901 6466	MED, PED, OBG	Brain tumour	B 199	SUR
Osteoporosis	7330	MED	Acute spinal cord compression	A 959	MED, SUR
Epididymitis, phimosis or orchitis	604 605	PED, SUR	Cardiac arrest or ventricular fibrillation	A 429	MED
Acquired spinal deformities: kyphosis, lordosis, sclerosis	737	PED	Cerebrovascular accident	A 438	MED, PSY
Tinnitus	7880	MED, SUR	Acute laryngotracheitis (airway obstruction) or epiglottitis	A 464	MED, PED
Atopic dermatitis or eczema	6918	MED	Pneumothorax (all types)	A 519	MED, SUR
Chronic rheumatic heart disease	390	MED, SUR	Ectopic pregnancy	A 633	OBG
Tenosynovitis, tendinitis or peripheral enthesopathy	7263	MED, SUR	Undescended testicle	B 7525	SUR, PED
Tuberculosis (all sites); positive tuberculin test results	11	MED	Cyanosis	A 7889	MED, SUR
Melena or hematemesis	578	MED, SUR	Anaphylaxis	A 9952	MED, PED, SUR
Syndromes related to cervical spine	723	MED, PED	Shock	A 959	MED, OBG, PED, SUR
Pulmonary embolism and infarction	415	MED	Adverse effects of extreme heat, cold, pressure	A 994	MED, SUR
Organic psychosis, including senile dementia	294	MED	Unconsciousness	A 8500	MED, SUR
Obsessive compulsive neurosis	3009	PSY	Congenital heart disease	B 746	MED, PED, SUR, FMD
Glomerulonephritis	580	MED	Congenital hip dislocation	B 754	SUR, PED, FMD
Colic (in infant)	7890	PED, FMD	Strabismus (in infants)	B 378	SUR, PED, FMD
Oxyuriasis and infestation with other helminths	127	MED, PED	Congenital deafness	B 387	PED, FMD
Retention of urine	7889	SUR	Neonatal distress syndromes	A 7778	OBG, PED
Hemorrhagic diathesis or purpura	287	MED	Addisonian crisis	A 279	MED, PED
Cancer of urinary or male genital tract, including prostate	188	SUR	Dehydration	A 279	MED, PED
			Abnormal head growth	B 355	PED, FMD
				758	
			Psychomotor developmental delay	B 7834	PED
			Speech delay	B 7845	PED
			Bowel obstruction	A 579	PED, SUR
			Bronchiolitis	A 466	PED
			Wilson's disease	B 279	MED
			Phenylketonuria	B 279	PED
			Congenital hypothyroidism	B 244	MED, PED

*The codes are defined in reference 8; the letters in the list of important problems designate either (A) acute medical conditions in which immediate recognition and treatment (within seconds, minutes or hours) might alter the outcome or (B) conditions in which early detection could alter the natural history of a possibly life-threatening disease over days, weeks or months.

†MED = medicine, PED = pediatrics, SUR = surgery, FMD = family medicine, PSY = psychiatry, OBG = obstetrics/gynecology.

In the next CMAJ

Well-baby visits: how many?

What is the ideal number of routine well-baby visits in the first 2 years of life? What is the yield of physical examinations done during these visits, and how effective are the nonphysical interventions? Dr. William Feldman, from the Children's Hospital of Eastern Ontario, Ottawa, looks at these questions with reference to various studies, and Dr. J. Raymond Gilbert and colleagues, from McMaster University, Hamilton, Ont., report the findings of their study on well-baby visits.

Canadian Intern Matching Service

Again this year there may be fewer funded internship positions than students applying. Regular contributor Charlotte Gray spoke to the representatives of the various groups that oversee the annual intern match and found out why.