

Diagnostic Vocabulary for Primary Care

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The diagnostic vocabulary of a clinician appears to be specific and measurable for each clinical discipline.

The diagnostic vocabulary of 11 primary care physicians over four-years' work has been analyzed. For every 1,000 patients cared for, each physician made, on average, 2,691 diagnoses every year, representing a diagnostic vocabulary of 475 different clinical entities. This vocabulary has been analyzed according to frequency of usage and clinical decision making. The clinical, teaching, and administrative implications of this analysis are discussed.

The concept of a diagnostic vocabulary helps both to understand and to teach primary care. The questioning of colleagues and the work of Elstein et al¹ suggest that most practicing clinicians, when presented with any patient's complaint, automatically recall from their diagnostic vocabulary about two to four (rarely more) diagnostic possibilities, which they rank in order of probability. This list then guides their further questions and other actions which are aimed at refuting or confirming their initial ranking. As the clinician collects further information the rank order may be changed, or some items on the list replaced. In the primary care setting, few physicians appear to manipulate more than four diagnostic hypotheses at any one moment, but during a long clinical history they may have considered a much greater number of diagnostic possibilities.

The diagnostic vocabulary used in this way by most clinicians appears to have the following significant characteristics:

1. It forms the basis of the physician's clinical actions.
2. The effective recall and manipulation of this

vocabulary is the basis of the physician's skill and is the essential element that must be taught to students.

3. The range of each clinician's working vocabulary is a measure of previous clinical experience.

A premedical student starts with a layman's diagnostic vocabulary of perhaps 20 diseases; a family physician of five to ten years' experience manipulates nearly 500. It would be helpful to know the appropriate expected vocabulary size at various stages between these two endpoints.

4. The character of the diagnostic vocabulary used by primary care physicians is similar to primary care morbidity surveys.^{2,3*} For the participants, such surveys often appear to be statements of diagnostic vocabulary rather than true epidemiological assessments of morbidity.

5. The individual items of each experienced physician's vocabulary and the frequency of their usage are specific for the discipline practiced by the physician. Both these parameters are identifiable and measurable for any physician. They therefore have significant implications for the teaching and administration of that discipline. Thus, a neurosurgeon, obstetrician, and family physician are, in effect, talking different languages,

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*Canadian Medicare figures show many similarities, but are distorted by administrative factors.⁴

Table 1. Analysis of the 475 Different Diagnostic Labels Used by 11 Physicians to Make a Yearly Average of 2,691 Diagnoses on Every 1,000 Patients Cared For

Subgroup	Group					Number of Diagnoses	Total Number of Entities Suspected
	I	II	III	IV	V		
A Minor	72.5 (2.7%)	122.5 (4.6%)	101.0 (3.7%)	7.5 (0.3%)	1.2 (0.04%)	304.7 (11.3%)	33
B Minor, must be watched	814.2 (30.3%)	633.1 (23.6%)	431.8 (16.0%)	45.1 (1.7%)	11.4 (0.4%)	1,935.6 (72.0%)	180
C Early diagnosis vital		128.8 (4.8%)	140.0 (5.2%)	25.7 (1.0%)	9.7 (0.4%)	304.2 (11.3%)	144
D Chronic			106.0 (3.9%)	14.8 (0.5%)	4.9 (0.2%)	125.7 (4.6%)	73
E Life threatening			4.5 (0.2%)	15.0 (0.5%)	1.3 (0.04%)	20.8 (0.8%)	45
Total Number of Diagnoses	886.7 (33%)	884.4 (33%)	783.3 (29%)	108.1 (4%)	28.5 (1.0%)	2,691 (100%)	—
Total Number of Disease Entities in Each Group	5	28	127	106	209	—	475

in a way that can be identified and defined.

6. "Disuse atrophy" of a physician's range of vocabulary appears to follow: (a) diminished clinical experience, (b) lack of adequate continuing medical education, (c) aging of the physician. Measurements of vocabulary range and frequency of usage could thus be used to assess any physician's postgraduate needs.

This paper analyzes the working diagnostic vocabulary of 475 disease labels used by 11 family physicians according to two parameters:

frequency of usage—5 groups (I, II, III, IV, and V).

handling and management—5 groups (A, B, C, D, and E).

This breakdown (Table 1 and Appendix 1) gives considerable insight into the nature of some of the main problems raised when teaching and administering the delivery of effective primary care. For full understanding of these problems, it is essential to relate all discussion to the actual disease entities involved, as outlined in Appendix 1.

The following arbitrary categories have been used to allocate the 475 entities into the following broad groupings:

Frequency of usage analysis

Group I—Very common, ie, diagnosis used as

basis for action more than 70 times per 1,000 patients per year.

Group II—Common, ie, diagnosis used as basis for action 20 to 70 times per 1,000 patients per year.

Group III—Less common, ie, diagnosis used as basis for action 1.8 to 20 times per 1,000 patients per year.

Group IV—Rare, ie, diagnosis used as basis for action 0.5 to 1.8 times per 1,000 patients per year.

Group V—Very rare, ie, diagnosis used as a basis for action less than 0.5 times per 1,000 patients per year.

Analysis according to primary handling and management

Subgroup A—Minor diseases with few problems of diagnosis or treatment.

Subgroup B—Relatively minor diseases that must be treated and watched for recurrences, complications, or confusion with serious diseases.

Subgroup C—Diseases in which early diagnosis prevents serious consequences.

Subgroup D—Chronic or progressive diseases with major health implications.

Subgroup E—Life threatening diseases for which early diagnosis is expected by both physician and patient.

Methods and Materials

Eleven general practitioners at the end of every consultation reviewed their actions and recorded every diagnosis (suspected or firm) which had formed the basis for any action taken after the consultation. Thus, if the physician had prescribed a tranquilizer and ordered a chest x-ray for an anxious middle-aged female smoker, the physician might record the following: Anxiety and smoker's cough/?? Ca lung.

The 11 physicians were distributed as follows:

- two urban practices—seven physicians
- one rural practice—two physicians
- one dormitory/resort town—two physicians.

The study covered four years, 1969-1973, and the population cared for varied between 22,000 and 25,000 National Health Service patients in the Northeast area of Britain between the rivers Tees and Tyne.

Results and Conclusions

For every 1,000 patients cared for, a yearly average of 2,691 firm or suspected diagnoses were made by the 11 physicians. To do this, the physicians based their actions on a total of 475 different diagnostic labels (Appendix 1).

Analysis according to commonness and rank order of frequency (Table 1 and Appendix 1).

Group I—Very Common. Five entities were responsible for one third (33 percent) of the diagnoses considered by the family physicians.

Group II—Common. Twenty-eight entities were responsible for a further one third (33 percent) of the diagnoses used by the family physicians. A brief glance (Appendix 1) at the contents of this and the previous group reveals how incomplete is the preparation and teaching in the undergraduate and hospital years.

Group III—Less Common. One hundred twenty-seven entities were responsible for a further 29.3 percent of diagnoses, and together with Groups I and II (160 entities) are responsible for 95 percent of all diagnoses by the family physicians. This group represents the gray area between primary and secondary care where specialist opinion and hospital-based training are of greatest help to both patient and primary physician.

Group IV—Rare. One hundred six entities were responsible for a further four percent of diagnoses.

Together with the 209 entities in Group V, this group forms the basis of much hospital teaching (Appendix 1).

Group V—Very Rare. Two hundred nine entities were responsible for only one percent of the family physicians' work.

Classification according to handling and management

The 475 clinical diagnostic labels used in the primary care situation were further classified, according to the problems and clinical decision making involved, into five subgroups, A, B, C, D, and E.

This classification reflects the clinical decision making of the primary care physician and, therefore, has further significant administrative as well as clinical and teaching implications.

Subgroup A.

(11.3 percent of All Primary Diagnoses—33 Different Disease Entities)

Minor diseases (mainly of short duration) with few problems of diagnosis or treatment, eg, colds, boils, dandruff. (For exact details see Appendix 1).

Clinical Implications. Many such conditions are never reported. Patients, pharmacists, or nurses can safely deal with this group. A small number may need referral to a physician.

Administrative Implications. For highly trained physicians to deal with this group would appear to be a waste of resources. Paramedical staff with a simple basic training could diagnose and treat these conditions.

Subgroup B.

(72 percent of All Primary Diagnoses—180 Different Disease Entities)

Relatively minor diseases that must be treated and carefully watched for complications, recurrences, or confusion with more serious disease, eg, migraine, varicose veins, globus, erythema nodosum (Appendix 1).

The size and character of this group has tremendous clinical, teaching, and administrative implications.

Clinical and Teaching Implications

- The majority of conditions are rarely encountered in the hospital. Adequate practical teaching requires considerable exposure to primary care practice outside the hospital.

- The ratio of trivial to serious may be up to 100 times that of the hospital population. The primary care physician should not apply blindly the costly and sometimes dangerous diagnostic and therapeutic methods of the hospital to this mass of primary diseases. He/she must develop many other clinical skills, some of which can only be learned outside the hospital, to deal with these problems cheaply and effectively.

- Serious consequences may complicate inadequate primary care, eg, chronic suppurative otitis, or glue ear, may follow an inadequately treated acute otitis.

- Complications, recurrences, and further problems in this group occur only in a small proportion of patients. Mistakes and inadequate handling by the primary care physician are easily obscured by the less serious disease. Primary care physicians should be trained to have a high degree of self-criticism, combined with a detailed knowledge of the natural history of common diseases.

- The nature and size of this group provide large and almost untapped opportunities for health education and preventive medicine of the most productive kind in the community.

- Presymptomatic screening techniques are crude and applicable to few diseases. Early symptoms are likely to remain the most effective way of delineating high-risk groups. Thus, it is by close watch on this group that early diagnosis of serious disease is often most practicable, eg, early pulmonary tuberculosis, diabetes in the obese, and behavior problems in children.

Administrative Implications

- The direct application of hospital methods of investigation and treatment to this large primary group can waste enormous quantities of patient and community resources.

- Any physician performing primary care must be trained to develop methods that use time, clinical observation, and other means economically to diagnose and treat this large subgroup of diseases.

- Physicians largely trained and working in hospitals can easily be unaware of both the effort required for, and the enormous potential of, good primary care.

- A physician working closely with one, two, or three trained practice nurses can perform as effectively as the same number of physicians working on their own.⁴

- Emergency departments in large hospitals are

often both inefficient and expensive when handling this large group.

Subgroup C.

(11.3 percent of All Primary Care Problems—144 Different Disease Entities)

Diseases in which early diagnosis and treatment are essential to prevent serious consequences, eg, anemia, depression, appendicitis (Appendix 1).

These are the diseases the primary care physician must know, however infrequently they occur.

Clinical and Teaching Implications

- The primary presentation is often different or less definite than in the hospital; acute appendicitis, myxedema, and (pre-ruptive) tubal pregnancy are good examples of this.

- Such conditions are not too common in primary care and effective teaching situations may be difficult to create even in a two-year period of primary care training experience.

Administrative Implications

- A greater degree of health education in the community about these problems would undoubtedly help to achieve earlier diagnosis.

- Early diagnosis frequently saves more extensive, more costly treatment at a later date.

Subgroup D.

(4.6 percent of All Primary Diagnoses—73 Different Disease Entities)

Chronic or progressive diseases with major health implications. Treatment is often supportive, partial, or otherwise incomplete, eg, asthma, stroke, alcoholism, arthritis (Appendix 1).

The chronic and relatively unpreventable nature of this group of diseases has two main effects.

1. Early diagnosis is of lesser importance than management.

2. Despite the proportionately small numbers of patients affected, the number of patient-years of care in the community over which patients need help is considerable.

Clinical Implications

Although much essential treatment and supportive care for these patients is started in the hospital, their main needs are for supportive services to enable them to live as near normally as possible in their own community. Thus, for a patient with rheumatoid arthritis or stroke, an effective, inex-

Appendix 1.
Analysis by Diagnostic Label, According to Type of Handling and Frequency of Usage

Group	Subgroup	Rank	Frequency	Entity
I. Very Common Diseases (Rank numbers 1 through 5, number of entities: 5, responsible for 33 percent of all diagnoses made.)	A. Minor Diseases—Few Problems (1 entity)			
		5	72.5	Superficial injuries
	B. Relatively Minor Diseases—Must Be Watched (4 entities)			
		1	496.4	Acute upper respiratory tract infections
			162.7	Acute tonsillitis
			133.0	Coughs
			120.1	Colds
			50.4	Acute bronchitis
			30.2	Acute tracheitis, etc
		2	120.1	Simple anxiety and tension states
	3	120.0	Contraceptive advice	
	4	77.8	Acute gastroenteritis	
II. Commonly Diagnosed Diseases (Rank numbers 6 through 33, number of entities: 28, responsible for 33 percent of all diagnoses made.)	A. Minor Diseases—Few Problems (5 entities)			
		14	33.0	Chickenpox
		24	26.9	Wax in ears
		26	24.2	Boils and carbuncles
		29	19.6	Acute gastritis
		30	18.8	Sties
	B. Relatively Minor Diseases—Must Be Watched (18 entities)			
		6	66.2	Acute otitis media
		7	60.0	Rubella
		8	50.0	Mumps
		9	48.1	Acute urinary tract infection
		10	38.2	Pregnancy
		11	36.4	Prolapsed lumbar intervertebral disc
		12	36.2	Fibrositis
		13	35.7	Eczema
		15	32.6	Osteoarthritis (all types)
		16	32.0	Red eye
		17	30.7	Obesity
		19	29.7	Drug and allergic rashes
		21	29.2	Sprains
	23	27.8	Sinusitis (maxillary)	
	25	25.2	Papular urticaria	
	31	18.5	Scabies	

Appendix, Continued				
Group	Subgroup	Rank	Frequency	Entity
		32	18.4	Otitis externa
		33	18.2	Influenza (epidemic)
	C. Early Diagnosis and Treatment of Major Importance (5 entities)	18	30.0	Hypochromic anemia
		20	29.3	Ulcer-type dyspepsia
		22	28.1	Aspiration pneumonitis
		27	21.4	All fractures
		28	20.0	Depression
III. Less Common Diseases (Rank numbers 34 through 160, number of entities: 127, responsible for 29 percent of all diagnoses made.)	A. Minor Diseases—Few Problems (16 entities)	36	17.4	Virus warts
		43	12.4	Eustachian catarrh
		49	11.7	Dental caries
		58	10.6	Blepharitis
		76	6.6	Dandruff
		80	6.0	Dental extraction
		88	5.7	Diaper rash
		93	5.0	Muscle cramps
		101	4.7	Chillblains
		102	4.7	Sebaceous cysts
		105	4.5	Pruritus ani
		122	3.0	Nasal polyps
		137	2.4	Ingrowing toenails
		139	2.3	Ganglion
		145	2.1	Herpes stomatitis
		155	2.0	Bunions
	B. Relatively Minor Diseases—Must Be Watched (64 entities)	34	18.0	Insomnia
		35	17.5	Acute cervical adenitis
		37	16.7	Varicose veins
		38	16.0	Migraine
		40	12.8	Menopause
		41	12.6	Maternal anxiety
		42	12.6	Refractive errors
		45	12.1	Dysfunctional uterine hemorrhage
		46	12.1	Constipation
		48	11.9	Tenosynovitis
		50	11.5	Herpes simplex
		51	11.5	Paronychia and whitlows
		55	10.8	Functional gastritis
		56	10.8	Foreign bodies (all sites)
		57	10.7	Tonsil and adenoid enlargement
		59	10.5	Aphthous ulcer
		64	9.4	Allergic rhinitis
		66	9.1	Seborrheic eczema
		67	9.0	Impetigo
		68	9.0	Marriage problems

Appendix, Continued

Group	Subgroup	Rank	Frequency	Entity
		69	8.8	Acne
		70	8.6	Acute wheezy bronchitis
		72	7.1	Sinusitis (frontal)
		73	6.9	Cervical erosion
		74	6.7	Dental abscess
		78	6.4	Prolapse
		79	6.2	Synovitis
		81	6.0	Ventral hernia
		82	6.0	Tinea pedis
		83	6.0	Internal derangement of knee
		84	5.9	Faints
		85	5.8	Epistaxis
		86	5.7	Spasmodic dysmenorrhea
		89	5.6	Teething
		91	5.2	Burns (all areas)
		92	5.0	Scarlet fever
		93	5.0	Congenital cold fingers (Raynaud)
		95	5.0	Psoriasis
		96	5.0	Brachial neuralgia
		97	4.9	Anal fissure
		104	4.5	Herpes zoster
		106	4.4	Sleeping problems in children
		110	4.0	Giant urticaria (and angioneurotic edema)
		114	3.5	Hormonal amenorrhea
		116	3.1	Balanitis
		118	3.1	Hay fever
		120	3.0	Pin worms (threadworms)
		121	3.0	Malingering
		124	3.0	Alopecia areata
		126	2.9	Eating problems
		127	2.9	Tinea corporis
		132	2.5	Gingivitis and pyorrhea
		133	2.5	Glossitis
		135	2.4	Vaginitis (adult)
		138	2.3	Phimosis
		140	2.2	Monilia (thrush) vaginal
		142	2.2	Tics
		147	2.1	Neurofibromata
		149	2.1	Hysterical aphonia, functional laryngitis, etc
		150	2.1	Hypostatic edema (legs)
		151	2.0	Monilia, oral
		153	2.0	Pityriasis rosea
		158	1.9	Flatfoot
		160	1.8	Subconjunctival hemorrhage
	C. Early Diagnosis and Treatment of Major Importance (27 entities)	39	14.9	Piles

Appendix, Continued				
Group	Subgroup	Rank	Frequency	Entity
		44	12.2	Hysteria
		47	12.0	Infective hepatitis
		54	10.9	Chronic bronchitis
		60	10.4	Acute appendicitis
		63	10.0	Adult pulmonary tuberculosis
		87	5.7	Diabetes mellitus (all types)
			4.0	Surveillance
			0.8	Insulin sensitive
			0.9	Obese type
		98	4.8	Inguinal hernia
		99	4.8	Chronic cholecystitis
		100	4.7	Acute lobar pneumonia
		108	4.3	Squint and ocular imbalance
		109	4.1	Cataract
		111	4.0	Concussion
		112	4.0	Myxedema
		113	3.7	Chronic rheumatic heart disease
		115	3.3	Reflux esophagitis and hiatus hernia
		117	3.1	Dry pleurisy
		123	3.0	Female sterility
		125	3.0	Pernicious anemia
		129	2.8	Chronic suppurative otitis media
		134	2.4	Acute mesenteric adenitis
		146	2.1	Renal calculi
		148	2.1	Speech problems
		154	2.0	Congenital malformation of circulatory system
		156	1.9	Uterine fibroids
		157	1.9	Ovulation syndrome
		159	1.9	Infectious mononucleosis
	D. Chronic, Progressive Diseases—Many Problems (19 entities)			
		52	11.3	Essential hypertension
		53	11.1	Congestive heart failure
		61	10.3	Simple asthma
		62	10.1	Strokes, cerebral hemorrhage, thrombosis, other cerebrovascular accidents
		65	9.4	Rheumatoid arthritis
		71	8.5	Angina pectoris
		75	6.7	Chronic asthmatic bronchitis (chronic obstructive lung disease)
		77	6.5	Duodenal ulcer
		90	5.2	Deafness
		107	4.3	Atrial fibrillation
		119	3.0	Chronic alcoholism
		128	2.8	Bronchiectasis
		130	2.8	Emphysema (generalized chronic)

Appendix, Continued

Group	Subgroup	Rank	Frequency	Entity
		131	2.7	Paralysis agitans
		136	2.4	Corns and callosities
		141	2.2	Hypochondriasis
		143	2.2	Gout
		144	2.2	Obsessional neurosis
		152	2.0	Intermittent claudication
	E. Life Threatening Diseases (1 entity)	103	4.5	Myocardial infarct
IV. Rare Diseases (Rank numbers 161 through 266, number of entities: 106, responsible for 3.9 percent of all diagnoses made.)	A. Minor Diseases—Few Problems (6 entities)	161	1.8	Retroflexed uterus
		169	1.6	Acne rosacea
		170	1.6	Sweat rash
		179	1.5	Lipoma
		180	1.5	Tarsal and meibomian cysts
		201	1.1	Intertrigo
	B. Relatively Minor Diseases—Must Be Watched (44 entities)	162	1.8	Vulvovaginitis in children
		171	1.6	Globus hystericus
		172	1.6	Paroxysmal auricular tachycardia
		175	1.5	Vitreous opacities
		176	1.5	Metatarsalgia
		177	1.5	Adenopharyngeal conjunctival virus infection
		181	1.5	Prepatellar bursitis
		184	1.4	Generalized bursitis
		185	1.4	Tennis elbow
		188	1.3	Clicking jaw
		189	1.3	Quinsy
		190	1.3	Angular stomatitis
		192	1.3	Clicking rib
		193	1.2	Icthyosis
		196	1.2	Tonsillar debris
		199	1.2	Supraspinatus tendinitis
		203	1.1	Habit cough
		206	1.0	Pediculosis capitis
		214	0.9	Premenstrual tension
		215	0.9	General alopecia
		217	0.9	Whooping cough
		218	0.9	Carpal tunnel syndrome
		220	0.9	Inadequate personality
		222	0.9	Extrasystoles
		223	0.9	Salivary calculus
		224	0.9	Umbilical hernia
		227	0.8	Impotence
		228	0.8	Bell palsy
		230	0.8	Deviated nasal septum

Appendix, Continued				
Group	Subgroup	Rank	Frequency	Entity
		232	0.8	Hydrocele
		234	0.8	Acute epididymo-orchitis
		235	0.7	Tantrum (in children)
		236	0.7	Sexual behavioral problems of childhood
		237	0.7	Neurodermatitis
		244	0.6	Sibling jealousy
		248	0.6	Male infertility
		250	0.6	Chronic omphalitis
		251	0.6	Acute hip syndrome
		253	0.6	Pigeon toes
		257	0.5	Nail-biting habit
		258	0.5	Continual crying (children)
		259	0.5	Frigidity
		265	0.5	Frozen shoulder
		266	0.5	Plantar fasciitis and calcaneal spur
	C. Early Diagnosis and Treatment of Major Importance (30 entities)			
		166	1.7	Gastric ulcers
		174	1.6	Diverticulosis and diverticulitis
		177	1.5	Rodent ulcer
		182	1.5	Benign hypertrophy of prostate
		183	1.4	Hemoptysis
		191	1.3	Spontaneous pneumothorax
		194	1.2	Thyrotoxicosis
		198	1.2	Osteochondritis
		202	1.1	Febrile convulsions
		204	1.1	Corneal ulceration
		208	1.0	Impacted feces
		213	0.9	Small ovarian tumors
		215	0.9	Osteitis deformans
		221	0.9	Acute glaucoma
		225	0.8	Roundworms
		226	0.8	Manic depressive syndrome
		229	0.8	Imbalance, ocular muscles
		231	0.8	Pleural effusion
		232	0.8	Ischiorectal abscess
		240	0.7	Twisted ovarian tumor
		243	0.6	Thyroid adenoma
		247	0.6	Peritoneal adhesions
		249	0.6	Endometriosis
		252	0.6	Acute osteomyelitis
		254	0.5	Chronic pyelonephritis
		256	0.5	Secretory otitis media
		260	0.5	Trigeminal neuralgia
		262	0.5	Femoral hernia
		263	0.5	Incomplete descent of testes

Appendix, Continued

Group	Subgroup	Rank	Frequency	Entity
		264	0.5	Breast abscess
	D. Chronic, Progressive Diseases—Many Problems (12 entities)	164	1.7	Cerebral arteriosclerosis
		165	1.7	Prolapsed cervical intervertebral disc
		167	1.7	Schizophrenia
		168	1.7	Mental deficiency
		205	1.0	Senile osteoporosis
		209	1.0	Nonspecific urethritis
		211	1.0	Arteriosclerotic gangrene
		212	1.0	Ulcerative colitis
		235	0.8	Achondroplasia
		238	0.7	Spastic colon
		241	0.7	Multiple sclerosis
		261	0.5	Mucous colitis
	E. Life Threatening Diseases (14 entities)	163	1.8	Meningitis, encephalitis, and cerebral abscess
		173	1.6	Acute intestinal obstruction
		185	1.4	Bronchogenic carcinoma
		187	1.4	Attempted suicide
		195	1.2	Pulmonary embolism and infarct
		197	1.2	Carcinoma of colon
		200	1.2	Carcinoma of breast
		207	1.0	Cerebral tumor and space-occupying lesion of skull
		210	1.0	Tuberculous meningitis
		219	0.9	Carcinoma of stomach
		242	0.6	Carcinoma of rectum
		245	0.6	Perforated peptic ulcer
		246	0.6	Intussusception
		255	0.5	Carcinoma of uterine cervix
V. Very Rare Diseases (Rank numbers 267 through 475, number of entities: 209, responsible for 1 percent of all diagnoses made.)	A. Minor Diseases—Few Problems (5 entities)	267	0.4	Chapped hands
		288	0.3	Pediculosis pubis
		292	0.3	Excoriation of skin
		341	0.2	Brittle nails
		453	0	Pediculosis corporis
	B. Relatively Minor Diseases—Must Be Watched (50 entities)	268	0.4	Scarring alopecia
		271	0.4	Incontinence of feces and urine
		272	0.4	Episcleritis
		275	0.4	Pilonidal sinus and cyst
		278	0.4	Mastitis of puberty in boys
		279	0.4	Abscess of Bartholin glands

Appendix, Continued				
Group	Subgroup	Rank	Frequency	Entity
		281	0.4	Erythema nodosum
		282	0.4	Knock knees
		283	0.4	Hammer toes
		284	0.4	Coccydynia
		285	0.4	Olecranon bursitis
		295	0.3	Breath-holding attacks
		297	0.3	Wandering
		298	0.3	Stealing
		299	0.3	Pseudocyesis
		304	0.3	Virus pneumonia
		305	0.3	Q-Fever
		306	0.3	Blocked lachrymal duct
		308	0.3	Prolapse of rectum
		312	0.3	Ringworm of nails
		313	0.3	Dermatitis herpetiformis
		314	0.3	Lichen planus
		315	0.3	Erythema serpens
		316	0.3	Granuloma annulare
		317	0.3	Semimembranous bursitis
		318	0.3	Dupuytren contracture
		323	0.2	Thumbsucking
		324	0.2	Rocking and head banging (in sleep)
		332	0.2	Paraphimosis
		334	0.2	Papilloma of urinary tract
		336	0.2	Ringworm of scalp
		337	0.2	Erythema multiforme
		340	0.2	Onychogryphosis
		342	0.2	Granuloma pyogenicum
		343	0.2	Mallet fingers
		351	0.1	Primary amenorrhea
		352	0.1	Spina bifida occulta
		355	0.1	Cleft palate and harelip
		361	0.1	Epidemic vertigo
		368	0.1	Molluscum contagiosum
		370	0.1	Traumatic osteitis of patella
		393	.05	Urethral caruncle
		399	.05	Torn ligament of knee
		405	.025	Acute infective polyneuritis
		406	.025	Epidemic hiccup
		436	.025	Orf
		439	.025	Baker cyst
		452	0	Roseola infantum
		474	0	Epidemic winter vomiting
		475	0	Herpangina infection
	C. Early Diagnosis and Treatment of Major Importance (82 entities)	269	0.4	Acute gonorrhoea
		270	0.4	Paranoia
		273	0.4	Acute iritis

Appendix, Continued

Group	Subgroup	Rank	Frequency	Entity
		274	0.4	Acute pulmonary edema
		276	0.4	Acute nephritis
		280	0.4	Ectopic pregnancy
		287	0.4	Congenital pyloric stenosis
		289	0.3	Brucellosis
		290	0.3	Erysipelas
		291	0.3	Diphtheria
		294	0.3	Cretinism
		302	0.3	Subarachnoid hemorrhage
		310	0.3	Hydronephrosis
		311	0.3	Acute salpingitis
		319	0.3	Postural deformities of spine
		320	0.3	Dislocation of joints (excluding shoulder)
		321	0.3	Chorea
		322	0.2	Tapeworm
		327	0.2	Cerebral emboli
		328	0.2	Retinal detachment
		329	0.2	Chronic glaucoma
		330	0.2	Acute mastoiditis
		331	0.2	Acute hemorrhage pancreatitis
		347	0.2	Hemolytic diseases of the newborn
		348	0.2	Dislocation of shoulder
		349	0.1	Latent syphilis
		350	0.1	Vascular accidents in the eye
		354	0.1	Congenital dislocation of hip
		356	0.1	Hemorrhagic disease of newborn
		357	0.1	Cardiovascular syphilis
		358	0.1	Uremia
		359	0.1	Acute retention of urine
		360	0.1	Secondary tuberculosis, bones and joints
		362	.07	Toxoplasmosis
		363	.07	Staphylococcal and hemophilus pneumonia
		364	.07	Carpopedal spasm
		367	.07	Urethral stricture
		369	.05	Polymyalgia rheumatica
		371	.05	Tuberculosis of urogenital tract
		372	.05	Lupus vulgaris
		373	.05	Tabes dorsalis
		374	.05	Typhoid and paratyphoid
		376	.05	Malaria
		378	.05	Pink disease
		379	.05	Simmond disease
		380	.05	Exophthalmos with obesity
		383	.05	Henoch-Schönlein purpura
		388	.05	Stokes-Adams attacks
		389	.05	Deep femoral-vein thrombosis

Appendix, Continued				
Group	Subgroup	Rank	Frequency	Entity
		390	.05	Empyema
		392	.05	Pyelonephrosis
		395	.05	Pemphigus neonatorum
		396	.05	Acute septic arthritis
		397	.05	Osteochondritis dissecans
		398	.05	Reiter disease
		401	.025	Miliary tuberculosis
		402	.025	Tuberculous endometritis
		403	.025	Intestinal tuberculosis
		407	.025	Schistosomiasis
		408	.025	Amebic dysentery
		409	.025	Pituitary infantilism
		415	.025	Chronic iridocyclitis
		426	.025	Celiac syndrome
		433	.025	Chronic salpingitis and pyosalpinx
		434	.025	Hematocolpos
		435	.025	Multiple neurofibromatosis
		440	.025	Steroid osteoporosis
		445	0	Primary syphilis
		447	0	Secondary syphilis
		448	0	General paralysis of the insane
		449	0	Gumma
		450	0	Congenital syphilis
		457	0	Acute rheumatic fever
		459	0	Hyperparathyroidism
		460	0	Adrenal medulla tumor
		461	0	Addison disease
		462	0	Scurvy
		463	0	Rickets
		467	0	Plummer-Vinson syndrome
		469	0	Regional ileitis
		470	0	Perinephric abscess
		472	0	Slipped femoral epiphyses
	D. Chronic, Progressive Diseases— Many Problems (42 entities)			
		277	0.4	Prostatitis
		286	0.4	Congenital eye defects
		296	0.3	Senile dementia
		300	0.3	Homosexuality
		301	0.3	Addictions (excluding alcohol)
		303	0.3	Healed choroiditis
		309	0.3	Portal cirrhosis of liver
		325	0.2	Petit mal
		326	0.2	Symptomatic epilepsy
		332	0.2	Fistula in ano
		338	0.2	Dermatitis artefacta
		339	0.2	Bedsore
		344	0.2	Imperforate anus and megacolon

Appendix, Continued

Group	Subgroup	Rank	Frequency	Entity
		345	0.2	Major deformities of limbs
		346	0.2	Meningomyelocele
		353	0.1	Monstrosity
		365	.07	Complete heart block
		366	.07	Chronic nephritis
		375	.05	Idiopathic laryngeal palsy
		377	.05	Bronzed diabetes
		384	.05	Anorexia nervosa
		385	.05	Narcolepsy
		386	.05	Menière disease
		387	.05	Motor neurone disease
		400	.05	Hydrocephalus
		404	.025	Sarcoidosis
		418	.025	Hypertensive encephalopathy
		419	.025	Periarteritis nodosa
		425	.025	Achalasia
		429	.025	Nephrotic syndrome
		431	.025	Renal dwarfism
		438	.025	Ankylosing spondylitis
		441	.025	Sudeck osteoporosis
		442	.025	Microcephaly
		443	.025	Congenital polycystic kidney
		444	.025	Tuberous sclerosis
		445	0	Presenile dementia
		455	0	Acromegaly
		456	0	Diabetes insipidus
		458	0	Cushing syndrome
		464	0	Raynaud disease
		465	0	Buerger disease
	E. Major Life Threatening Diseases (30 entities)			
		293	0.3	Hypoglycemic coma
		307	0.3	Carcinoma of esophagus
		335	0.2	Large ovarian cyst
		381	.05	Multiple myelomatosis
		382	.05	Acute leukemia
		391	.05	Carcinoma of gallbladder and pancreas
		394	.05	Carcinoma of prostate
		410	.025	Hodgkin disease
		411	.025	Giant follicular lymphoma
		412	.025	Chronic myeloid leukemia
		413	.025	Chronic lymphoid leukemia
		414	.025	Mycosis fungoides
		416	.025	Dissecting aneurysm
		417	.025	Middle meningeal hemorrhage (traumatic)
		420	.025	Valvular (tension) pneumothorax
		421	.025	Epithelioma (lip)

Appendix, Continued				
Group	Subgroup	Rank	Frequency	Entity
		422	.025	Epithelioma (tongue)
		423	.025	Carcinoma of tonsil
		424	.025	Mixed parotid tumor
		427	.025	Mesenteric infarction
		428	.025	Carcinoma of kidney
		430	.025	Carcinoma of bladder
		432	.025	Carcinoma of vulva
		437	.025	Sarcoma of bone
		451	0	Smallpox
		454	0	Diabetic coma
		466	0	Carcinoma of larynx
		468	0	Volvulus of intestines
		470	0	Carcinoma of body of uterus
		473	0	Traumatic intracranial hemorrhage

Author's note: The low frequencies of ischemic heart disease, diabetes, venereal disease, and addiction reflect geographic and cultural influences and are not due to methodological defects.

pensive home aid or home help service may be more important over the years than a knee replacement operation or a CAT scanner.

Administrative Implications

The concept of the community health care team consisting of nurses, physiotherapists, occupational therapists, social workers, home helps, meals-on-wheels, holiday relief, laundry services, etc, will work only if physicians are prepared to be fully involved and to delegate freely. Methods of payment of health care personnel are vital here.

As the services of health care professionals become increasingly expensive, there is a parallel need to ensure that, wherever possible, the methods of payment encourage, not discourage, effective delegation to less well-paid personnel.

**Subgroup E.
(0.8 percent of All Primary Diagnoses—
45 Different Disease Entities)**

Life threatening diseases. Diagnosis is expected by both patient and medical profession to be as early as possible, eg, carcinoma of all kinds, myocardial infarcts, dissecting aneurysm (Appendix 1).

Clinical Implications

A brief glance at the contents of this group reveals the emotive and spectacular nature of these

conditions. A great deal of medical teaching and effort are expended on this small and highly specialized group.

Administrative Implications

In view of the small numbers of patients affected and the relatively poor return for time and effort spent, the primary care teaching and cost-benefits of our present methods of handling this group require much further questioning and study.

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