

RESEARCH REPORT

A CLASSIFICATION OF DISEASE

From the Research Committee of the Council of the College of
General Practitioners

The pattern of scientific advance is surprisingly constant and whether knowledge is sought in the fields of biology, botany, or medicine, there comes a stage at which facts must be marshalled and set in order so that all may understand them. This is the stage of taxonomy, applied by Linnaeus to natural history, by such workers as Bentham and Hooker to botany when it became a separate study, and by Farr and others to man when his knowledge of the patterns of presentation of disease first made accurate definitions possible.

By tradition definitions are continually under revision to make them more and more precise and accurate, and in medicine scientific knowledge has accelerated this in the many fields of specialization. As a result an internationally accepted classification of disease has been drawn up based on studies in hospitals and institutions all over the world. This *International Classification of Disease and Causes of Death* has made possible the accurate study of disease based on its end-result, death. Recent work has suggested that this is not the most suitable classification for use in the continued observation of morbidity through its many changes.

Little research into the morbidity seen in general practice has been done, and we are now at an early and rather elementary stage in the taxonomy of our subject. Some definitions have been made for us, however, and since our work must also be understood by colleagues in other medical and scientific fields, we must learn to use these. The general practitioners' ability to recognize disease-patterns defined from the specialist viewpoint varies, and morbidity presents to him in ways and guises which may be unfamiliar to the specialist. None the less, he can observe morbidity, record its occurrence and learn many important facts from his records even if these are not made with the precision that the full international classification permits.

Because the observation of morbidity must constitute so great a part of the work of the research organization of the College, the research committee has given the taxonomy of disease in general practice urgent study. In May 1958, a report was published in the *Journal of the College of General Practitioners* on the continuing observation and recording of morbidity. This study described the trial in use of a diagnostic classification adapted from the World

Health Organization's *International Classification of Diseases and Causes of Death*. It was carried out in twelve practices of members of the research register in order to examine the applicability of the classification itself, and certain other important factors which would influence the use of any classification in general practice. Some of these points will be considered below.

The accuracy with which a diagnosis can be made is a factor of fundamental importance. Even before this study was carried out, it was realized that the level of diagnostic accuracy appropriate to general practice might appear inadequate to the hospital worker, and that a wide range of between-observer error might arise from variations in diagnostic usage and terminology. Doctors of different cultural and medical-school backgrounds might use different sets of words to describe similar conditions; a coryza might be described with equal accuracy as "nasopharyngitis", "upper respiratory tract infection", "respiratory catarrh", or by yet other terms, chosen and used by habit rather than any other and better reason. To this semantic error there is added the variation in accuracy of the diagnosis in the pathological sense. An attack of "influenza" may be recorded as such, but to identify the disease fully, serological investigation, not normally practicable, is necessary. Similarly a clinical diagnosis of "peptic ulcer" will usually suffice for purposes of treatment, and in nine instances out of ten there is no need for the radiological and other investigations which would localize the ulcer to its anatomical site.

The range of variability in diagnostic terminology and usage is an important factor in determining the degree of precision obtainable when the observations of many dispersed workers, of different backgrounds, are to be compared. Nothing is to be gained by applying closer definitions than can be achieved by all the observers whose records are to be compared, and much may be lost.

A further problem examined in the pilot study was that of relating illness to the person who experienced it. This is familiar enough in everyday practice where notes on consecutive illnesses are collected in the patient's medical record envelope. These records are, however, of limited value in morbidity study since they are not analysed at a research centre. They are kept for their primary purpose, to help the doctor to treat his patient, whereas records for research must be kept separately. Records of items of service, collected day by day, as they occur, relate the illness seen to the doctor rather than the patient, and no picture of an individual's sickness-experience can be built up from them. Day by day records—consultation rates—give a great deal of information, the value

of which could be increased if it could be related accurately to the sufferer. It was hoped that any classification to be brought into use by the Records Unit of the College would be used in its relation to the patient, as well as in other ways.

A number of consultations for a given condition, related to the same patient establishes in some measure the degree of disability which the sufferer experiences. The number of first consultations for a given condition indicates the prevalence of the disease, the "patients' consulting rate", and each first attendance may be followed by a varying number of subsequent attendances constituting an "episode" of illness. Some episodes may be short, involving one attendance only, whilst others may be prolonged over many years with recurrent attendances for advice and help in the management of a chronic condition. Clearly, study of the length and character of episodes of illness of different kinds, at different ages and in different groups, would be of great value, particularly if the episodes of illness undergone by one person could themselves be recorded throughout life. It might then be possible to relate the illnesses of youth to those of middle age and senility in ways which we cannot at present recognize or even predict.

The episode of illness, while a convenient unit for study, has disadvantages where the illnesses to be observed are mild. Many consultations are a beginning and an end in themselves, particularly those in which the patient is advised to return again if certain events occur—if he gets worse or if his symptoms do not subside by a given time. It is thus difficult, sometimes impossible, to determine the point at which many minor self-limiting illnesses end, and in any statistical analysis of morbidity records this inaccuracy must be recognized, and adjustments made first if possible. Some doctors, from habit or practice, will see patients more frequently for a given condition than will others.

A further facet of this problem, examined during the twelve-practice trial, was the extent to which symptom-complexes were used as diagnostic entities by the practitioners, and the stages at which diagnoses were changed during the course of an episode of illness. It would be expected that time, and repeated observation of the patient in an episode of illness, would lead to changes tending towards greater accuracy in the descriptions used. The factor of multiple diagnosis, also, came under scrutiny at this stage, for in general practice it is commonplace for a patient known to be suffering from a chronic disease to attend with symptoms of a coincident but unrelated condition. A diabetic may have a coryza, a bronchitic may break a leg.

Two further factors bearing on the internal organization of a

continued morbidity study were examined during the pilot trial. The first was the design and layout of the card on which practitioners would record their observations. No complicated system was possible. If working practitioners are to maintain consistently accurate records, noting each item of service correctly as it occurs, and accurately relating each episode to the patient, a simple method is essential. The doctor must be asked to record the minimum compatible with accuracy. As much of his thinking as possible must be done for him, as, at the height of an epidemic of influenza, he will not have time to puzzle out complicated instructions or chase a definition down long uneven columns of print or type. The standard of accuracy of material received by the analysis centre will be proportionate to the care taken to design an episode card of attractive layout, which it is convenient and even enjoyable to use.

The second point of internal administration concerned those at the receiving end. If unrestricted freedom of diagnosis were permitted among widely dispersed doctors with differing diagnostic habits, interpretation and perhaps translation would be required at the centre. In the National Morbidity Survey this interpretative function was carried out by the devoted clerks of the General Register Office. These laymen became adept at placing an "off-beam" description or diagnostic term into its correct category, but the process took a long time, and wherever a lay interpretation of a medical term is made there is always a potential source of error. The use of a classification familiar to all the doctor-observers in a continued study would enable self-coding—by the doctor, at the time the observation is made, to eliminate both a possible source of error and a long tedious and expensive process, at the central analytical office. Thus there is ample justification for designing a record-card to incorporate any classification to be decided upon *in extenso*, so that observations can be made by the doctor marking a printed word with a ring or tick.

Naturally enough the morbidity classification described below has been planned with the function of the College Records Unit very much in mind. It has not been overlooked, however, that a classification of disease introduced by the College may have a far wider range of use and value. Since it is designed for application at the stage of an illness at which a doctor is first consulted about a condition, it may be applied equally in the fields of public health, of school health, or general practice itself in any country, where interested doctors wish to analyse their work and the illnesses which cause it. If this classification becomes widely used, general practitioners and others undertaking their own investigations will find that their material collected within its terms will be comparable

with that published by the Records Unit, and also with that of their colleagues, and the value of comparability of recording in this research field, established now before many different systems have come into use, cannot be overstressed.

The necessity for a workable classification of morbidity, appropriate to general practice, need not be laboured. The Research Committee accepted that a diagnostic frame of reference was urgently needed and the classification used in the trial run was made up empirically, by discussions to which the doctors who took part in the trial contributed. It was found to work sufficiently well to act as the foundation upon which to build the classification now to be introduced.

It was accepted from the start that a new classification of morbidity for general practice must be based on the *International Classification of Diseases and Causes of Death*, and be relateable to this classification at every level, this notwithstanding the difficulty of using diagnostic labels more appropriate to conditions of hospital practice and to the work of pathologists and bacteriologists. In the pilot study the doctors were given the opportunity to use symptom-complexes as labels in preference to the more specific titles of the international classification, but symptom-complex labels were only occasionally chosen. The term "pyrexia of unknown origin" was used at only two per cent of consultations, whilst "depression", "headache", "senility" and "dyspepsia" together accounted for only a further 1.5 per cent. It was further observed that many labels used in the international classification itself are no more than descriptions, "bronchitis", "rheumatism", "hypertension", "neuralgia" and "obesity" being examples of such indefinite titles.

It was realized that a new classification must be arranged under the main headings of the International Classification:—

1. Communicable diseases
2. Neoplasms
3. Diseases of allergic origin, metabolic, nutritional and endocrine diseases
4. Diseases of blood and blood-forming organs
5. Mental, psychoneurotic and personality disorders
6. Diseases of the nervous system and sense organs
7. Diseases of the circulatory system
8. Diseases of the respiratory system
9. Diseases of the digestive system
10. Diseases of the genito-urinary system
11. Deliveries and complications of pregnancy, childbirth and the puerperium

12. Diseases of skin and cellular tissue
13. Diseases of the bones and organs of movement
14. Congenital malformations
15. Certain diseases of early infancy
16. Symptoms, senility and ill-defined conditions
17. Accidents, poisonings, violence
18. Prophylactic procedures

Such a simple classification, under eighteen headings only, might be consistently and widely used, but it would so lack definition as to be valueless. It was necessary to determine the number of separate diagnostic labels which, used under these headings, would cover all the important conditions commonly met with. Care was necessary to ensure that the list was not so long that it was unwieldy and impossible to use.

The first classification drawn up had seventy-five headings, but Professor Hogben suggested a multilevel classification of which the second level would consist of the more important diagnostic labels, numbering some 60 in all, identified by the frequency of their occurrence in the pilot trial survey. Thus we were enabled to have the best of both worlds by arranging our classification at more than one level, and also to give it flexibility in use which would otherwise have been lacking.

The first level would be that of the eighteen main headings described above, and the second level, of sixty sub-headings, would be arranged under these. Each sub-heading would correspond to a numbered and coded disease, or to a group of diseases, in the full classification, and each group at this second level would have an "other" category, allowing further and more detailed expansion within it.

The first and second levels of the classification would be fixed and remain constant, forming a framework within which consistent accuracy by dispersed observers should be possible. This level of classification would be the one adopted by the Records Unit of the College for its studies of total morbidity, and consistent results might be expected from its routine use anywhere in the world.

The third level of the classification would be an elaboration of the "other" category in the second level, into much greater detail. The use of all three levels of the classification is envisaged in studies calling for much more precision of detail than is required in the observation of total morbidity. In a specially planned study of respiratory disease, for example, both the second and third levels of classification under Main Heading No. 8 would be brought into play; similarly a study of diseases of the skin would enable the full

expansion of Main Heading No. 12 to be employed. Such special studies would then become comparable with one another and with the work of the Records Unit, and all results could be presented for publication in terms which would be easily interpreted by workers in other branches of medical research.

The classification drawn up by the research committee is set out below, under its four levels. It will be noted that expansion of the "other" category in the third level is into the full *International Classification of Diseases and Causes of Death*.

The first and second levels of the classification, for reasons elaborated above, are unalterable but comments are invited on the content and lay-out of the third level. This is not necessarily in its final form and indeed can be modified from time to time as the requirements of medicine, the Records Unit and individual practitioners dictate.

A CLASSIFICATION OF DISEASE

First Level

1. COMMUNICABLE DISEASES

Second Level

- | | |
|-------------------|------------------------|
| 11 Measles | 14 Chicken pox |
| 12 Whooping cough | 15 Mumps |
| 13 Rubella | 16 Other (third level) |

Third Level

- | | | |
|---|---|------|
| 1601 Tuberculosis of respiratory system | 1613 Bornholm disease | |
| 1602 Tuberculosis other forms | 1614 Oxyuriasis | |
| 1603 Syphilis infections and sequelae | 1615 Dermatophytosis | |
| 1604 Gonococcal infections and other venereal disease | 1616 Scabies | |
| 1605 Dysentery (all forms) | 1617 Epidemic winter vomiting | |
| 1606 Scarlet fever | 1618 Acute bronchiolitis (PB.58) | |
| 1607 Erysipelas | 1619 Adeno-virus infection | |
| 1608 Meningococcal infections | } Other as yet undefined infections which from time to time are stated by the Epidemic Observation Unit under "Yellow Warning" system | |
| 1609 Acute poliomyelitis | | 1620 |
| 1610 Herpes zoster | | 1621 |
| 1611 Infective hepatitis | | 1622 |
| 1612 Infectious mononucleosis | 1630 Other—(fourth level) | |

Fourth Level W.H.O. Code

Tropical Diseases

- | | |
|----------------------|----------------------|
| 1650 Malaria | 1655 Schistosomiasis |
| 1651 Yaws | 1656 Hydatid disease |
| 1652 Amoebiasis | 1657 Ankylostomiasis |
| 1653 Leishmaniasis | 1658 Filariasis |
| 1654 Trypanosomiasis | |

2. NEOPLASMS

Second Level

- | | |
|---|------------------------------------|
| 21 Malignant neoplasms
(including lymphatic and
haemopoetic tissue) | 22 Benign and other neo-
plasms |
|---|------------------------------------|

Third Level

- | | |
|---------------------------------|---|
| 2101 Buccal cavity and pharynx | 2109 Breast |
| 2102 Oesophagus | 2110 Cervix uteri |
| 2103 Stomach | 2111 Corpus uteri |
| 2104 Colon | 2112 Uterus (site doubtful) |
| 2105 Rectum | 2113 Prostate |
| 2106 Pancreas | 2114 Bladder and other urinary organs |
| 2107 Larynx | 2115 Other genito-urinary organs
(<i>fourth level</i>) |
| 2108 Bronchus, lung and trachea | |

Fourth Level
W.H.O. Code

- | | |
|------------------------|------------------------------------|
| 2116 Skin | 2119 Leukaemia |
| 2117 Brain | 2120 All other malignant neoplasms |
| 2118 Hodgkin's Disease | |

Fourth Level
W.H.O. Code*Second Level*

22 Benign neoplasms

Third Level

- | | |
|-------------|--|
| 2201 Breast | 2203 Other female genito-urinary
organs |
| 2202 Uterus | |
| | <i>Fourth Level</i>
W.H.O. Code |
| 2204 Skin | 2205 All other benign neoplasms |
| | <i>Fourth Level</i>
W.H.O. Code |

3. ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND
NUTRITIONAL DISEASES*Second Level*

- | | |
|-------------|---|
| 31 Asthma | 33 Obesity |
| 32 Diabetes | 34 Other (including hay fever
and urticaria) |

Third Level

- | | |
|---|---|
| 3401 Hay fever | 3403 Other allergic disorders |
| 3402 Allergic dermatoses | |
| | <i>Fourth Level</i>
W.H.O. Code |
| 3404 Thyroid hypertrophy and hyper-
function | 3405 Myxoedema and cretinism |
| | 3406 Other thyroid disorder |
| | <i>Fourth Level</i>
W.H.O. Code |
| 3407 Avitaminosis | 3409 Other allergic, endocrine and
nutritional metabolic disease |
| 3408 Gout | |
| | <i>Fourth Level</i>
W.H.O. Code |

Second Level (continued)

53 Other psychogenic illness

Third Level

- | | | | |
|------|--|------|------------------------------|
| 5301 | Amentia of all kinds | | personality; sexual perverts |
| 5302 | Addictions of all kinds | | and antisocial types |
| 5303 | Psychopathic personality, this includes: immature inadequate | 5304 | Other psychiatric illness |

Fourth Level
W.H.O. Code

6. DISEASES OF NERVOUS SYSTEM AND SENSE ORGANS

Second Level

61 Diseases of central nervous system

63 Diseases of eyes

62 Diseases of peripheral nervous system

64 Diseases of ears

Third Level

- | | | | |
|------|--|------|--|
| 6101 | Vascular lesions of the central nervous system including all cerebrovascular accidents and cerebrovascular insufficiency not amounting to dementia | 6103 | Paralysis agitans |
| | | 6104 | Epilepsy |
| | | 6105 | Migraine |
| 6102 | Multiple sclerosis, including disseminated sclerosis, lateral sclerosis, etc. | 6106 | Other diseases of the central nervous system |

Fourth Level
W.H.O. Code

62 Diseases of peripheral nerves

Third Level

- | | | | |
|------|----------------------|------|--------------------------------------|
| 6201 | Facial paralysis | 6204 | Sciatica |
| 6202 | Trigeminal neuralgia | 6205 | Other forms of neuralgia or neuritis |
| 6203 | Brachial neuritis | | |

Fourth Level
W.H.O. Code

6206 Other diseases of the peripheral nerves or ganglia, including muscular dystrophy

Fourth Level
W.H.O. Code

63 Diseases of the eyes

Third Level

- | | | | |
|------|-------------------------------|------|--|
| 6301 | Conjunctivitis and ophthalmia | 6304 | Iritis |
| 6302 | Blepharitis | 6305 | Other inflammatory diseases of the eye |
| 6303 | Hordeolum | | |

Fourth Level
W.H.O. Code

- | | | | |
|------|-------------------|------|--|
| 6306 | Refractive errors | 6310 | Strabismus |
| 6307 | Corneal ulcers | 6311 | Diseases of the tear duct and lacrimal apparatus |
| 6308 | Cataract | 6312 | Other diseases of the eye |
| 6309 | Glaucoma | | |

Fourth Level
W.H.O. Code

[*Second Level* continued on next page]

Second Level (continued)

64 Diseases of the ears

Third Level

6401	Otitis externa	6405	Ménière's disease
6402	Otitis media, acute	6406	Wax in the ear
6403	Otitis media, chronic	6407	Otosclerosis
6404	Mastoiditis	6408	Other forms of deafness

Fourth Level

W.H.O. Code

6409 Other diseases of the ear and mastoid process

Fourth Level

W.H.O. Code

7. DISEASES OF CIRCULATORY SYSTEM

Second Level

71	Arteriosclerotic and degenerative heart disease (including coronary disease)	72	Hypertensive disease
		73	Varicose veins
		74	Other diseases of heart and blood vessels

Third Level

7101	Rheumatic heart disease (including rheumatic fever, its sequelae and chorea)	7105	Functional disease of heart
7102	Arteriosclerotic heart disease (and coronary thrombosis)	7106	Congestive heart failure
7103	Endocarditis (non-rheumatic)	7107	Left ventricular failure
7104	Pericarditis (non-rheumatic)	7108	Myocardial degeneration from other or unknown causes
		7109	Other heart diseases

Fourth Level

W.H.O. Code

72 Hypertensive disease

Third Level

7201	Benign hypertension with or without heart disease	7203	Hypertension with renal damage
7202	Malignant hypertension with or without heart disease	7204	Other and unspecified hypertension

Fourth Level

W.H.O. Code

Second Level

74 Other diseases of heart and blood vessels

Third Level

7401	Arteriosclerosis	7405	Haemorrhoids
7402	Arterial aneurysms	7406	Phlebitis and thrombophlebitis
7403	Chilblains	7407	Pulmonary embolism and infarct
7404	Peripheral arterial disease, embolism, thrombosis, gangrene and other diseases of arteries	7408	Other disease of circulatory system

Fourth Level

W.H.O. Code

7409 Lymphadenitis unspecified

8. DISEASES OF RESPIRATORY SYSTEM

Second Level

- | | | | |
|----|---|----|------------------------------|
| 81 | Acute pharyngitis,
nasopharyngitis, coryza,
(including strep. sore
throat) | 84 | Influenza |
| 82 | Sinusitis (acute) | 85 | Pneumonia and
pneumonitis |
| 83 | Tonsillitis (not including
scarlet fever) | 86 | Acute bronchitis |
| | | 87 | Chronic bronchitis |
| | | 88 | Other |

Third Level

- | | | | |
|------|--|------|--|
| 8801 | Laryngitis and tracheitis | 8806 | Pneumoconiosis |
| 8802 | Chronic sinusitis | 8807 | Bronchiectasis |
| 8803 | Hypertrophy of tonsils and
adenoids | 8808 | Emphysema without mention of
bronchitis |
| 8804 | Pleurisy | 8809 | Other diseases |
| 8805 | Spontaneous pneumothorax | | |

Fourth Level
W.H.O. Code

9. DISEASES OF THE DIGESTIVE SYSTEM

Second Level

91 Peptic ulcer

Third Level

- | | | | |
|------|---------------------------------|------|--------------------------|
| 9101 | Ulcer of stomach | 9103 | Peptic ulcer unspecified |
| 9102 | Ulcer of duodenum | | |
| 92 | Appendicitis | 94 | Other disorders |
| 93 | Femoral and inguinal
herniae | | |

Third Level

- | | | | |
|------|--|------|--|
| 9401 | Disease of teeth and supporting
structures | 9402 | Other diseases of buccal cavity
and oesophagus |
| | | | <i>Fourth Level</i>
W.H.O. Code |
| 9403 | Disorders of gastric function | 9404 | Other diseases of stomach and
duodenum |
| | | | <i>Fourth Level</i>
W.H.O. Code |
| 9405 | Hernia of abdominal cavity (ex-
cluding inguinal and femoral) | 9407 | Other diseases of intestines and
peritoneum |
| 9406 | Inflammatory disease of bowel
and peritoneum | | |
| | | | <i>Fourth Level</i>
W.H.O. Code |
| 9408 | Cholelithiasis | 9410 | Other diseases of liver, gal
bladder and pancreas |
| 9409 | Cholecystitis without mention of
gall stones | | |

Fourth Level
W.H.O. Code

10. DISEASES OF GENITO-URINARY SYSTEM

Second Level

- | | | | |
|-----|--------------------------------|-----|---------------------|
| 101 | Acute urinary tract infections | 103 | Menopausal symptoms |
| 102 | Disorder of menstruation | 104 | Other |

Second Level

- 101 Acute urinary tract infection

Third Level

- | | | | |
|-------|------------------|-------|------------------------|
| 10101 | Cystitis (acute) | 10103 | Pyelonephritis |
| 10102 | Pyelitis | 10104 | Other acute infections |

Fourth Level
W.H.O. Code*Second Level*

- 102 Disorders of menstruation

Third Level

- | | | | |
|-------|---------------------------|-------|---------------------------------|
| 10201 | Disorders of the menarche | 10204 | Irregular menstruation |
| 10202 | Dysmenorrhoea | 10205 | Menorrhagia |
| 10203 | Amenorrhoea | 10206 | Other disorders of menstruation |

Fourth Level
W.H.O. Code*Second Level*

- 104 Other disorders of the genito-urinary tract

Third Level

- | | | | |
|-------|-----------------------------------|-------|-------------------------------------|
| 10401 | Nephritis and nephrosis | 10404 | Urethritis non-venereal |
| 10402 | Calculi of the kidneys or ureters | 10405 | Other diseases of the urinary tract |
| 10403 | Cystitis (chronic) | | |

Fourth Level
W.H.O. Code*Third Level*

- | | | | |
|-------|--|-------|--|
| 10411 | Hyperplasia of the prostate gland | 10422 | Vaginal discharge, other than venereal, but including cervicitis, vaginitis and vulvitis |
| 10412 | Hydrocœle | 10423 | Uterovaginal prolapse |
| 10413 | Orchitis or epididymitis | 10424 | Salpingitis and oophoritis |
| 10414 | Other diseases of the male genitalia | 10425 | Other diseases of the female genitalia |
| 10421 | Diseases of the breast other than neoplasm | | |

Fourth Level
W.H.O. Code

11. DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND PUERPERIUM

Second Level

111 Deliveries, and complications of pregnancy, childbirth and puerperium

Third Level

11101	Infection of genito-urinary tract during pregnancy	11103	Placenta praevia
11102	Toxaemia	11104	Other haemorrhage of pregnancy

Fourth Level W.H.O. Code

11105	Ectopic pregnancy	11115	Delivery with malposition of foetus or disproportion
11106	Malposition of foetus in uterus	11116	Delivery with prolonged labour
11107	Abortion	11117	Delivery with laceration of perineum
11111	Delivery without complications	11121	Puerperal sepsis
11112	Delivery with placenta praevia or antepartum haemorrhage	11122	Puerperal thrombophlebitis
11113	Delivery with retained placenta	11123	Mastitis
11114	Delivery with abnormality of bony pelvis	11131	Other

Fourth Level W.H.O. Code

12. DISEASES OF SKIN AND CELLULAR TISSUE

Second Level

121	Infections of skin and subcutaneous tissues (including, boil, carbuncle, cellulitis and abscess)	122	Eczema and dermatitis (including occupational and seborrhoea)
		123	Other skin disorders

Third Level

12101	Boil and carbuncle	12103	Other cellulitis and abscess without mention of lymphangitis
12102	Cellulitis of finger and toe		
12104	Other cellulitis and abscess with lymphangitis		
12105	Acute lymphadenitis	12108	Molluscum contagiosum
12106	Impetigo	12109	Other local infections of skin and subcutaneous tissue
12107	Infectious warts		

Fourth Level W.H.O. Code

Fourth Level W.H.O. Code

Fourth Level W.H.O. Code

Second Level

122 Eczema and dermatitis

Third Level

12201	Seborrhoeic dermatitis	12203	Occupational dermatitis
12202	Eczema	12204	Other dermatitis

Fourth Level W.H.O. Code

Second Level

123 Other skin disorders

Third Level

12301 Pemphigus	12305 Pruritus and related conditions
12302 Erythematous conditions	12306 Corns and callosities
12303 Psoriasis and similar disorders	12307 Other hypertrophic and atrophic conditions of skin
12304 Lichen planus	

Fourth Level

W.H.O. Code

12308 Other dermatoses

Fourth Level

W.H.O. Code

12309 Diseases of nail	12311 Diseases of sweat and sebaceous glands
12310 Diseases of hair and hair follicles	12312 Chronic ulcer of skin
	12313 Other diseases of skin

Fourth Level

W.H.O. Code

13. DISEASES OF THE BONES AND ORGANS OF MOVEMENT

Second Level

131 Rheumatoid arthritis

133 Lesions of intervertebral discs

132 Osteo-arthritis

134 Other

Third Level

13401 Osteitis acute and chronic	13404 Fibrositis and other muscular rheumatism
13402 Spondylitis ankylopoietica	13405 Other forms of arthritis and rheumatism
13403 Lumbago not attributed to a disc lesion	

Fourth Level

W.H.O. Code

13406 Osteitis deformans	13408 Other forms of internal derangement of the knee
13407 Torn meniscus of the knee	

Fourth Level

W.H.O. Code

13409 Displaced intervertebral disc	13413 Flat foot
13410 Synovitis	13414 Hallux valgus or varus
13411 Bursitis	13415 Other diseases of the bones and organs of movement
13412 Tenosynovitis	

Fourth Level

W.H.O. Code

14. CONGENITAL MALFORMATIONS

Second Level

141 Congenital malformations

Third Level

14101 Monstrosity	14106 Congenital malformations of digestive system
14102 Spina bifida and meningocele	14107 Congenital malformations of genito-urinary system
14103 Congenital hydrocephalus	14108 Congenital malformations of bone and joint
14104 Congenital malformations of circulatory system	14109 Other
14105 Cleft palate and harelip	

Fourth Level

W.H.O. Code

15. CERTAIN DISEASES OF EARLY INFANCY

Second Level

151 Certain diseases of early infancy

		<i>Third Level</i>			
15101	Intercranial and spinal injury at birth	15104	Diarrhoea of newborn		
		15105	Ophthalmia neonatorum		
15102	Postnatal asphyxia and atelectasis	15106	Umbilical sepsis		
		15107	Other sepsis		
15103	Pneumonia of newborn				
					<i>Fourth Level</i>
					W.H.O. Code
15108	Haemolytic disease	15110	Immaturity		
15109	Haemorrhagic disease	15111	Other		
					<i>Fourth Level</i>
					W.H.O. Code

16. SYMPTOMS, SENILITY, AND ILL-DEFINED CONDITIONS

Second Level

161	Diarrhoea and/or vomiting	163	Pyrexia of unknown origin
162	Senility	164	Other

Third Level

16401	Symptoms referable to specified organs or systems	16403	Other symptoms, ill-defined conditions
16402	Symptoms not referable to specified organs or systems		
			<i>Fourth Level</i>
			W.H.O. Code

17. ACCIDENTS, POISONINGS, AND VIOLENCE

Second Level

171	Sprains and strains	173	Burns
172	Lacerations, superficial injuries, contusions, abrasions and crushing	174	Fractures
		175	Other

Third Level

17301	Burns, first degree	17303	Burns, third degree
17302	Burns, second degree		

Second Level

174 Fractures

Third Level

17401	Fracture of skull	17406	Colles fracture
17402	Fracture of ribs	17407	Fracture of lower tibia and/or fibula
17403	Fracture of pelvis	17408	Fracture other long bones of limbs
17404	Fracture of clavicle		
17405	Fracture of femur		
			<i>Fourth Level</i>
			W.H.O. Code
17409	Carpal and tarsal bones	17410	Phalanges

[*Second Level* continued on next page]

Second Level (continued)

175 Other injuries

Third Level

17501	Dislocation of jaw	17511	Effects of alcohol poisoning
17502	Dislocation of shoulder	17512	Effects of carbon monoxide poisoning
17503	Head injury, excluding fracture of skull	17513	Effects of aspirin poisoning
17504	Internal injury of chest, abdomen, and pelvis	17514	Effects of barbiturate poisoning
17505	Foreign body entering through orifice	17521	Motor sickness
		17522	Other

Fourth Level
W.H.O. Code

18. PROPHYLACTIC PROCEDURES

Second Level

181 Prophylactic procedures

Third Level

18101	Vaccination against smallpox	18103	Inoculation against other infectious disease (including polio)
18102	Inoculation against specific disease		

Fourth Level
W.H.O. Code

1811	Medical examination for administrative purposes	1831	Other prophylactic procedures (excluding antenatal examinations—see 111)
1821	Health education and instruction		

Fourth Level
W.H.O. Code

19 ADMINISTRATIVE PROCEDURES

Second Level

191 Administrative procedures

Discussion

In the classification set out above it will be seen that the numbering is different from that of the full international classification. This is intentional and essential if the principle of relateability at all levels is to be preserved. The enumeration is a hierarchical one stemming from the numbers of the eighteen main headings of the International Code; thus all respiratory tract conditions begin their number with the figure 8; all in the congenital abnormality group with the figure 12, and so on.

The figure placing the second-level heading is added to the first; thus 81 in coryza, 82 tonsillitis, 83 sinusitis and 88 "other" diseases of the respiratory tract. This is the heading that is expanded into the next lower level of the classification, where the same principle of numbering is repeated.

In the fourth level of classification reversion is made to the original

code numbers of the W.H.O. Classification, allotted on an entirely different principle.

It is hoped that this classification will be tried out in many places and under many conditions of practice, so that flaws and defects in its design may be revealed. Copies have been sent to our sister colleges in Australia and Canada, and to our own faculties in New Zealand. Drafts have been sent to World Health Organization, so that countries beyond the commonwealth may be made aware of the work now in progress, and be able to report on success or failure in using it.

In this country the classification will, to begin with, be prepared for practice use in a number of different forms, suitable for the recording methods preferred by individuals making use of it. The second level of classification may be printed in bold type on varnished card for desk use and easy reference. It may be printed in list form for those who record in ledgers, or around the circumference of punch-cards for those who prefer this method of recording. It will, of course, be used on the Records Unit episode cards, where headings under the second level will be ticked or ringed. The third-level classification will be made available either in its entirety or in its different sections, perhaps as stick-on labels to be used in conjunction with the basic episode cards when more detailed information is needed for a special study within a defined disease group. The second level classification will be used by all observers, while those with special interests or their own research projects would use the third-level expansion with which they were concerned. This system ensures that at every level comparability of detail is achieved, for which the apparent rigidity of the 62 headings of the second level is a small price to pay.

The Diagnostic Classification will find its main use in the working of the Records Unit, for which it was primarily designed. It is hoped that the Records Unit will be an organization for the collection and analysis of both short-term and long-term information about morbidity. This would vary from the weekly variations characteristic of much infectious disease, to the long-term study of the natural history of chronic diseases such as asthma, bronchitis or peptic ulcer which may be present almost throughout life. It is hoped to relate this information to the life and state of health of the patient who endures the illnesses, as well as to the doctor who observes and records as part of his daily work.

The outposts of the Records Unit will be general practitioners forming a network of observers distributed, so far as possible, so as to be statistically representative of the communities which they observe. In this country these observers would feed information,

on episode cards, to an analysis centre at the headquarters of the College. If the work is developed in the commonwealth analysis centres will be set up in other countries also, collecting material with minimal departure from the predetermined plan and method. The second level of 63 headings will, it is hoped, prove as applicable overseas as at home.

As has been explained, each episode card will bear the full second-level classification, and no more mental effort will be required of the observer than a tick or a ring round a word, with the addition of basic identification details (patient's name, sex, date of birth, and serial number) at the first consultation in the episode. Serial numbers for different practices may be printed in advance on batches of episode cards, and it may be possible to print sections of the third level classification on the cards for some who wish to use them. Lack of space on a card which must fit the NHS envelope precludes printing of the full third-level classification. Users of the classification should not have to carry a copy with them, for the 63 headings on the episode card will be a constant reminder, and a code number is soon memorized from repeated use.

The method of handling the cards at the centre is governed by the number to be processed, and the speed with which the analysis is to be conducted. Inevitably some form of mechanical aid, either Powers-Samas, Hollerith or computing machinery must be used. A staff of clerks will be required to transfer the information on episode cards to punch-cards which the particular machine is built to handle. As the episode-cards are designed to be self-coding the filing clerks will not be called upon to make any interpretation. This will have been done for them, and the appropriate number on the College's scale allocated by the doctor.

The rate at which returns will be required from the practices concerned will vary with the nature of the disease and with the action which is to be taken. Data concerning communicable disease might be required weekly, whilst information on the more chronic diseases such as bronchitis might be required at half-yearly or even yearly intervals. It is not intended that the practices of those who take part in this work shall be disorganized and the doctors saturated with demands for an unceasing stream of completed forms. Where applicable and accurate, sampling methods may be used. Some practices may record some of the morbidity they meet with some of the time; at another stage all practices may be asked to report more fully for a given period or concerning a specified disease-group. Experiment, once the unit is in being, will show the best use of this new research tool whose edge could easily be blunted by abuse.

The planning of the Records Unit has now been carried to a point beyond which it cannot go without special funds and help. The establishment of a unit as planned, with the necessary modern electrical equipment, is beyond the unaided resources of the College. Its planning to this stage has been an act of faith on the part of many members and associates of the College.

These members of the research register, individually and in faculties or study groups, have thought, discussed, tried out, discarded and tried again, and have enabled the research committee to plan on a sound foundation. The College, and general practitioners everywhere, are indebted to them. The germination of the idea of a records unit has been watched, fostered, and encouraged in increasing measure by Professor L. A. Hogben and Dr K. W. Cross, of the Department of Medical Statistics, Birmingham University. This department has been the scene of conferences, discussions both formal and informal, and of steady work on the statistical background to the many problems we have uncovered. We have been shown once again that the partnership between the family doctor and the statistician can not only be very fruitful, but, also, it can be very happy.

Tasmanian Island Practice. P. H. SHERWOOD, M.B., CH.B. *The Practitioner* (August, 1958), **181**, 199.

Dr Sherwood emigrated from England to the Furneaux group of islands near Tasmania, and serves the area of a small English county with the population of a large village. He is aided by "two double-certificated sisters" and a five-bed hospital; a twelve bed unit is under construction. Major surgery and abnormal obstetrics are avoided as far as may be by using the daily plane service to Launceston, Tasmania; and pathological facilities are obtained through the same channel'

A host of disorders are mentioned to illustrate the variety of practice, and Dr Sherwood mentions certain drawbacks which include the risk of collision with kangaroos on the road at night. He recommends his job as an excellent stepping-stone to more permanent things. "Island practice is not a career' It is an experience".