Practical Medicine:
a Guide to
Out-patient Management

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LLOYD-LUKE

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PRACTICAL MEDICINE:

A GUIDE TO OUT-PATIENT MANAGEMENT

PREFACE

BY THE END of his period of training, the student has a good theoretical knowledge of medicine and therapeutics. He subsequently becomes proficient at practical procedures as a houseman, but he may find that he is still not competent to make simple management decisions. This requires a different type of knowledge and the authors have found that there is usually a gap in the teaching of this aspect of medicine. This book is intended to help fill the gap and has been designed to meet the needs of three particular groups.

Examination candidates both in the qualifying examination and in the MRCP. Both these examinations are moving away from the purely theoretical type of question, and the MRCP especially attaches considerable importance to the practical management of common conditions. It is helpful in the examination situation to be able to put forward a plan of management of the type discussed in this book.

Junior doctors starting out-patient work.—The book can be taken to the clinic and will answer many of the simpler questions arising there. It is of course no substitute for the advice of a more experienced colleague, which must be sought if there is any doubt about the correct course of action.

General practitioners who wish to investigate their own patients. It is especially intended for those doctors who have a special interest in general medicine, perhaps through vocational training, but who encounter a problem outside their experience.

It is assumed that a full history and examination are mandatory in every case.—A few points of the history or examination have been emphasized where these are often overlooked, and in places it has been recommended that negative features

be recorded where these might be useful in following the progress of a chronic disease. These points are of course in no way comprehensive of all the features of the condition under discussion.

The schemes of basic investigations for the various conditions are similarly not exhaustive. They are, however, full enough to assess adequately the majority of cases and, incidentally, to satisfy most examiners.

The sections on therapy have deliberately been made dogmatic in the interests of clarity and brevity. They describe one method of treating a particular condition, which is safe and effective but not necessarily superior to any other method. As a doctor gains experience he may prefer other regimes and may then find it helpful to criticize the methods suggested here.

P.R.D.
D.M.G.

October, 1975

LIST OF ABBREVIATIONS

ACTH	Adrenocorticotrophic hormone
AFB	Acid-fast bacillus
ANA	Anti-nuclear antibody
ANF	Anti-nuclear factor
AP	Antero-posterior
ASO	Anti-streptolysin O (titre)
BCG	Bacille Calmette-Guérin
b.d.	Twice daily
BSP	Bromsulphthalein (retention test)
CXR	Chest X-ray
DCO	Transfer factor (for carbon monoxide)
DLE	Disseminated lupus erythematosus
ECG	Electrocardiograph
EEG	Electroencephalograph
EMSU	Early morning specimen of urine
ENT	Ear, nose and throat
ESR	Erythrocyte sedimentation rate
FEV_1	Forced expiratory volume in the first second
FTI	Free thyroxine index
FVC	Forced vital capacity
GCFT	Gonococcal complement fixation test
GGT	Gamma glutamyl transpeptidase
GTT	Glucose tolerance test
HBD	Hydroxybutyrate dehydrogenase (LDH_5)
HB_sAg	Hepatitis B surface antigen
IgG	Immunoglobulin G
INAH	Isonicotinic acid hydrazide (isoniazid)
ITP	Idiopathic thrombocytopenic purpura
IVP	Intravenous pyelogram (better described as intravenous or excretion urogram)

KCCT	Kaolin cephalin clotting time
LATS	Long-acting thyroid stimulator
LE	Lupus erythematosus (cell)
MCHC	Mean corpuscular haemoglobin concentration
MCV	Mean corpuscular volume
MSU	Midstream specimen of urine
PA	Postero-anterior
PAS	Para-aminosalicylate
PBI	Protein-bound iodine
Pco_2	Partial pressure of carbon dioxide
PEFR	Peak expiratory flow rate
Po_2	Partial pressure of oxygen
p.r.n.	As required
PUO	Pyrexia of unknown origin
q.i.d.	Four times daily
SGOT	Serum glutamic-oxaloacetate transaminase (aspartate aminotransferase, AST)
SGPT	Serum glutamic-pyruvate transaminase (alanine aminotransferase)
SLE	Systemic lupus erythematosus
T_3	Triiodothyronine
T_4	Thyroxine
t.d.s.	Three times daily
TIBC	Total iron-binding capacity
TSH	Thyroid-stimulating hormone
VMA	Vanillyl mandelic acid
WR	Wassermann reaction

GLOSSARY OF BRITISH AND AMERICAN APPROVED DRUG NAMES

BRITISH	AMERICAN
Bendrofluazide	Bendroflumethiazide
Benzhexol	Trihexyphenidyl hydrochloride
Cotrimoxazole	Trimethoprim and sulphamethoxazole
Disodium cromoglycate	Cromolyn
Frusemide	Furosemide
Glyceryl trinitrate	Nitroglycerin
Insulin-soluble	Insulin-regular
Insulin-NPH	Insulin-isophane
Isoprenaline	Isoproterenol
Methotrexate	Amethopterin
Paracetamol	Acetaminophen
Phenobarbitone	Phenobarbital
Phytamenadione	Phytonadione
Sodium aurothiomalate	Gold sodium thiomalate

SOME of the drugs recommended in this book are not yet available in the United States. At the time of going to press, the following drugs are not generally obtainable. The British approved names are employed.

Aloxiprin	Debrisoquine
Amoxycillin	Flufenamic acid
Baclofen	Mebeverine
Beclomethasone	Metoclopramide
Benorylate	Oxprenolol
Bethanidine	Salbutamol
Bromhexine	Sulphasalazine
Carbenoxolone	Tetracosactrin
Carbidopa	

CONVERSION FACTORS FOR SI UNITS

Investigation	*Traditional*		*SI*		*Conversion factor*	
	Range	*Units*	*Range*	*Units*	*from SI*	*to SI*
Bilirubin	up to 0·7	mg/100 ml	up to 12	μmol/l	0·06	17·0
Calcium	8·5–10·5	mg/100 ml	2·1–2·6	mmol/l	4·0	0·25
Chloride	100–106	mEq/l	100–106	mmol/l	1·0	1·0
Cholesterol	150–280	mg/100 ml	3·9–7·2	mmol/l	38·0	0·026
Creatinine	0·7–1·5	mg/100 ml	60–130	μmol/l	0·011	88·4
Glucose	70–100	mg/100 ml	3·9–5·6	mmol/l	18·0	0·056
Iron	50–150	μg/100 ml	9·0–26·9	μmol/l	5·6	0·18
Phosphate	3·0–4·5	mg/100 ml	1·0–1·5	mmol/l	3·0	33·0
Potassium	3·5–5·0	mEq/l	3·5–5·0	mmol/l	1·0	1·0
Proteins	6·0–8·0	g/100 ml	60–80	g/l	0·1	10·0
Sodium	135–145	mEq/l	135–145	mmol/l	1·0	1·0
Urea	15–40	mg/100 ml	2·5–6·7	mmol/l	6·0	0·17
Urate	3·0–7·0	mg/100 ml	0·18–0·42	mmol/l	17·0	0·06
Po_2	75–100	mmHg	10·0–13·3	kPa	7·5	0·13
Pco_2	35–45	mmHg	4·7–6·0	kPa	7·5	0·13

CONTENTS

Chapter One
THORACIC MEDICINE

UNIT ONE – ASTHMA

DEFINITION

Asthma is a condition in which there is a narrowing of the airways and which is reversible over short periods of time either spontaneously or as a result of therapy.

In order to make the diagnosis, both increased resistance to airflow and reversibility must be demonstrated. The usual parameters used for this are the FEV_1 and the PEFR, both before and after the inhalation of a sympathomimetic bronchodilator such as Isoprenaline.

The criterion of reversibility is a change of 15 per cent or more in the measured parameter. Fixed airways resistance is typical of bronchitis and does not constitute asthma.

THE NEW CASE

Establish the diagnosis as described above.

Seek a history of:

Any known allergy;
Hay fever or 'rhinitis';
Urticaria;
Eczema, including childhood skin trouble;
A family history of any of the above.

Document the precipitating factors:

Infections;
Season;
Pets;
Emotion;
Food and drugs, especially aspirin;
Cigarette and other smokes.

Investigations should include:

Full blood count and ESR. An absolute eosinophil count should be made on a wet preparation. (Normal should not exceed 400 per mm^3.);

Examination of sputum for eosinophils and culture. (The eosinophil count in sputum does not normally exceed 10 per cent of the total white cell count.);

Examination of serum for *Aspergillus* precipitins;

CXR (PA and lateral) and ECG;

Full lung function testing if the facilities are available;

Skin testing. A prick technique should be used which does not draw blood. The result is read after 10–15 min, a positive reaction being a wheal or flare larger than control. A standard battery of allergens is used, which may include pollens, house-dust, animal furs, feathers, certain foods, and *Aspergillus* species.

If there is evidence of atopy, some laboratories can measure total IgE or specific IgE against individual allergens.

In many cases the type of asthma can be categorized as intrinsic or extrinsic.

Intrinsic.—This typically occurs in later life and has no demonstrable allergic basis. Blood eosinophilia may be marked, but IgE is normal.

Extrinsic.—This usually develops in childhood, but may be diagnosed for the first time in later life. Atopy is prominent, there is a marked sputum eosinophilia and levels of IgE are high.

There is no particular treatment which is limited to a specific type of asthma and allocation to a definite type should not be allowed to dictate therapy.

INITIAL THERAPY

General Measures

Reassurance should be given about the relatively mild nature of the disease, but the patient should understand the dangers of the acute episode and the actions then to be taken.

Known precipitating factors should be avoided and this may involve a change of employment. Housing may also need to be changed and if these suggestions cause problems the medical social worker should be asked to advise.

Drugs

Combination therapy is used.

Disodium cromoglycate at a dose of 1 'spincap' q.i.d. is useful in most atopic and in many non-atopic individuals. It should be used as 'Intal plain' and the patients must understand clearly how to use the 'spinhaler'. They must take this drug whether or not they feel the need for it.

Salbutamol at a dose of 2–4 mg q.i.d. may be given by mouth.

If there are residual symptoms, they may be relieved by taking additional salbutamol from an inhaler. Up to 12 puffs daily may be taken in addition to the tablets, but beyond this dosage tremor and palpitations may occur.

The inhaler may also be used as a substitute for oral therapy. It is then used on a regular basis at a dose of 2 puffs q.i.d. It is essential that the patient understands how to use the inhaler correctly.

Follow-up

The new patient should be seen at monthly intervals until his condition is stable and then at increasing intervals up to six-monthly. At each visit the FEV_1 or PEFR should be recorded. CXR should be repeated at the first follow-up visit and then every two years.

FAILURE TO CONTROL

Causes

Failure to take the drugs. This may be due to drug intolerance;
Coexisting infection;
Continuous exposure to an allergen, perhaps unknown;
Aspergillosis;