

The Singapore Family Physician



**The
College of General
Practitioners Singapore**

Vol. VII

No. 1

JANUARY/MARCH 1981

ISSN 0377-5305

TABULETS

Moduretic

(hydrochlorothiazide-amiloride HCl, MSD)

diuretic

consider the logic in prescribing

Moduretic

**smooth, controllable attainment of
'dry weight'**

with convenient daytime (12-hour) diuresis encouraging
acceptance of medication

conservation of body potassium

making supplementary potassium unnecessary†

**increased protection for digitalised
patients**

as the preservation of potassium reduces the risk
of hypokalaemia-induced cardiac arrhythmias

simple dosage schedule

and lower overall tablet intake combine to promote
patient compliance

†Both potassium supplements and potassium-sparing agents
are contraindicated.



Moduretic

(hydrochlorothiazide-amiloride HCl, MSD)

diuretic

MSD
MERCK
SHARP
DOHME
INTERNATIONAL
Division of Merck & Co., Inc.
Kenilworth, N.J. 07033 U.S.A.

Note: Detailed information is available to physicians on request.

1-78 MUE 77-Au-17J(a)

LACTOGEN[®] "plus-protein" an ideal follow-up formula

IMPROVED
FORMULA



Protein needs increase in relation to a baby's age and weight.

So too do his needs for energy. His diet must thus become "calorie-dense" so that in satisfying his hunger his nutritional needs are satisfied too. If the milk supply becomes limited, then it is essential that the remaining milk supply compensate in protein, the protein that may be lacking in the traditional pap.

This cannot happen if through lack of caloric sufficiency protein-calories are diverted to fuel growth. For this reason a higher protein content is indicated than that found in starter milks which are geared to resemble breast milk.

"From the age when mixed feeding is established, there is little or no advantage in continuing for long to give cow's milk which has been meticulously modified in composition to resemble breast milk, and there could be an advantage in using milk which is relatively unsophisticated and which is a fairly rich source of nutrients".

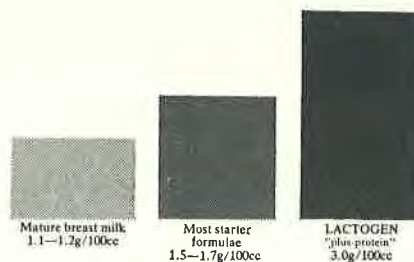
"Present day practice in infant feeding"
Dept. of Health and Social Security, U.K. 1974

Improved
LACTOGEN "plus-protein"
now in a new pack

LACTOGEN "plus-protein" is an ideal follow-up formula.

Upon reconstitution, LACTOGEN "plus-protein" contains 3.0 g of cow's milk protein per 100 cc. By contrast, most starter formulae provide only 1.5 to 1.7g of cow's milk protein per 100cc.

Comparative protein contents:



So when a mother starts baby on weaning foods, make sure he gets the protein he needs at his age. Prescribe LACTOGEN "plus-protein"—an ideal follow-up formula for older babies.

Complete — with a full range of vitamins and iron in physiologically appropriate quantities.

Nestlé
Specialists in infant feeding

«Bactrim» Roche

The broad-spectrum anti-infective agent with the lowest resistance rate

According to Truffot et al.³ after investigating 10,067 strains from 1970 to 1975, the combination of trimethoprim and sulfamethoxazole is the com-

monly used 'broad-spectrum' antibiotic to which bacteria are, at present, least resistant.

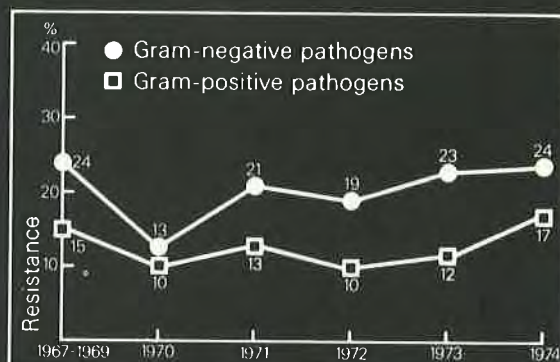
This observation has been confirmed by a number of authors in various countries

Rate of resistance (Switzerland, 1975)

Drug	Rate of resistance
«Bactrim»	23%
Chloramphenicol	36%
Cephalosporins	44%
Tetracyclines	49%
Ampicillin	54%

Resistance of 17,229 gram-positive and gram-negative bacteria (June 1974 to May 1975) (from Kayser²).

Changes in resistance to «Bactrim» (Germany, 1967–1974)



Resistance to «Bactrim» from 1967/69 to 1974 (from Auwärter¹).

Conclusion: «Bactrim» offers better prospects of success

«Bactrim» Roche

Dual-action chemotherapeutic agent with bactericidal properties

Composition

The active ingredients of «Bactrim» are 2,4-diamino-5-(3,4,5-trimethoxybenzyl)pyrimidine (trimethoprim) and 5-methyl-3-sulfanilamido-isoxazole (sulfamethoxazole) in a ratio of 1:5.

Indications

Infections of the upper and lower respiratory tract, genitourinary tract, gastrointestinal tract, and of the skin. Infected wounds. Septicemia. Other infections caused by sensitive organisms.

Side effects

At the recommended dosage «Bactrim» is well tolerated. Nausea,

vomiting and drug rash can occur. Hematological changes have been observed in isolated cases, mainly elderly patients. The majority of these were reversible on withdrawal of the drug.

Precautions

Regular blood counts are indicated whenever «Bactrim» is given over long periods. In cases of renal insufficiency, the dosage should be adjusted accordingly.

Contraindications

«Bactrim» is contraindicated in patients with marked liver parenchymal damage, blood dyscrasias or severe renal insufficiency where repeated determinations of the plasma concentration cannot be performed. It should not be administered to patients with a history of hypersensitivity to sulfonamides. For the time being, «Bactrim» is contraindicated during pregnancy. It should not be given to infants during the first few weeks of life.

References

1. Auwärter, W.: *Round-table-Gespräch über Bakteriologie, Pharmakologie und die klinische Anwendung von Bactrim Roche*, pp. 29–30. Ed. H. Knothe, W. Margel, J. Seydel. Grenzsch.: Editiones «Roche», 1973. (Figures for 1973 and 1974: personal communication.)
2. Kayser, F. H.: Sulfamethoxazole-Trimethoprim: Bacterial Resistance After Five Years of Clinical Use. Paper, 9th International Congress of Chemotherapy, London, 13–18. 7. 1975.
3. Truffot, C., Bismuth, R., Pacaud, G., Grosset, J.: In-vitro Sensitivity to Trimethoprim, Sulfamethoxazole and Other Antibacterial Agents of 10,067 Strains Isolated from 1970 to 1975. Paper, 9th International Congress of Chemotherapy, London, 13–18. 7. 1975.

For detailed information, please consult the packing slip or The «Roche» Vademecum.

«Bactrim» is a Trade Mark



CONTENTS

	Page
The Seventh Council 1979/81	2
Editorial	3
Infectious Mononucleosis Syndrome in General Practice Dr Chang Li Lian & Dr Chang Ming Yu, James	6
HYPERTENSION — Decision TREE for a rational therapeutic approach Dr L. Baltuch	11
Management of Colostomy complications Dr Peter Lim Huat Chye	14
Affective disorders; Endogenous depression; Reactive depression Dr Teo Seng Hock	19
Perianal Abscess Dr Peter Lim Huat Chye	22
News from the Council	24
Medical News	27

The College of General Practitioners Singapore

Patron

Dr. Benjamin H. Sheares, President, Republic of Singapore

7TH COUNCIL 1979-81

President	Dr Victor L Fernandez
Vice President	Dr Frederick Samuel
Censor-in-Chief	Dr James Chang Ming Yu
Hon. Secretary	Dr. Lim Kim Leong
Hon. Treasurer	Dr Gabriel Chiong Peck Koon
Council Members	Dr Paul Chan Swee Mong
	Dr Alfred Loh Wee Tiong
	Dr Tan Tian Cho
	Dr Moti H Vaswani
	Dr Wong Heck Sing
Hon. Editor College Journal	Dr Leong Vie Chung

BOARD OF CENSORS

Censor-in-Chief	Dr James Chang Ming Yu
	Dr Gabriel Chiong Peck Koon
	Dr Lee Suan Yew

ADMINISTRATION

Administrative Secretary	Mr Fernando B Vaz
-----------------------------	-------------------

1) Continuing Education Unit

Chairman	Dr Frederick Samuel
ex-Officio	Dr Victor L Fernandez
Education Programme Co- ordinator	Dr Alfred Loh Wee Tiong
Examination Co- ordinator	Dr James Chang Ming Yu
Home Study Programme co- ordinator	Dr Moti H Vaswani
Library: (Books) Coordinator	Dr Ho Gièn Chiew
(Tapes and Video Cassettes) Co- ordinator	Dr Paul Chan Swee Mong

2) Undergraduate Teaching and Postgraduate Training Unit

Chairman	Dr Victor L Fernandez
ex-Officio	Dr Frederick Samuel
Undergraduate Teaching Co- ordinator	Dr Moti H Vaswani
Postgraduate Training Unit Co- ordinator	Dr Wong Heck Sing

3) Research Committee

Chairman	Dr Leong Vie Chung
ex-Officio	Dr Frederick Samuel
Coordinator	Dr V P Nair

4) Publications Committee

Chairman	Dr Koh Eng Kheng
ex-Officio	Dr Frederick Samuel
Journal Coordinator and Hon. Editor Newsletter Co- ordinator	Dr Leong Vie Chung
	Dr Lim Kim Leong

5) Finance Committee

Chairman	Dr Wong Heck Sing
ex-Officio	Dr Victor L Fernandez
College Finance Coordinator	Dr Gabriel Chiong Peck Koon
Fund Raising Co-ordinator	Dr Tan Tian Cho

EDITORIAL BOARD

Editor	Dr Leong Vie Chung
ex-Officio	Dr Frederick Samuel
	Dr Koh Eng Kheng
	Dr Lim Kim Leong
	Dr Moti H Vaswani

The contents of this publication are not to be quoted in the press without permission of the Editor.

Editorial

Measuring Medical Competence

The Traditional System

Until the middle of the century, certification of medical competence was solely dependent on the traditional examination system which consisted of an "in vitro" or "what-you-know" written examination and an "in vivo" or "what-you-do" evaluation. The former examination took the form of essay-type papers and the latter was based on the bed-side clinical and oral examination. This traditional system worked well because the number of candidates seeking medical competence certification were manageable. The administrative and practical aspects of organising such examinations were not formidable and did not cause much disruption of the routine day-to-day functioning of the hospitals from where patients presented for the examinations were selected. From the point of view of examiners, there was sufficient time for them to be objective and uniform when the essay-type responses were marked and assessed. Medical knowledge was still encompassable. Since then both the number of candidates seeking medical competence certification and medical knowledge have expanded exponentially. Logistically, in certain medical centres, it is no longer possible to ensure objectivity and uniformity in measuring medical competence with the traditional system of examination.

Multiple-choice Testing

The first specialty board in America to introduce multiple-choice testing techniques in place of the traditional essay-type responses was the American Board of Internal Medicine in 1946. Cecil Watson, then Chairman of the Board, was reported to have said that multiple-choice testing was superior to the essay-type. It was suggested that a broader sampling of the candidate's general knowledge of internal medicine and the basic sciences was possible. Correction of the responses was more objective, fair and uniform which could never be achieved with the long essay-type responses especially when there was an overwhelming number of candidates. It was also felt that examiner bias could be eliminated. Examiners were not unknown to have "pet" biases in respect of medical topics

tested. A candidate's passing or failing the examination might hinge on the correct responses to these "pet" biases. A candidate who satisfied a "pet" bias of the examiner could do no wrong subsequently. Whereas a candidate who failed to satisfy the examiner's "pet" bias was considered unredeemable. There was also the initial fear that multiple-choice testing could not elicit the candidate's ability to reason as well as the essay-type. To this, Cecil Watson said that this depended largely on the character of the question, "which may be devised to test nothing more than factual knowledge or experience or to provide a situation which requires considerable analysis or reasoning."

One frequent criticism of multiple-choice testing was that it placed a premium on memorization and factual recall. This criticism was well recognised and in well-constructed multiple-choice questions, minutiae such as drug dosages were not generally asked for unless their knowledge was absolutely essential.

Opponents to the use of multiple-choice testing argued that the candidate was quite thanklessly introduced to a whole series of wrong responses. To the extent that the wrong responses were plausible this could be quite seriously confusing. If they were not plausible, the achievement in choosing the correct response was of no significance.

A more serious drawback was the allusion that that **response of recognition** which was being tested in multiple-choice tests, differed totally from the **response of spontaneous construction** which only essay-type tests could elicit. It was argued that whereas the response of spontaneous construction included the response of recognition, the converse was not true.

Multiple-choice testing would not have been the success it was without the aid of the newly emerging science of educational measurement. It was only after three years of deliberate and carefully designed experimentation that convincing evidence was gathered to support the applicability of multiple-choice testing methods in the field of medicine. The change to multiple-choice testing led to precise grading of results which were free of the sub-

jective judgements of essay examiners. This was considered to be a better method of measuring medical competence. Henceforth, there was no looking back.

Notwithstanding the early introduction of multiple-choice testing by the American Board of Internal Medicine in 1946, it was not until 25 years later that resistance to this type of testing was overcome. By 1971 most American specialty boards had adopted multiple-choice testing with the total abandonment of the essay-type testing.

Construction & Criteria

The construction of an examination based on the multiple-choice type is not a simple affair. It is a formidable undertaking and most centres of examination reckon that it takes a whole year to prepare one. A new examination has to be prepared each year. Two thirds of the questions are written *de novo* by the examination committee and one third drawn from the collection of previously used and calibrated questions. Every year, questions have to be reviewed and those no longer valid because of the advances in medicine are discarded. Questions have to be carefully scrutinised to avoid any inadvertent misleading of the candidate.

Properly constructed multiple-choice questions satisfy three basic criteria. They must have a range of difficulty. They should have an index of discrimination and they have to be relevant to the objectives of medical education.

Individual items in multiple-choice testing have different indices of difficulty. The index of difficulty of an item is arrived at by the percentage of examinees who answer it correctly. Thus an index of 0.98 would indicate that 98% of examinees responded correctly. It is an easy item. On the other hand, an index of 0.20 for a five-choice or 0.25 for a four-choice item raises the suggestion that the correctness of the response is totally due to chance or guessing. Such items are scrutinised discriminately and a decision is then made whether they should be discarded or deleted from the examination altogether. The average index of difficulty of items in the American examinations is between 0.60 to 0.65.

All examinations are made to discriminate between those who are more knowledgeable and those who are less knowledgeable. In the American experience, a random sample of candidates are selected and a frequency distribution of their scores plotted. Those whose scores fall in the top quadrant of the distribution curve are considered "good" students and those in the lowest quadrant the "poor" students. If all the top quadrant students respond correctly and none of the lowest

quadrant students respond correctly, the index of discrimination of a test item is 1.00. It is a perfect item in terms of its discriminating function. If equal numbers in the two groups respond correctly, that item has an index of discrimination of zero (non-discriminating). If more in the bottom group than the top group respond correctly, the index is said to be negative. Items with zero or negative indices are normally rejected.

One of the most important tasks of examination committees is to ensure the relevancy of the test items in multiple-choice testing. In America, examination committees enlist the help of basic-science and clinical-science departments in evaluating whether the test items in multiple-choice tests are relevant. Although on the whole they have received endorsement of relevance, dissenting views are not unknown. In one study, selected members of the University of Illinois College of Medicine were instructed to determine in retrospect what intellectual processes a student would require to answer the test items in a National Board examination. The views were that the test items merely measured recall of isolated information. The fact that much trouble and concern are spent to ensure relevancy of test terms in multiple-choice tests testifies to the importance of this criterion.

The Oral Examination

The oral examination is traditionally rooted in the measurement of medical competence. The face-to-face encounter, the manner and substance of replies to close questioning, the ease and facility of communication and the direct observation of clinical skill, personality and attitude of the examinee are features of the oral examination which cannot be elicited in any form of written examination.

In America, reliance on this widely accepted and historic examination is being challenged for purposes of certification at the professional level. The reliability of the oral examination is said to fail to equal that of a good multiple-choice examination.

A three year study of the correlation between the independent evaluation of a single candidate made by two examiners in oral examinations showed that agreement was still at chance level ($r = 0.25$ for a total of 10,000 examinations). The National Board of Examiners in America decided to abandon the use of the bed-side or oral examination in 1963.

The American Board of Internal Medicine, faced with vast numbers of candidates taking its examinations annually undertook a study to critically analyze its oral examination. It too deci-

ded that the oral examination for certification in general internal medicine should be discontinued. The emphasis was placed on objective measures of professional competence, the testing of which took the form of **Patient Management Problems**. In this form of assessment, general information of a problematic patient is given together with initial physical findings and laboratory studies. Problems are then posed to the candidate relating to the history, further appropriate investigations and the diagnostic possibilities as well as complications and therapeutic measures.

In the U.K. a candidate faces his examiners for the oral examination after spending one hour with his patient. His examiners will be judging him on a whole series of different variables. These include clinical technique, factual knowledge, attitudes, personality and the ability to recall data, recognize syndromes, interpret information and solve problems. Although these examinations were unlikely to prove more than a rough and ready assessment, yet there was a strong belief, commented John R. Ellis, General Secretary of the Association for the Study of Medical Education, London and Dean of the London Hospital Medical College, "that the English clinical, conducted by two examiners, of whom one at least is highly experienced in the art, is sufficiently accurate for the purpose, and that many of the dimensions which are assessed cannot be assessed better in any other way. This deeply felt belief is, I think it must be admitted, largely untouched by knowledge of what other techniques might be used or are being used elsewhere. It has its origins, perhaps, and some justification, in the fact that clinicians are more accustomed than others, and therefore probably better than others in making important decisions on inadequate data."

Our Examinations & Fears

Many of the changes in measuring medical competence are incorporated in the M.C.G.P. (Singapore) examinations. We have however not abandoned the essay-type responses nor have we done away with the bed-side oral examinations. Like the British, we remain conservatively correct. With the growth of computer technology we may yet see the day when a candidate sitting for a medical competence examination literally sits at a computer terminal, faces a silent screen and has his brains "scrambled" by a totally impassioned computer examiner. The "patient" presented for the clinical is no more than a mass of data — both descriptive and numerical. Can we blame such a medical graduate who is brought up under these circumstances for being cocksure and competent but callously cold and uncaring?

The sheer pressure of massive numbers of candidates seeking certification and re-certification as seen in America today has exacted a very heavy price. The price of payment is in the cold impersonality of medical competence certification and re-certification. The medical profession is one which is personally concerned with patients and their problems. If a doctor can be certified without the need to come into physical contact with patients and all that this implies, then truly medicine is split in halves. The **art** and the **science** of medicine have become regrettably parted. May we in Singapore be spared the barrenness and ugliness of such an unnecessary separation. A couple of aspirin tablets may bring down the fever but a caring hand over the fevered brow brings relief and comfort far beyond any scientific formulation. Surely our patients deserve the best of both.

L. V. C.

Views expressed in the Editorial are not necessarily the official views of the College.

Infectious Mononucleosis SYNDROME in General Practice

Chang Li Lian M.B.B.S., M.Med. (Paediatrics)
Chang Ming Yu, James M.B.B.S., F.C.G.P. (Singapore)

Introduction

Upper respiratory tract infections are the commonest illnesses seen among children in general practice. The majority of these infections present with rhinitis, cough and fever. Clinical signs are few, mainly a raised temperature and a generally injected pharynx. In contrast to this is an infectious mononucleosis-like illness which presents with bizarre signs. Called the infectious mononucleosis syndrome (IMS) by Wong (1972), it describes an illness with symptoms and signs of classical infectious mononucleosis (IM), together with the characteristic blood picture, but without the positive heterophile agglutination test of Paul-Bunnell. Wong et al (1977) presented 73 cases of IMS from admissions to the Department of Paediatrics from 1972-1976. As may be seen from the number admitted over a 5 year period IMS is not a commonly occurring illness. This is especially true of the severely ill patient with IMS where hospital admission is merited. Milder cases of IMS probably occur from time and again in general practice but are missed.

This paper reports 7 cases of IMS which the authors saw in a 3 month period, between October and December 1980. There appeared to have been an increased incidence of IMS during that period. Only 3 other cases of IMS were seen in the clinic since 1976 when a mini-laboratory capable of performing simple blood tests was set up.

Case Reports

Case 1

Margaret T, an 8 year old girl of Sino-British parentage, was seen on 8.10.80 with a week's history of malaise followed by fever, stiffness of neck and a sore throat of a day's duration. There was nasal congestion and a mild cough. Vague upper abdominal pain was complained of and the appetite was poor.

Examination revealed a temperature of 38°C, tonsils which were both enlarged and covered with white exudates and cervical lymph glands which were enlarged enough to be visible. The cervical

lymph glands on the right side of the neck measured 2.5cm across. They were firm, tender, and appeared matted together. The upper abdomen was tender on palpation. The liver was just palpable, the spleen percussable but not palpable.

Investigations done in the clinic showed haemoglobin (Hb) concentration of 12.69%, total white cell count (TW) of 9200/mm³, differential count (DC) 18% polymorphs, 46% lymphocytes, 1% eosinophil and 35% atypical lymphocytes or atypical mononuclear cells (AMC). Throat swab which was sent for culture grew haemolytic streptococcus, sensitive to Amoxycillin. Paul-Bunnell test (Monotest) for IM was negative.

The patient was followed up at home. In view of the positive culture for haemolytic streptococcus, a course of Amoxil was given, together with the appropriate symptomatic medicines. The fever persisted for 6 days with evening exacerbations which rose to 39°C for the first 2 days. She developed peri-orbital oedema the next day and tender lymph nodes were palpable in the axillae and groins, in addition to those in the cervical region. The liver and spleen were enlarged to 2cm below the respective subcostal margins. A morbilliform rash was apparent on her face, neck and upper trunk for a day. She had persistent nasal congestion and a non-productive cough for 4 days.

On 15.10.80, the TW was 8700/mm³ with 38% polymorphs, 32% lymphocytes, 55% AMC. The platelet count was 120,000/mm³. A week later the TW became 7050/mm³ and AMC was 21%.

The patient had a prolonged convalescence and complained of being easily fatigued. She was away from school for several weeks and missed her terminal examination. Fully 2 months after the onset of the illness, she experienced a relapse, with fever and pharyngitis. The cervical lymph nodes enlarged again but not to their original sizes. There was no hepatosplenomegaly. The TW was 11,150/mm³ and the AMC was 21%. She recovered from this episode without further complications.

Case 2

T.E.C., a 4 year old Chinese boy was brought to

the clinic on 11.10.80 because he was noticed to have a swollen neck for 4 days and puffiness around the eyes for 1 day. The parents thought he might have a kidney disease. There was nasal congestion but no sore throat or cough. The fever was mild and the child appeared well, though the appetite had deteriorated in the past few days.

Examination confirmed the peri-orbital oedema and cervical lymphadenopathy. The tonsils were normal. The liver was 3 cm enlarged, the spleen 2 cm.

Investigations showed TW of 10,800/mm³ with 19% polymorphs, 44% lymphocytes, 4% eosinophils and 33% AMC. The platelet count was 115,000/mm³. He was followed up as an out-patient. A month later the cervical glands had become small and discrete. The liver was 1cm palpable, the spleen percussable. The TW was 6,800/mm³ with 29% polymorphs, 48% lymphocytes, 8% eosinophils, 15% AMC. When seen 2 months after the onset of the illness, he was completely well.

Case 3

M.C.K., a 2 year old Chinese boy was seen on 28.10.80 with fever and upper respiratory tract symptoms for 4 days. When seen, he had obvious peri-orbital oedema and enlarged lymph glands in the posterior triangle of the neck, giving him a "bull-necked" appearance. The tonsils were enlarged and covered with white exudates. His liver was palpable 3cm, the spleen 1.5cm below the respective subcostal margins.

Investigations in the clinic showed TW of 10,700/mm³, with 22% polymorphs, 15% lymphocytes, 63% AMC. Platelet count was 120,000/mm³. There was a trace of blood in the urine on Labstix examination.

This child was referred to the Department of Paediatrics where the diagnosis of IMS was confirmed. Investigation there revealed 90% AMC in the buffy coat preparation. The P-B test was negative. Cytomegalovirus was negative in both blood and urine. Throat swab grew normal flora.

He was treated symptomatically. Despite a fever which persisted for a week and cough with nasal congestion, the child was well and active. By 19.11.80, the buffy coat showed that the AMC had dropped to 30%. The liver had subsided completely, but the spleen was still palpable.

Case 4

Robert T, a 6 year old boy, brother of Case 1, presented on 28.10.80 with fever for 2 days, nasal congestion and cough for the same duration and

abdominal discomfort for a day. He had obvious peri-orbital oedema and enlarged cervical lymph glands. He had tonsillectomy 2 years earlier and though the throat mucosa was injected, there was no membranous exudate. His liver was 2cm palpable, the spleen 1cm below the subcostal margin.

Investigations showed TW of 8600/mm³, with 26% polymorphs, 20% lymphocytes, 1% eosinophils and 53% AMC. The Hb was 13g% and the platelet count was 175,000/mm³.

Fever persisted for 4 more days. In spite of complaints of stiff neck, occasional abdominal pain, rhinitis and a non-productive cough, the child remained well. The liver increased in size to 3cm before subsiding. On 13.12.80, 2 weeks after the first visit, the TW was 6800/mm³, with 36% polymorphs, 11% lymphocytes, 1% monocytes, 3% eosinophil and 49% AMC. He was symptomless then, though the liver was still palpable. The spleen was not.

Case 5

E.L.L., a 5 year old Chinese girl was seen on 6.12.80 with fever for 4 days. She had mild cough and rhinitis. When seen there was peri-orbital oedema and cervical lymphadenopathy. The tonsils were not enlarged. The liver was 1.5cm palpable, the spleen 2cm. Except for the fever and malaise, the child appeared well.

Investigations showed Hb of 11.6g%, platelet count of 195,000/mm³, and TW of 13,500/mm³ with 29% polymorphs, 6% lymphocytes, 9% monocytes and 56% AMC.

She was treated symptomatically. On 9.12.80, the tonsils were noted to show white exudates, though the peri-orbital oedema had subsided. The cervical lymphadenopathy remained prominent and the liver and spleen were enlarged 3cm below the subcostal margins. The fever had subsided. The TW was 12,800/mm³ with 17% polymorphs, 11% lymphocytes, 72% AMC, 2% monocytes. Despite the bizarre findings, the child remained well.

Case 6

C.N., a 16 month old boy from Indonesia, was seen on 12.12.80 with fever for 5 days. The fever showed a nightly exacerbation. He was noted to have bilateral septic tonsils and was prescribed a course of Bactrim. The fever persisted and he was brought back on 15.12.80. By this time, he had developed enlarged glands in the neck and a maculopapular rash over his neck and trunk. On examination, his tonsils were covered with white exudates, his liver was just palpable but the spleen was 3cm

enlarged below the left subcostal margin.

Investigations showed the Hb concentration to be 12g%, TW 11,650/mm³, with 19% polymorphs, 24% lymphocytes, 1% eosinophils, 2% monocytes, 54% AMC. Platelet count was 175,000/mm³.

By 19.12.80, the fever had settled. The child had in the meantime developed nasal congestion. The rash had subsided. The glands in the neck remained swollen but the liver and spleen had shrunk to 1.5cm below the subcostal margins. TW was 7,600/mm³, with 9% polymorphs, 25% lymphocytes, 1% monocytes, 1% eosinophils and 65% AMC.

When last seen a week later, he was well. The mother said he had high fever one night during that week. Both liver and spleen were still palpable but the cervical lymphadenopathy had subsided.

Case 7

Lucy T, the 9 year old sister of Cases 1 and 4, was seen on 5.12.80 with headache, stiffness of neck, sore throat and fever for a day. She had an injected throat, the tonsils having been removed a few years ago, and a few discrete neck glands.

Investigations showed a Hb concentration of 14g%, TW of 5,050/mm³, 51% polymorphs, 42% lymphocytes 7% AMC. She was treated symptomatically. The fever persisted for 8 days. Her throat was sore and she developed a non-productive cough. On 8.12.80, the TW was 5,050/mm³ with 50% polymorphs, 31% lymphocytes, 19% AMC. The fever subsided on 12.12.80 but she developed a maculopapular rash over her trunk. This lasted for a day. When seen on 13.12.80, TW had risen to 9,700/mm³, with 58% polymorphs, 22% lymphocytes, 1% eosinophils and 19% AMC.

Though this case did not present with the full clinical picture of IMS, the authors felt that she was infected by the same virus which her siblings had. The clinical presentation could have been modified by a more mature immunological system.

Discussion

1. General

It is commonly held that IM is a Caucasian disease and not seen among our local population. Indeed, the first reported case of IM in Singapore was in a Caucasian adult (Sreenivasan, 1966). IM, with its classical presentation, the increase of atypical lymphocytes in the peripheral blood and a positive Paul-Bunnell test, is rare. Only one other case has been reported with the triad (Wong et al, 1977). IMS which is IM without the positive Paul-Bunnell test is not uncommon. It has not been reported in general practice for many reasons. Firstly the symptomatology of IMS is similar to that of any

upper respiratory tract illness and unless general practitioners become aware of its existence and look for supporting signs, this illness will remain missed. The majority of cases referred to hospital have as their initial diagnoses diseases with dangerous prognoses, viz leukemia, solid lymphomas, typhoid fever and diphtheria (Wong et al, 1977). Secondly, the diagnosis of IMS requires cooperation between parent and doctor. The full blown picture may not become apparent at the onset of the illness. Some parents change doctors when the fever does not settle and if this doctor-hopping occurs every few days, none of the doctors consulted will have the opportunity of viewing the child through the illness and arriving at the correct diagnosis. Thirdly, few doctors perform their own simple blood tests and without at least a peripheral blood film to see the increased numbers of atypical mononuclear cells, it is impossible to confirm the diagnosis. It is possible to send patients to a laboratory but the inconvenience and extra cost are deterrent factor (Chang & Chang, 1979).

2. Clinical features

As may be seen from the cases reported, fever seems to be the main presenting symptom. It is a fever noted for its persistence, lasting for a week if not longer and often with nightly exacerbations. Despite the prolonged fever, most children appear relatively well and parents readily volunteer that the children only complain of discomfort when the fever is high. Pharyngitis, and especially tonsillitis with membranous exudates is common. When first presented with a febrile child with septic looking tonsils, the diagnosis of bacterial tonsillitis is usually reached, since this is by far the commoner occurring illness. Without other supporting signs, it is difficult to think otherwise. However, it is our impression that the child with septic tonsillitis looks and feels more ill than a child with IMS. Periorbital oedema appeared in 5 of the 7 cases we saw. It featured in only 15% of the cases who were admitted to hospital, (Wong et al, 1977). This swelling is transient and may last for only a day or so. Cervical lymphadenopathy is unlikely to be missed. Enlarged glands in the neck are common in children, especially in those with frequent throat infections. However, the cervical lymphadenopathy in IMS is marked enough in most cases to be immediately visible. The glands are often huge and matted together, giving the child a "bull-necked" appearance. Despite their size, they are mildly if at all tender and the usual signs of inflammation are absent. Both liver and spleen are enlarged to sizes that are difficult to miss, pro-

vided one is looking for them. The abdominal pain which some children complain of could be due to the enlarging liver. Rashes were seen in 3 of the cases. Boughton (1970) reported a 4% incidence of a rash in his cases of IM where clinical, haematological and serological criteria were realized. In contrast, rashes were found in 17% of his cases which were Paul-Bunnell test negative. In the cases of IMS reported by Wong et al. 1977, 11% had rashes. Liver function tests were not performed in any of our cases because we thought them unwarranted. Liver involvement with abnormal liver function tests was reported in some cases. The usual pattern seen was slight elevation in both serum bilirubin and SGPT values and marked increases in serum alkaline phosphatase levels. The bromsulphthalein (BSP) retention was sometimes high despite the absence of clinical jaundice (Boughton, 1970). Other complications reported in IM were aseptic meningitis, polyneuritis, pericarditis, haemolysis, thrombocytopenia with or without purpura and splenic rupture.

3. Haematology

Red cells and platelets are not affected in IM except in the rare instances of hemolysis and thrombocytopenic purpura. Leucocytosis is of varying degrees, the increase being due to a rise in lymphocytes. In the differential count, this makes up between 50% — 90% of the leucocytes. (Davidsohn & Lee, 1962). The haematological criteria for the diagnosis of IM which Boughton used, are an absolute count of peripheral circulating lymphocytes plus monocytes exceeding 5000/mm³ and a relative count exceeding 50% at some time during the illness, with the presence of atypical lymphocytes of the Downey type (Boughton, 1970). All the cases in this series except Case 7 satisfy the diagnostic haematological criteria. Case 7 should have been excluded, but the suspicion of her having a similar viral illness as her siblings, was very strong. A difference in immunological make-up could account for the modified picture seen. The abnormal lymphocyte, variously called the infectious mononucleosis cell, Downey cells (Downey & McKinley, 1923), or virocytes are seen in large numbers in the peripheral blood. They usually exceed 10% in the differential count (Boughton, 1970) or 50% of white cells in the buffy coat preparation (Wong et al, 1977). These cells are also seen in other viral infections, viz rubella, mumps, varicella, virus pneumonia, infectious hepatitis, but in general do not appear in such numbers. The atypical lymphocytes are larger than normal lym-

phocytes. Some look like monocytes, with nuclei which are kidney shaped and have coarse chromatin network. Some resemble plasma cells. Others again look like lymphoblasts, big cells with round nuclei containing one or more nucleoli. The cytoplasm in the atypical lymphocyte is pale greyish blue, with the presence of cytoplasmic vacuoles (Davidsohn & Lee, 1962). These abnormal cells which are produced by the lymph nodes and spleen continue to be found in the peripheral blood for weeks or even months after the acute illness is over.

4. Serology

The Paul-Bunnell (P-B) or heterophile agglutination test is a nonspecific test which measures the presence of anti-sheep agglutinins in blood. In IM, these agglutinins are absorbed by ox erythrocytes but not by guinea-pig kidney tissue. The reverse is true in other conditions where anti-sheep agglutinins are raised. These agglutinins are removed by guinea-pig kidney but not by ox erythrocytes. Though IM can occur with a negative P-B test, the majority of cases of IM in the West have a positive test. In Singapore, however, out of 73 cases of IMS reported by Wong et al, 1977, only one was P-B test positive. Two of our cases had the P-B test done and both were negative. The Epstein-Barr virus (EBV) has been accepted as the etiological agent for classical IM and cases of IM are usually positive for EBV as well as for the P-B test. A small group of IM patients were EBV antibody positive but P-B test negative (Evans et al, 1968). This was commoner in the younger age group. A few cases which were negative for P-B test and EBV antibodies had cytomegalic virus, toxoplasma, or adenovirus infection (Lamb & Stern, 1966; Remington et al, 1962; Gutekunst & Heggie, 1961). EBV serology is not available in Singapore. Cytomegalovirus was looked for in Case 3 and was found to be negative.

In an attempt to find out why IM does not occur among Asians in Malaysia, Tan & Henle, 1972, studied antibodies to EBV related antigens in West Malaysian children. They showed that 83% of the children in the 1-2 year age range had already acquired antibodies to EBV and by the age of 10, 100% had acquired immunity. All had acquired EBV infections in subclinical or mild forms early in life and therefore none would be susceptible to the severe form typical of IM. This is considered to be due to delayed primary infection to EBV. It is likely that a similar situation holds in Singapore and that our cases of IMS are not due to EBV but to other viruses.

Conclusion

IMS is an infectious mononucleosis-like illness which does occur in Singapore among our local children. Though not a common illness, it nevertheless occurs often enough for its existence to be recognised and highlighted among general practitioners. It is a benign illness despite its often frightening clinical picture and prolonged period of morbidity. Close rapport with the parents of these children is important for the management of this illness. Explanations should be made of the probable course of the illness so that undue apprehension may be allayed. Chemotherapeutic agents are unnecessary except for the treatment of intercurrent infections which may occur during the convalescent period.

Changes in the immunological system in patients with IMS could border on the malignant and whether or not IMS led to malignancy depended on the type of virus, the intensity of the infection and the genetic constitution of the patient (Wong et al, 1977). It therefore behoves the doctor who diagnoses IMS to maintain close surveillance on his patient and should fever, toxicity and other signs persist beyond 3 weeks, to admit the child for further investigations.

References

1. Boughton, C.R., 1970. Glandular fever, a study of a hospital series in Sydney. *Med. J. of Aust.* 2:529.
2. Chang, M. Y. & Chang, L.L., 1979. 'Instant' laboratory investigations in a general practitioner's office. *The Singapore Family Physician*, V:146
3. Davidsohn, I. & Lee, C.L., 1962. The laboratory in the diagnosis of infectious mononucleosis. *Med. Clin N. Amer.* 46:225.
4. Downey, H. & Mckinley, C.A., 1923. Acute lymphadenosis compared with acute lymphatic leukaemia. *Arch. Int. Med.* 32:82.
5. Evans A.S., Niederman, J.C., McCollum, R.W., 1968. Seroepidemiologic studies of infectious mononucleosis with E.B. virus. *New Eng. J. Med.* 279:1121.
6. Gutekunst, R.R. & Heggie, A.D., 1961. Viremia and viruria in adenovirus infection: detection in patients with rubella and rubelliform illness. *New Eng. J. Med.* 264:374.
7. Lamb, S.G. & Stern, H., 1966. Cytomegalovirus mononucleosis with jaundice as presenting sign. *Lancet* 2:1003.
8. Remington, J.S., Barnett, C.G., Meikel, M & Lunde, M.N., 1962. Toxoplasmosis and infectious mononucleosis. *Arch. Int. Med.* 110:744.
9. Sreenivasan, B.R., 1966. A case of infectious mononucleosis in Singapore. *Sing. Med. J.* 7:69.
10. Tan, D.S.K. & Henle, G. 1972. Antibodies to EDV related antigens in West Malaysian children. *Med. J. Malaysia* XXV11:27.
11. Wong, H.B. 1972. Infectious mononucleosis in Singapore. *J. Sing. Ped. Soc.* 14:26.
12. Wong, H.B., Lee, C.Y.M., Tao, M 1977. Infectious mononucleosis syndrome in Singapore. *J.Sing. Ped. Soc* 19:153.

Hypertension

Decision TREE for a rational therapeutic approach
Dr L Baltuch

This Tree (next page) summarizes in a schematic way the therapeutic approach to hypertension — once the use of drugs is decided upon. It is part of a protocol for the management of hypertension by the primary medical team, as described elsewhere. (1) This protocol has been in use for some time already, on a trial basis, in about one hundred out-patient clinics belonging to Kupat-Holim (the worker's sick fund of Israel). The encouraging results of this trial, to be published (2) led to an ever increasing number of primary medical teams adopting this system.

This Decision TREE was built with the purpose of helping the busy practitioner in the difficult task of prescribing the DRUG of choice for a given patient in the setting of an out-patient clinic — considering the multiple choice of drugs, the heavy daily work-load and the possible risk of over or under treating the hypertensive patient.

This Decision TREE is self explanatory and it is based on the STEP by STEP DRUG SCHEDULE as described in the current literature and is accepted as a rational therapeutic approach by most of the specialists in the field.

Since, very seldom is there a one and only way of treating a disease (3) any physician can build a similar Decision TREE following the same rationale but including his therapeutic preferences according to his knowledge and previous experiences.

It consists of twelve questions, each one leading either to a given action or to another question, taking into consideration first the patient's condition and/or complicating related diseases, and second, the patient's reaction to a given drug or drugs as devised in the three step approach.

The patient's reaction to any given drug is to be

monitored by bi-weekly blood pressure measurements. In the Decision TREE, questions are represented by "Lozenges"; answers by "Rectangles"; "Circles" represent end of protocol — either by referral to special clinics or periodical follow-up.

Description of Decision

Step I: Diuretics

Question No. 1 — Does the patient suffer from kidney damage or high serum creatinine levels? If yes, the diuretic of choice is FRUSEMIDE (starting dose 40 mg. given in the morning) in increasing doses if and when necessary.

Question No. 2 — Relates to the patient's reaction to the given drug — did his blood pressure come down to the desired norm? If yes, stop this protocol and have the patient followed up periodically. If not, Step II and III will be implemented as necessary.

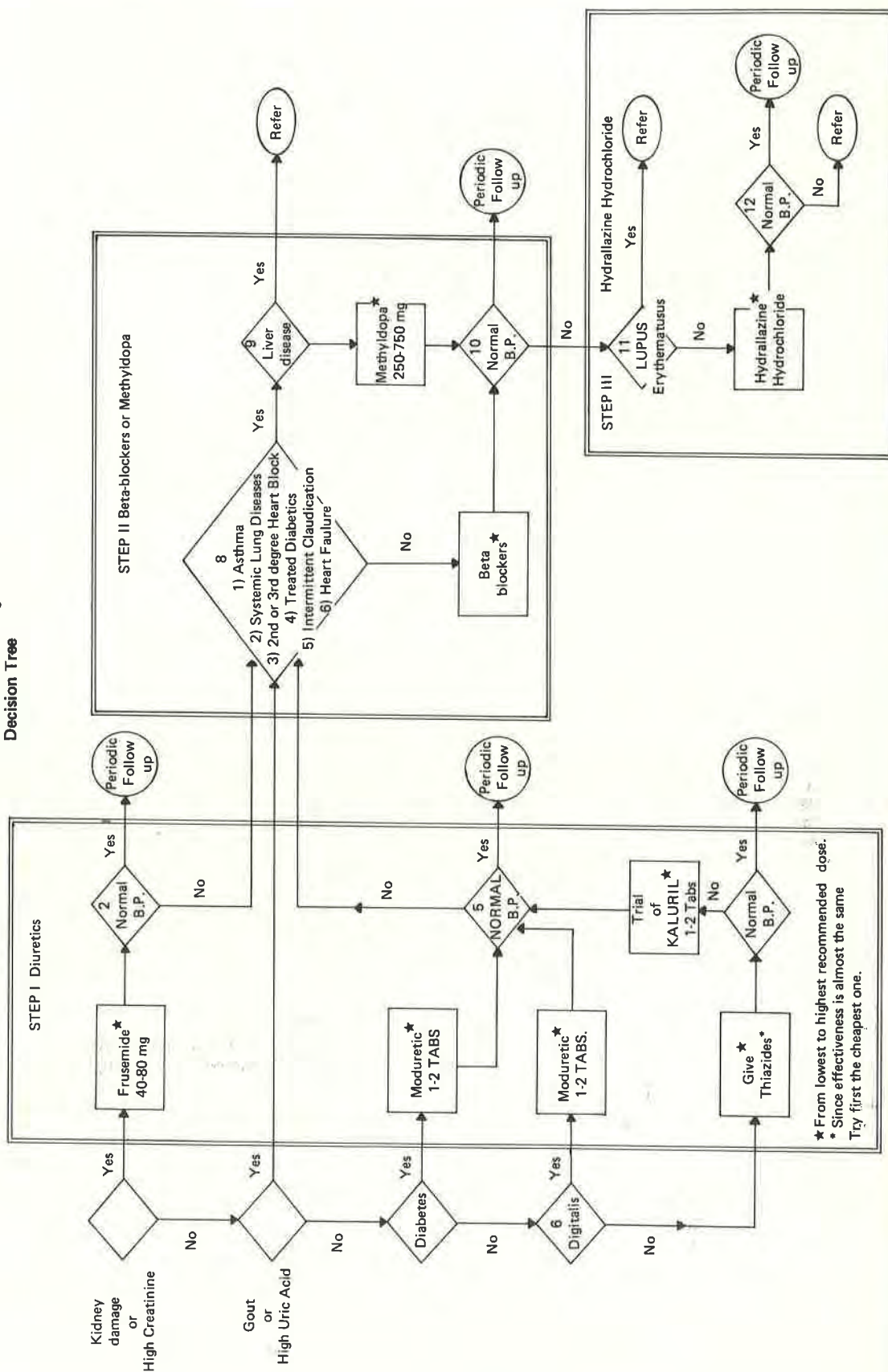
Question No. 3 — If the answer to question No. 1 is negative, skip question No. 2 and the new question will be: Does the patient have Gout or high Serum Uric Acid level? If yes, DIURETICS are contra-indicated. Start on drugs as described for Step II.

Question No. 4 — No being the answer to question No. 3, the new one relates to the patient with Diabetes, who will get MODURETIC as the diuretic of choice.

Question No. 5 — Like No. 2 takes into consideration the results of treatment and related further action, as necessary and as described above.

Question No. 6 — If the answer to question No. 4 is negative, again skip question No. 5 and continue: Is this patient also getting Digitalis? If yes, the diuretic of choice will be again moduretic.

**KUPAT HOLIM
HYPERTENSION
Rational Choice of Drugs
Decision Tree**



Here the protocol leads once more to question No. 5 and related action.

A negative answer to question No. 6 will place this patient like most hypertensives in the group to be treated by **any** diuretic from the Thiazide group. Since the results of treatment are similar, one recommends first the use of the cheapest one of the Thiazide Drugs.

Question No. 7 refers to the resulting B.P. after the use of diuretics, including a trial of Kaluril — should there be no response to the Thiazides, before adding the drugs recommended in Step II.

Step II: Beta Blockers or Methyl Dopa

Question No. 8 — Will identify those patients who did not respond well enough to diuretics alone, even in increased doses, or when diuretics were contra indicated (see question No. 3) AND YET ARE IN NO condition of taking Beta Blockers — the drug of choice for stage II. These are the patient with a history of:

- (1) Asthma — past or present
- (2) Systemic Lung Diseases
- (3) II or III degree of heart block
- (4) Insulin or hypoglycaemic drug treated diabetes
- (5) Intermittent claudication, and
- (6) Heart failure.

Question No. 9 — If the answer to any one condition in question No. 8 is positive — the alternative is to give Methyl dopa as Step II if the patient has no liver disease as asked in this question. If yes, then this patient should be referred to a special B.P clinic because of the severity of his condition.

Question No. 10 — Relates to results of treatment given and continuing follow-up if the answer is yes to "is the level of blood pressure normal?", or adding drugs in Step III to Step I and II if Blood Pressure is still considered high.

Step III: Hydrallazine Hydrochloride

Question No. 11 — To identify the patient who

can be given hydrallazine hydrochloride, i.e. the patient who does not suffer from Lupus Erythematosus or Angina Pectoris and not covered by Beta Blockers. If the answer is yes this patient should be referred to a special Blood Pressure Clinic.

Question No. 12 — Should the patient be able to take hydrallazine hydrochloride, is his/her blood pressure under control? If yes, have the patient followed up periodically. If not, refer for reevaluation.

SUMMARY

In spite of the limitation of the Decision Tree, it was found very useful in helping the busy practitioner to give good quality medical care to a great number of hypertensives in the relative short disposable time at the out-patient clinic.

ACKNOWLEDGMENT

For advice and technical help my many thanks to Prof J B Rosenfeld, Dr. D. Silverberg, R. Shafir and J. Lavy.

BIBLIOGRAPHY

1. D. Silverberg, M.D., L. Baltuch, M.D.: Hypertension — Management by the primary medical team. The Family Physician, Vol. 8, No. 1., 114-129, 1978.
2. D. Silverberg, M.D., L. Batuch, M.D., Y. Hermoni R.N., J. Rosenfeld, M.D.: Follow-up study of patients with hypertension, treated by the primary medical team (Unpublished data).
3. A.J. Smith, M.D., F.R.C.P.: Sensible Prescribing. Management of hypertension. The Practitioner, Vol. 215, 327-334, 1975.
4. R.R.Holland, M.D.: Decision Tables — Their use for the presentation of Clinical Algorithms. JAMA Vol. 233: 455-457, 1975.
5. M. Sox, Jr., M.D.: How to write a Clinical Algorithm. Design and use of Protocols. Proceedings of the Conf. Advances in Patient Care. Hawaii. February 1975, p.63.
6. J.B. Rosenfeld, M.D., D. Silverberg M.D.: Status of hypertension treatment in Israel. Israel Jr. of Med. Sciences, Vol. 15, No. 12, 1014-1016, 1979.

Management of Colostomy complications

Dr Peter Lim Huat Chye

M.B., B.S. M.MED (SURGERY),
SURGICAL REGISTRAR, DEPT OF SURGERY
CHANGI HOSPITAL SINGAPORE 1750.

INTRODUCTION:

Permanent colostomy is required either as part of abdominal-perineal resection or to divert faeces proximal to a malignant obstruction that cannot be resected. Ever since the first colostomy (actually a caecostomy) was reported by M. Pellore in 1776, the complications arising from the performance of colostomies have been recognised. The morbidity rate for colostomy is usually reported as around 20% to 30%.^{1,2,3}

The complication rate is highest in cases done as emergencies, in terminal end-type and sigmoid colostomies and in patients in whom there is evidence of far advanced disease. Most complications are noted within three years. Of late, the minor complications have received much attention.^{4,5,6} This became more important since the introduction into many surgical centres of specially trained stoma care nurses or stomatherapists. We have been fortunate to have two stoma trained nurses in Singapore.

This paper is a clinical study of the varieties of permanent colostomies constructed in this surgical unit, their complications and their management. Although the Surgeon's duty is to manage the major complications, the recognition of the latter and the treatment of minor complications is well within the province of the General Practitioner or stomatherapist.

CLINICAL MATERIAL & METHODS (Table I):

The analysis of complications was done from the study of 300 cases of colorectal cancer operated upon in the Department of Surgery, Toa Payoh Hospital, in a 7-year period from June 1972 to June 1979. There were 117 permanent colostomy cases available for analysis. Colostomies which were subsequently closed and complications arising from closure of colostomy were excluded from this study.

Out of the 117 colostomies, 52 were performed

as part of standard abdominal-perineal resections. Sixty five had colostomy performed as a palliative procedure consisting of 12 defunctioning type, 20 terminal end type (following a Hartmann's type operation), and 33 standard loop colostomies.

TABLE I: TYPE OF COLOSTOMY & STAGE OF DISEASE

COLOSTOMY	STAGE OF DISEASE				TOTAL
	A	B	C	D	
LOOP	0	2	3	28	33
TERMINAL FND	0	2	5	13	20
DEFUNCTIONING	0	0	0	12	12
TOTAL	0	4	8	53	65
AP RESECTIONS	7	13	16	16	52

RESULTS (Table II):

Out of the 117 colostomies constructed following one of the operations indicated above, there were 17 immediate post-operative deaths. Five of these were from the group of patients with loop colostomies. Seven patients in the Hartmann's procedure group also died in the early postoperative period, and there were 5 deaths in the group of patients who had abdominal-perineal resections. The main causes of death were: 4 cases of myocardial infarct and ischaemic heart disease, 4 cases of lung collapse, 2 cases of renal failure and 2 cases of septicaemia. There was no death directly related to the surgical procedure in this series. Of the 100 survivors, 27 patients developed major complications (27%), while 34 developed minor colostomy disorders (34%) detected during follow-up at the Stoma Clinic. While the major complications would be noted in the case notes, it was presumed that the minor ones may not always be recorded. Minor complications were assessed by the Stomatherapist who was able to interview 55 cases out of a total of 73 — the remaining 18 had either died or were lost to follow-up.

TOTAL II: COLOSTOMY COMPLICATIONS

	NO
TOTAL NO OF OPERATIONS	117
POSTOPERATIVE DEATHS	17
COLOSTOMIES ASSESSED	100
MAJOR COMPLICATIONS	27/100
MINOR PROBLEMS	34/100
NO PROBLEMS	21/100
LOST TO FOLLOW-UP	18/100

Sixty three percent (17 cases) of the patients with major complications of colostomy were subjected to re-operation with good result, while the rest responded to simple conservative treatment. The operative mortality arising from re-operation was 11.8% (2 patients). The minor colostomy disorders noted by the hospital Stomatherapist were treated without problem at the Stoma Clinic.

MAJOR COMPLICATIONS (Table III):

These require sound surgical judgement & skill in their management.

TABLE III: MAJOR COLOSTOMY COMPLICATIONS

A. RELATED TO SIZE OF APERTURE

STENOSIS	2
PROLAPSE	2
GANGRENOUS	3
COLOSTOMY OBSTRUCTION	2
DELAYED FUNCTION	4

B. RELATED TO SURGICAL TECHNIQUE

PARACOLOSTOMY HERNIAE	3
BLEEDING FROM COLOSTOMY	2
POLYPS AT STOMAL SITE	1
TUMOUR RECURRENCE AT STOMA	2

C. OTHERS

PERISTOMAL DERMATITIS/ULCERATION	3
FISTULA FORMATION	3

(A) RELATING TO SIZE OF APERTURE STENOSIS

Two cases of stenosis which interfered with stoma function in the third postoperative week responded to simple digital dilatation. It was however necessary to combine this simple procedure with a judicious relieving incision in one case. Reconstruction or re-siting was found unnecessary in these two patients.

PROLAPSE

This occurred in two cases and they both occurred in loop colostomies performed at the level of the transverse colon. The prolapse were both very severe and the bowel was found to fill the colostomy bag. Both required re-operation.

GANGRENOUS COLOSTOMY

The mucosa of the colostomy was found to be gangrenous at the second to the fourth postoperative day in three cases. It was necessary to operate and reconstruct the colostomy the moment the diagnosis was made. Two of these patients succumbed to septicaemia and died within one week after operation.

COLOSTOMY OBSTRUCTION

Following constant use of pain relieving medication for intractable pain, two patients with advanced disease developed complete constipation. Examination revealed rock hard faeces in the colostomy which required manual removal and subsequent olive oil retention enemas to clear the rest of the bowel. They were also given stool softeners on discharge from hospital.

DELAYED FUNCTION

Delayed function of the colostomy occurred in the postoperative course in four patients. There was oedema at the colostomy stoma and hence relative stenosis. The patients all finally responded to conservative management.

(B) RELATING TO SURGICAL TECHNIQUE

PARACOLOSTOMY HERNIAE

Three cases of paracolostomy herniae were diagnosed when patients returned some months after their initial operation and complained of a bulge along side or under the colostomy. Two of these cases were treated conservatively with a belt and/or corset since it was assessed that recurrent intraabdominal disease was present in these two patients who had advanced local disease at the time of primary surgery. Only one patient required a hernia repair as this was so large that strangulation obstruction was thought likely in the future.

BLEEDING FROM COLOSTOMY

Brisk bleeding was noted from the mucocutaneous junction of a patient on the first postoperative day. On examination it was found to be coming from between two widely placed stitches. An extra stitch was sufficient to correct the disorder. The second case had more severe bleeding on the sixth

postoperative day. The blood was mixed with faeces. Re-exploration revealed a bleeding remnant polyp higher up in the bowel at the level of the transverse colon.

UNRECOGNISED POLYPS AT STOMAL SITE

One patient complained of a 'lump' appearing at his colostomy stoma on the fourth postoperative day. Examination disclosed a prolapsing polyp which was coming from within the colostomy. This was removed via a sigmoidoscope. Histology read: adenomatous polyp; an additional barium enema study done through the colostomy revealed no further polyps.

TUMOUR RECURRENCE AT COLOSTOMY

This unfortunate event occurred in two patients with disease which was staged as Duke's C at the time of primary surgery. The histopathology report also indicated that the resected ends were clear of tumour cells but tumour emboli were seen in the lymphatic channels. By the time they presented the wide peristomal skin involvement precluded any form of surgery and palliative radiotherapy was prescribed and delivered to the recurrent tumour at the stoma. Surprisingly there was no dermatological or colostomy stenosis sequelae.

(C) OTHERS

PERISTOMAL DERMATITIS & MUCOSAL ULCERATION

Severe instances of this condition were discovered in three cases. They were due to an initial post-colostomy diarrhoea which responded to initial steroid skin applications, strict dietary control and codeine phosphate orally. Ulceration of the colostomy mucosa occurred in one of these cases and therefore underwent revision colostomy.

FISTULA FORMATION

A discharging fistula was discovered between the second to sixth postoperative week in three cases. Faulty suturing was responsible in one case while pericostomy infection and abscess formation was the etiologic factor in the other two patients. Stoma reconstruction was required only in the first case; the other two required merely drainage of all infected material and daily eusol dressings and the fistulae closed spontaneously.

MINOR COLOSTOMY DISORDERS (Table IV):

These can be treated by the Family Physician or stomatherapist fairly easily.

TABLE IV: MINOR PROBLEMS SEEN AT STOMA CLINIC

A. DERMATITIC	
SORE SKIN	12
B. PHYSIOLOGICAL DIARRHOEA	
'RUNNING' COLOSTOMY	11
C. DIFFICULTY WITH APPLIANCE	
UNSATISFACTORY APPLIANCE	6
'LEAKING' APPLIANCE	2
D. PSYCHOLOGICAL	
DEPRESSION & FEAR	3

(A) DERMATITIS

SORE SKIN

This was the most frequent minor complaint that led to twelve patients seeking the help of our Stomatherapist. The two main causes were too frequent changing and improper dietary habits. Eight patients in the first category were advised to convert to a drainable bag with or without a belt system (Eschmann's or Squibb's). However, prior to the changeover, the dermatitic condition was first managed with lotio gentian violet 1% followed by Tinc Benzoin Co. Alternatively, stomahesive (with or without orabase powder) was recommended for application to the peristomal skin before a stick-on bag was attached. The remaining four patients in whom faulty dietary habits was the cause of the dermatitis had their problems resolved with simple dietary advice and the prescription of bulk increasing agents.

(B) PHYSIOLOGICAL DIARRHOEA

THE 'RUNNING' COLOSTOMY

This term refers to either too frequent or the passage of diarrhoeic watery stools in our local context. Eleven patients had this disorder. Nine minor cases were dealt with simply with dietary advice on bulk agents, choice of food best suited to the individual patient by trial and error and the use of stomahesive as a protective platform to protect against subsequent dermatitis. The two severe cases were treated with a Coloplast Drainable Bag with karaya gum seal in combination with dietary adjustment. Tab Lomotil was prescribed liberally in the acute phase of management of these patients.

(C) DIFFICULTY WITH APPLIANCE

UNSATISFACTORY APPLIANCE

This occurred in six cases. The bag was too small

for a rather large stoma in three patients. This led to leakage around the edges of the colostomy appliance. The correct sized bag solved the problem. Two cases of painful stoma caused by bags which were rather small were treated in the same way by the prescription of larger sized bags. The last patient could not wear his pants properly because of a rather broad and bulky belt. A change to a stick-on (IE. no belt) appliance was the solution in his case because a trial with a smaller belt failed to satisfy him adequately.

'LEAKING' APPLIANCE

This occurred in two patients and was the easiest problem to manage. The patients did not understand the mechanics of using the drainable bag and simple instructions corrected the so-called 'leak' from the appliance.

(D) PSYCHOLOGICAL

PSYCHOLOGICAL UPSET

Two depressed patients improved after effective counselling by the local Stomatherapist after 4 to 5 sessions. The third patient had a unique problem of being afraid to touch the stoma. Three sessions with the same Therapist taught the patient how to live with her colostomy.

DISCUSSION

The operative mortality of 14.5% in the 117 operated cases was high but was not related to the colostomy procedure. The patients who died had associated cardio-pulmonary or renal disease and were all more than 55 years of age. This could account for the causes of death being essentially medical in nature. Others^{7,8,9} have reported a mortality rate directly related to the colostomy of about 1%. The majority of the patients in the abdominal perineal group had pathologically more favourable tumours and had a better immediate postoperative result — operative mortality 4.3%. In contrast, the 'palliative' colostomies were performed for primarily advanced disease. It was not unexpected therefore that the operative mortality in this group was higher — 10.2%.

Overall, the incidence of colostomy complications in this series is high (61%). However, the majority of these were minor (34%) and major complications constituted only 27%. This complication rate compares well with that of Hines and Harris, 1977¹⁰ who reported an incidence of major colostomy complications of 28%.

The surgical complications which have been enumerated can all be effectively dealt with by either surgery or conservative measures with no mortality

except in cases with gangrene of the colostomy. The mortality of 11.8% (2 cases) from re-operation were derived in fact from this group of patients. We found like others elsewhere⁴ that the majority of the technical complications of colostomy construction were related to the size of the aperture that is made in the abdominal wall. When this opening is too small, it can lead to obstruction, oedema and delayed function, stenosis or gangrene. If the opening is too large it can lead to prolapse which sometimes require revision of the colostomy. Bleeding from the colostomy can be from open vessels at the colocolutaneous junction or from undetected colonic remnant polyps. Both are easily avoided by exacting hemostasis in the one instance and a careful search for associated colonic lesions at the time of laparotomy in the other. The rest of the major complications of paracolostomy herniae, unrecognised polyps at the stomal site and tumour recurrence at the colostomy relate to the need for good surgical technique in suturing, thorough exploration and ensuring a good margin of healthy bowel proximal to the line of resection. A conservative line of management is satisfactory for severe pericostomy dermatitis that sometimes occurs in the early postoperative period. Ulceration of the colostomy mucosa however may require a revision procedure. Peristomal fistula formation is often related to suturing the full thickness of the bowel to the fascia or to the skin. If the fistula does not heal after a period of conservative therapy, a formal colostomy revision may be required.

Minor complications formed more than half of all the colostomy problems encountered and management of these problems was easy with the help of a trained Stomatherapist. In particular, the dermatitic complications can be treated with appropriate creams and lotions and the use of a proper fitting apparatus. Several varieties of karaya gum or stomahesive protective materials along sometimes with an orabase prepared platform have been used. The physiological problem of diarrhoea can be corrected by proper dietary restriction on bowel stimulants, modest controls on liquid and solid intake as well as spices and the occasional use of Tab. Lomotil. The switch to a drainable bag may sometimes be needed. Problems which could be ascribed to the improper use or lack of knowledge of the working of stomal apparatus can be easily resolved by the judicious selection of the proper type of appliance according to the individual needs and complete instruction by the Stomatherapist before discharge from hospital. An appliance which at first was satisfactory may cease to be so subsequently and hence, attendance at a

stoma clinic is essential. Depression and potential psychosocial difficulties can be lessened by the surgeon's awareness of these problems and sound pre and postoperative counselling by the Stomatherapist.

SUMMARY & CONCLUSION

(i) More than half of patients with colostomies have either major or minor complications. The former require surgical consultation while the latter can be treated by the patient's Family Physician.

(ii) These complications may be of serious surgical import (27%) or may relate directly to the management of the stoma patient in general (34%).

(iii) The major surgical problems which required re-operation (63%) can be effectively dealt with by a competent surgeon when recognised.

(iv) Management of the 'minor' complications is actually part of the total care and rehabilitation of the stoma patient and this is best handled by the Family Physician or a trained stomatherapist.

REFERENCES:

1. Bermann, H J, Tocker, A M and Tocker, L R (1966) Statistical survey of problems in patients with colostomy or ileostomy. *Am J Surg* 112:647

2. Cain, W S and Kieseewetter, W B (1965) Infant colostomy. *Arch Surg* 91:314

3. Prian, G W, Sawyer, R B and Sawyer, K C (1975) Repair of pericostomy colostomy hernias. *Am J Surg* 130:694

4. Richardson, R G (1973) Stoma surgery and rehabilitation. Queensborough, Kent; Abbott Lab. Ltd

5. Goligher, J C and Pollard, M (1973) The care of your colostomy. 2d ed. London, Balliere Tindall

6. Walker, F C (1976) Modern stoma care. Edin & Lond, Churchill Livingstone

7. Burus, F J (1970) Complications of colostomy. *Dis Colon Rectum* 13:448

8. Devlin, H B (1973) Colostomy — indications, management, complications. *Ann Roy Coll Surg (Engl)*, 52:392

9. Saka, S P, Rao, N and Stephenson, S E, Jr. (1973) Complications of colostomy. *Dis Colon Rectum* 16:515

10. Hines, J R and Harris, G E (1977) Colostomy and colostomy closure. *Surg Clin of N Amer* 57, 6, 139-1392

ACKNOWLEDGEMENT

The author thanks Mr. R. Nambiar, Senior Surgeon & Head of the Dept of Surgery, Toa Payoh Hospital, and Sister Margaret Liew, Stomatherapist, without whose advise and encouragement this paper would not have been possible.

"Affective disorders; Endogenous depression; Reactive depression"

Dr Teo Seng Hock

MBBS, DPM, MRCPG Ag. Director,
Woodbridge Hospital

AFFECTIVE DISORDERS

1 Definition

The term "affective disorders" is used for a group of mental diseases with the following characteristics:-

- a) a primary disturbance of affect from which all the other symptoms are derived
- b) a periodicity with mood changes alternating with free intervals
- c) a capacity for recovery from the single attack without impairment of mental integrity.

2 Depression or Mania

The pathological mood changes may take the form of:-

- a) Depression (Depressive Illness) — the commonest form of Affective Disorders. There are listed 13 systems of classification in depression. The best established distinctions are those of Psychotic (or endogenous) and Neurotic (or reactive) depression. Many psychiatrists believe in the unitary concept of depressive illness.
- b) Mania - rarer than depressions
- c) Manic-depressive illness in which there are both manic and depressive phases alternating.

3 Aetiology of Affective Disorders

The aetiology of affective disorders is usually regarded as being multifactorial, implying genetic, biochemical psychological and sociological antecedents.

- a) **Heredity** plays an important part in the aetiology of affective disorders. Most family studies report a morbidity risk for parents, siblings and children of between 10 and 15 per cent. This incidence is well above the usual population figures of 0.6 to 1.6 per cent.
- b) **Psychological factors**
It is not possible to go into details except to mention that certain experiences predispose

to affective disorders:-

- i) disturbed parent-child relationships or experience of loss
- ii) introjection of hostility
- iii) loss of self esteem.

c) Biochemical factors

The amine hypothesis and its variants reflect current thinking on possible biochemical factors in causation.

In its original form, this hypothesis postulated that in depressive illness there is an impairment in transmission at brain synapses which utilise the transmitters' noradrenaline, dopamine or 5-hydroxytryptamine. Drugs which potentiate the activity of these synaptic transmitters, eg tricyclic compounds have been shown to be effective in the treatment of depressive illness.

d) Changes in sodium distribution

Changes in body weight and retention of sodium were demonstrated in early studies of depressive illness. There is an increase in the intracellular pool of sodium during both episodes of both depression and mania. Changes in intracellular sodium concentrations in red blood cells have also been reported in depressed patients.

e) Endocrine factors

Many patients with depressions have increased steroid secretion whether measured by levels of urinary steroids or by measures of cortisol production.

f) Precipitation

What is needed to provoke a phase of mania or depressive illness is entirely unknown. In many cases, the stimuli of everyday life seem sufficient to start the attack; in a few, physical illness, childbirth or the menopause can be held responsible.

4 Clinical Picture

A. **Depression.** Depressive Illness can present in

many ways.

- a) General appearance is characteristic — looks tired and self-concerned. Sadness is reflected in posture, movement and facial expression.
- b) Change in patient's behaviour — retires from social activities, avoids friends, diminished productivity and efficiency.
- c) Suicide or the attempt at it — may be the first alarming symptom of a depressive illness. Usually occurs when retardation is not evident.
- d) Subjective feeling of sadness — whatever is experienced seems to be painful. Sees the bad side of everything; sense of hopelessness about the past, present and future.
- e) Anxiety: in some form or other is very often part of the mood.
 - (i) anxiety attacks may occur
 - (ii) anxiety may dominate clinical picture.
- f) Retardation in motor and mental activity. Depressive stupor in extreme cases.
- g) Depersonalisation:
The patient feels unaffected by events that would normally evoke an emotional response — awareness that he cannot feel pleasure or pain.
- h) Delusions:
Of guilt at having caused others harm. Of general unworthiness.
- i) Sleep disturbances:
Classically early morning waking.
Sleep filled with unpleasant dreams.
- j) Intelligence and memory are unimpaired but may be hard to assess.
- k) Sexual activity is diminished. Amenorrhoea may occur.
- l) Daily fluctuation in mood — improvement of symptoms usually occurs in the evenings.
- m) Physical complaints:
Headache, tiredness, heaviness of limbs, loss of appetite, constipation, and other hypochondriacal complaint.

The above is a description of an endogenous type of depression. Reactive Depression (or Neurotic Depression) is said to span a milder illness with:

- a) reactivity of mood (short-term mood fluctuations in response to environmental changes)
- b) anxiety
- c) self-pity
- d) blame of others rather than self-blame
- e) initial insomnia
- f) evening worsening
- g) neurotic personality
- h) none of the more severe symptoms such as

retardation, delusion, etc.

- i) suicidal attempt of attention seeking type.

B. Mania. The disturbances seen in Mania are the mirror image of those seen in depression.

The classical symptoms of mania consists of:

- a) elated, unstable mood
- b) pressure of speech — flight of ideas
- c) increased motor activity
- d) hostility when frustrated. Also irritability and distractibility
- e) delusions of grandeur
- f) increased sexuality
- g) lack of insight.

5 Differential Diagnosis

- a) An organic psychosis.
Affective symptoms may be the initial signs of an organic psychosis eg general paralysis, arteriosclerosis and cerebral tumour. A careful physical examination must therefore be carried out in every case.
- b) Schizophrenia.
- c) Neurosis.

6 Management

A. Depression

- a) By far the most serious danger, in states of depression, is that of suicide. Any case of depression must be treated as a potential suicide and its management undertaken with this in mind.

Certain characteristics carry a bad prognosis for suicide:-

- (i) Male sex, especially over age 40.
- (ii) A family history of suicide especially of a parent.
- (iii) A history of previous attempts at suicide especially in the elderly.
- (iv) Solitude or recent bereavement.
- (v) Recent crisis in the patients' professional and/or personal relationships.
- (vi) Feelings of hopelessness and worthlessness.
- (vii) Persistent insomnia, agitation, anorexia.

Always inquire about suicidal ideas in depressed patients. Talking about suicidal wishes often loosens their grip.

- b) Electro-Convulsive Therapy (ECT):

ECT is normally best for patients in whom drug treatment has failed or the acute case when the time elapsing before there is a response to drugs may carry a risk of suicide.

- c) Antidepressant Drugs:

Where drugs are indicated in the treatment

of acute depression, tricyclic antidepressants are the agents of choice. Drugs used in the treatment of depression are listed below:

Class	Representative Compounds	Recommended average dosages/day (oral)
Tricyclic	Imipramine	75 – 200 mg
	Amitriptyline	75 – 150 mg
	Doxepin	30 – 300 mg
	Nortriptyline	25 – 150 mg
	Trimiprazine	50 – 200 mg
	Desipramine	75 – 200 mg
Monoamine-Oxidase inhibitors	Protriptyline	15 – 60 mg
Hydrazine type	Phenelzine	15 – 45 mg
	Isocarboxazid	10 – 30 mg
Non-hydrazine type	Tranylcypromine	10 – 50 mg

- (i) Remember that between that initiation of treatment and onset of the clinical response there is a lag period, in most patients 7-14 days. An adequate clinical trial requires administration for at least 3 weeks, before therapeutic response can be assessed.
- (ii) Dosage: Normal adult starting dose for most of these compounds is around 75 mg per day. Can be given in single dose at night.
- (iii) When the patient shows reduction in symptoms, the medication should be maintained at the optimum dose until clinical remission occurs and he should be maintained on medication for a further period of 3 to 6 months at a reduced dose. The drugs should then be gradually withdrawn.
- (iv) Monoamine-Oxidase inhibitors rarely used except in resistant depression.
- d) Lithium Therapy:
Patients suffering from frequent recurrences of depression should be considered for long-term lithium therapy. Controlled trials have demonstrated the effectiveness of lithium compared with placebo in preventing recurrences of depressive illness.
- e) Reassurance and understanding:
It is important to establish a warm rapport

with the patient. Explanations about the benign and recoverable character of the illness, the manner in which it generates the morbid ideas expressed by the patient may appear to make no impression but are frequently recalled with gratitude by the patient after recovery. Always give hope. Systematic psychotherapy is contra-indicated.

B. Mania

- a) Phenothiazines eg chlorpromazine 100-200 mg every 6 hours.
- b) Haloperidol (Haldol), a butyrophenone, has been used with greater success.
- c) ECT may be necessary in acute mania.
- d) Lithium therapy can be successful in preventing relapse.

The most difficult part about treating manics to convince them that they need treatment.

7 Prognosis

Studies reveal that almost 90% of patients recover from their attacks of depression or mania. 50-75% of patients have 2-4 attacks. About 5% of cases become chronic.

In psychiatric practices, depression is one of the most gratifying disorders to treat, since frequently there is a complete remission.

8 Referral to Specialists

Many cases of depression can be adequately treated by the general practitioner. There are certain cases for which the general practitioner may do well to seek the opinion of a psychiatric colleague eg:

- (i) Where the diagnosis is in doubt.
- (ii) Where the risk of suicide appears high.
- (iii) In severe depression with delusions and marked agitation or retardation.
- (iv) Patients who live alone or are socially isolated.
- (v) Patients who do not respond to antidepressant within 4 to 6 weeks.

Readings

- 1) Clinical Psychiatry by Slater and Roth.
- 2) Handbook of Psychiatry by Solomon and Patch.
- 3) Companion to Psychiatric Studies by Forrest, Affleck and Zealley.
- 4) Guide to Psychiatry by Myre Sim.

Perianal Abscess

PETER H C LIM, MB BS, M MED (SURG)
NG BEE LIM, MB BS, FRCS (EDIN)
P N UNNI, MB BS, FRCS (EDIN)

INTRODUCTION

Perianal abscess is one of the most common surgical emergencies encountered in the consulting room of the general practitioner. To the patient, these abscesses are troublesome, painful and embarrassing affections for which urgent medical care is sought. This communication is a study of 35 personal cases of perianal abscess treated at the Department of Surgery, Changi Hospital, and is meant to be a reminder that common things are commoner and their importance does not diminish just because they are common.

PATIENTS AND METHODS

In this series of 35 patients with perianal abscess referred by the Outpatient Service, the diagnosis was confirmed by examination under anaesthesia. Proctoscopy was done routinely on all patients in order to rule out associated pathological conditions of the anorectum. There were 32 males and 3 females. The age of the patients ranged from 13 years to 56 years with a mean of 34. The predominant ethnic group was Chinese 74.2% (26 cases) followed by Malays 14.2% (5 cases), Indians 8.7% (3 cases) and others 2.9% (1 case). Patients were in good health except 3 (1 mild diabetes, 1 inactive PTB and 1 treated stomach cancer).

CLINICAL FEATURES

All patients complained of throbbing perianal pain which was localised to the site of the abscess. Fever was recorded only in 40% of the patients (14/35). The duration of symptoms ranged from 2 days to 2 weeks with the majority presenting after 7 days (25 cases) while the rest after 3 days. Clinical examination revealed that 32 of the abscesses were in the lateral position while 2 were posterior and one anterior.

TREATMENT

31 patients underwent the standard wide saucerization procedure while in 4 cases, a simple incision and drainage was sufficient as the abscesses

were superficial.

Caudal anaesthesia was utilised in 33 of the cases. However in one case, a general anaesthetic was necessary as the caudal failed. In another patient, local anaesthesia was adequate as the abscess was small and superficial. In the postoperative period ampicillin was administered to 9 cases, while 10 received oral flagyl. A combination of ampicillin and flagyl was tried in the remaining 6 cases.

RESULTS

The patients all improved and were discharged after an average stay of 6 days. The period of hospital stay was between 2 to 17 days. Daily eusol dressing was continued on an outpatient basis and the patients resumed work after an average of 15 days. (Range: 4 to 28 days). The administration of flagyl alone or in combination with ampicillin, appeared to reduce the hospital stay to half. However, ampicillin alone was of no additional benefit.

DISCUSSION

In this study the sex incidence showed marked male preponderance. This conforms with what has been reported in other series (Hill 1967). The age distribution is similar to most other reports. The race distribution conforms fairly closely with that of the Singapore population. (Singapore Population Statistics 1978: Chinese 76%, Malays 15%, Indians 7%, Others 2%). Only less than half of the patients had symptoms of systemic infection such as fever. This may be because the affection is localised and the bacteria implicated are of low virulence (Eisenhammer 1966). Treatment is standard and warrants no further comment. The concomitant use of antibiotics is highly controversial and the small number in this series may not be statistically significant. However, our finding is that flagyl reduces the period of incapacity and occurrence of complications. There were no complications in our cases and this must be due to the good general status of most of the patients in this series and the total treatment they received.

CONCLUSION

From this study some useful observations are made. Flagyl appears to be the choice drug in reducing the period of incapacity. The absence of perianal fistulae in the post drainage period is due entirely to an adequate and wide saucerization at the time of primary surgery.

As indicated in the introduction, perianal abscesses have not received the attention they deserve. Being common makes it all the more important. In fact, the relief of excruciating pain and discomfort by an adequate drainage is one of the most satisfy-

ing operations that the surgeon can perform. After all, the role of the "Doctor" is to relieve pain and suffering and the Surgeon is a "Doctor" first and surgeon second.

REFERENCES

1. Hill J R (1967), Fistulae and fistulous abscess in the anorectal region, personal experience in management. Dis. Colon Rectum, 10:241.
2. Eisenhammer S (1966), The anorectal fistulous abscess and fistula. Dis Colon Rectum, 9:91.

Council News

On Saturday, 28 February 1981, Council Members from the College of Family Physicians of Malaysia came to Singapore to meet their counterpart from our College. There were eight in the party from Malaysia and they were:

Dr Syed Mahmood bin Syed Hussain
Dr M K Rajakumar
Dr Chong Yew Chong
Dr Frank Tan
Datuk (Dr) R Balasundaram
Dr Ho Tak Ming
Dr S Sivasundaram
Dr Chooi Sooi Leng

The two Colleges Council Members had their first meeting in the residence of our President, Dr Victor L Fernandez, at 6.30 p.m. They had a lively and fruitful discussion, especially on Continuing Medical Education, for two hours. After the meeting, Malaysian College Council Members and Council Members of the Singapore College and their wives were hosted to dinner by Dr & Mrs Victor L Fernandez.

On Sunday, 1 March 1981, members from both Colleges met at the Alumni Medical Centre for lunch, followed by further discussion. Members

present discussed freely various aspects of the Colleges' activities. One of the most significant topics was the formation of a Department of Family Medicine in Malaysia through the efforts of the members of the College of Family Physicians of Malaysia. This was considered a major break through for Malaysia and members from Singapore College were interested in the ways they achieved this. Other topics discussed were Continuing Medical Education, Research, WONCA and what contributes the specialty of Family Medicine. Here Dr Koh Eng Kheng gave a most lucid and thought provoking discourse on the specialty of Family Medicine. Broadly the two Colleges agreed to continue the dialogue and to share and co-operate in all areas affecting them.

All present agreed that the meeting has been most informative, useful and satisfying.

IN-DEPTH COURSE IN INTERNAL MEDICINE

The Continuing Education Unit is organising an In-Depth Course in Internal Medicine to be run from Friday, 13 March to Sunday, 26 June, 1981. The programme is as follows:

THE COLLEGE OF GENERAL PRACTITIONERS SINGAPORE

In-Depth Course in Internal Medicine

From: Friday, 13 March 1981 to Sunday, 28 June 1981

THEORY SESSIONS At the Academy Lecture Theatre, Alumni Medical Centre, at 8.15 p.m.

Day & Date	Topic	Lecturer
Friday, 13.3.81	Chronic Inflammatory Bowel Disease 1. Introduction 2. Crohns Disease 3. Ulcerative Colitis	Prof Seah Cheng Siang Dr Teh Lip Bin Dr Tham Siew Nee
Friday 20.3.81	Chronic Hepatitis	Prof Seah Cheng Siang
Friday 27.3.81	Neurology, — Fits, Faints & Funny Turns	Dr Loong Si Chin

Friday, 3.4.81	Headaches and other Common Neurological Problems	Dr Nei I-Ping
Friday, 10.4.81	Respiratory Medicine, — Approach, Investigation, Diagnosis and Management of Chronic Cough	Dr Poh Soo Chuan
Friday, 17.4.81	NO SESSION — HOLIDAY	
Friday, 24.4.81	Asthma and Chronic Obstructive Lung Diseases	Assoc. Prof P C Teoh
Friday, 1.5.81	NO SESSION — HOLIDAY	
Friday, 8.5.81	Connective Tissue Disorders including Rheumatology	Dr Feng Pao Hsii
Friday, 15.5.81	Renal Diseases and Their Management	Dr Feng Pao Hsii
Friday, 22.5.81	Endocrinology, — Diabetes Mellitus	Dr Tan Bock Yam
Thursday, 28.5.81	Endocrinology, — Thyroid Disorders	Dr Tan Bock Yam
Friday, 5.6.81	An approach to the diagnosis of Eczema/Dermatitis Syndrome and the principles of topical therapy	Dr V S Rajan
Friday, 12.6.81	The skin as a reflection of Internal Disease	Dr V S Rajan
Friday, 19.6.81	Common Cardiovascular Problems and Their Management	Assoc. Prof Chia Boon Lock
Friday, 26.6.81	Cardiovascular Diseases, — Palpitation & Chest Pain — the Family Physician's approach and management.	Dr Charles Toh

CLINICAL SESSIONS

At various Teaching Hospitals on Sunday Afternoons from 2.30 — 5.00 p.m.

Date	Convenor	Topic	Venu
15.3.81	Dr Auw Tiang Meng & Dr Tham Siew Nee	Four Cases of Chronic Inflammatory Bowel Disease	Dept. of Medicine III Bowyer Block S'pore General Hospital
22.3.81	Dr Auw Tiang Meng & Dr Teh Lip Bin	Four Cases of Chronic Liver Disease	— do —
29.3.81	Dr Nei I-Ping & Dr Loong Si Chin	Demonstration of interesting neurology cases	Neurological Unit Tan Tock Seng Hospital
5.4.81	— do —	— do —	— do —
12.4.81	Dr Poh Soo Chuan	Demonstration of interesting respiratory disease cases	Med Unit III Tan Tock Seng Hospital
19.4.81	NO SESSION		

26.4.81	Dr Poh Soo Chuan & Assoc. Prof P C Teoh	Demonstration of interesting cases on respiratory diseases	Med Unit III Tan Tock Seng Hospital
3.5.81	NO SESSION		
10.5.81	Dr Feng Pao Hsii	Demonstration of interesting cases on rheumatology and connective tissue disorders	Ward 34 Tan Tock Seng Hospital
17.5.81	— do —	Demonstration of interesting cases on renal diseases	— do —
24.5.81	NO SESSION		
31.5.81	Dr Tan Bock Yam	Demonstration of interesting endocrinology cases	Medical Department Alexandra Hospital
7.6.81	Dr V S Rajan	1.30 — 2.30 p.m., 2.30 — 3.30 p.m., 3.30 p.m.,	Laboratory practice * Cases laid out for examination Discussion of Cases Middle Road Hospital
14.6.81	Dr V S Rajan	1.30 — 2.00 p.m., 2.00 — 3.30 p.m., 3.30 p.m.,	Laboratory practice ** Cases laid out for examination Discussion of Cases — do —
21.6.81	Assoc. Prof Chia Boon Lock	Demonstration of interesting cardiac cases & ECGs	Brunel Hawes Lecture Theatre, Medical Unit II S'pore General Hospital
28.6.81	Assoc. Prof Chia Boon Lock & Dr Charles Toh	— do —	— do —

Note: * Any practitioner interested can practise doing smears for N. gonorrhoeae.

** Any practitioner interested can practise doing KOH mounts for Tinea, monilial infection.

Medical News

THE KENT RIDGE HOSPITAL

Professor E P C Tock, AM, MB, BS, MD (Singapore), PhD (London), FRCPA (Australia), FCAP (USA)

Chairman, Kent Ridge Hospital Executive Planning Committee and Co-ordinator, Kent Ridge Hospital Project

The planning of the Kent Ridge Hospital (KRH) actually began at the beginning of 1974, a project then to be developed by the University of Singapore. Prior to this, the China Medical Board of New York had approved a sum of money for the engagement of a group of programming consultants to help to programme the development of the Medical Centre, which was then scheduled to have a total of 1,042 gazetted beds. The programming consultants selected were the firm of Gordon A. Friesen International Inc. of Washington, D.C. The contractual period of programming work lasted approximately nine months, from May 1974 to January 1975. The Vice-Chancellor of the University of Singapore appointed Professor E.P.C. Tock to be the Co-ordinator of the project. In the meantime, a firm of hospital architects, Yorke, Rosenberg & Mardall/McConnell, Smith & Johnson (YRM + MSJ Pty Ltd) (London & Sydney), was commissioned to do the architectural planning, in conjunction with a firm of mechanical and electrical engineers, Steensen Varming (Australia) Pty Ltd.

Subsequently, the Government reviewed and re-evaluated the project and decided to reduce the number of beds to about 750 and to build the project in 2 phases. Planning and implementing the project came under the responsibility of the Ministry of National Development, the Government providing funds for the payment of the project including consultancy fees. The first phase, comprising approximately two-thirds of the total bed complement, is expected to be completed about mid-1983, and the second phase, comprising approximately the remaining one-third of the total bed complement, to be completed in 1985. The total built-up area of the hospital would be approximately

79,300 square metres, located on a site of approximately 16 hectares (160,000 square metres) at the University of Singapore campus at Kent Ridge.

In January 1976, the Minister for National Development therefore appointed a KRH Planning Committee. This committee has largely steering or guiding functions, the chairman being the then Deputy Director of Medical Services (Hospitals). There is representation from the Ministry of National Development and the Ministry of Finance. The University is represented by the Dean of the Faculty of Medicine and the Co-ordinator of the KRH project. In addition, a KRH Executive Planning Committee was formed, its functions involving the detailed planning of the hospital in conjunction with architectural/mechanical and electrical consultants. The KRH Executive Planning Committee has as its chairman, the Co-ordinator of the KRH project, with representation from the Ministry of Health as well as representatives of each of the University clinical departments. A Technical Committee, which looks into the mechanical, electrical, blished, its members being from the Public Works Department. A local firm of architects, Singapore Associate Architects, were appointed the executive architects for the project, working in conjunction with YRM + MSJ and with Steensen Varming.

The Kent Ridge Hospital is planned as a general hospital with various specialities, and as a University hospital for teaching in Medicine and in Dentistry, as well as providing facilities for research. It will house the existing University Departments of Medicine, Paediatrics, Surgery, Orthopaedic Surgery, Obstetrics and Gynaecology, Anaesthesiology, Psychological Medicine, Pathology and Social Medicine & Public Health, as well as the Faculty of Dentistry (comprising the Departments of Operative Dentistry, Oral Surgery, and Prosthetic Dentistry). It will also have provisions for Ophthalmology and Otorhinolaryngology. And, of course, all the supporting treatment and diagnostic services of a full general-cum-teaching hospital including Accident & Emergency, Outpatient Clinics, Radiology, Special Services Suite (Clinical Sciences), Surgical Pro-

cedures Suite, Concentrated Care areas, Rehabilitation Medicine, and Clinical Laboratories. The Radiology Department will include facilities for modern, sophisticated diagnostic services. The Special Services Suite will comprise the units of Cardiology, Pulmonary Functions, Clinical Pharmacology, Endoscopy and Gastroenterology, Clinical Neurosciences, Cytogenetics, Biochemical Genetics, Population Genetics, Metabolism, Immunology (including Dermatology), and Isotope Investigations, as well as clinical research laboratories attached to these specialised disciplines. Teaching staff and student support facilities to be provided include seminar/conference rooms, teaching laboratories, museum, closed circuit television, students' sleeping rooms in ward areas, and staff offices. There will also be two suites of staff research laboratories (including laboratory support facilities). In addition, the hospital will be served by various centralised academic facilities in the adjoining Biological Science Complex which is expected to be completed in late 1981. These centralised facilities include the bio-medical library, electron microscopy suite, medical illustrations unit, vivarium (including facilities for animal surgical experimentation), and lecture theater complex. The Biological Sciences Complex will house the preclinical and paraclinical departments of Anatomy, Biochemistry, Physiology, Microbiology, and Pharmacology, the administrative suites of the Deans of the Faculty of Medicine and Faculty of Dentistry, as well as the School of Postgraduate Medical Studies and the School of Postgraduate Dental Studies. The hospital will be linked by covered ways with the Biological Sciences Complex.

Phase I of the project will include the University Departments of Medicine, Surgery, Orthopaedic Surgery, Pathology and Anaesthesiology, as well as all the support diagnostic and treatment sections (e.g. Accident & Emergency, Outpatient Clinics, Radiology, etc) required for the full functioning of these Departments. Phase II of the project will cover the University Departments of Paediatrics, Obstetrics & Gynaecology, Psychological Medicine, and Social Medicine & Public Health, as well as the Faculty of Dentistry (including the Dental Clinic).

The architectural designing, contract documentation, and demolition of old structures on the site have already been completed, and piling, now well underway, will be completed very shortly.

SUCCESS IN LIMB REPLANTS

CHINESE surgeons, pioneers in re-attaching severed limbs, report survival rates as high as 93 per

cent in replanting arms, legs, feet and fingers amputated in accidents.

Hundreds of such operations have been performed since the first re-attachment of a severed hand was reported by the Shanghai Sixth People's Hospital in 1963.

In a report to the annual meeting of the American Association for the Advancement of Science, Dr Chen Zhong-Wei, chief of the Orthopedic Department at the hospital, said the highest success rates have occurred since 1973, when surgeons started using microscopes to help reconnect small blood vessels.

In one group of 256 patients who were studied for three years after surgery, Dr Chen said 69.5 per cent resumed work.

Twenty-seven per cent were carried on only daily chores and 3.5 per cent did not recover the use of their limbs.

He said although a severed limb can usually be replanted successfully now, it cannot be done for every case.

The patient's general condition must be good enough to allow him to undergo the complicated and prolonged surgery.

Other injuries resulting from the accident must be dealt with before replanting can start and the severed limb must be preserved until surgery begins.

"To achieve survival and good functional recovery of the replanted limb, the essential structures of the dismembered part must be relatively intact," he said.

Dr Chen said in a series of 77 severed limbs which were amputated, 72 survived replantation, the dismembered part remaining essentially intact when cut.

Limbs severed by crushes, usually caused by a punching machine or heavy objects, had a survival rate of 86.7 per cent.

Eighty-eight percent of limbs severed by rolling wheels or gears survived after being replanted.

The lowest survival rates in the study occurred when limbs were severed by avulsive injury — pulled apart, usually by a limb being caught in a rapidly rotating machine.

Dr Chen said limbs severed this way often had long segments of blood vessels and nerves damaged.

He said 36 of 48 limbs amputated by such accidents were successfully replanted.

In the same study of 250 severed limbs, Dr Chen said the success rate was closely related to the time the limb went without blood circulation.

Seventy-two limbs were re-attached after being severed less than six hours earlier and 68 survived.

In 102 limbs, the time between the accident

and surgery was between 6 and 10 hours and 90 per cent survived.

The survival rate was 76.7 per cent for 60 limbs reattached after 10 to 20 hours, and the survival rate dropped to 68.8 per cent for 16 limbs reattached after 20 hours.

However, Dr Chen said, the method of limb preservation and the local temperature at the time of the accident were also important in influencing reattachment success. — UPI.

The Straits Times, Friday, Jan. 16, 1981

BEHAVIOUR, HEART DISEASE LINK 'STRONG': MD

REGINA — Physicians cannot afford to ignore Type A behavior as a risk factor for coronary artery disease, in the view of a Saskatoon internist.

Dr. Lou Horlick told doctors at the recent meeting here of the CFPC's Saskatchewan chapter that a strong correlation has been shown between people with the time-conscious, fidgeting, uptight characteristics of Type A behaviour, and the incidence of heart disease.

A U.S. prospective study of 3,000 men aged 30-59 showed that the incidence of coronary artery disease was 2.1 times higher for those categorized as Type A than for those described as Type B.

The men were interviewed and typed based on the way they responded more than on their actual answers, said Dr. Horlick, professor medicine at the University of Saskatchewan. Type A personalities are preoccupied with time, unable to take the time to think things through, think about many things at once, display barely concealed hostility, speak rapidly, appear tense and fidget, he noted. Type B people are the opposite — unhurried, reflective and contemplative.

The study also showed behaviour pattern to have the strongest correlation with heart disease in men aged 30-39 after serum cholesterol, but ranking above smoking and systolic blood pressure, Dr. Horlick said. In men aged 50-59, the risk factors were found to be of equal weight.

He also noted that Dr. Jerry Stamler, the "high priest of the risk factor theory", has been quoted as saying, "It is reasonable at this point in time ... to designate Type A behavior as a possible or probable independent risk factor, but not as yet an unequivocally established major risk factor".

However, Dr. Horlick pointed out that two of the criteria by which possible risk factors are judged to be a cause of disease are not known for Type A behavior — whether the degree of risk varies with the degree of risk factor present and if

it predictive.

CAN. FAM. PHYSICIAN Vol. 26 NOVEMBER 1980

AGE BIAS CALLED 'SILLIEST BIGOTRY OF ALL'

NEW ORLEANS — "When old people are ill, they're ill because they're ill — not because they're old."

In a resounding condemnation of the "What can you expect at your age?" philosophy of medical care, Dr. Alex Comfort, internationally renowned geriatrician/psychiatrist, entertained and educated physicians attending the American Academy of Family Physicians and WONCA international conference here last month.

Speaking for an hour entirely without text, the white haired British author of *The Joy of Sex* was living proof of the ad slogan "You're not getting older, you're getting better." He commented. "Bigotry against the old is the silliest bigotry of all, because you're bigoted against something you're going to be". You don't realize how humiliating this bigotry is, he added, "until you're in a restaurant with your son and the waitress asks *him*, "Does he take cream in his coffee?" "

Dr. Comfort predicted that age-related insults — "old duffers, old biddies" — are due to disappear in the same way that sex-related terms have had to go. "The old fool was probably a young fool as well", he said, noting afterwards in a press conference, "Senility is a rude name for anything occurring in the elderly. It doesn't mean a thing".

He is not in favor of creating geriatrics as a primary care specialty, since he feels that the elderly are best served by their own family doctors, but he does believe in "centres of excellence". Dr. Comfort pointed out that under the British system of "rationing specialists rather than GPs", there are only 15 geriatricians in the whole country. The point of geriatric centres, he said, is to prevent patients from getting "the malignant dwindles" when they need hospital admission: "Entering a nursing home is like premature burial".

Another great need in the U.S., according to Dr. Comfort, "is for an honest and competent civil service. In the U.K. it's like being a judge to be a member of the civil service — here it's not". He had high praise, however, for Canada's standard of care: "In Canada, the overall standard of care for geriatrics is very high". In particular, he singled out Toronto's Baycrest Centre as having answered some of the most pressing needs of the elderly: "They need occupation, they need financial security, they need an integrated health service, they need people to care whether they live or die". De-

pression is the most important treatable condition in the elderly, he added, noting that it's often not recognized because it becomes somatized. "The depressive blames himself, the hypochondriac blames you. Hypochondriacs don't commit suicide — but depressives do".

CAN. FAM. PHYSICIAN Vol. 26 NOVEMBER 1980

NEAR-END OF U.S. POLIO 'REMARKABLE'

NEW ORLEANS — Low income American children generally don't receive the full dose of polio vaccine. But, its originator claims, the vaccine confers immunity by spreading from vaccinated to unvaccinated children.

Dr. Albert B. Sabin, discoverer of the oral polio vaccine, told physicians attending the WONCA/AAFP Conference here that the almost complete disappearance of paralytic poliomyelitis from the U.S. is remarkable, since the disease is still imported every year by Mexican immigrants, and because 44% of non-white children still don't receive the full dose of the vaccine, compared to 21% of white children in the U.S.

He attributed elimination of the disease to two factors: the spread of oral polio vaccine strains to the unimmunized by the immunized, and the induced intestinal resistance which subsequently breaks the chain of transmission for any imported viruses.

These two factors, he went on, work only in temperate countries. In tropical countries, he said, "even in the absence of epidemics, the disease has been found to be more frequent in rural and urban areas than it was in the United States 25-30 years ago".

He proposed a different vaccination strategy for these countries: "Annual, well organized community campaigns of mass vaccination of all children under four or five years of age regardless of how many doses of vaccine they may have had before, allowing two days for each of two doses with a two month interval between them". Success depends on proper organization, said Dr. Sabin, since mass campaigns would bring immunity levels up to the point where the chain of transmission would be broken, and where the vaccinated would begin to immunize the unvaccinated.

CAN. FAM. PHYSICIAN Vol. 26 NOVEMBER 1980

**Selectivity, Safety
and Simplicity**
in the treatment of
hypertension with ...



Lopresor
metoprolol tartrate

the new antihypertensive from Geigy

Selective

because its action is concentrated on the cardiac β_1 -receptors, leaving the peripheral β_2 -receptors relatively unaffected.

Safe

because it has practically no side effects and can be given once daily, thus improving patient compliance, which is an important factor for successful treatment.

Simple

because it need be given only once a day and can be combined with other antihypertensives if necessary.

Lopresor is the first cardioselective beta-blocker and
THE BRAND OF METOPROLOL

APPROVED and recommended by American FDA
for the treatment of hypertension

Further information available on request from

Geigy



For the prevention and treatment of diarrhoea in infants.

Arobon is a particularly effective anti-diarrhoeic prepared from the pulp of the carob bean. It is therefore a completely natural product which is non-toxic and non-habit forming and showing no secondary effects.

For all types of diarrhoea **Arobon** gives fast results. Preferably use together with **al 110**® (disaccharide free formula), to prevent re-appearance of diarrhoea due to temporary lactose intolerance.

Arobon®



*With the Compliments
of*



REGENT PHARMACY PTE. LTD.

(wholesaler, retailer, dispensing chemist)

**Pharmacies: M62, Mezzanine Floor, Lucky Plaza,
G95, Ground Floor, Lucky Plaza, Orchard Road,
Singapore 0923. Tel: 2350045/2350051/2352050**

**Office: 303, Third Floor, Wellington Building, Bideford Road,
Singapore 0922. Tel: 7342512**

SUB-DISTRIBUTOR FOR

1. HOECHST PHARMACEUTICALS
2. WARNER LAMBERT/ PARKE DAVIS
3. INSTITUTE MERIEUX IMMUNOLOGICAL PRODUCTS

SUPPLIER OF

Ames Diagnostics
Wellcome Products
Surgical and Diagnostic Equipments
and etc.

ALL ENQUIRIES ARE WELCOME

WEEKDAYS: 9 a.m. — 8 p.m. SUNDAY/ HOLIDAY 1 p.m. — 6 p.m.

Now!

In leg ulcers and pressure sores
**when infection
complicates
the tissue**



sacral pressure sore before treatment



after 7 days Flagyl 400 t.d.s

Evidence is growing that the infection which so often complicates leg ulcers and pressure sores is largely due to anaerobic bacteria.^{1,2} Although many of these bacteria are unaffected by 'ordinary' antibacterial preparations, they are all killed by oral Flagyl. Healing of 52%* of the area of the lesion in three weeks following 7 days treatment speaks for itself.³

FLAGYL 400

metronidazole

tablets

the complete anaerobicide

References: 1. 'Anaerobic Bacteria in Human Disease' Academic Press, London 1977, p. 391. 2. *Lancet* (1978), 1, 214. 3. G.P. Multicentre Trial 1980, (to be published). Data on file.

*Average percentage area considered healed in 74 patients in study comparing efficacy with standard therapy

Further information available on request. Flagyl is a trade mark.

M&B May & Baker

May & Baker Ltd., Jurong Town P.O. Box 21, Singapore 9161



MA 8603

Printed by Eurasia Press, Singapore.