Journal of the CHAMBER of PHARMACISTS

OCTOBER 1988 NO 19

THE PHARMACIST

AUGMENTIN

clavulanate-potentiated amoxycillin

A MAJOR DEVELOPMENT IN ANTIBIOTIC THERAPY

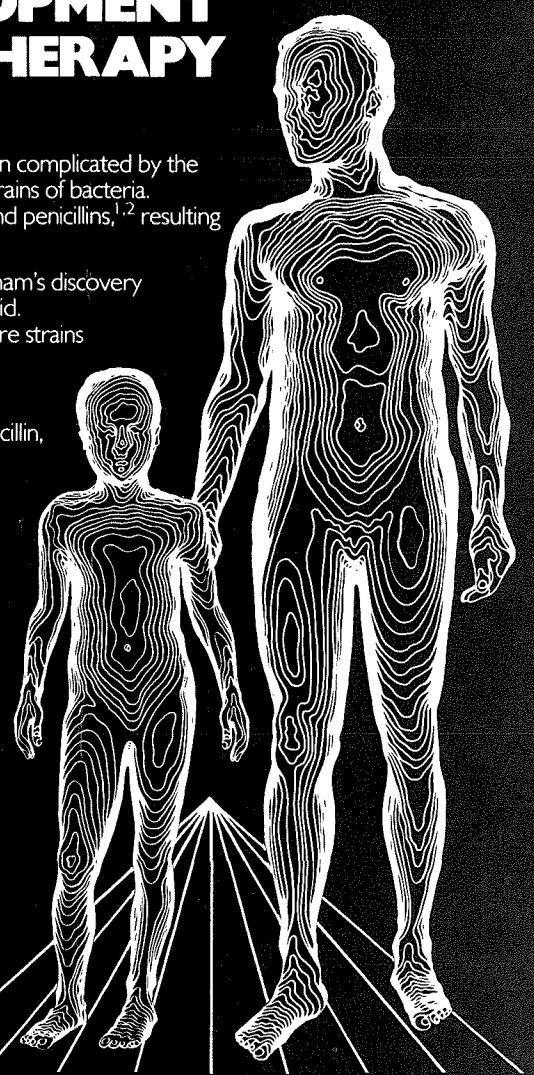
In recent years, the treatment of infection has been complicated by the increasing prevalence of ß-lactamase producing strains of bacteria. ß-lactamase destroys many oral cephalosporins and penicillins,[1,2] resulting in treatment failure.

AUGMENTIN is the first antibiotic to utilise Beecham's discovery of the powerful ß-lactamase inhibitor, clavulanic acid. This neutralises the bacterial defence, bringing more strains and species within the scope of oral therapy.

- **AUGMENTIN – Broader in spectrum** than oral cephalosporins, co-trimoxazole, ampicillin, tetracycline or erythromycin.
- **AUGMENTIN – Outstanding success** against today's infections.

Adult infections	No. of patients assessed	Clinically cured/ improved	Clinical success
Upper respiratory tract[3]	146	141	**97%**
Lower respiratory tract[3]	98	89	**91%**
Urinary tract[3]	175	167	**95%**
Skin & soft tissue[3,4]	81	75	**93%**

Paediatric infections	No. of patients assessed	Clinically cured/ improved	Clinical success
Upper respiratory tract[5,6]	70	70	**100%**
Lower respiratory tract[7]	28	27	**96%**
Urinary tract[6,7,8]	61	57	**93%**



PRESCRIBING INFORMATION

INDICATIONS: Chest, ear, nose, throat, genito-urinary, skin and soft tissue infections including those caused by ß-lactamase producing organisms. **DOSAGE: Adults and children over 12 years** one AUGMENTIN tablet (375mg) three times daily. **Children 7-12 years** 10ml AUGMENTIN syrup (312mg) three times daily. **Children 2-7 years** 5ml AUGMENTIN syrup (156mg) three times daily. **Children 9 months-2 years** 2.5ml AUGMENTIN syrup (78mg) three times daily. In severe infections these dosages may be doubled. Treatment should not be extended beyond 14 days without review.

CONTRA-INDICATION: Penicillin hypersensitivity. **PRECAUTIONS:** Safety in human pregnancy is yet to be established. Oral dosage need not be reduced in patients with renal impairment unless dialysis is required. **SIDE-EFFECTS:** Uncommon, mainly mild and transitory, eg diarrhoea, indigestion, nausea, vomiting, candidiasis, urticarial and morbilliform rashes. If gastro-intestinal side-effects do occur they may be reduced by taking AUGMENTIN at the start of meals. **PRESENTATIONS:** 375mg AUGMENTIN tablets each containing 250mg amoxycillin (1) and 125mg clavulanic acid. (2) 156.25mg AUGMENTIN syrup. Powder for preparing fruit flavoured syrup. When dispensed each 5ml contains 125mg amoxycillin (1) and 31.25mg clavulanic acid. (2) Not all presentations are available in every country. (1) as the trihydrate, (2) as the potassium salt.

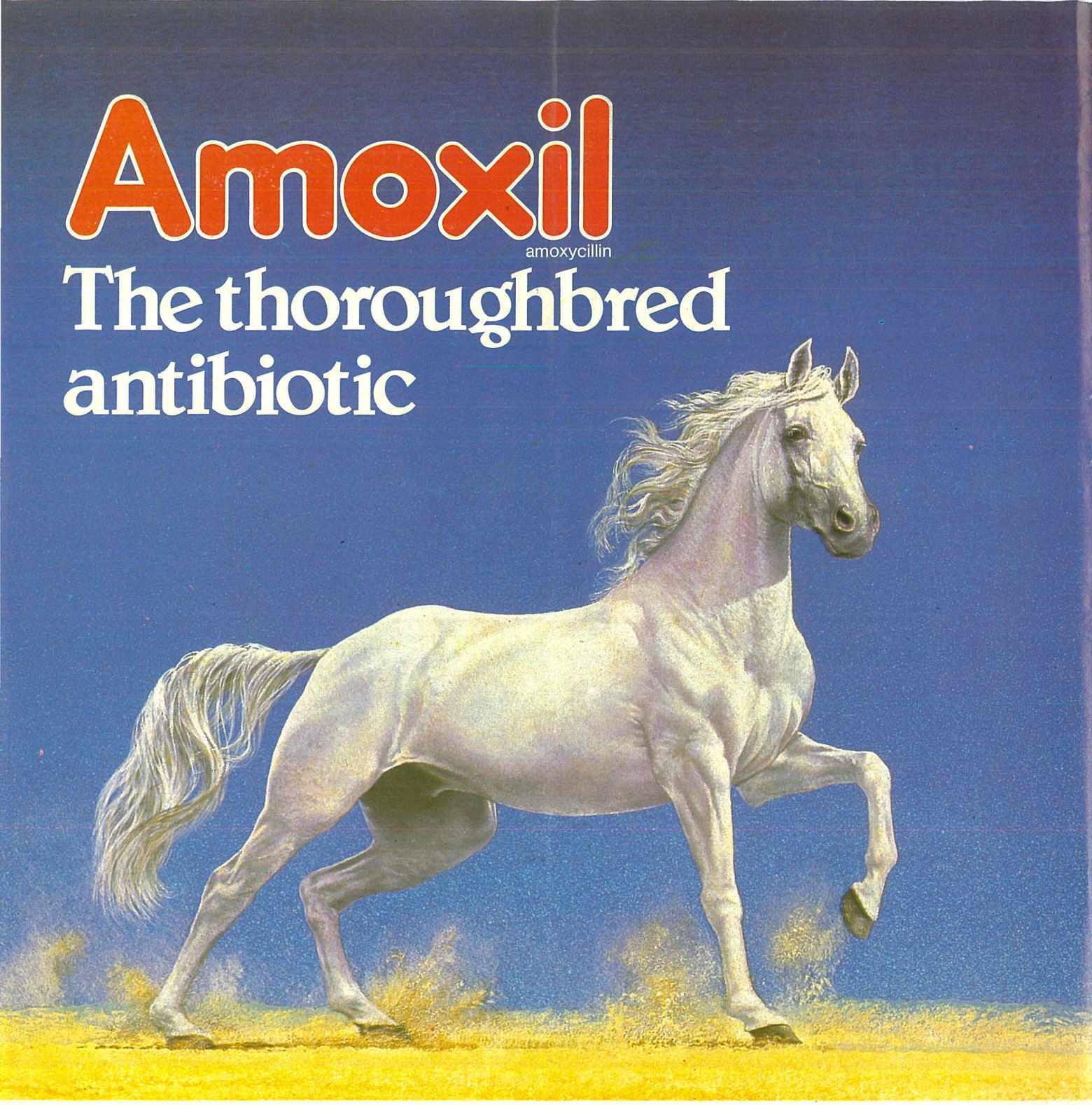
Further information is available from:
Beecham Research Laboratories
Brentford, Middlesex, England.
AUGMENTIN and the BRL logo are trademarks.

References 1. Proc. Int. Symp. on AUGMENTIN. Excerpta Med. (1980), **ICS 544**, 173. 2. Excerpta Med. (1980), **ICS 544**, 19. 3. Excerpta Med. (1980), **ICS 544**, 187. 4. Scot. Med. J., (1982), **27**, 335. 5. Proc. Europ. Symp. on AUGMENTIN. Excerpta Med. (1982), **CCP4**, 341. 6. Excerpta Med. (1982), **CCP4**, 347. 7. Excerpta Med. (1982), **CCP4**, 325. 8. Excerpta Med. (1982), **CCP4**, 334.

Amoxil

amoxycillin

The thoroughbred antibiotic



Prescribing Information

AMOXIL is a broad spectrum antibiotic suitable for a wide range of infections caused by susceptible organisms.

Indications
Respiratory, ENT, genito-urinary and skin and soft tissue infections.

Dosage
Children: Oral and injectable – up to 2 years: 62.5mg-125mg every 8 hours. 2-10 years: 125mg-250mg every 8 hours. Based on bodyweight (including neonates) 35-100mg/kg/day. Adults: Oral – 250mg-500mg every 8 hours. Injectable – I.M. 250-500mg every 8 hours or more frequently if necessary. I.V. 500mg-2g every 4-6 hours. (Doses in excess of 1g should be given by infusion over 30 minutes).

Presentations
Capsules: maroon and gold capsules, each containing 250mg or 500mg amoxycillin.
Syrup: 125mg amoxycillin per 5ml in 60ml or 100ml bottles.
Syrup Forte: 250mg amoxycillin per 5ml in 60ml or 100ml bottles.
Paediatric drops: 125mg amoxycillin per 1.25ml in 10ml bottles with calibrated dropper.
Injection: Vials containing 250mg or 500mg amoxycillin.

Precautions
Reduced dosage is required in patients with impaired renal function.

Contra-indications
Penicillin hypersensitivity.

Side-effects
Side-effects, as with other penicillins, are usually of a mild and transitory nature; they may include diarrhoea, indigestion or an occasional rash, which may be either urticarial or erythematous: in either case it is advisable to discontinue treatment.

Bencard

A Division of Beecham Pharmaceuticals, Brentford, England.
Full information is available on request from the company.

THE PHARMACIST

JOURNAL OF THE CHAMBER OF PHARMACISTS — TRADE UNION

THE **PHARMACIST** is published by the Chamber of Pharmacists, 1, Wilga Street, Paceville. It is sent free to all Pharmacists and distributed to doctors. Others may subscribe at an annual subscription of Lm1.50 or obtain copies from Sapienza's Library, Valletta.

Circulation: 800

Articles and Adverts:

All correspondence, or articles for publication should be sent to The Editor, The Pharmacist, Federation of Professional Bodies, 1, Wilga Street, Paceville. For Advertising Enquiries contact Mrs. M. Parascandolo at the same address.

Payments:

All payments are to be addressed to the Treasurer.

Printed: Lux Press, Hamrun

CONTENTS **No. 19, OCTOBER 1988**

Cover

Front Cover was created on a Macintosh with Mac Print by Charles Cassar and printed with the Apple Laser Writer.

EDITORIAL

The Government Pharmaceutical Services

On the 9th September 1988, 44 Pharmacy graduates received their warrant to practise. Since they graduated in March, a number of them have already left the Government Pharmaceutical Services and others are following ing their footsteps to seek a better future as medical representatives or as community pharmacists.

However, despite the fact that this exodus of disillusioned graduates, occurring within a few months of graduation has been going on for the past eight years, the authorities concerned have done little to resolve the various problems.

The Chamber of Pharmacists, aware of this recurrent precarious situation, has prepared a report entitled 'The Reorganisation of the Government Pharmaceutical Services', which is being printed in full as a supplement to this issue.

Professional Status

The Chamber of Pharmacists has for a long time striven to give the pharmacist his professional status and ameliorate the conditions of employment to establish the desired salary scales. The Editorial of 'The Pharmacist' of April-June 1954, comments on the Government's proposal for a revision of starting salary scale for professionals working in government service.

"What is astounding in the minister's message, is that revision of the starting salary applies only to medical doctors, lawyers and architects, whereas earlier on he had asserted that the revision "affects all posts in government service which require the holder to be in possession of a professional degree of a University, technical qualification or its equivalent."

But the pharmacist continued to be — and is to this day — discriminated against vis-a-vis other professionals in the public service. The graduate pharmacist starts service at grade 34 way below the professional grade 17 he deserves. To ameliorate the government pharmaceutical service, the pharmacist must be given the status to which his qualifications, duties and responsibilities entitle him.

In conjunction with recognition of the professional status, a reorganisation is urgently required. The structure being proposed was drawn up after consultation with the Chief Pharmacist, hospital pharmacists and pharmacy students and provides opportunity for advancement and incentives for specialisation.

Specialisation

A number of graduates are showing an interest to specialise in the various fields of hospital pharmacy. These graduates should be encouraged and helped to specialise. The Chamber of Pharmacists through discussions with the various visiting lecturers from the Queen's University of Belfast, is trying to make arrangements for these pharmacists to take up postgraduate education. These specialists should be further utilised in the academic field by being given joint posts with the Pharmacy School at the University of Malta.

The Chamber of Pharmacists looks forward to the implementation of this report, so that pharmacists can achieve the professional status which has been lacking for many years. Furthermore the implementation of the report's proposals will provide the Government pharmaceutical services with a standard required by modern hospital pharmacy practice — a standard which the country deserves.

NEWS

Annual General Meeting

The Chamber of Pharmacists held its Annual General Meeting at the Federation of Professional Bodies, Paceville, on Tuesday, 31st May.

The Chamber's activities over the past year were described in detail in the Administrative Report presented by the Hon. Secretary, Ms. Mary Ann Ciappara, B.Pharm. These activities have increased in frequency and variety, all being held with the aim of enhancing the knowledge of all pharmacists and bringing about as many occasions as possible for the interchange of opinion, exposure to experts in various fields and also to the media to improve public awareness of the pharmacists' value as professionals.

Major Events

The major events included a seminar on 'Pharmacy Education in Malta' and the finalization of reports on the "Distribution of National Health Service Medicines" and on the "Reorganization of the Government Pharmaceutical Services".

The Financial Report was then presented by the Hon. Treasurer, Mrs. Enza Lapira, B.Pharm.

PRESIDENTIAL ADDRESS

The Chamber's President, Mrs. Mary Ann Sant Fournier, B.Pharm., M.Phil., opened her address by saying that hardly a day passed throughout this last year that the Council was not involved in dealing with one or more aspects of Chamber activities for the benefit of all pharmacists and their profession.

Reversal of Amendments to Legislation and Regulations

Mrs Sant Fournier went on to state that "in our efforts to implement the directives of the previous A.G.M., on every possible occasion, we have repeatedly called for the repeal of those shameful amendments to the legislation and regulations governing pharmacy licences and licencees and the reconstitution of the pharmacy board to its original composition".

The Chamber is convinced that unless the authorities ensure that the management of community pharmacies is in accordance with existing legislation through the immediate appointment of the Pharmacy Inspectorate and enforcement of the law, any attempt at legislating is deemed a useless exercise for, it is Government's duty to see that legislation enacted is implemented.

Pharmacy Education

Mrs. Sant Fournier said that the Chamber has long been crusading for the achievement of the rightful place for the Maltese Pharmacist as the important health professional he really is and that the University is responsible for the academic training as well as the professional formation and identity of tomorrow's pharmacists.

It was with this in mind that the Chamber organised a successful seminar on Pharmacy Education last January, the full report of which was presented to the Hon. Minister of Education — and a motion has asked this A.G.M. to direct the new Council to continue with the efforts so that Pharmacists will finally govern their own affairs and that the Course is organized to meet today's standards of Pharmacy Education and Practice.

Professional Status

Mrs. Sant Fournier went on to say that, conscious of the importance of professionalism and that pharmacists have a right to due recognition to professional status, the Chamber has compiled a detailed report on the reorganization of the Government Pharmaceutical Services where, due to the present non-professional status of pharmacists, disillusionment is rampant amongst our young graduates who, as we have seen in previous years are impatient to leave their posts at hospital or Medical Stores to seek 'brighter' horizons in community practice. It is therefore important to note that this report gives the guidelines for the upgrading of pharmacists to professional status including increased financial remuneration. In fact, another motion before the meeting directs the new Council to insist with the authorities that the pharmacists at the Government Pharmaceutical Services should be granted professional status.

Healthcare Professional

Mrs. Sant Fournier then referred to the Chamber's report on the Distribution of National Health Service Medicines which emphasized the importance of the Pharmacist as a health-

care professional. This is of great significance as when one looks at public declarations by Health authorities and others on matters relating to Healthcare, e.g. Care of the Elderly specialization health service, drug abuse, etc., the pharmacist is being repeatedly overlooked.

Medical Representation

Another area which the Chamber feels should be safeguarded is that of medical representation and the importance and exclusive right that pharmacists have to such posts.

Pharmacists medical representatives are in a unique position to provide not only members of the medical profession but also colleagues and other members of the Healthcare group, with accurate and truthful information on new and existing medication and dosage forms available.

Mrs. Sant Fournier called on the new Council to set up a sub-committee to study this situation and draw up a report with recommendations for the criteria which would regulate this important field.

Finally, Mrs. Sant Fournier thanked and congratulated the Editorial Board on the three issues of the Chamber's official journal. 'The Pharmacist' and then thanked all advertisers and sponsors.

A special thank you went to all members and to the Council members for their good work and support throughout the last year.

MOTIONS

The following motions were then approved:

(i) that the new Committee continues to insist with the administration for the immediate restoration of the Pharmacy Board to its original composition.

(ii) that the new Committee continues to insist with the administration for the immediate repeal of the amendments to the regulations governing pharmacy licences and licencees and the distribution of pharmacies.

(iii) that the new Committee continues to insist with the administration that the pharmacist should be granted professional status within the Government Pharmaceutical Services.

(iv) that the new Committee continues to insist with the administration in its efforts so that the establishment of the Faculty of Pharmacy becomes a reality and the Course of Pharmacy is reorganized to meet the requirements of today's pharmacy practice.

REORGANISATION OF GOVERNMENT PHARMACEUTICAL SERVICES

On Friday, 9th September, the Chamber of Pharmacists held a visual presentation of its Report on the 'Reorganisation of the Government Pharmaceutical Services' at the Federation of Professional Bodies, Paceville.

THE HEAD OF DEPARTMENT OF PHARMACY IS A PHARMACIST

The Chamber of Pharmacists congratulates pharmacist Anthony Serracino Inglott B.Pharm., D.Pharm., on the conferment of the title of Associate Professor and on his appointment as Head of the Department of Pharmacy at the University of Malta.

MEDICAL REPRESENTATION

The Chamber of Pharmacists organized a meeting for all pharmacists medical representatives and all other interested pharmacists on Tuesday, 11th October, 1988 at the Federation of Professional Bodies to discuss in detail Medical Representation with the intention of drawing up recommendations for the criteria which would regulate this important field and uphold professional standards working in this sector, the healthcare professionals they serve and the community in general.

RECENT ADVANCES IN CARDIOVASCULAR MEDICINE

Dr. Dean Harron, B.Sc., Ph.D., M.P.S., of the Department of Therapeutics and Pharmacology, Faculty of Medicine, Queen's University of Belfast, Northern Ireland, delivered a lecture entitled "Recent Advances in Cardiovascular Medicine" on Thursday, 29th September 1988.

Dr. Dean Harron comes from one of the largest and best equipped facilities of its kind in the world under the headship of Professor R.G. Shanks.

Dr. Harron was in Malta to lecture pharmacy undergraduates and advised many would be post graduate aspirants. Dr. Harron advised the Pharmacy Department on course planning, reorganisation, and budgeting and held discussions with the council of the Chamber of Pharmacists on Pharmacy Education.

COMMONWEALTH PHARMACY DAY

16TH JUNE

The panel at the forum on Commonwealth Pharmacy Day.

The Chamber of Pharmacists has commemorated Commonwealth Pharmacy Day — on June 16th — by organizing a Forum entitled "The Differing Roles of Health Professionals in Skin Care" at the Professional Centre of the Federation of Professional Bodies, Paceville.

The Forum was chaired by the President of the Chamber, Mrs. Mary Ann Sant Fournier and the speakers were Mrs. Patricia Mintoff, a Community Pharmacist and Dr. Dino Vella Briffa, a Consultant Dermatologist. This forum brought to a close the Chamber's Continuing Education Programme which this year focussed on "The Skin".

In her opening address, Mrs. Sant Fournier gave the 'raison d'etre' of the C.P.A. and announced that the next Executive meeting of the Association to be held in 1989 will be hosted by the Chamber of Pharmacists in Malta. She also emphasized the CPA recommendations in respect of the Pharmacist in Community Practice, a most important health professional.

At the end of the forum, the Parliamentary Secretary for Health, the Hon. Dr. George Hyzler, M.D., B.Pharm., M.P., addressed the audience and then distributed certificates to all those pharmacists who had attended the lectures regularly.

Amongst the distinguished guests present was Doctor Edmondson, the Assistant Director of the Commonwealth Health Programme who was in Malta in connection with a health aid programme for third world countries. Dr. Edmondson was accompanied by Mrs. Edmundson.

A reception was held at the end of proceedings.

CONTINUING EDUCATION PROGRAMME 1988

THE SKIN

26 May: Understanding Normal Human Skin — Dr. D. Vella Briffa, M.D., Dip. Derm., Ph.D.

2 June: Formulations of Skin Care Products — Ms. M. Ellul, B.Pharm.; Ms. A. Zammit, B.Pharm.; Ms. A. McElhatton, B.Pharm.

6 June: New Trends in Skin Care Formulations — Ms. G. Vella, B.Sc., M.Sc.

8 June: Recent Advances in Dermatological Treatment — Dr. J. Pace, M.D., F.R.C.P.

14 June: Sun and Skin — Dr. D. Vella Briffa, M.D., Dip.Derm., Ph.D.

16 June: Forum — The Differing Role of Health Professionals in Skin Care — Chairperson: Mrs. M.A. Sant Fournier, B.Pharm., M.Phil.

The lecturers were sponsored by:
G. Borg Ltd.
Cherubino Ltd.
Chemimport Ltd.
A. Gera & Sons Ltd.
Vivian Commercial Co. Ltd.

IMPORTANT DEVELOPMENTS IN BRITISH COMMUNITY PHARMACY

There has been a number of important developments in British community pharmacy. In a recent Government White Paper, support was clearly indicated for pharmaceutical supervision of the supply and safekeeping of medicines in residential homes for children, the handicapped and the elderly, and for pharmacists to become involved in the continuing education of other workers who contribute to community health. The Government proposes to encourage, through the introduction of allowances, the maintenance of records within pharmacies of the long term medication of elderly or confused patients. There will also be funding for the promotion of health information literature in pharmacies and for the coordination of local arrangements between pharmacists and physicians to develop policies on effective and economic prescribing. The Government is increasing the funds that are made available for the continuing education of community pharmacists. All these developments have been welcomed by the profession as tangible recognition of the expanding role that pharmacists can play in primary health care.

NATIONAL DIALOGUE ON BIOETHICS

The Chamber of Pharmacists was invited to the National Dialogue on Bioethics organised by the Ministry for Social Policy between the 7th and 9th July 1988.

In the words of the Hon. Dr. L. Galea, Minister for Social Policy, the objectives of this exercise were: "To provide an overview of ethics in medicine today with particular reference to some recurrent problems, and to seek information on the purpose, methodology and knowhow of ethics committees and to lay the foundations of a Health Ethics Committee".

The key speakers at this three day National dialogue were Professor Laurence J. O'Connell, Ph.D., S.Th.D., Vice President of the Catholic Health Association of the U.S.A. and an expert on Bioethics and Rev. Fr. Charles Vella of the Instituto Scientifico San Raffaele, Milan, who teaches ethics and coordinates the Ethics Committee there. The Dialogue was well attended by a cross-section of committed professional persons, in the medical, pharmacy, nursing and socio-moral sphere.

The Council of the Chamber of Pharmacists was represented by the President Mrs. M.A. Sant Fournier, B.Pharm., M.Phil., and the Secretary, Ms. M.A. Ciappara, B.Pharm. Other nominated members of the Chamber who attended some of the events were Mr. Laurence Zerafa B.Pharm. (Council Member), Mrs. Maria Scicluna, B.Pharm., Mrs. Marisa Dalli, B.Pharm., and Mr. Ferdinand Felice, Ph.C., B.Sc.

In our opinion it was a wise and timely move to discuss the many ethical issues which are arising through the development in medicine, brought about by modern research and advances in biotechnology. The Chamber now looks forward to a follow up of this dialogue and also to the implementation of the suggestion made by the Hon. Prime Minister at the opening of the seminar entitled 'Bioethics: The Case for a Health Ethics Council' at the University of Malta.

This suggestion proposed to the United Nations to draw up an international law on scientific research which should be regarded as a common heritage of mankind.

LETTER TO THE EDITOR

PHARMACIST JOSEPH SCIBERRAS

Dear Madam,

I think that I have a curious story to narrate about Pharmacist Joseph Sciberras' fishing hobby. Well, Joe was once, in 1970, fishing well outside Marsamxett Harbour when a rather strong wind developed. His then rather small boat began to drift away from the shore. Becoming apprehensive and fearing trouble, he prayed our glorious protector Saint Joseph, the Patron of Msida, and after whom were named his father and mother, himself and his son.

Indeed our affable St. Joseph could not resist Joe's anguish and very soon provided to his help, and thus Joe soon spied somewhat afar from the shore in the open seas, a motor-boat which was being driven by two 15-year-old lads, who were then first-year University students: my son Joe and his cousin Joe Saliba. Pharmacist Joe frenzidly called for their help, which they instantly and cheerfully obliged, and after tying his boat to their's (which belonged to Joe Saliba's father Dr. Francis M.D. of the Police Department), they brought him back in Msida Harbour to just in front of his pharmacy. Joe Sciberras gave them Lm2 each which they were most glad to accept. Well, I once mentioned this episode to Pharmacist Joe when he and his wife attended a reception on St. John's Feast at our Order Ambassador's residence in St. John's Cavalier in Valletta whereto I and my wife were also present. Joe did not appear to recollect that incident clearly, but he did not say that my son had told me a lie some fifteen years before.

It so happened later when my son Joe (LL.D.), a Nationalist Party candidate in 1987 was at Hal-Far to see the Election Counting Process and two Labourites were going to mishandle him for some remark of his, he soon asked Pharmacist Joe, who was also there, to intervene on his behalf, which the latter whole-heartedly did with the following words "to pay off the old obligation I have with the young Joe Borg" was his loving remark. "Please inform of this matter to your dear fellow-Pharmacist Joe Borg senior and give him my respects."

Yours truly,
Joseph Borg

VIEW POINT

Supply of Needles and Syringes to Drugs Abusers

Mary Sciberras, M.D., Medical Officer, Detoxification Centre, St. Luke's Hospital

In each issue we are presenting an open discussion on a particular topic. The aim is to have an exchange of opinions and ideas amongst you and to invite comments from experts in a particular field.

You are invited to recommend modifications, alterations and changes for the benefit of our society and to develop further our profession.

The following contributions have been received on the topic "Sale and Supply of Syringes to Drug Abusers".

SPECIAL PREVENTION EFFORTS

1. Considering the problem of the use of syringes by drug abusers, one's first reaction is bound to be to limit the supply of these syringes or to give them only against a prescription. By this restriction, one hopes to decrease the abuse by injection. In actual fact this will in no way cure addicts. If new syringes are not available, they just make use of old syringes. Moreover if the addict is getting a supply of illegal drugs on the black market, why should it be difficult for him to get syringes as well?
2. The AIDS virus constrained us to weigh the consequences more deeply. If the AIDS virus is present in the drug taking community, the problem will become an epidemic through needle sharing.
3. In the United States, the number of new cases of AIDS related to drug injection is rising more rapidly than in other risk groups: in parts of New York and New Jersey as well as in Italy, most AIDS cases are now related to drug injection[1]. In these centres as well as in Edinburgh, over 50% of samples of drug injectors have been found to be infected with the virus[2]. One has to keep in mind that in both New York and Edinburgh sale of syringes was for a long time controlled by prescription.
4. This makes it imperative that special prevention efforts are aimed at drug injectors and their partners, designed to change both sexual habits and injecting behaviours, especially the sharing of injection equipment. However, interventions need to be based on a good understanding of a realistic assessment of how drug injectors themselves, and others close to them, are likely to respond. Prevention efforts must start by assessing the awareness of AIDS risks among injectors, and the possibility of these changing their behaviour. Some are of the opinion that it is unrealistic to expect significant changes in risk behaviour among injection drug users. Reasons given are that drug injectors (unlike the Gays) are not a coherent or organised community through which it is possible to disseminate and reinforce 'safe practices'. Moreover they are so self-destructive and have such a low self-esteem that they would not change their behaviour anyway. Other experiences have produced different results. 90% of two samples of New York intravenous drug users in treatment are aware that AIDS can be transmitted by sharing syringes and needles, 60% of these samples reported changing their behaviour to reduce the risk of AIDS. The most common changes were increased use of sterile needles and reduced sharing[3].
5. Several countries have already encountered this dilemma for a number of years. It would be wise to have a glance at their reactions and conclusions and if available at their feedback.

5.1 Netherlands.

The spread of AIDS among drug addicts is increasing and the main source of this infection is the sharing of syringes and needles[4]. Obviously the spread is also among their sexual partners. This report boasts that this spread is slower in the Netherlands than in any other country. The reasons given are that it is their policy to make it easy for drug addicts to obtain help. Prevention policy includes information, exchange system of syringes and needles as well as supply of condoms free of charge or at cost price. This exchange system is financed by the Ministry of Welfare and is run either by the primary health care services or by organizations for the care of addicts[5]. The same report admits that social workers will not find it easy

to give information about this exchange, since they normally are trained to provide help with the aim of putting an end to addiction.

In Amsterdam, in 1985 some 100,000 syringes and needles were provided in the exchange system. The fear that this approach will encourage drug addicts to inject rather than come for treatment did not materialize. The number of IV addicts did not increase in 1985 (25-30% inject, 70-75% inhale heroin). Therapeutic programmes report more clients than ever. The number of addicts in Amsterdam has stabilized over the past few years at 7000-8000[6].

This measure is to be viewed in the context of Amsterdam's approach to the drug problem. Because the results of drug-free treatment were disappointing and few addicts were being reached, Amsterdam adopted the principle that if it is impossible to cure a drug addict one should at least try to create a situation that greatly reduces the risk that the addict harms himself and his environment.

5.2 Great Britain.

A report by the Advisory Council on the Misuse of Drugs considers it as the first basic principle that the spread of HIV is a greater danger to individual and public health than drug misuse and therefore all available means should take precedence[7]. It is only later that it enunciates that prevention of drug misuse is now more important than ever before. And this in view of the fact that it will have a major effect on the spread of HIV[8]. This report suggests:

1 the setting up of syringe exchange schemes;
2 that community pharmacists should be encouraged to sell equipment at reasonable cost to injecting drug misusers;
3 that health authorities should provide pharmacists, on request and free of charge, with disposal facilities for used equipment and pharmacists should encourage customers to return equipment;
4 that all syringes should bear an indelible warning about the danger of sharing injecting equipment;
5 that local police should be consulted on and should cooperate to ensure that police activity does not discourage drug misusers from obtaining sterile equipment and/or returning equipment[9].

5.3 Scotland.

The basic principles stated in the report of the Scottish Committee on HIV Infection and Intravenous Drug Misuse are practically identical with those of Great Britain.

In this report practitioners are informed that it may be an appropriate part of the management of individual patients, in the interests of limiting the spread of infection, to issue needles and syringes and that this should be done on a one-for-one exchange basis for a needle and syringe.

I think that it would only be fair to say that this is just one paragraph from a report that gives at least twenty recommendations that really help in the awareness and education on the problem of both AIDS and drug misuse[10].

This report has created quite a lot of trouble. Health Minister John Mackay was reshuffled to Education because he likened issueing needles to addicts to offering prospective murderers with good weapons to murder efficiently and quickly. His successor emphasised that drug misuse must also be given a high priority. The Scottish Authorities found the troops needed to operate it reluctant to volunteer; the drug agencies not willing to supply injection equipment; the GPs reluctant to deal with misusers at all, let alone handling the AIDS complication; and pharmacists cannot offer the health education counselling needed to make a needle exchange system work[11].

Needle Exchange 'Depots'

I agree that we should help drug addicts to avoid getting AIDS. However, I do not think that disposable syringes should be available for drug addicts through pharmacies.

I think it is non-ethical to help somebody to carry on in his/her erraneous life-style. Disposable 'Insulin' syringes should only be made available at pharmacies to *'bona-fide'* diabetics.

Drug addicts should be able to exchange their used syringes at certain 'Depots' made available either by the Government authorities or by Caritas.

Maria Scicluna
Community Pharmacist

5.4 New York

Public health authorities are currently considering the lifting of some of the legal restrictions on the availability of sterile needles. Since 1985, in New York City, there were two methods being used to supply drug injectors with 'free' needles[12].

In the first method, needle sellers are including an extra needle with the sale of a complete syringe and needle. This extra point can be used immediately if the first needle becomes clogged when a drug user is preparing to inject. Because it is just before injecting that a drug user is most likely to be experiencing withdrawal symptoms, and is therefore most likely to use whatever needle is available, the availability of a spare needle at this particular time may be an important way of keeping a drug user from using someone else's needle.

The other method is that drug dealers are including a 'free' needle and syringe with sales of 25 dollars and 50 dollars bags of heroin. However this second method is not as widespread as the first.

5.5 Norway

Up to 1987, 42% of the seropositive tests reported are drug addicts. So far drug addicts constitute only 4% of the reported AIDS cases. Needle exchange is being carried out in one city, on an experimental basis. The pilot project will be evaluated before further implimentation Syringe dispensers are placed easily accessible for the IV drug abuser making clean syringes available round the clock. Moreover syringes are freely available through pharmacies throughout Norway.

However the Government is committed to develop residential treatment facilities of various modalities to give the drug abusing population a chance to rehabilitate and thus eliminate the risk taking behaviour.

6. Conclusions

1 No possible positive result can be expected from control of the sale of sterile syringes.
2 The method of syringe and needle exchange is a way of trying to deal with symptoms rather than the actual problem. The most important measure to be taken is to lessen the number of drug abusers and consequently of risk taking behaviour. Thus even drug abusers who are convinced of the necessity of precautions will at one time or another resort to injecting with used needles. Even more important than treating drug abusers is an education campaign to help prevent young people from embarking on drug addiction.
3 I am afraid that notwithstanding the fact that the syringe and needle exchange measure is mentioned as part of a programme together with counselling and education about the problem of AIDS transmission, what will be done in practice is only the syringe and needle exchange.
4 All drug addicts who call for detoxification or rehabilitation in Malta are repeatedly investigated for AIDS virus and up to date all proved to be negative. Our drug addicts are very conscious of the dangers coming from needle sharing. Since we are not as yet facing the problem, we are still in time to try to make drug abusers more aware of this danger.

---

(1) Cohn J.A. Treating and Coping with AIDS: The Experience at Bellevue Hospital. In Community Epidemological Work Group Proceedings, Vol. 2, Rockville, Md: U.S. National Institute of Drug Abuse, 1986 p. I/1-5.
(2) Avico U. Drug Use in Italy. In Community Epidemological Work Group Proceedings, Vol. 2, Rockville. Md: U.S. National Institute of Drug Abuse, 1986 p. IV/34-62.
(3) Friedman S.R. et alia, "AIDS and Self-Organization Among Intraveneous Drug Users", Arch. Int. Med.: 1986. 145. p. 837-840.
(4) Ministry of Welfare, Health and Cultural Affairs: AIDS Policy in the Netherlands, January 1988, par. 3.2.3.1.
(5) Ibid. par. 3.2.3.2.
(6) Buning E.C. et alia "Preventing AIDS in Amsterdam", Druglink, 1/3 (Sept./Oct. 1986) p. 9.
(7) "AIDS and Drug Misuse Part 1". Department of Health and Social Security, par. 11.2, 1.
(8) Ibid. par. 11.2, 4.
(9) Ibid. par. 11.2, 18.21.
(10) HIV Infection in Scotland, Report on the Scottish Committee on HIV Infection and Intraveneous Drug Misuse, Scottish Home and Health Department, 1986.
(11) "AIDS Scare Prompts Policy Re-Think in Scotland", Druglink, 1/4 (Nov./Dec. 1986) p. 6.
(12) Des Jarlais, C. "Free Needles Offer Attracts Custom in New York, ibid. p. 9.

VIEW POINT

AIDS and drug abuse

Mary Anne Ciappara, B.Pharm.

Community pharmacy practice is becoming increasingly more patient orientated than product orientated. The pharmacist is becoming more involved in counselling and in health education. In the past some pharmacists may have been reluctant to deal with drug addicts as they felt it was not one of their professional responsibilities. It is essential, however, that the profession as a whole is seen not to shrink from its collective duty to help combat drug abuse and AIDS.

What are the ethical issues?

Dr. Paolo Cattorini, a member fo the Italian Commission of the Ministry of Health on AIDS said that "non si puo pensare che l'approccio al l'AIDS, dal punto di vista sanitario generale ed etico, debba avere un originalita' assoluta. Allo stesso modo i richiami deontologici, relativi, cioe al modo in cui i professionisti, esempio i sanitari, debbono comportarsi, non sarranno nuovi in assoluto..."[1].

The health of the individual is of utmost importance, and every decision made by the pharmacist must reflect the respect for the dignity of that individual. Pharmacists are bound to help all those in need of assistance and to avoid making superficial judgement of their behaviour.

Drug addicts are sick persons and the pharmacist must respect them as human beings and do all they can to motivate and advise them to seek help to come off drugs altogether. By refusing to sell them syringes the pharmacist will not be helping them to stop taking drugs. The patient has a fundamental right to privacy. This is of particular importance in pharmacy, when disclosure of personal information may have personal legal repercussions. What assurance can a pharmacist give to a patient who is under 18 years of age? What should he do when a 16 year old asks for a syringe?

Intravenous Drug Abusers

The prevalence of the AIDS virus is high in the needle sharing community of Drug Addicts. In Edinburgh 51% of intravenous drug abusers were found to be antibody positive in 1986[2]. AIDS can be transmitted by even a single injection with an infected needle. Any misuse of drugs that involve sharing needles and syringes is hazardous. Jonathan Mann, Director of WHO special programme for AIDS, said that the major spread of AIDS in Italy is drug abuse. Drug addicts where using infected needles[3].

In view of this a number of Pharmaceutical Societies have changed their advice to pharmacists. In February 1988, the Pharmaceutical Society of Great Britain, permitted Pharmacists to sell syringes and needles, subject to their professional descretion[4]. Due to a change in law in May 1988, it is now legal for pharmacists in New Zealand to sell injecting apparatus[5].

Health Education and Counselling

But giving drug addicts syringes is not enough. A dispensing machine could do that. What the pharmacist must offer is health education and counselling. Emphasis must be made on the containment of AIDS. Preventing drug abuse and reducing the number of users who inject drugs are key issues in preventing the spread of AIDS.

When a drug addict comes into the pharmacy for a sterile syringe, health education is directed at him at the point of contact. The pharmacist should advice where he can receive help to come off drugs altogether, but in the meantime, warn him to avoid injecting drugs and that he must never share syringes and needles in view of contacting AIDS.

It would be desirable to have all syringes carrying a clearly legible warning on the dangers of sharing syringes/needles and to provide contact telephone numbers on where to find help. This can be further reinforced by having leaflets on 'AIDS AND DRUG ABUSE', which can be picked up from the pharmacy or else packed with the syringe. The Health Education Unit certainly does not seem to have included pharmacies among the sites where information booklets on AIDS are available to the general public.

Disposable Facilities

Schemes are being introduced in a number of countries to provide drug addicts with syringes in exchange of their used ones and to provide facilities for the safe disposal of used syringes,

(Cont. on page 17)

NEW DRUG

Recombinant DNA Hepatits B Vaccine

Introduction

The development of the genetically-engineered vaccine, Energix-B, (also known as recombinant DNA vaccine) has resulted in a safe, efficacious and cost-effective vaccine for hepatitis B. The vaccine took seven years to research and develop at SmithKline Biologicals facilities in Rixensart, Belgium, using advanced recombinant DNA techniques.

Genetic Engineering in Vaccine Manufacture

Genetic engineering, also known as recombinant DNA (or r-DNA) technology, is not only the most modern way to make a vaccine, it is also the only practical way to make a vaccine for large scale use against hepatitis B infection.

It involves an entirely different process of producing the hepatits B vaccine than other methods of vaccine manufacture.

Two Simple Steps

The process starts with the gene which controls the production of the surface antigen to hepatitis B virus, being cut out of the viral genome. The surface antigen is the important part of the virus in vaccine manufacture, since it is this substance which will stimulate the body's immune system into action.

Although the hepatitis B virus can be deadly, the surface antigen is harmless and so can be injected into people. Antibodies against hepatitis B surface antigen will be produced in the vaccinated person thus protecting them against any subsequent invasion by the hepatitis B virus.

Once the gene for the hepatitis B antigen has been taken out of the virus, it can be inserted into ordinary yeast cells which then manufacture in abundance the surface antigen needed for a vaccine.

The DNA from which the gene or genes are to be cut out, is called the "donor DNA". Any DNA can serve as donor DNA, whether it comes from a virus, bacterium, or the cells of plants, animals or humans. The molecular biologist isolates and manipulates precisely the DNA fragments he needs by using a particular set of reagents and techniques.

The desired fragment is not inserted directly into the genetic material of the cell. It is first *recombined* into an appropriately chosen "vector" DNA molecule, which will act as a vehicle for insertion. The vector is a relatively small DNA molecule, which is capable of reproducing itself once it has been inserted into a host cell.

By combining a donor DNA fragment into a specially-constructed vector DNA molecule in this way, and then inserting this into host cell, part of the cell's biological activity is redirected towards expressing the foreign gene.

In the case of Engerix-B, SmithKline Biologicals' recombinant DNA hepatitis B vaccine, the gene of the hepatitis B virus which controls production of the hepatitis B surface antigen (HBsAg), is inserted via a vector into a yeast cell in order to instruct it to produce HBsAG in large quantities.

This surface antigen — representing just a part of the hepatitis B virus — is sufficient, once injected into humans, to cause the human immune system to produce antibodies against the whole virus.

Advantages

Although production of such a genetically-engineered vaccine, requires a high level of expertise and a number of complex procedures, its manufacture is considerably less complicated than those required for the manufacture of plasma-derived hepatitis B vaccines.

These plasma-derived hepatitis B vaccines are made by extracting the surface antigen from the infected blood of chronic hepatitis B carriers. These vaccines became available in the early 1980s and although they are effective, they have a number of drawbacks including high cost and short supply.

Some people have also expressed the fear that these vaccines may accidentally contain AIDS viruses, or other known or unknown blood contaminants, since they are made from human blood.

To ensure purity, plasma-derived vaccines require approximately 65 weeks processing and control time, compared to only about 10 weeks for the r-DNA vaccine.

The supply of plasma-derived hepatitis B vaccine also depends on the availability of suitable hepatitis B-carrier blood, which may be difficult to obtain.

By contrast, the supply of genetically-engineered hepatitis B vaccine depends mainly on the

industrial facilities that can be built and allocated to its production. Supply can be scaled up to meet demand.

The Product

An extensive clinical trial programme carried out in 47 studies and involving over 6000 patients in 15 countries in Europe, Asia, Africa and the Middle East has demonstrated Energerix-B's safety and efficacy.

These studies have also shown it to be highly immunogenic. The number of subjects showing protection approached 100 per cent one month after final vaccine dose. Even subjects belonging to groups at highest risk from hepatitis B remained protected from the disease after vaccination. No medically unacceptable reactions were recorded in any of the studies.

Dose Schedule

Doctors and health professionals are offered a flexible dose schedule. Vaccination, given in three separate doses, can be either administered in the standard schedule of 0, 1, 6 months or for those individuals at more immediate risk (e.g. babies born to carrier mothers), a schedule of 0, 1, 2 may be more appropriate.

The 0, 1, 2 schedule requires a booster dose after one year, whereas the 0, 1, 6 schedule is expected to confer immunity for approximately five years.

An optimal dose of 20 micrograms has been chosen for the vaccine as this provides a longer lasting immune effect over the lower 10 microgram dose.

It is standard practice in the manufacture of many vaccines to give many times the minimum immunogenic dose to provide an optimal margin of assurance. The 20 microgram dose of vaccine ensures that it compensates for any individual variation in antibody response by those who may be slightly immunocompromised.

The genetically engineered hepatitis B vaccine can also be produced in much greater quantities than plasma-derived vaccines. Since there is no supply limit of yeast-derived hepatitis B vaccine, it is considerably more cost-effective than existing plasma-derived vaccines The purity of the product and the absence of any potential blood contaminants (as no plasma is used at all in the manufacture) should reassure the public of the safety of hepatitis B vaccination.

Availability, affordability and acceptability now allow hepatitis B mass vaccination campaigns to be a reality. It is only through mass vaccination that the disease of hepatitis B will be brought under control throughout the world.

(Cont. from page 13)

to reduce harming themselves and the environment. Pharmacy's Anti Aids Programmes has been set up by the members of the Pharmacy Guild of Australia (New South Wales) in December 1986, and has been distributing needles for intravenous drug abusers and the general public.

An Exchange programme is currently being piloted and has experienced favourable response from drug addicts. Whereas in other countries there has been an increase, due to this needle distribution and exchange programme there has been a plateauing of HIV infection among IV drug abusers in New South Wales[6].

It might be wise to set up a similar Pilot scheme in Malta, where disposable facilities can be made available to those pharmacists who volunteer to participate. Drug abusers will be encouraged to return used syringes by being offered a discount on future syringes and place them in a specially sealed safety box. When full this box will be collected for destruction. In this way the pharmacist does not handle any contaminated material.

Conclusion

The distribution of syringes reassures those at risk, and creates a barrier against contacting AIDS. It is a short term intervention and does not change their behaviour. Preventing Drug Abuse and the number of abusers who inject drugs are the key issues in preventing the spread of AIDS. This is where the pharmacist can and must play an essential part.

---

(1) Cattorini, J., AIDS, La punta di un Iceberg (Aspetti Medici, etici e Preventivi) Instituto Scientfico di San Raffaele (Milano), Editrice I.S.L. Audiovisivi 1988, p. 71.
(2) Maddock, D.M., Drug Abuse, A Guide for Pharmacists, Londin, 1987, p. 14.
(3) Vella, C.L., AIDS, La punta di un Iceberg (Aspetti medici, etici e preventivi) Editrice I.S.L. Audiovisivi 1988, p. 93.
(4) Maddock. D.M., Drug Abuse, A Guide for Pharmacists, London 1987 p. 8.
(5) Commonwealth Pharmaceutiial Associatiin, Newsletter, No. 12, Aug. 1988, p. 4.
(6) Bickle, M., F.I.P. Newsletter, Section for Community Pharmacists, Aug. 1988, p. 8.

"After only one week of treatment with 'Tagamet' almost all patients were free of pain."

Panijel M (1985) Zeitschrift fur Allgemeinmedizin; 61: 952-55

Expected in ulcer therapy; but this study used 'Tagamet' in gastritis

When healing ulcers, you can expect high standards of efficacy and reliability from 'Tagamet'. You can achieve results that are 'close to the ideal'.

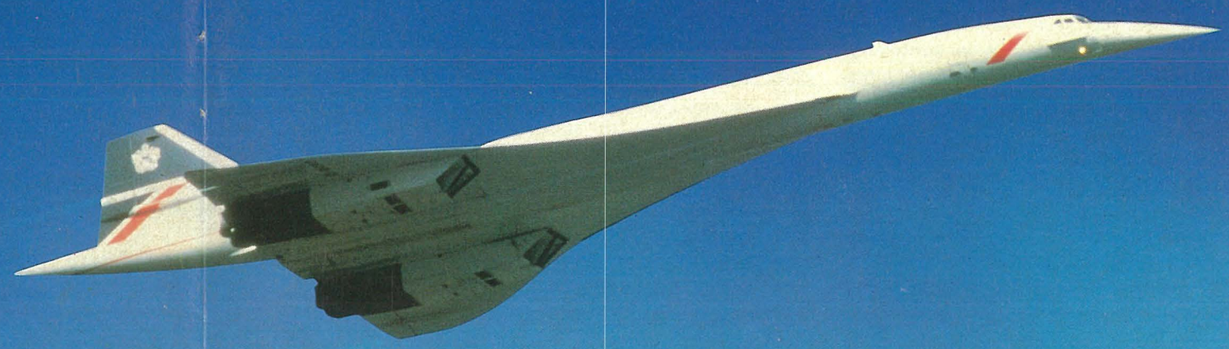
Now, in gastritis the well documented acid controlling properties of 'Tagamet' are proving to be effective. Particularly in patients who need more than the simple acid neutralisation offered by antacids.

The ideal gastritis therapy would offer; relief of pain and discomfort in all patients, rapid onset of action and a well tolerated therapy. In a comparative study, 'Tagamet' was found to be superior to antacids, providing 100% pain and heartburn relief after two weeks.[1]

'Tagamet' controls acid secretion at its source. This means effective relief of symptoms, a simple dosage and convenience that antacids cannot offer.

Tagamet
(cimetidine SK&F)

400mg morning and evening



Tagamet
(cimetidine SK&F)
acid control when needed most
'Tagamet' is indicated in the treatment of persistent acid related dyspeptic symptoms. These symptoms are often referred to as:
gastritis · duodenitis
hyperacidity · acid stomach
heartburn · and indigestion

close to the IDEAL

in acid related gastritis

Presentation
Pale-green, oval, film-coated tablets containing 800 mg cimetidine; pale-green, oblong, film-coated tablets containing 400 mg cimetidine; pale-green, circular, film-coated tablets containing 200 mg cimetidine; a clear, orange-coloured, peach-flavoured syrup, each 5 ml dose containing 200 mg cimetidine.

Indications
Duodenal ulcer, benign gastric ulcer, recurrent and stomal ulceration, oesophageal reflux disease. Other conditions where reduction of gastric acid is beneficial: persistent dyspeptic symptoms, particularly meal-related; prophylaxis of stress-induced gastro-intestinal haemorrhage and of acid-aspiration (Mendelson's) syndrome; malabsorption and fluid loss in short-bowel syndrome. Zollinger–Ellison syndrome.

Dosage
Usual maximum 2.4 g/day. For full instructions see Data Sheet.
Adults – peptic ulceration, acute treatment: For patients with duodenal or benign gastric ulceration, a single daily dose of 800 mg at bedtime is recommended. Alternative effective regimens are 400 mg twice a day, with breakfast and at bedtime, and 200 mg three times a day with meals and 400 mg at bedtime (1 g/day). Treatment should be given initially for at least 4 weeks (6 weeks in benign gastric ulceration).
Maintenance therapy: 400 mg at bedtime.
Persistent acid-related dyspeptic symptoms: 400 mg twice a day for 4 weeks. *Oesophageal reflux disease:* 400 mg four times a day, with meals and at bedtime, for 4 to 8 weeks. *Zollinger–Ellison syndrome and other hypersecretory conditions:* 1.6 g or more daily, in divided doses. *Prophylaxis of stress-induced gastro-intestinal haemorrhage:* 200–400 mg every 4 to 6 hours. *Acid aspiration (Mendelson's syndrome):* 400 mg 90–120 minutes before induction of general anaesthesia or at the start of labour. While such a risk persists, a dose of up to 400 mg may be repeated (parenterally if appropriate) at 4-hourly intervals. 'Tagamet' Syrup should not be used.
Short-bowel syndrome: duration of therapy will depend on individual response.
Children: Over 1 year, 25–30 mg/kg per day in divided doses.

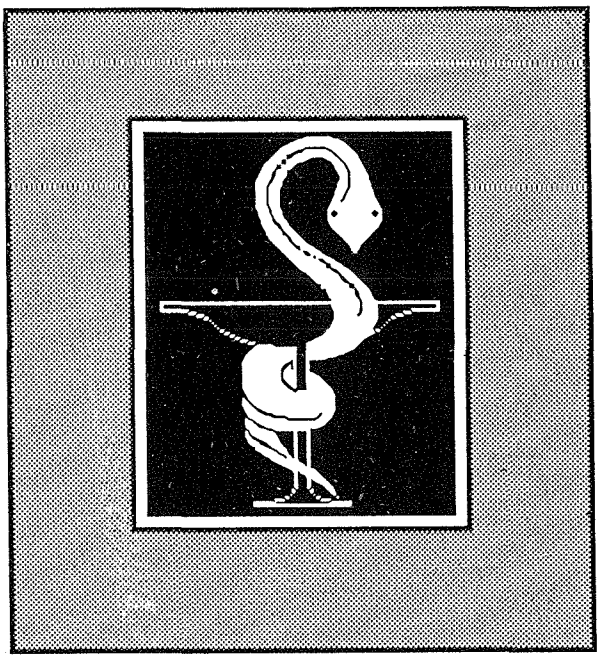
Cautions
Impaired renal function: reduce dosage (see Data Sheet). Potentiation of oral anticoagulants, phenytoin and theophylline (see Data Sheet). Prolonged treatment: observe patients periodically. Potential delay in diagnosis of gastric cancer (see Data Sheet). Care in patients with compromised bone marrow (see Data Sheet).
Avoid pregnancy and lactation.

Adverse reactions
Diarrhoea, dizziness, rash, tiredness. Gynaecomastia, occasional reversible liver damage, confusional states (usually in the elderly or very ill). Very rarely interstitial nephritis, acute pancreatitis, thrombocytopenia, headache, myalgia, arthralgia; very rare reports of alopecia, reversible impotence but no causal relationship established at usual therapeutic doses.

Reference and Study Protocol
1. Panijel M (1985) Zeitschrift fur Allgemeinmedizin; 61:952-55
'Tagamet' 800mg/day or aluminium hydroxide gel 36g and magnesium hydroxide 2.4g/day.
'Tagamet' n=30 and antacid n=30.

Full prescribing information from:
SK&F

United Kingdom Overseas Group **SMITH KLINE &FRENCH LABORATORIES LIMITED** Welwyn Garden City, Hertfordshire, England, AL7 1EY



CHAMBER OF PHARMACISTS

MALTA

THE REORGANISATION OF THE GOVERNMENT PHARMACEUTICAL SERVICES

SEPTEMBER 1988

The Chamber of Pharmacists held a visual presentation of its Report on the 'Reorganisation of the Government Pharmaceutical Services on Friday, 9th September at the Federation of Professional Bodies, Paceville. The presentation was made by the President of the Chamber, Mrs. Mary Ann Sant Fournier, B.Pharm., M.Phil., to the Hon. Minister for Social Policy, Dr. Louis Galea, B.A., LL.D., M.P., who attended all proceedings and delivered a concluding address.

The guests included the Chief Government Medical Officer, Dr. J.J. Giglio, M.D., D.P.H., D.I.H., B.Pharm., the Principal Medical Officer, Dr. A. Vassallo, M.D., B.Pharm., D.P.H., D.I.H. M.F.C.M., the Chief Pharmacist, and pharmacists, especially those working in the sector, and pharmacy students. This report, which is being reproduced in full, was compiled by Mrs. Maria Brincat, B.Pharm., aided by Ms. Margot Zammit Montebello, B.Pharm.

REPORT ON THE REORGANISATION OF THE GOVERNMENT PHARMACEUTICAL SERVICES

1. Introduction

The Pharmacy Profession is a keystone in the health care system. The profession of pharmacy has a long standing history of service to the general public. Like other professions, the role of the pharmacist has also changed over the years. The new role, the modern aspect of pharmacy practice carries just as much responsibility if not more, because of the great potency of today's drugs. There has also been a change from a product oriented profession to one of greater involvement with the patient increasing communication with other professionals.

The aim of this study is to provide a framework for the reorganisation of the Government Pharmaceutical Service. This reorganisation involves:

1. raising of pharmacists to Professional Status;
2. the setting up of a service with various departments, providing opportunities for advancement, and incentives for specialisation.

The important role of the pharmacist for the success of therapy has been amply documented. Medicines alone are not enough for health. Unless taken correctly, for the correct amount of time, they can be worse than useless. It is therefore inconceivable that a government pharmaceutical service be allowed to continue in its current state of struggle for survival. Action has to be taken now.

We are confident that implementation of the proposals put forward in this report, will lead to the high standard pharmaceutical service which this country deserves.

2. Current Working Conditions

The current areas involving pharmacists are:

a. Medical Stores
b. Hospitals

The number of hospital pharmacists has always been small. For years, the post of Chief Pharmacist was vacant, the government pharmaceutical services being run by a non-pharmacist. In 1978 when the student worker scheme was introduced, the pharmacy students were allocated to different parts of the pharmaceutical service and an effort was made to introduce modern areas of hospital pharmacy practice. These students (government sponsored) were bound to work with government for two years after graduation or pay a hefty fine. In spite of this, few of the new graduates stayed on to finish the two years in government service. The reasons are not too difficult to identify.

These are:

a. Non professional status of the pharmacist
b. Degrading working conditions
c. Lack of job satisfaction

2.1 Professional Status

The graduate pharmacist, a professional, starts service at grade 34, way below the professional grade (17) he deserves. If the service provided to the public by the department of health is to be up to the required standard the status of the pharmacist must be reviewed. It should be noted that UK accreditisation for teaching hospitals as far as hospital pharmacy is concerned requires the pharmacist to be involved in taking patient histories, I.V. additive preparations drug information, patient counselling and other clinical pharmacy practices. This cannot be achieved in Malta before stability in the department is ascertained.

The warrant to practice and code of ethics issued by the pharmacy board are clear indications of the professionalism of the pharmacist.

Table I compares the years of study spent at university of students of various courses and their starting grade of employment with govern-

Table 1 — Comparison of University Courses and starting Grade of Employment with government

Profession	Years of Study	Grade	Remuneration
Pharmacy	4 years	34	2335 x 68 — 2802
Dentistry	4 years	18	2810 — 1st year
House Surgeon Medicine (Houseman)	5 years	18	2970 x 81 — 3292 2nd year
B.Pharm.Tech. (Enemalta)	4 years	17	2970 x 81 — 3292
B.Educ.	4 years	30	2335 x 81 — 2962
Law (Solicitor)	4 years	17	2970 x 81 — 3292
(Advocate for legal aid)		27	2695 x 68 — 2962

NOTE: Pharmacists start at the lowest grade of all the professions.

ment. This shows clearly the discrimination being perpetuated against the pharmacist.

The entry requirements for the B.Pharm. (Hons.) are specifically Physics, Chemistry and Biology. and not any combination of subjects. The grades required are 1B and 2C at 'A' level, identical to those required for Medicine and Surgery.

2.2 Degrading Environment

The current location of the inpatients hospital pharmacy, at the basement of St. Luke's Hospital is most unsatisfactory. The temperature is too high in summer and a suitable level of hygiene is lacking. This pharmacy should be relocated to a place in St. Luke's Hospital which will provide the appropriate working environment for the pharmacists and which will also be more convenient and welcoming to the patients calling for medicines.

2.3 Lack of job satisfaction

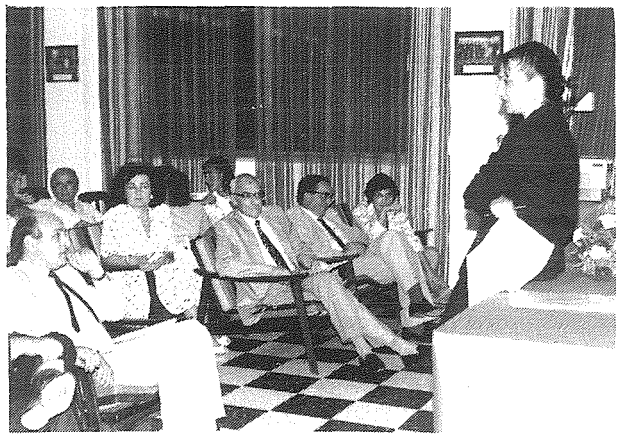
There is one major area of dissatisfaction which is the procurement section. Six 1986 graduates were assigned to this section. They were responsible for all the clerical (secretarial) work required such as phoning agents, chasing engineers and other hospital staff for approval of equipment. The procurement section can be described as the major exit point for the previous batch of graduates. Attention should be paid, not to have a repetition of this with the 1988 graduates.

3. The Government Pharmaceutical Services

3.1 Services directed to patients or other professionals

(i) Ward Pharmacy

This term describes the involvement of pharmacists in the wards with patients and doctors. The Ward Pharmacist is not concerned with diagnosis. The doctor will determine the type of drug therapy, but the pharmacist can help particularise the medication to be used. The pharmacist should be in a position to supply the physician with evaluated information on pharmaceutical and therapeutic aspects of drug as well as on the changing awareness of the toxic profile of drugs. He can help decide which dosage form or formulation of an active principle should be used and the best route of administration of a medicine; he may be expected to undertake the responsibility for deciding the formulation of a medicine or other treatment which the clinician has prescribed; and he may take specific responsibility for dosage calculations(1).



The President, Mrs. M.A. Sant Fournier presenting the report. Seated front row L. to R.: The Hon. Minister for Social Policy, Dr. L. Galea, The Chief Government Medical Officer, Dr. J. Giglio, The Principal Medical Officer, Dr. A. Vassallo and Pharmacist Mrs. M. Brincat.

The first degree course is of itself not sufficient to enable a pharmacist to take on this role and individuals should be helped and encouraged to specialise in the area.

In Malta the first attempt to set up ward pharmacy was made in 1986. However as the number of pharmacists dwindled, so did this service. Currently another team of ward pharmacists has been set up consisting of one senior pharmacist and four newly graduated pharmacists. These pharmacists also have to relieve the shift pharmacists so that in practice there may be only one pharmacist, which is highly inadequate.

(ii) In/Out Patient Dispensing

Dispensing in hospital involves:

(a) the provision of medication to the wards, theatres, etc. in the hospital, an activity currently carried out from the **inpatient pharmacy**. As already stated, the current location of this pharmacy is most unsatisfactory.

(b) the dispensing to hospital outpatients and to those who are entitled to free medication either because of chronic diseases or low income. Dispensing to outpatients is carried out from two points, a new outpatients pharmacy which is so set up as to facilitate and permit patient counselling, and the old outpatients pharmacy.

(1) Nuffield Report (Summary), The Pharmaceutical Journal, 1986.

At present the inpatients pharmacy is run by a newly graduated pharmacist, under the supervision of a senior pharmacist who is in charge of all hospital pharmacies. The pharmacist in charge of the pharmacy is responsible for the smooth running of the pharmacy, the procurement of special items, including emergency antibiotics and supervision of staff. The shift pharmacist dispenses dangerous drugs, special items and carries out supervision of dispensing.

The outpatients pharmacy falls under the responsibility of the same senior pharmacist in charge of the inpatients pharmacy. There are now three new pharmacy graduates directly responsible for these pharmacies, one in charge of the old outpatients, two at the new outpatients, one carrying out supervision of staff, the other counselling of patients. More pharmacists should be involved in the provision of medication counselling. There are some medicaments, e.g. those involving a special applicator or device or those whose therapy must be closely followed together with dietary advice, in respect of which advice should be offered the first time they are dispensed or when a change in therapy is involved.

An example of a group who are due to form an increasing proportion of the population are the elderly, a group, which is known to consume far more drugs than the population at large.

Unfortunately, there is a lack of sufficiently qualified staff involved in dispensing. The new pharmacy technician students have received little tuition in this respect.

(iii) Drug Information

A question answering service is something that needs to be readily available at the hospital, and the provision of evaluated information requires in those giving it recognition of the clinical context within which the information is to be used.

Initially this unit was set up in 1986. It was run by a pharmacist and had slowly built up a reputation for itself. Once the pharmacist resigned, the service ceased to exist in an organised manner. Pharmacy students and pharmacy technicians become responsible for answering queries. Furthermore, most of the questions are asked after 2.30 p.m. when the housemen are without their consultant. During these times only a pharmacy technician was available for answering queries. In view of what has just been stated above, it is no wonder that the reputation built up quickly fizzled out completely.

The service has been resumed again with the new graduates. The unit is run by a pharmacist during working hours and there is a shift pharmacist available after office hours, thus a 24 hour service exists. The drug information pharmacist is also responsible for the dispensing and procurement of antidotes.

(iv) Inspectorate

Though provisions were made for a pharmacy inspectorate to exist consisting of pharmacists this has never really existed. An inspectorate is necessary not simply to report and punish, but to regularise, direct, and ascertain good standards of pharmaceutical practice form manufacture to dispensing.

(v) Other Hospitals

The pharmacist's professional expertise is as essential at the other hospitals as it is at St. Luke's. It is most worrying to know that for years these hospitals have operated without a pharmacist. Currently there is one pharmacist at Boffa Hospital, one at Has-Serh and one at Mount Carmel. All these fall under the supervision of a senior pharmacist.

One must remember that these hospitals are specialized hospitals and the pharmacist in charge should be encouraged to gain further experience and extend his knowledge in the field.

3.2 Activities related to drugs

(i) Procurement

Although the procurement section is a very important section, it is the section which pharmacists find least satisfying. There are two sections, a 'non stock item' section and a 'stock item section' each being the responsibility of a senior pharmacist. Five newly graduated pharmacists are then in charge of special sections, e.g. dangerous drugs, injections, equipment, etc.

The problems that regularly arise in this area indicate that a major study of the whole procurement procedure should be undertaken and the section reorganised as necessary.

(ii) Manufacture

The areas into which this can be divided are:

— I.V. Preparations

— Extemporaeous Preparations

Some improvement has been made in some areas but much progress has to be made for satisfactory standards to be reached. A new graduate is now in charge of the extemporaneous preparations. Unfortunately there is no pharmacist in charge of the I.V. preparations sections.

(iii) Quality Control

Quality control is carried out at Evans Laboratories. A pharmacist is in charge of this area.

(iv) Radiopharmacy

There exists no organised set up for the handling of radiopharmaceuticals. Unless people with proper knowledge handle these preparations, unnecessary exposure to radioactivity may be taking place.

4. Recommendations

4.1 Professional Status

As seen from Table I pharmacists financial status compares adversely with that of other university graduates.

Table II lists the current grades for Pharmacists within the Government Pharmaceutical Service.

Table III is the proposed regrading of pharmacists, a regrading which gives them their due professional recognition and status. This is the first step towards the adequate manning of the Government Pharmaceutical Service.

The structure being proposed allows for expansion within the departments.

Table II — Current Salary Scales and Grades for Pharmacists

Scale No.	Pay	Grade
34	2335 x 68 — 2802	Pharmacist/Analyst IA
*26	2802 x 81 — 2962	Pharmacist/Analyst I
17	2970 x 81 — 3292	Senior Pharmacist
15	2069 x 81 — 3470	Chief Pharmacist

*NOTE: Other grades within this salary scale are:
— Public Cleansing Officer II
— Officer in charge Pitkali Centre
— Health Inspector II
NONE of these have a University degree.

Table III — Proposed Pharmacist Salary Scales

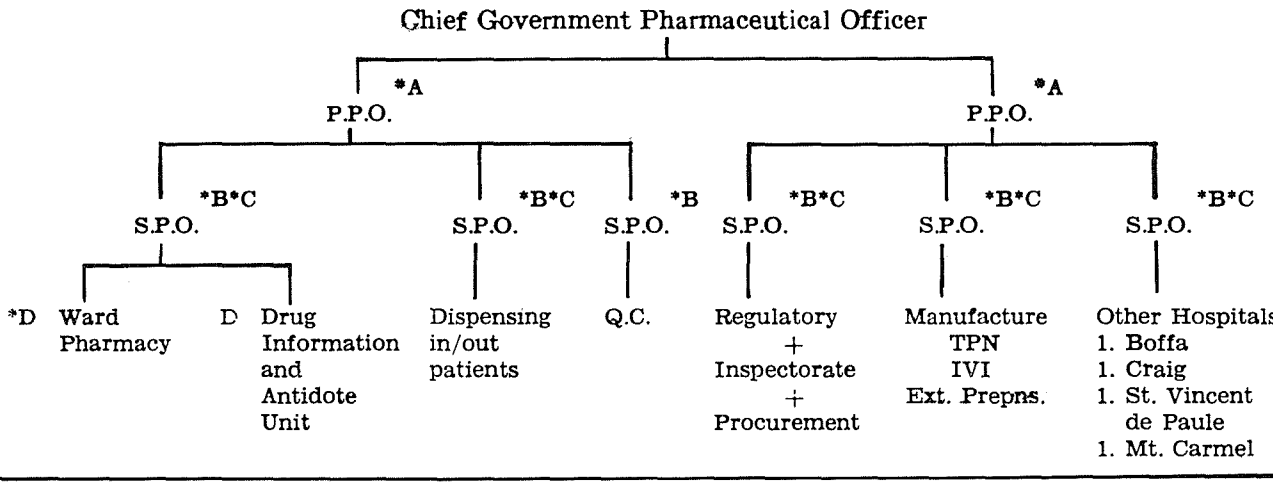
Grade	Scale No.
Pharmacist I P.O.I	17
Pharmacist II P.O.II	12
Senior Pharmacist	5
Principal Pharmaceutical Officer	4
Chief Government Pharmaceutical Officer	2

4.2 Reorganisation

In conjunction with recognition of the professional status, a reorganisation of the pharmaceutical department must be undertaken. The following structure has been drawn up after consultation with the Chief Pharmacist, hospital pharmacists and pharmacy students. Fig. I illustrates the proposed structure and requires the involvement of about 40 pharmacists. This we must emphasise is the bare minimum to maintain the service. Many more pharmacists are required if the service is to be run in the way required by modern hospital pharmacy practice.

General

This structure provides opportunities for advancement. Opportunities and incentives for



NOTES
*A P.P.O. — Principle Pharmaceutical Officer, mainly Administrative Posts
*B S.P.O. — Senior Pharmaceutical Officers will be Heads of Section
*C Prime areas for future expansion
*D Pharmacists I, Pharmacists II

Fig. 1 Proposed Reorganisation of the Government Pharmaceutical Service

continuing education must also be provided. On the other hand, pharmacists who specialise in certain areas must not be simply promoted to administrative posts and 'wasting' them on administration. We feel that the correct way of recognising further academic qualifications is by giving such pharmacists joint posts with the University. Such an organisation will be possible once the Faculty of Pharmacy is set up. Heads of Departments in this faculty being given posts of headship within particular specialities e.g. head of clinical pharmacy in the government pharmaceutical service, or head of geriatric pharmacy.

A look at some of the sections will now be taken:

(i) Procurement Section

This section should be reorganised. Fig. 2 describes one possible way of doing this.

Narcotic and Psychotropic Section

A pharmacist should be responsible for the procurement of Narcotic and Psychotropic drugs. Since procurement is being included with Regulatory and Inspectorate, this pharmacist can also be responsible for the regulation of these drugs as well as acting as specialist in their procurement.

Administration and Preparation of Reports

The administrative staff required, who will be responsible for the drawing up of reports etc. should consist of:

a. people with a qualification in Business/Management/Accountancy
b. be of high intellectual level
c. be computer literate.

Specialists

This includes pharmacists, engineers ... whose expert advise will be used when required. There should be a designated number of professionals, who will be available for consultation. Such a list would increase the efficiency of the system.

The reasons for the above suggestions are:

a. The pharmacist is trained to be discriminating in product choice.
b. People like pharmacy technicians do not know or appreciate such product differences as I.M./I.V.
c. Medical practitioners do not know enough about generic formulations and factors effecting formulations
d. It is of utmost importance not to have shortages. This must be ascertained, together with good quality products.
e. It is common knowledge that one difference between a graduate and a non-graduate is his way of thinking and approach to problems. This is why people from Business Management and Accountancy are suggested as forming part of this section.

(ii) Ward Pharmacy and Drug Information

These two sections are under the same head because it is essential that there exists not only good communication between ward pharmacists and drug information but also that the latter can continuously be exposed to a clinical environment. This is a must if these pharmacists are to provide the evaluated information required of them. A team of five Ward pharmacists and four Drug Information pharmacists is suggested. This is the first step towards the proper organisation of Ward Pharmacy as well as a twenty four hour drug information service.

(iii) Dispensing In/Out Patients

The movement of repeat outpatient prescrip-

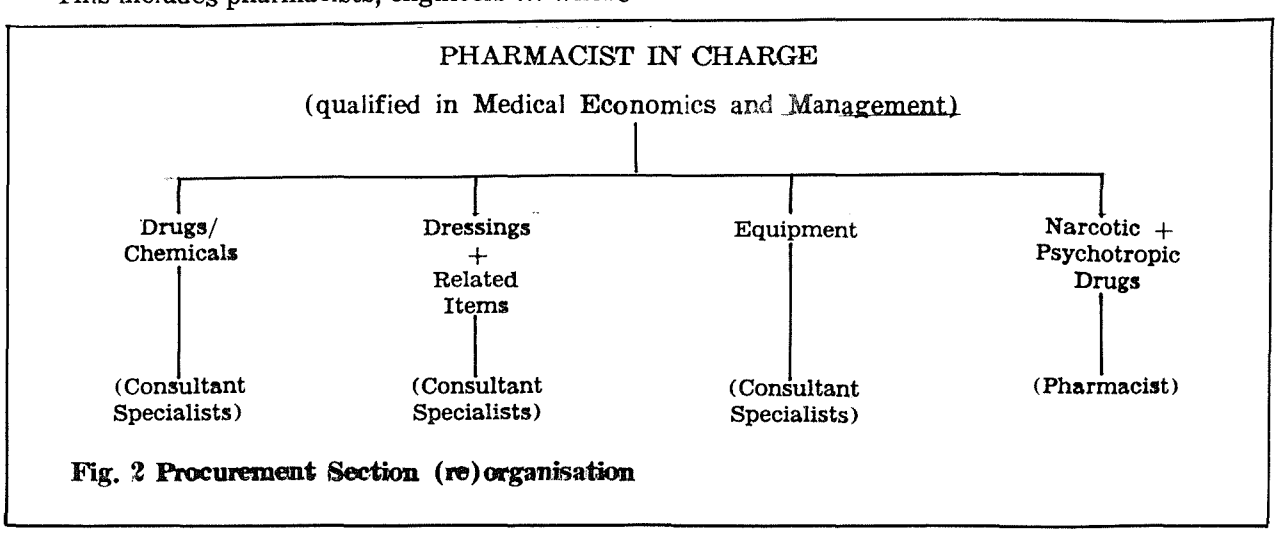
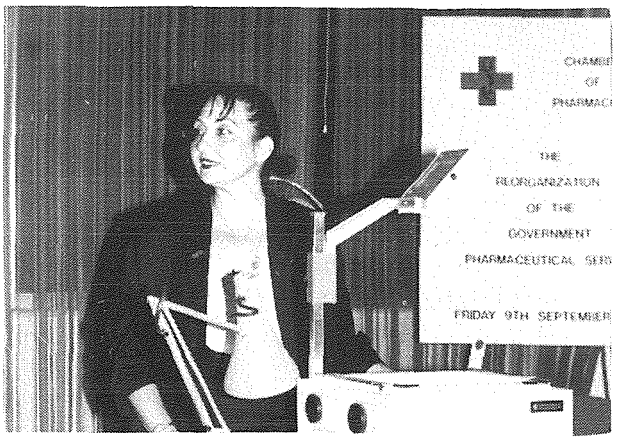


Fig. 2 Procurement Section (re)organisation

Section of the audience.



The President making the presentation.

tions from the hospital to community pharmacies will relieve some of the strain existing in the outpatients pharmacy, as well as giving the patient the opportunity of closer supervision and contact with the community pharmacist.

Counselling of patients must be given more importance. An initial compliment of five pharmacists to handle these two areas should be considered.

(iv) Quality Control and Government Laboratories

These should be included with the Government pharmaceutical services.

(v) Regulatory and Inspectorate

The inspectorate should have the responsibility of

a. inspecting pharmaceutical industry
b. pharmacies
c. all localities where pharmaceutical preparations are manufactured or repacked.

Where the ethical conduct of a pharmacist is involved, the inspectorate should have the authority to report such cases to a professional pharmaceutical council which will be concerned solely with the pharmacy profession.

vi. **Radiopharmacy**

There should be more involvement of pharmacists with the actual dispensing of these dangerous products.

vii. **Other Hospitals**

Though initially one pharmacist for each hospital is allocated, this is by no means enough. To mention just one hospital, St. Vincent de Paule, more pharmacists are needed because closer patient monitoring and counselling is required.

5. Notes

5.1 Conjoint Posts

Pharmacists with the necessary academic qualifications and inclination should be encouraged to specialise. Incentives for specialisation should include financial remuneration. This should be in the form of joint posts and lectureships with the University. Promoting these people to administrative posts would be a waste of their talents and resources. These specialists should be given further recognition by creating positions such as director of ward pharmacy, which positions will be joint positions between the hospital and the pharmacy school at University.

5.2 Geriatric Pharmacy

Specialisation in geriatric pharmacy is essential. Members of other sectors of the health care team are being sent abroad to specialise in geriatrics. Pharmacists should also be encouraged to specialise in this field.

An active role is already being played by the pharmacy department, in that a number of theses on the subject have already been undertaken.

5.3 Job Sharing

Certain staff shortages can be met by employment of pharmacists part-time to share particular jobs. There are many lady pharmacists who could be interested in such arrangements, but one must not forget that adequate financial

remuneration is a must if interested candidates are to come forward.

5.4 Pharmacy Technicians

The term pharmacy technician has become somewhat of a misnomer, and is thus inappropriate. This is because batches of pharmacy technicians have been produced with:

i. little, if any scientific background;
ii. they are given work consisting largely of preparing packages for the hospital outpatients — without adequate training in dispensing;
iii. because of this insufficient scientific background, they are incapable of making significant contributions in such areas as manufacture;
iv. they are inadequately trained. There are two courses which lead to the pharmacy technician exam, an evening course, and a course at the hospital, while the students are already in government employment. These two categories of students do not receive the same kind of education and training.

Proposals

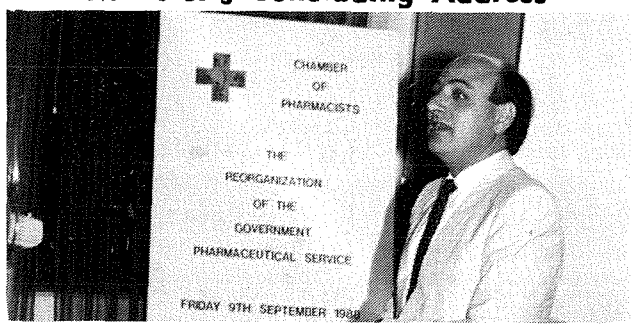
a. The production of pharmacy technicians should stop. There is no place for them in community pharmacy and they cannot really meet the hospital pharmacy requirements.
b. The technicians required in the government pharmaceutical service should be taken on as lab technicians (previous entry qualifications 1 'A' level and 5 'O' levels) and those employed in pharmacy, given further specific training for this kind of work without any warrant to practice in community pharmacy.
c. Existing pharmacy technicians will be retained at their present work.

5.5 Professional Board — Pharmacy Council

In spite of Pharmacy's long, traditional standing as a profession, the recognition of the profession is non-existent, in the administration's view. Not only is there no financail recognition as already pointed out, but there is also a lack of a proper professional board.

A professional board should consist of members of the particular profession. This professional board — **Pharmacy Council**, will then be responsible for the proper running of the profession. Pharmacists cannot be considered as paramedicals, they are professionals in their own right.

Minister's Concluding Address



The Honourable Minister of Social Policy, Dr. Louis Galea, brought the presentation to an end. In his concluding address Dr. Galea spoke about the importance of the health service and his belief that workers in the area of public health should realise that they are giving a service and that their work, whether pharmacist, doctor or any other, is not only a means of earning a living. It is essential that these people are not only given an academic training, but must be educated in their social role.

The Minister spoke of the government's awareness that there is a general lack of satisfaction among government workers, both with regards to financial remuneration for training received and the way the service is generally organised. For this reason the government has set up the Public Services Reform Commission to study the restructuring of the government service. There is a lack of adequate legislation to meet today's needs because legislation has not kept up with today's technical developments and social changes. He stated that this caused difficulties in implementing reports and proposals in spite of their excellence. Another drawback which the government has, is the lack of sufficient number of qualified personnel. The Minister mentioned government's action to change this by improving training conditions and by ensuring a better academic input into training courses.

Dr. Galea continued by saying that he was not at the time in a position to say just how much of the report will be adopted, but he assured those present that it would be looked into by the Public Services Reform Commission. If the report is acceptable and an agreement can be reached about it, then it should be possible to implement it even before the entire job of the Reform Commission is completed. Dr. Galea mentioned the work being done by the department in conjunction with the Chief Pharmacist re The Reorganisation of the government pharmaceutical Service.

Dr. Galea concluded his address by once again emphasising the great importance of the government service which will always be of national importance. He expressed his wish that things will change in the future; that workers will get the due recognition of their status and a general improvement of their working conditions. By being aware and recognising the situation in the private sector, it should be possible for government to keep the best trained people. The health service must be extended into the community and the pharmacist must become an integral member of the health care team. The pharmacist is a highly qualified individual and the general public must be educated into appreciating this.

Drug reactions and interactions

P.F. D'Arcy, O.B.E., D.Sc., Ph.D., F.P.S., F.R.S.C., F.P.S.N.I.

Department of Pharmacy, The Queen's University Belfast BT9 7BL, Northern Ireland, U.K.
of Belfast, Medical Biology Centre, Lisburn Road,

LOPERAMIDE TOXICITY IN A CHILD

Loperamide is an antimotility agent which inhibits peristalsis and has been used in the treatment of some diarrhoeas. Its use is controversial in acute infective diarrhoea since in slowing the motility of the gut it may delay the elimination of the causative organisms. Especially its use is not recommended in the treatment of acute diarrhoea in children particularly because of doubts about its safety[1-3]. Respiratory depression and coma may occur after overdosage[4]; however, a new aspect of its toxicity has been the report by Minton and Smith[5] from the National Poisons Unit, Guy's Hospital, London and the Department of Paediatrics, Addenbrooke's Hospital, Cambridge, U.K. of serious toxity in a child after a single dose of loperamide.

The patient, a 15-month-old girl weighing 8 kg, was admitted to hospital after accidental scalding, superficial burns covering 35 per cent of the body area. She was rehydrated with intravenous fluids, treated with flucoxacillin and penicillin, and on day 5 was transferred to a plastic surgery unit for assessment. At the time she was taking fluids and had copious green watery diarrhoea. Clinical examination showed no other abnormality and she was well-hydrated. Diagnosis was diarrhoea as a stress response to burns.

On day 9 she was still having diarrhoea and was prescribed an initial 1 mg oral dose of loperamide. Fifty minutes later she was collapsed, pale and unresponsive to pain. Her pulse was 120/min and her respiratory rate 14/min. She had not vomited or convulsed. She was resuscitated with oxygen by Ambu bag and given 0.3 mg naloxone intravenously. By 2 min conscious level was improved and her respiratory rate increased to 30/min. Next day she was still drowsy; blood values were: haemoglobin 8'7 g/l, urea and electrolytes normal, alanine aminotransferase activity 327 U/l, total protein 36 g/l and albumin 11 g/l. She was tranfused 200 ml whole blood and 100 ml plasma protein fraction. Conscious level became normal on day 11; serum alanine aminotransferase activity was then 76 U/l, total protein concentration 48 g/l, and albumin concentration 18 g/l. Her diagnosis was then changed to cows' milk protein intolerance, as the diarrhoea resolved on withdrawal of milk.

The authors of this report commented that the 1 mg dose of loperamide used for this child (0.125 mg/kg) may have been greater than necessary, as the manufacturer's data sheet recommended the dose for children aged 4-8 years as 1 mg every 6 h until diarrhoea settles. However, the reason for toxicity in this case was not clear. The low serum protein concentration may, they suggest, have been a contributory factor (loperamide is 97 per cent protein-bound) and absorption may have been increased by damage to the gut wall. The raised serum alanine aminotransferase suggests that a temporary hepatic disturbance might have impaired handling of the drug.

It should be emphasised that in the United Kingdom this drug (*Imodium*) is available without prescription; Mintom and Smith[5] have therefore warned that doctors should be alert to the possible hazards of accidental ingestion of this drug by small children and the specific treatment that may be required. Naloxone appears to be an effective antidote. Reports to the National Poisons Unit have suggested that although this drug causes symptoms in most cases of accidental overdosage, serious toxicity is rare[5].

However, there does seem to be a body of influential opinion that loperamide should not be used to treat acute diarrhoea in young children. World Health guidelines are against such use[1-3]. Martindale (The Extra Pharmacopoeia) states that 'It should not be used to treat young children', and it reviews some of the literature which indicates albeit anecdotally in some cases, that loperamide should not be used in acute infective diarrhoea in childhood[6]. The manufacturer states on the data sheet that 'there are no specific contra-indications to *Imodium*[7], there is good reason to suggest that this latter statement should be modified as a matter of urgency in view of this present case and of the other opinions. It would be prudent to suggest that loperamide should not be used in young children until more evidence was available as to its safety. It should also be recalled that with acute diarrhoea in children the major concern is dehydration and that the primary treatment for

such cases is the use of oral rehydration salts, preferably the W.H.O./UNICEF O.R.S. formulation[1].

References:
1 W.H.O./F.I.P. (1987). The treatment of acute diarrhoea; information for pharmacists.
2 D'Arcy, P.F. (1987). Treatment and prevention of diarrhoeal diseases; pharmaceutical involvement? Int. Pharm. J. 1, 26-30.
3 Merson, M.H. (1987). Proper treatment of diarrhoea: role of the pharmacist. Int. Pharm. J. 2, 52-56.
4 Friedli, G. and Haenggeli, C.-A. (1980). Loperamide overdose managed by naloxone. Lancet 1, 1413.
5 Minton, N.A. and Smith, P.G.D. (1987). Loperamide toxicity in a child after a single dose. Br. Med. J. 294, 1383.
6 Reynolds J.E.F. (ed.) (1982). Martindale. The Extra Pharmacopoeia; Monograph on loperamide hydrochloride. (Pharmaceutical Press, London) pp. 1060-1061.
7 ABPI Data Sheet Compendium (1986-87). Monograph on Imodium. (Datapharm Publications Ltd. London) p. 671.

(Reprinted from International Pharmacy Journal, 1987, Vol. 1, No. 6, pgs. 217, 218).

CONTAMINATION OF MULTIPLE APPLICATION EYE DROP BOTTLES

The isolation of the AIDS virus (HIV) from the tears of a patient[1] has aroused concern about the risks of transmission of the virus during various ophthalmic procedures[2]. Current procedures at the Western Ophthalmic Hospital, London, U.K. permit the use of multiple application dropper bottles in ophthalmic outpatient departments, though opened bottles are discarded at the end of the day. Two members of the department, Waylward and Wilson, carride out a simple study to discover whether such dropper bottles can become contaminated with tear fluid during normal use[3].

The study took place during a single ophthalmic outpatient clinic. Oxybuprocaine (*Benoxinate*) was supplied in glass multiple application dropper bottles incorporating a dropper in the screw cap. One bottle was provided for each of eight slit lamps. For tonometry, these investigators asked that a drop of oxybuprocaine should be installed into the tear sac after 1 per cent fluorescein; this was the reverse of the usual order of application of these solutions. At the end of the clinic the eight bottles were collected and examined for contamination with fluorescein by use of a Perkin Elmer 3000 fluorescence spectrometer set for an excitation frequency of 440nm and an emission frequency of 510nm. The volume of drops remaining in each bottle was also measured to give a rough guide to the number of times it was used.

Six of the eight bottles were contaminated with fluorescein and contamination was heaviest in those bottles which were used more frequently. The investigators considered the various ways in which this contamination could occur. If the drop is touched rather than dropped on to the conjunctiva there may be reflux into the dropper. This is especially likely when the patient's chin is resting on the slit lamp. Also, if the dropper is held too low and the patient's head is not sufficiently far back then the tip of the dropper may brush against the lashes of the upper eye lid.

Waylward and Wilson emphasise that the practical importance of their study relates to patients without obvious external eye disease who none-the-less have microorganisms in their tears. Commensal bacteria are present in the conjunctival sac, and bacterial contamination of dropper bottles is known to occur[4]. It has also been shown that contaminated ophthalmic solutions were responsible for the spread of infection with adenovirus type 8[5]. The obvious concern at present time is the possibility of an asymptomatic carrier of the AIDS virus infecting others via the virus in tears.

Although there is no present evidence to suggest that HIV has been transmitted through contact with tears, the possibility exists although there is, as yet, no way in which this possibility can be assessed. It would seem therefore that the sensible precaution would be to use single application packs of the eye drop solutions. They would be more expensive in use but they would eliminate the small but finite risk that such contamination represents.

References:
1 Fujikawa,, L.S., Salahuddin, S.Z. Palestine, A.G., Masur, H., Nussenblatt, R.B. and Gallo, R.C. (1985). Isolation of human T-lymphotropic virus type III from the tears of a patient with the acquired immunodeficiency syndrome. Lancet ii, 529-530.
2 Anonymous (1985). Leads from the MMWR. J. Am. Med. Assoc. 254, 1429.
3 Waylward, G. and Wilson, R.S. (1987). Contamination of dropper bottles with tear fluid in an opthalmic outpatient clinic, Br. Med. J. 294, 1587.
4 Aslund, B., Olson, O.T. and Sandell, E. (1978). Studies on in-use contamination of eye drops. Acta Pharm. Suec. 15, 389-394.
5 Sprague, J.B.,, Hierholzer, J.C., Currier, R.W., Hattwich, M.A.W. and Smith, M.D. (1973). Epidemic keratoconjunctives. A severe industrial outbreak due to adenovirus type 8 N. Engl. J. Med. 289, 1341-1346.

(Reprinted from International Pharmacy Journal, 1988, Vol. 2, No. 2, p. 43).

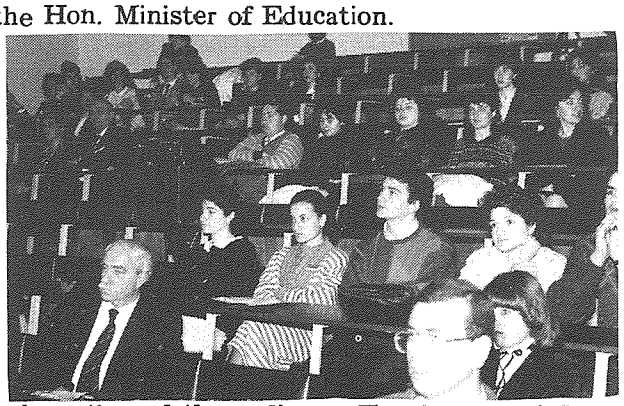
Pharmacy in Malta

FROM THE POST WAR PERIOD TOWARDS THE YEAR 2000

Symposium and Pharmaceutical Exhibition

A symposium consisting of presentations of the projects submitted by B.Pharm. Final Year Students was organised by the Pharmacy Department, University of Malta on Saturday, 12th and Sunday, 13th March, 1988. After an introduction by Prof. A. Serracino Inglott, A/Head of the Department of Pharmacy, the symposium was opened by the Hon. Minister of Education.

Two students making their presentation.



A section of the audience. Front row, 1st from left is Prof. D'Arcy.

The first project presented was on the history of pharmacy. Various other traditional areas in pharmacy topics were dealt with by the students, in addition to several other areas such as Biopharmaceutics and Pharmacokinetics where the Department has a special interest. Peripheral fields to the pharmacy interests include Cosmetics and Forensic Science. Students who showed special inclination to these investigations were also encouraged. However the greatest emphasis was given to the modern role of the pharmacist in Clinical Pharmacy and Patient Care.

A total of 44 projects were ably presented. These projects have been published in abstract form in a book edited by Prof. A. Serracino Inglott.

The symposium was brought to a close by the Hon. Professor J. Rizzo Naudi, M.D., F.R.C.P., M.P., Parliamentary Secretary for the Care of the Elderly who commended the students on their high level of academic achievement, and emphasised that their education must not stop on graduating but is a life-long process.

Titles of the areas into which the various presentations were subdivided:

History of Pharmacy
Chairman: Dr. P. Cassar

Forensic Aspects
Chairman: Dr. A. Abela Medici

Pharmacognosy
Chairman: Mr. A. Scicluna Spiteri

Stability Studies
Chairmen: Mr. C. Fenech
Mr. M. Zarb Adami

Use of Drugs in Malta
Chairman: Prof. R. Ellul Micallef

Health Foods and Nutrition
Chairman: Ms. Mary Bellizzi

Drugs in the Elderly
Chairman: The Hon. Prof. J. Rizzo Naudi

Biopharmaceutics and Pharmacokinetics
Chairman: Prof. A. Serracino Inglott

Patient Care
Chairman: Mrs. L. Wismayer

Cosmetics
Chairman: Dr. A. Vella

Industrial Aspects
Chairman: Prof. V. Ferrito

COMMEMORATION:

TRIBUTE TO PHARMACIST ANTHONY M. DARMENIA, Ph.C., M.R.S.H.

The President Mrs. M.A. Sant Fournier making a commemorative address. L to R (seated) CMTU President, Mr. S. Spiteri, Hon. Minister for Social Policy, Dr. L. Galea, Hon. Parliamentary Secretary for the Care of the Elderly, Prof. J. Rizzo Naudi and the Rector of the University, Rev. Prof. P. Serracino Inglott.

The symposium was dedicated to the memory of Mr. A.M. Darmenia, past Chief Pharmacist, former President of the Chamber of Pharmacists and President of the Malta Union of Pharmacists.

A special commemorative evening in honour of Anthony Darmenia was held on Friday 11th October at the Science Lecture Theatre at the University.

This was opened by the Hon. Minister for Social Policy, Dr. Louis Galea, B.A., LL.D., M.P. Commemoration addresses were made by the President of the Chamber of Pharmacists, Mrs. M.A. Sant Fournier, B.Pharm., M.Phil. and the President of the C.M.T.U., Mr. Salvino Spiteri.

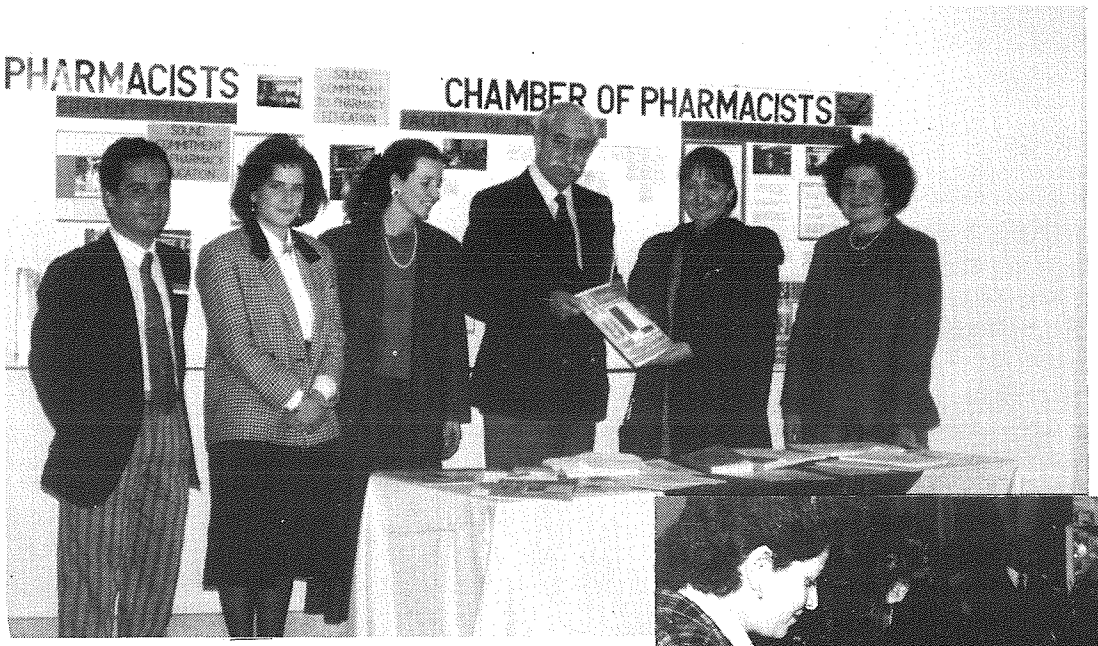
Dr. L. Galea said that Mr. Darmenia's was a 'persistent reformist and had a future looking philosophy. As chief pharmacist, he was responsible for the practical training of pharmacy students at the hospital and was for many years examiner at the university. Thus it can be said that he achieved the symbiosis between the University and the Hospital in his area of responsibility informally. It is now perhaps that this achievement be consolidated by being embodied in formal and institutional ways similar to those which are already operative in the other departments of the faculty of medicine and surgery.

Mrs. Sant Fournier spoke about Mr. Darmenia's contribution towards the professional practice of pharmacy in Malta. As President of the Malta Union of Pharmacists, he worked hand in hand with the Chamber of Pharmacists, for the establishment of the Pharmacy Board and the issuing of a code of ethics for pharmacists. In Mr. Darmenia's own words 'a high standard of ethics is primarily a matter of conviction and personal discipline, the code of ethics may be excellent, the pharmacy board an ideal judge, but all to no avail if there is nobody to supervise the practice and where necessary guide, admonish and ultimately refer to the Board for determination.' However, the President said this inspectorate is still wishful thinking.

Mr. S. Spiteri spoke on Mr. Darmenia's contribution in other areas of trade unionism.

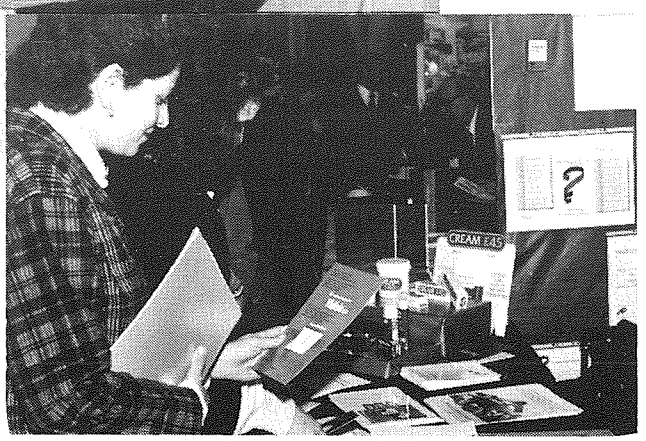
At the end of the commemoration, the President of the C.M.T.U. presented Professor P. Serracino Inglott as Rector of the University with a portrait of Mr. A. Darmenia. The event was attended by the widow and children of the late Mr. A. Darmenia together with the Parliamentary Secretary for the Care of the Elderly, Prof. and Mrs. P. D'Arcy, other distinguished guests and pharmacists, doctors, paramedicals and students.

PHARMACEUTICAL EXHIBITION



The Chamber of Pharmacists' stand.

From L to R: Two students, Mr. Tonna, Ms. M. Zammit Montebello, the Treasurer Mrs. E. Lapira, Prof. P.F. D'Arcy, President Mrs. M.A. Sant Fournier and the Editor Ms. M.A. Cappara.



A section of the Exhibition.

A pharmaceutical exhibition by leading drug firms was held concurrently with the Symposium at the University House.

The pharmaceutical exhibition was opened by the Hon. Dr. G. Hyzler, M.D., M.P., Parliamentary Secretary for Health. In his opening address, Dr. Hyzler referred to the increasingly important role of the Pharmaceutical Drug companies in the delivery of health care. He spoke of Government's commitment to improving the drug distribution system and the supply of essential drugs as part of the N.H.S. He concluded his speech by appealing to the private and public sectors to cooperate together so that the commitment of every country to 'Health for All' can be met.

The first stand each visitor came to was that of the Chamber. The theme of the stand was "A Sound Commitment to Pharmacy Education" and included preparations and photos of 'A Historical Retrospect', 'Continuing Education', 'The Student-Worker Scheme', 'Eminent Visitors'. The official journal of the Chamber "The Pharmacist" was featured and especially the special 20th anniversary issue was distributed to all pharmacists and students visiting the stand.

Pharmacists enrolling as members or renewing their membership in the Chamber were given their free copy of the British National Formulary under the first Pharmaid Scheme through the Chamber's membership in the Commonwealth Pharmaceutical Association.

On Sunday, the TVM current affairs programme "Malta u lil Hinn Minnha" visited the symposium and exhibition and interviewed the President of the Chamber, Mrs. M.A. Sant Fournier, Prof. P. D'Arcy and Prof. A. Serracino Inglott together with two fourth year students, Ms. Margot Zammit Montebello and Mr. Alan Tonna.

On this occasion the Department of Pharmacy published a supplement in 'The Times' on Friday 13th March. The Chamber was also featured by means of a contribution entitled 'The Role of the Pharmacist in the Community — Ensuring the Safe Use of Medicines'.

INTERVIEW

Prof. P.F. D'Arcy

Maria Brincat, B.Pharm.

Prof. P.F. D'Arcy O.B.E., B.Pharm., D.Sc., Ph.D., F.P.S., F.R.S.C., is Head of the Department of Pharmacy of the Queen University of Belfast, Belfast, Northern Ireland. He is a very prominent personality in International Pharmacy. He is Director of F.I.P. Federation International Pharmaceutique, Third World Department and Editor-in-chief of 'International Pharmacy' Journal, the Official journal of F.I.P. His specialization is Pharmacology and his publications include various articles on the subject including the regular feature 'Drug reactions and interactions' in the International Pharmacy Journal.

Prof. D'Arcy is a regular participant in international conferences abroad. Over the last year he has travelled to Pakistan, Turkey, Nigeria, Sudan, Kuwait and America among other countries He arrived in Malta on the 20th February accompanied by his charming wife.

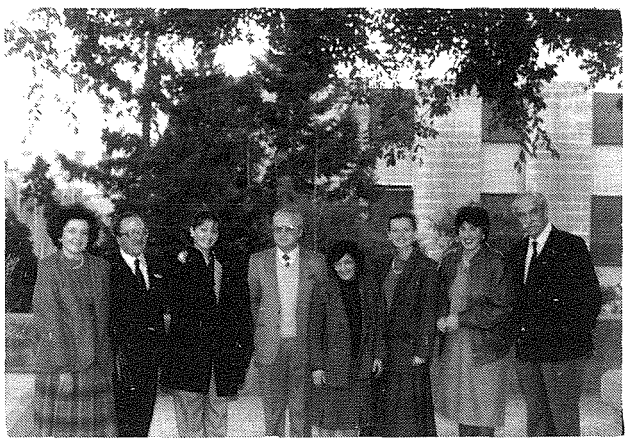
Prof. D'Arcy was this year's external examiner of the fourth year pharmacy students. During his stay in Malta he established good contact with the Chamber of Pharmacists and on several occasions met members of the executive both formally and informally. He also had several meetings with various Ministers and Parliamentary Secretaries and visited the hospital Pharmaceutical services.

Queen's University, Belfast

Asked about some of the postgraduate courses held at Queen's University, Prof. D'Arcy said that they do a lot of pharmacokinetic research, providing much useful work for the medical colleagues. They have an M.Sc. in Hospital Pharmacy which is generally taken 3 to 4 years after practice in the field. Among the subjects covered in this course are updates in pharmacokinetics, pharmacology, Pharmacy practice, legislation and a research project. Foreign students are also taken up for such courses but they are generally asked to do a 2 year instead of one year period fo study. Other areas of interest include New Formulations and Drug Design.

External Courses

In conjunction with the Kuwait government, the Queen's University has provided an external course in Clinical pharmacy and management. All teaching material is provided by the Queen's University. Local tutors supervise and guide the students. Written assignments are sent to the Queen's University for assessment. During the course lecturers from the Queen's regularly visit the country to maintain personal contact with the students.



Prof. P.F. D'Arcy with Council Members. (Left to right) Ms. M.A. Ciappara, Prof. A. Serracino Inglott, Mrs. MA.. Sant Fournier, Mr. R. Fava, Mrs. M. Brincat, Mrs. E. Lepre, Mrs. M. Parascandolo and Prof. P.F. D'Arcy.

Asked about the possibility of Malta making use of such facilities Prof. D'Arcy stated that this would certainly be possible not necessarily in the above subject. He mentioned the possibility of a course in 'Drug Formulations and Design'. Of course there would have to be a minimum number of students and expenses such as lecturers' travel expenses involved would have to be made by Malta.

Pharmacy Education in Malta

Asked about local Pharmacy Education, Prof. D'Arcy said that the students are as capable as their foreign counterparts, a fact amply illustrated by their theses, however he recom-

mends that immediate action must be taken to increase the staff student ratio. Furthermore it is essential that Pharmacy Education is completely in the hands of Pharmacists. He was pleased to note the seminar held recently by the Chamber, on Pharmacy Education and considers the curriculum proposals to be in the right direction, but can in no way be implemented with the current staff compliment. He strongly recommends increased contact of students with experienced local pharmacists in the University environment.

In Northern Ireland, continuing education programmes have been held in the past 15 years. They consist of evening lectures with half-day symposia and short courses in subjects such as pharmacokinetics. An attendance certificate is given to those attending more than 75 per cent of the lectures. This post qualifications training scheme has become so well established that attendance certificates are required before people are considered for employment in hospital pharmacy. He was most pleased to learn about the Chamber's policy and efforts in continuing education and has promised us access to some of the material used in their lectures in his University.

Hospital Pharmacy

With respect to Hospital Pharmacy in Malta, Prof. D'Arcy did not mince words. In his opinion it did not exist! He has advised that both hospital and community pharmacy must be brought up to date before Malta becomes a member of the E.E.C., not only through legislation, but in the actual standard of practice.

F.I.P.

Prof. D'Arcy was dismayed to hear that Malta was once a member of the F.I.P. but was forced to resign because membership was too expensive. He hopes that in the future it would be possible for countries like Malta to become full members. Local pharmacists can beneift by becoming associate members of F.I.P. Indeed he was pleased to note that both the President and the secretary are associtae members. In his opinion there is much to be gained through C.P.A., of which Malta is a member.

A Conundrum

How is a small developed country like a large developing country? Answer' neither can afford to become members of F.I.P.! There are no prizes for guessing the right solution to this riddle, nor indeed are there any prizes for those countries that cannot afford to join F.I.P., nor indeed should there be any prizes for the F.I.P. Bureau who have so far failed to come up with a fiscal policy that will attract and enable Third World countries to join and participate in the activities of F.I.P.

I have just returned from the George Cross Island of Malta, where I spent two enjoyable and instructive weeks with my academic and professional colleagues. I learnt to my undying shame that Malta was once a member of F.I.P. but was forced to resign because it could not afford to continue its membership.

Many national pharmaceutical bodies in developing countries do not have obligatory requirements of membership for their pharmacists and they charge only nominal registration fees for those who do join. To add an additional amount to this to cover the ordinary membership of F.I.P. would be too expensive and might indeed cause resignations from the national society.

May I suggest that the Bureau and Council of F.I.P. give urgent attention to helping less well-endowed countries, developed and developing alike to become ordinary members of F.I.P.

P.F. D'Arcy
Director F.I.P. Third World Department

(Reprinted from International Pharmacy Journal (1988), Third World News, Vol. 2, No. 4, p. 148)

A regular feature in "International Pharmacy" is an article on Pharmacy in various countries, and Prof. D'Arcy has requested one on "Pharmacy in Malta".

Asked what he thinks of "The Pharmacist", "It's an excellent journal", and has promised to contribute articles, and welcomed us to republish any of his articles that appeared in "International Pharmacy".

Prof. D'Arcy's visit as external examiner was certainly a most profitable one for pharmacy in Malta.

Both Prof. and Mrs. D'Arcy enjoyed their stay in Malta and look forward to coming again.

Drugs - From Manufacture to Patient

TODAY'S GREATER IMPORTANCE OF THE PHARMACIST'S COMPLETE SUPERVISION

This is based on the lecture given by Prof. D'Arcy to Pharmacists on 4th March 1988

Pharmacy for the Pharmacist — 'a controversial subject'

Pharmacy for the Pharmacist is a concept that is enshrined in the F.I.P. Budapest Declaration which was signed by 65 countries in 1984. It is not a new concept and Prof. D'Arcy quoted from the artcile 'An Outline of the History of Pharmacy' published in our journal 'The Pharmacist' in which Dr. P. Cassar writes about "state control of the exercise of Pharmacy which came into being about 1240 when Frederick II, the Holy Roman Emperor and King of Sicily, introduced the licensing of sellers of drugs by the Medical School of Salerno, rules prohibiting physicians, from owning a pharmacy and regulates fixing the prices of medicaments". From these initial legal enactments stemmed the various laws controlling the Pharmaceutical profession of our own days. What is 'Pharmacy for the Pharmacist?' asked Prof. D'Arcy ... "We claim it is our own ... we all know it is not just 'the Chemist shop' that changed in the post war years with the introduction of more complex drugs and the manufacture went away from the pharmacy into the pharmaceutical industry."

Drug — a four-letter word!

There are various roles which the pharmacist can play from the point of manufacture to the time the drug is taken by the patient, hopefully at the right time and in the right dose. However, Prof. D'Arcy added 'drug' is a four-letter word. It is preferable to use the word 'medicine' because all medicines are drugs but not all drugs are medicines. This message must reach the general public. Often patients when asked as to whether they take drugs, they say "no". On the other hand when asked whether they take medicines, they may come up with quite a list.

INDUSTRY

Research and development are areas in which the pharmacist has to compete with other scientists e.g. biochemists, biologists, toxicologists etc. The pharmacist getting involved in this field requires a higher degree and specialisation. An important aspect of this area is choosing the correct excipients as this can cause adverse reactions.

The term iatrogenic diseases literally means 'physician produced' diseases, however it has now come to mean drug induced diseases. These are not necessarily caused by the active ingredient. Table 1 shows four classical examples of drug formulation reactions. They have been well documented, well proven and all caused clinical hazard. They are probably just the tip of the iceberg in so far as these formulation reactions are concerned. Many are probably not recognised as such. They are obviously a matter of potential concern especially since they may have important consequences in comparing the safety spectrum of generic and proprietary formulations of the same drug.

Table 1
Iatrogenic disease: classical examples of drug formulation effects

1. 1968-9. Outbreak of phenytoin intoxication in Australia due to change in capsule filler from calcium sulphate to lactose. Increased bioavailability.
2. 1971. Intestinal absorption of rifampicin impaired by PAS. Later shown to be due to bentonite in PAS granules. Reduced efficacy of antitubercular treatment.
3. 1972-3. Bioavailability problems with digoxin (Lanoxin) due to particle size. Over digitalisation of standardised patients.
4. 1983. Indomethacin dumping in gut by Osmosin resulting in ulcers or perforation of gut.

These examples suggest that drug formulation is a pharmaceutical expert's job that can best be done by a pharmacist. So also is production, which involves getting quality assurance built into the product. Raw materials and excients must be up to specification, good manufacturing practice followed to the letter of the law and checks carried out all along. At the end, when the drug is in the container, one doesn't need to do any quality control tests, as quality is assured throughout its production.

When a new drug is developed actual tests — clinical trials, human toxicology, animal tests are done on the final product in the container. Although other professionals e.g. chemical engineers, developing chemists, can get involved in production, it is the developing pharmacist who has a global view of the pharmaceutical problems.

Sales and Marketing. As drugs are not ordinary articles of commerce, one does not need detail men to go around to get a quick sale, but experienced, knowledgeable people who go around telling the doctor of the advantages of this new drug. Again, pharmacists are the best people for the job.

Management. Whereas years ago most of the managing directors of British Pharmaceutical companies where pharmacists, nowadays one finds lawyers and accountants in these posts. This has changed the orientation of Pharmaceutical Companies, and though they might be more efficient they have lost the ethical approach. Why is this? This has happened because none of the pharmacists become managers. Only through taking a management course and developing their skills can pharmacists attain a management post.

HOSPITAL PHARMACY

In Britain and in America, hospital pharmacy has developed into a number of specialisations and includes participation in the procurement, distribution and manufacture of small batches of drugs.

A patient goes into hospital to receive excellent medical or surgical care which the state pays for. What is the end product? It is the prescription. If the patient gets the wrong drug, or a drug that is expired, or stored under the wrong conditions one is wasting everything. Distribution of drugs should be totally under the control of the pharmacist though obviously not done completely by him. However in Britain, no pharmacy technician works without the supervision of a pharmacist. In purchasing drugs one must be absolutely certain as to the quality of drugs, purchasing them from the right source at the right price and ensuring that they are of the required standard.

Hospitals which manufacture drugs themselves, are required by law to have the same standards as industry, i.e. they must meet good manufacturing practice requirements and other specifications. In particular I.V. fluids undergo the most stringent regulations and controls as in industry, because over the years many patients have died through contamination of these fluids.

Drug Information is the provision of interpreted information. Pharmacists undergo specialisation in drug information to prepare them for the interpretation of information.

Clinical and ward pharmacy are different names for the same thing. The Americans use clinical pharmacy while the British call it ward pharmacy.

Pharmacists are involved in the medication history taking of patients. Their knowledge of proprietary names and the ability to describe them is of tremendous help in identifying non-prescription medication taken by the patient. They can advise the physician which is the best drug to use and with their knowledge of pharmacokinetics, work out the correct dosage for a particular patient..

The pharmacist also has a special role to play in:—

- — Drug therapy review Committee, which ensures that the patient is compliant.
- — Drug therapy management, checking the patient and making sure treatment is continued.
- — Educating the patient about their medication they are receiving and which they will be receiving in the community in the terminology they will understand.
- — Preventing and detecting adverse drug reactions.
- — Calculations for total parenteral nutrition.
- — Anticoagulant monitoring of patients attending outpatient clinics.
- — Ambulatory patient management to improve patient compliance in outpatient clinics.

Drug therapy review Committee, which is made up of pharmacists, who together with physicians and nurses look into the total drug usage within the hospital. Other committees govern the use of antibiotics.

COMMUNITY PHARMACY

This is the backbone of pharmacy. Certainly in the U.K. 75 per cent of registered pharmacists are working in the community practising clinical pharmacy without perhaps realising. In the U.K. community pharmacists **dispense medicine** prescribed within the N.H.S.

Advicing patients on the use of prescribed medicines. The Pharmacist not only dispenses the medication but he dispenses advice and information on how best to take it. This might mean written information, helping patients fill a little diary, particularly in the case of elderly patients perhaps talking to them for 5 to 10 minutes. The Pharmacist must make sure that a patient does not leave the pharmacy until they have the full instructions.

Many patients come out of the doctor's clinic without remembering a word of what the doctor has said and it is especially so with young mothers who take a child to the doctor. Prof. D'Arcy recalled that in a survey done by students outside a doctor's clinic there was no relationship at all between what the doctor had said and what the mothers recalled. The pharmacist's job is very important to reinforce what the doctor said, and to check the prescription for any interactions.

Other important aspects of community pharmacy are:

— **Keeping medication records for patients and checking for compliance** might be impossible within a normal community pharmacy but one can do it for those patients at risk, the elderly, pregnant women and those on chronic medication. Some pharmacists in Britain are putting medication records on a small computer, others are producing their own medication cards where they keep an account of non prescription and prescription drugs, though they are not paid for doing this. The government is moving towards payment for this service.

Most of the elderly do everything the doctor tells them, they follow all the instructions and unfortunately end up with more medicine then they should have. Prof. D'Arcy mentioned the case of a 75 year old arthritic patient who could not cope because she was mildly confused, incontinent and unwilling to walk because she kept falling down. When she was visited by a pharmacist, she was pleased to tell her that she manages to take all the tablets — she was asking for praise. She was on 26 medications including liquid paraffin and herbal medicines. The pharmacist stopped all the medication and admitter her to hospital. Ten days later she was sent home, still arthritic but leading a better lifestyle.

Keeping medication records will prevent this sort of thing from happening.

— **Advising patients on the use of over the counter non prescription medicine** and ensuring that there is no interaction with other medicines they are taking. Campaigns are being done in journals, newspapers and other publications entitled 'if you want advice on medicine, go and see your pharmacist'.

The U.K. Government has produced the white list and the black list. The black list consists of pharmacist recommended medicines.

— **Assisting the general public in self care** by advising the patient on the treatment of minor ailments and if necessary refering them to the doctor or dentist.

— **Providing emergency first aid treatment** and follow up if necessary and advicing on special dietary requirements.

Health Information and Education Centre. Health education is being given its due importance in Britain. There is a Health Education Council and Government is using pharmacies as the place where general health information is displayed. 'Glue sniffing the breath of death' is one of these leaflets and pharmacists can give information to worried parents about how to spot glue sniffing.

Pharmacies are being turned into Health Information Centres, where one can find information on when to have children inoculated with vaccines, on how to stop smoking, on drug abuse etc.

Conclusion

"If a pharmacist is necessary, one can't do without one," concluded Prof. D'Arcy.

The Pharmacist is the drug expert, he must be used and utilised. In those areas where he is going to be in competition with others he must accept that competition and undergo further specialisation.

Problems and Prospects of Pharmacy Practice in Malta

34 YEARS AGO

Lawrence Zerafa, B.Pharm.

This article describes the work of the Chamber of Pharmacists under its President Mr. Anthony Darmenia [1] [2]. At this time there were two qualified pharmaceutical chemists on the Malta Legislative Assembly (M.L.A.), Mr. Emmanuel Attard Bezzina, Ph.C., and Dr. George Borg, Ph.C., M.D. In 1950 Mr. Darmenia became Chief Pharmacist and years later he became Medical storekeeper in charge of the Medical stores. Three years later he was elected secretary of the Malta Government Professional Officers Association[3].

General Problems

1954 was Mr. Darmenia's first year as President of the Chamber of Pharmacists and at the start of the work he set out the objectives before the committee and the profession in general. He was very well aware even from better personal experience, as was the editor of 'The Pharmacist', Mr. G. Saliba, Ph.C. that there was a general lack of appreciation and recognition of the work of the pharmacist stemming from the absence of appropriate regulations governing the exercise of the profession.

Under the direction of Mr. Darmenia a new drive was launched to raise pharmacists out of their apathy and to make them conscious of their rights and obligations. Mr. Darmenia had high hopes and a determination to struggle and not give up.

'The Pharmacist'

The first decision of the newly elected committee which had Mr. A. Darmenia as President, Mr. R.A Tua, Ph.C., B. Pharm., as Secretary, Mr. F. Felice, B.Sc., Ph.C. as Treasurer and Messrs. E. Attard Bezzina, Ph.C., M.L.A.; O.F. Alessandro, Ph.C., Miss M. Caruana, B.Sc., Ph.C., G. Manche, B.Pharm., G. Saliba, Ph.C. and T. Vella, B.Sc., Ph.C. as Members was to issue a modest printed periodical 'The Pharmacist'. The first issue was that of January-March 1954, Vol. 1 No. 1, and the stated aims as the editor Mr. G. Saliba explained were threefold: to give articles would would enable the pharmacist to keep abreast with new developments in the pharmaceutical field, to keep the members of the Chamber in touch with the activities of the committee and lastly to provide a means whereby the Maltese pharmacist could air his aspirations, grievances and claims. There were four issues of this periodical till September 1955 and in all ways it reached the stated aims except for the last one. The response by the members of the profession as regards letters to the editor was poor.

Contacts with the Medical and Health Department

These contacts were established to discuss several grievances amongst which were the tariff of professional fees, the retailing of medicinal products by unauthorised dealers, the lack of adequate legislation and the absence of a pharmacy board. Regarding discussions about the tariff of professional fees, contacts by the committee with the Medical and Health Department authorities were established in August 1953. A subcommittee by the Medical and Health Department was appointed to study this issue but the Chamber of Pharmacists refused to participate in this subcommittee's work until its request for a representation of three members on this subcommitee were met with. This request was acceded to in November 1954 and discussions started. After several meetings the Tariff of Professional Fees as proposed by the Chamber of Pharmacists (Table 1) was approved by the Medical Board with some minor modifications. One can note that in this agreement the Chamber decided to waive aside the right for a dispensing fee on insulin injections, whereas for other injections the tariff was threepence on the first phial and one penny for each additional phial. Another letter was sent to the Medical and Health Department pointing out several grievances, e.g. the retailing by unauthorised dealers

of such medicinal products as 'Aspro' and 'Dettol'. Following this letter, instructions were issued to the sanitary inspectors to see that no medicinal products were being stocked by unauthorised dealers.

Another problem taken up was the lack of adequate legislation concerning medicines to be kept in dispensaries and medicines that could be sold without prescription. The relevant legislation to cover these grievances was enacted in October 1955 and published in the Malta Government Gazette of the 12th October 1955 as follows:

Notice 563: List of Medicinal substances which apothecaries may sell without prescription. This replaced that of 9th August 1940.

Notice 564: Schedule of Poisonous substances.

Notice 565: List of Medicinal substances with which dispensaries are to be kept supplied. This replaced that of 9th August 1940.

All these notices and corrections (Notices 648 of 25th November 1955) were all approved and signed for by Dr. A.V. Hyzler, M.D., M.L.A., then Minister of Health and Social Services under Prime Minister Dom Mintoff, B.Sc., B.E.&A., M.L.A.

Call for Pharmacy Board

The Chamber felt that it was inadequately represented on the Medical Board; there were only two pharmacists, Mr. G.A. Agius, Ph.C., and Mr. A. Felice, M.P.S. with Mr. J. Darmanin, Ph.C., replacing any of them if they were unable to attend, from 16 additional members and 10 members on the committee. A formal request was made to the Medical and Health authorities for the foundation of a Pharmacy Board. The Chamber also insisted and obtained from the Medical Board a compilation of all pharmacies in Malta and their respective managing pharmacists.

Salaries of Pharmacists employed in Government Service

The budget for 1954-55 was presented by the Finance Minister the Hon. Dr. J. Frendo Azzopardi, LL.D. on the 18th May 1954. When presenting the financial statement for 1954-55 Dr. Frendo stated that 'Government considers that it should acknowledge the fact that professional officers in possession of a university degree are not attracted by the commencing rate which government employment offers." Government proposed to "allow increments for professionals who are required to hold a degree of doctor of medicine, doctor fo law or architect and civil engineer". The Chamber immediately showed its concern that such professional people as Notaries Public, Dentists, Legal Procurators and of course Pharmacists had been completely ignored, through an editorial in 'The Pharmacist', Vol. 1 no. , April-June 1954. In all these cases females would receive three quarters of these rates and would be required to resign on marriage. Is it any wonder pharmacists were not attracted to government service in view of this obvious discrimination between professionals? This distinction remains even today where pharmacists are not even considered as professional officers in the government salary scales.

External Recognition of Pharmaceutical Chemist Ph.C. diploma and Bachelor's degree in Pharmacy B.Pharm. degree

In his talk to pharmacy undergraduates during the students congress of 1953, Mr. Darmenia addressed the issue of the limited prospects open to Malta pharmacy graduates compared to those in the rest of the world. Abroad opportunities existed for jobs in hospitals, in retail, in industry, in research, in administration and also teaching opportunities in Universities. However local opportunities in 1954 were limited to retail pharmacy and to the few posts in the government hospital, between 5 and 8 for all three grades.

At that time, 1954, the number of pharmacists graduating from the Royal University of Malta had risen out of proportion to local requirements. The total graduates of 1952, 1953 and 1955 who were not also M.D.s was 71[4] and it was feared that saturation point would soon be reached and the dignity of the pharmaceutical profession would suffer as a result of this. A solution to this problem was the provision of fresh openings in the Government service and private hospitals, government dispensaries and with wholesalers. This Mr. Darmenia felt would be the short term policy.

On a long term basis, the solution would have to be the recognition of the status of the local pharmacist by the authorities abroad. With this objective in mind, the Chamber took the initiative to negotiate for the recognition of the B.Pharm. degree and Ph.C. diploma of the Royal University of Malta with several people and institutions including the Vice-Chancellor and Rector Magnificus Royal University of Malta (letter of 5th December 1953), The Pharmacy Board

Miraxid® the effective tool

pivampicillin pivmecillinam

for everyday infections

Full information available on request

L E O

Leo Pharmaceutical Products – Denmark

Regional office: Leo Pharmaceutical Products Sarath Ltd. 224, Syngrou Avenue, GR 176 72 Kallithea, Athens, Greece

TABLE 1

Pharmacists Professional Tariffs

As proposed by the Chamber of Pharmacists and approved by the Medical Board in 1954.

1. EXTEMPORANEOUS PREPARATIONS

Cachets for the first 12 or part thereof	2/6
Each additional 12 or part thereof	1/6
Capsules for the first 12 or part thereof	2/6
Each additional 12 or part thereof	1/6
Suppositories, pessaries, bougies per 12 or part	3/-
Each additional 12 or part thereof	2/-
Effervescent Granules first 4 ozs. or part	2/6
Each additional 4 ozs. or part	1/6
Ointments, creams etc. up to 1 oz.	1/6
Each additional 7 oz. or part	1/-
Ointments, creams etc. sterilized, up to 1 oz.	3/0
Each additional 1 oz. or part	1/6
Eye Drops, Oye Ointments, Aqueous preparations of penicillin	3/-
Ear drops, Nose drops	2/6
Individually wrapped powders for the first 12 or part	1/6
Powders in bulk or mixed, not less than 1 oz.	1/6
Emulsions, suspensions over and abovt 6 ozs. or part thereof	1/-
Lotions, Liniments up to 10 fluid oz. or part thereof	1. 6
Over 10 fl. ozs. or part thereof	2/-
Mixtures, Cargles, Mouth washes, paints and other fluid preparations not included in the above list up to 4 ozs.	1/6
Up to 8 ozs.	2/-

2. PREPARATIONS FROM STOCK

Pills, tablets, lozenges, pastilles, from stock:	
Up to 12	1/-
12 to 36	1/6
36 to 60	2/6
Ointments, creams, pastes from stock:	
Up to 1 oz.	1/-
1 oz. to 2 ozs.	1/6
Over 2 ozs.	2/-
Kaolin poultice	1/-
Proprietary prearations dispensed unadmixed:	
For every 10/- or part thereof of Selling Price	1/-
D.D.A. Prescriptions	
Prearations falling under Dangerous Drugs Regulations:	
An additional	1/-

3. URGENT PRESCRIPTIONS

For prescriptions between 8 p.m. and 8 a.m. or after eventually agreed closing hours, an overcharge of	5/-

of Australia (letter of 11th December 1953), The Dean of the Faculty of Science Royal University of Malta (letter of 16th November 1954), and the Pharmaceutical Society of Great Britain.

What was asked from the local university authorities was an immediate modification of the syllabus to achieve similarity and parity with that of London University especially to increase the number of hours of practical work and thus make it impossible to attend other courses concurrently. Besides the B.Pharm. graduates who went on to finish their medical studies and get their M.D. there were also several others who concurrently obtained a B.Sc. as a second or even as a third degree. The figures are as follows: 1952, 6 B.Sc. graduates, 1953, 1 B.Sc. graduate, 1955, 14 B.Sc. graduates. It was also asked that the lecturers in purely pharmaceutical subjects should be replaced by practising pharmacists.

Until June 1955 the Chamber felt that the University authorities had not yet taken a single practical step in ameliorating this situation. However on the 4th of May 1955, Act no. VII of 1955 was enacted. It amended the Medical and Kindred Ordinance whereby to Sec 16 of Chapter 51 of the Ordinance was inserted the word "degree on". Thus the pharmacy course attained a degree status. The act was assented to by Governor R.E. Laycock on the 9th May 1955.

Conclusion

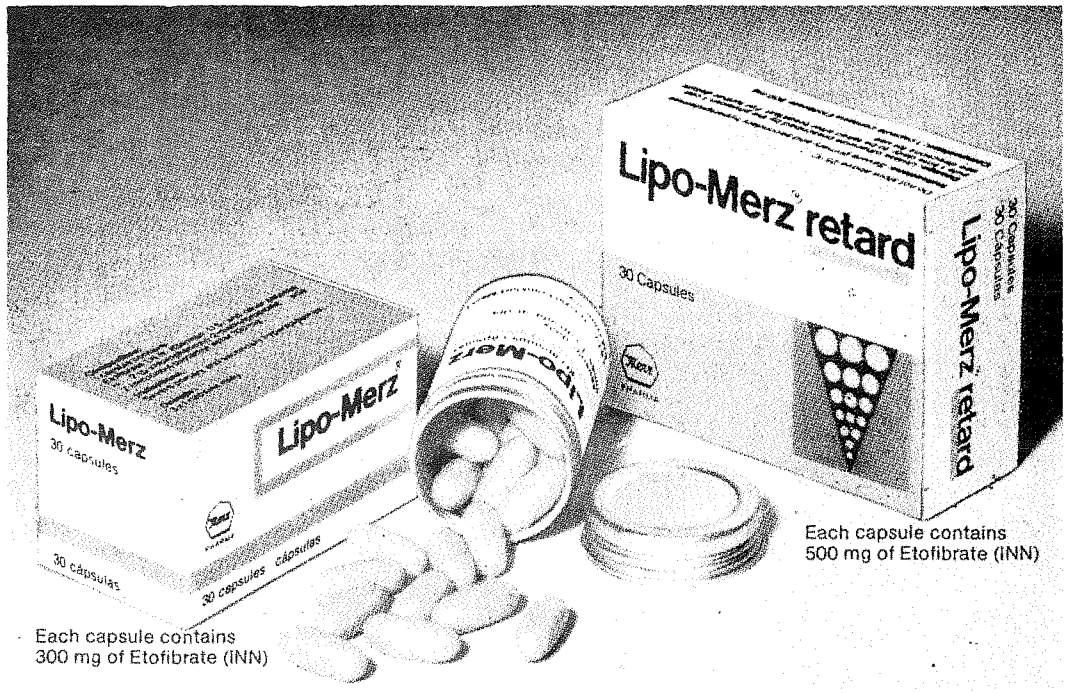
Much has been written about Mr. Darmenia, and still more needs to be written to study the practice of pharmacy in Malta in the period 1954-1955, and the Chamber's contribution during these years under the presidency of Mr. Darmenia. But one thing seems to be clear, Mr. Darmenia was a man with a clear vision of what pharmacy practice should be like in Malta and in spite of the prevailing difficulties he worked hard to improve the situation for future generations of pharmacists.

---

(1), (2) The Pharmacist Vol. 1 No. 1 January-March 1954 and Vol. 1 No. 2 April-June 1954, see Editorials, Open Letter by the President, Secretarial report, Prsopects of the Maltese Pharmacist and Around and About.

(3) Pronostku Malti 1955, Giov. Muscat, Valletta.

(4) Register of Graduates 1916-1971. The Royal University of Malta 1972.



The new generation of lipid reducers:

Lipo-Merz® and Lipo-Merz® retard

The monosubstance Etofibrate (INN), active ingredient of Lipo-Merz® and Lipo-Merz® retard, is a product of Merz research. All pharmacological and clinical criteria have demonstrated the excellent effectiveness and good tolerance of Lipo-Merz® and Lipo-Merz® retard.

Etofibrate

- reduces elevated total cholesterol and triglyceride levels significantly;
- has a favourable influence on the atherogenic index thus reducing the risk of atherosclerosis;
- reduces increased platelet aggregation;
- improves organ perfusion by reducing elevated plasma viscosity.

Lipo-Merz® for initial treatment. It is recommended to take 1 capsule 3 times daily.

Lipo-Merz® retard for long-term treatment. The administration of 1 capsule daily guarantees optimum patient compliance. Long-term treatment with Lipo-Merz® retard can be carried out with good tolerance and without loss of effectiveness.

Merz PHARMA

Merz + Co. GmbH & Co. D-6000 Frankfurt/Main 1 Federal Republic of Germany
Agent: Joseph Cassar Ltd., 54, Melita Street, Valletta/Malta

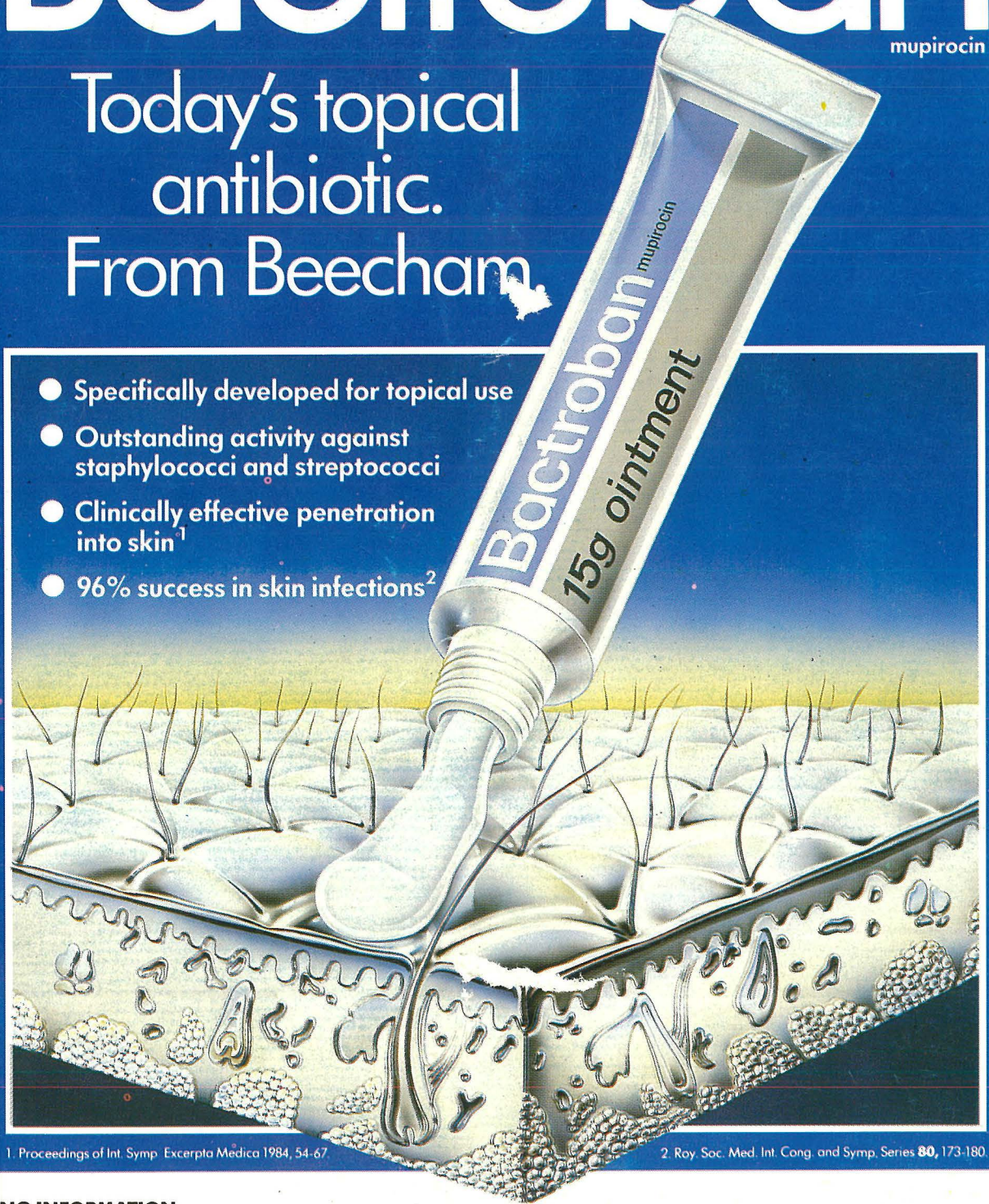
New

Bactroban

mupirocin

Today's topical antibiotic. From Beecham.

- Specifically developed for topical use
- Outstanding activity against staphylococci and streptococci
- Clinically effective penetration into skin[1]
- 96% success in skin infections[2]



1. Proceedings of Int. Symp. Excerpta Medica 1984, 54-67.

2. Roy. Soc. Med. Int. Cong. and Symp. Series **80**, 173-180.

PRESCRIBING INFORMATION

Presentation BACTROBAN ointment: A presentation of mupirocin 2% weight/weight in a white, translucent, water-soluble, polyethylene glycol base. Available in 15g tubes.

Activity BACTROBAN is a topical antibacterial agent, active against those organisms responsible for the majority of skin infections, e.g. *Staphylococcus aureus*, including methicillin-resistant strains, other staphylococci, and streptococci. It is also active against Gram-negative organisms such as *Escherichia coli* and *Haemophilus influenzae*.

Indications Acute primary bacterial skin infections, e.g. impetigo and folliculitis.

Dosage and Administration Adults and children: BACTROBAN ointment should be applied to the affected area up to three times a day, for up to 10 days. The area may be covered with a dressing or occluded if desired.

Precautions When BACTROBAN ointment is used on the face care should be taken to avoid the eyes. Polyethylene glycol can be absorbed from open wounds and damaged skin and is excreted by the kidneys. In common with other polyethylene glycol based ointments, BACTROBAN ointment should be used with caution if there is evidence of moderate or severe renal impairment. Use in Pregnancy: Studies in experimental animals have shown mupirocin to be without teratogenic effects. However, there is inadequate evidence of safety to recommend the use of BACTROBAN during pregnancy.

Contra-indications Hypersensitivity to BACTROBAN or other ointments containing polyethylene glycols. BACTROBAN ointment formulation is not suitable for ophthalmic or intra-nasal use.

Side Effects During clinical studies some minor adverse effects, localised to the area of application, were seen such as burning, stinging and itching.

Further information is available on request from

Beecham Research Laboratories
Brentford, Middlesex, England

Offset printed LUX PRESS