

## SPECIAL PAPER

### Drug Policy in Cyprus

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#### Abstract

**Background:** The provision of pharmaceutical drugs is of enormous significance in our lives. Notable progress made in the domain of Public Health, combined with a general increase in the standard of living, has had a direct impact on the discovery of new drugs and cures and has shifted pharmaceutical policies further in line with the current needs of both the country's health system and, its population.

**Aim:** This research aims to both shed light on and analyse the current state of pharmaceutical policy in Cyprus, as well as to try to seek out its weaknesses, making suggestions, where possible, as to how to keep these to the minimum.

**Results, and Conclusions:** The lack of both high level research and major industrial facilities relating to the discovery of new pharmaceutical drugs in Cyprus, has hindered the effectiveness of pharmaceutical policy in general domains such as control over the circulation and production of pharmaceutical products in the country, their pricing and distribution and the monitoring of our drug supplies. The lack of transparency in a number of pharmaceutical procedures, and of information on drugs does not enhance the industry's reliability, but rather exacerbates an underlying feeling of insecurity relating to it among the population.

**Key words:** pharmaceuticals, consumption, pricing policy, provision, Cyprus

#### Introduction

Pharmaceutical policy in Cyprus is determined at a centralised level, namely, by the Ministry of Health. Local branches of the Pharmaceutical Services do, however, play a catalytic role in the implementation of this policy. The entrance of Cyprus into the European Union and a consequent requirement to adapt to the European pharmaceutical laws has been a decisive factor in the development of pharmaceutical policy on the island. The desired effectiveness of this pharmaceutical policy depends on how the implementation of such innovative changes is to be pursued. These should pave the way for an approach that focuses on practical human needs as well as one suitable to the modern lifestyle,

meeting the need for an improvement in the accessibility of modern pharmaceutical treatment.

#### Historical Development

One needs to study the structure of the Pharmaceutical Services in order to fully understand the Cypriot pharmaceutical policy. The Pharmaceutical Services in Cyprus were founded in 1978 (six state pharmacies and a central office in Nicosia), upon the handing back of power to Cypriot administration by the British. Two years later, in 1980, the Pharmaceutical Services became an autonomous Department in the Ministry of Health. The Pharmaceutical Services has evolved to its current state thanks to the developments within

both the pharmaceutical industry and pharmaceutical care provided by the state, alongside the broader necessity to regulate the circulation of drugs in the market. With the General Health Scheme on its way, one should expect significant changes in the future path to be taken by the Pharmaceutical Services, especially in terms of an approach not only more focused on the individual, but also more compatible with modern pharmaceutical views, research and treatments.

### Structure

In 2006, the Pharmaceutical Services was made up of a workforce of 254 employees: 166 pharmacists, 21 pharmacy technicians, 17 secretaries, 1 auditor, 49 workers on an hourly rate of pay and personnel of 54 working on call in the case of an emergency.

The Manager oversees and supervises the day to day workings of Pharmaceutical Services on a general level, while the rest of the department includes 2 chief- pharmacists, 11 senior pharmacists; 20 "A" pharmacists, 103 standard pharmacists and 14 pharmacy technicians. Due to the increased workload in 2006, the Department employed 38 additional pharmacists and 12 additional technicians to work on call throughout the year in the case of an emergency. (Pharmaceutical Services, 2010)

### The Pharmaceutical Services' Jurisdiction

1. The compatibility with the laws of the EU
2. The implementation of legislation related to *drugs, narcotics, cosmetics* and the *position of the pharmacist*.
3. Information relating to health officials and health bodies, while also providing the public with objective and useful information concerning both pharmaceutical and cosmetic products for humans to ensure safe use.
4. Promoting cooperation between Cyprus and other countries which are also members of international organisations.

5. Ensuring that a sufficient level of drug supplies for use by state infirmaries is maintained and public tenders in accordance with the existing relative Law.

6. The correct delivery, storage and distribution of drugs to state infirmaries, and the supply of pharmaceuticals to patients by state pharmacies based on prescription or in- patients' treatment reports.

7. The production of nutritional fluid for use in intravenous therapy.

### The Pharmaceutical Services' Mission:

1. To ensure the safe and effective management of medicines to meet National and European Authorities Risk Management Standards requirements.
2. To ensure that medical, nursing, midwifery, pharmacy and other relevant staff follows standard policies when dealing with medicines.
3. To provide a standard, for the handling of medicines which can be audited.

### The Management of Drug Regulation

The organisational chart of pharmaceutical services is presented in Figure 1

1. **The Managerial Support Department** deals with the reception and control of applications for the authorisation of new products, the renewal of authorisations and the modification of existing authorisations.
2. **The Pharmaceutical Product Evaluation Department** employs trained pharmacists to evaluate the pharmaceutical products not only before their circulation in the Cypriot market, but also during the period within which they are being traded. The pharmaceutical products which are imported or produced in Cyprus are checked according to the Laws on Drugs for Human Use 2001-2006.

The lack of competent and experienced staff able to carry out an analysis of each potentially legal pharmaceutical product might force the evaluation team to take measures which have usually already been taken by other European countries. Such a

gap between the resources at hand in Cyprus and those elsewhere in Europe, has pushed the former to repeatedly copy other countries' regulations on drugs, without actively seeking to assemble a dedicated scientific team able to make important decisions based on the particularities and the specific interest of Cypriot public health (Ministry of Health, 2007)

### **Marketing Authorisation Procedures National Authorization**

This term refers to the Drug Council's granting of authorisation that is only valid in Cyprus. Pharmaceutical products that are not in circulation in other member- states (eg. local products) as well as new proposed dosages of already nationally approved pharmaceutical products may follow this national procedure (Table 1). The existing national authorisations remain unaltered and are renewed as national. (Heads of Medicines Agencies 2011)

### **Mutual Recognition Procedure/Decentralised Procedure**

Once a pharmaceutical product has obtained authorisation in a member-state of the EEA (European Economic Area), the application can also be sent for approval to other member- states with the exact same pharmaceutical, toxicological and clinical documentation- known as the *Mutual Recognition Procedure (Figure 2)* (Heads of Medicines Agencies 2011). In addition to this, in cases where the applicant wishes to ensure that authorisation of a pharmaceutical product which has not yet obtained an authorisation in an EEA country can be granted in more than one member- state, he may apply with the same records by asking one country to act as a member-state referee (Decentralised Procedure) (Heads of Medicines Agencies, 2011). Member-states need to then recognise the evaluation report, the summary of the characteristics of the product, the instruction manual, and the observations made by the referee, unless they consider the authorisation of the specific product to be a hazard to public health. In this case, the procedure is continued

by the coordinators of the MRP/DCP. If the states still disagree, the application is sent to the CHMP (Committee for Human Medicinal Products) for another opinion. The final verdict of the European Committee is made once the CHMP has taken its stance on the product. (Ministry of Health, 2011)

### **Centralised Authorization Procedure (CAP):**

Authorisation is granted by the European Committee after sending an application to the EMEA for an evaluation by specialists and an opinion by the CHMP which is made up of 1 representative as well as 1 alternate from each member- state. This procedure is followed when dealing with high- technology products and is compulsory for biotechnological products and products which consist of new substances that scope to the treatment of HIV, cancer, neurological disorders and diabetes (Table 3) (Heads of Medicines Agencies, 2011).

### **Exceptional Authorisation**

The existing legislation allows for the Drug Council to grant Special Authorisation for public health purposes. For such authorisations to be possible:

- The product should not be already authorised, nor should it have a pending application.
- The product should be authorised in at least one other member- state.
- The product should come along with its evaluation report by the authorities of the member- state from which the product is being imported, as well as a copy of its local authorisation.
- The authorisation holder in the member- state should be informed of the procedure. (Ministry of Health 2011)

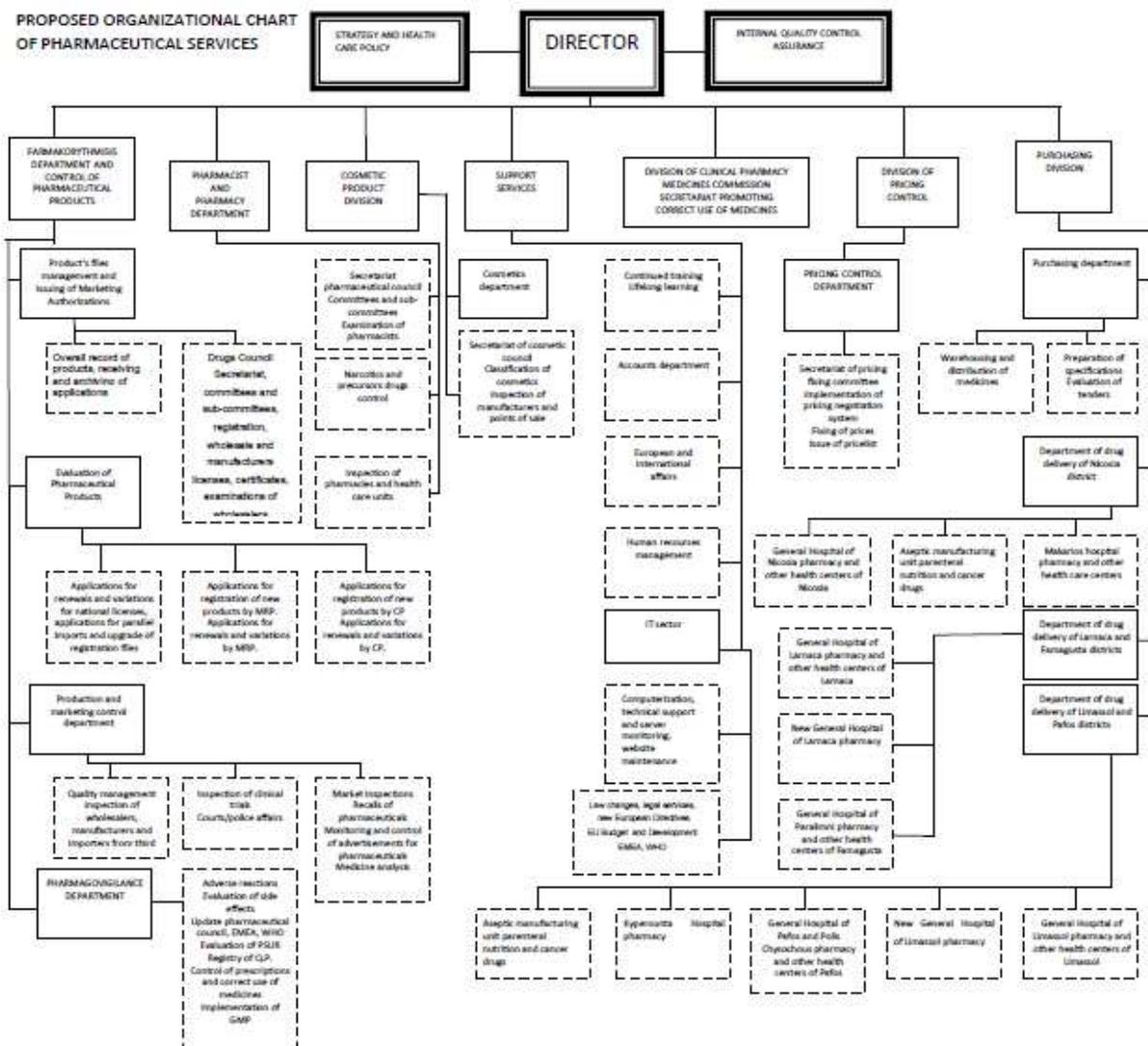
### **Department of Manufacturing and Distribution Control**

The main responsibility of this department, made up by specialised pharmacists/ inspectors

(Table 2), is control (Rules and Guidance for 2. Inspection of pharmaceutical product Pharmaceutical Manufacturers and Distributors, 2007):

1. Inspection of manufacturers of pharmaceutical products and producers of parts of pharmaceutical products as determined by the Good Manufacturing Practice – GMP.
3. Granting authorisations for the manufacturing of pharmaceutical products as well as parts of pharmaceutical products.

Figure 1 Organizational Chart of pharmaceutical Services



Source: [http://www.moh.gov.cy/moh/phs/phs.nsf/dmlorgchart\\_gr/dmlorgchart\\_gr?OpenDocument](http://www.moh.gov.cy/moh/phs/phs.nsf/dmlorgchart_gr/dmlorgchart_gr?OpenDocument) (17/02/2010).

**Table 1 Applications for Marketing Authorizations**

<b>Marketing Authorizations for new medicines</b>	<b>2005</b>		<b>2006</b>		<b>2007</b>	
	<b>Appl. nr. nr.</b>	<b>license</b>	<b>Appl. nr. nr.</b>	<b>license</b>	<b>Appl. nr. nr.</b>	<b>license</b>
<b>National</b>	73	302	89	45	102	26
<b>Mutual Recognition</b>	120	58	120	84	147	90
<b>Parallel Imports</b>	3	1	0	0	0	0
<b>Exceptional</b>	154	166	523	180	245	55

<b>Renewals of Marketing Authorizations</b>	<b>2005</b>		<b>2006</b>		<b>2007</b>	
	<b>Appl. nr. nr.</b>	<b>license</b>	<b>Appl. nr. nr.</b>	<b>license</b>	<b>Appl. nr. nr.</b>	<b>license</b>
<b>National</b>	438	1348	307	201	244	55
<b>Mutual Recognition</b>	21	n/a	35	7	40	11
<b>Exceptional</b>	n/a	n/a	n/a	n/a	140	68

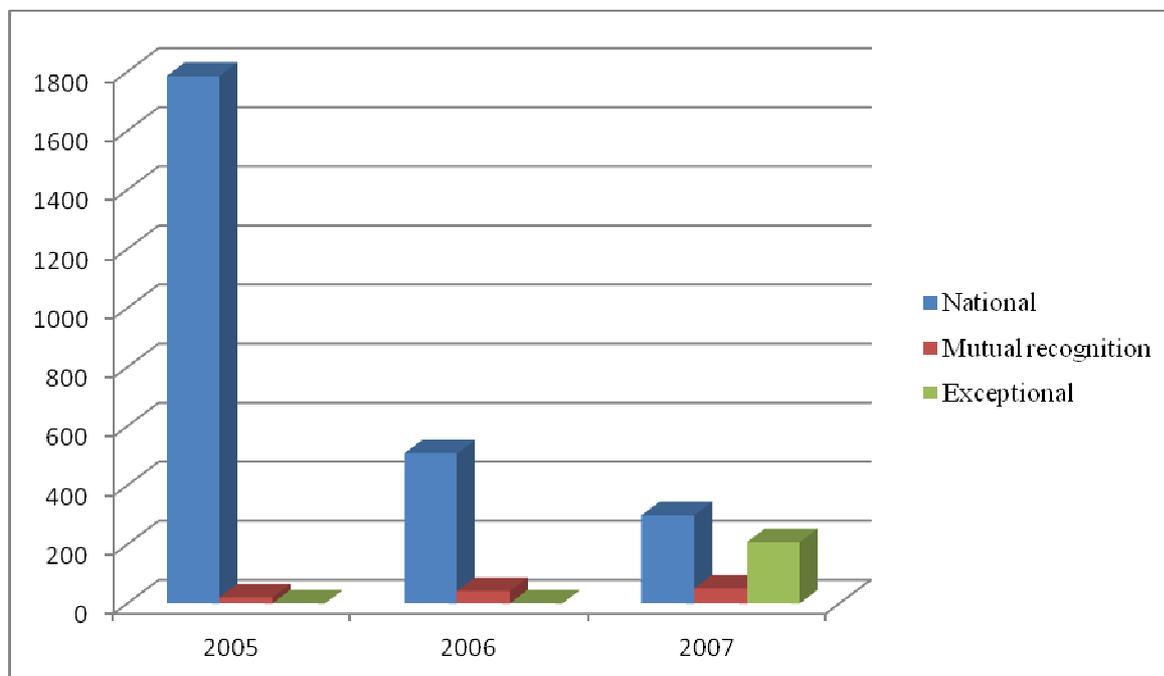
  

<b>Variations of Marketing Authorizations</b>	<b>2005</b>		<b>2006</b>		<b>2007</b>	
	<b>Appl. nr. nr.</b>	<b>license</b>	<b>Appl. nr. nr.</b>	<b>license</b>	<b>Appl. nr. nr.</b>	<b>license</b>
<b>National</b>	1534	837	2423	2015	2850	2503
<b>Mutual Recognition</b>	515	230	964	624	994	1136

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Source: Annual Report Ministry of Health, 2007

**Figure 2 Renewals of Marketing Authorization**



Source: Annual Report Ministry of Health, 2007

**Table 2 Inspections of premises manufacturing and wholesale**

Inspections	2005	2006	2007
<b>Manufacturing premises and of imports from third countries (GMP)</b>	15	23	20
<b>Wholesale premises (GDP)</b>	42	35	20
<b>Laboratories under contract</b>	0	0	2

Source: Annual Report Ministry of Health, 2007

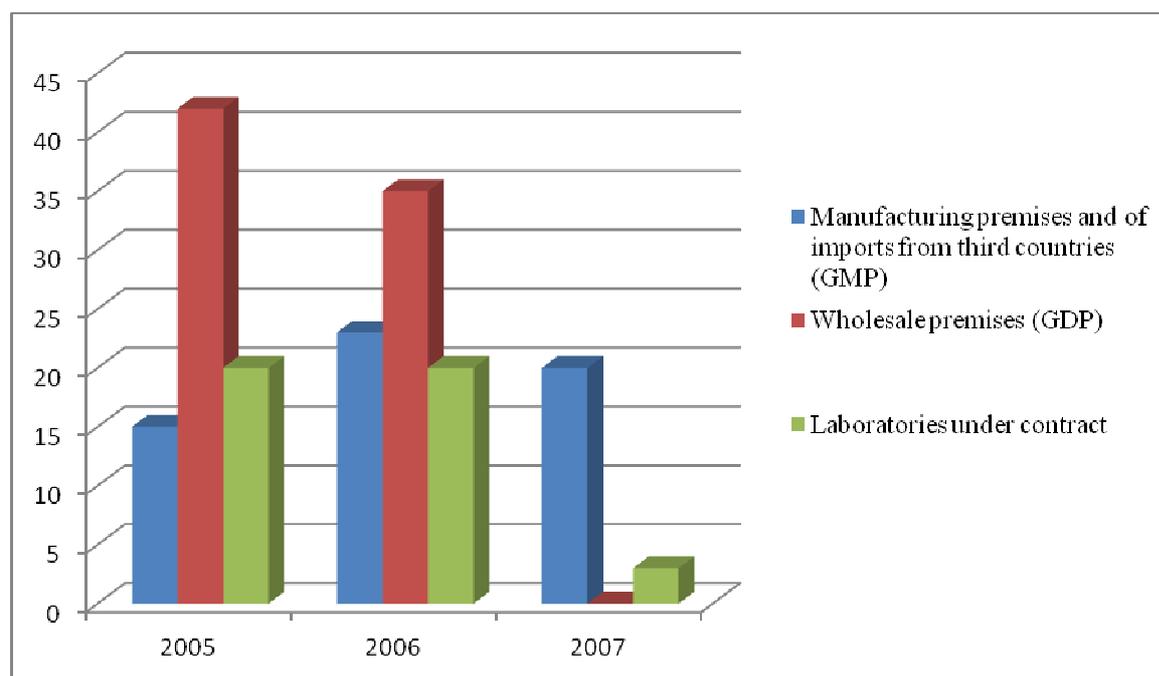
**Table 3. Issues and Renewals of Licenses**

<b>ISSUES AND RENEWALS OF LICENCES</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Issues of wholesale licenses</b>	<b>21</b>	<b>8</b>	<b>1</b>
<b>Renewals of wholesale licenses</b>	<b>0</b>	<b>1</b>	<b>4</b>
<b>Variations of wholesale licenses</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Issues of manufacturing licenses</b>	<b>2</b>	<b>0</b>	<b>0</b>
<b>Renewals of manufacturing licenses</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Variations of manufacturing licenses</b>	<b>5</b>	<b>2</b>	<b>5</b>
<b>Issues of partial manufacturing licenses</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Issues of import licenses from third countries</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>Renewals of import licenses from third countries</b>	<b>0</b>	<b>0</b>	<b>9</b>
<b>Variations of import licenses from third countries</b>	<b>1</b>	<b>1</b>	<b>4</b>
<b>Registration of Q.P.</b>	<b>2</b>	<b>1</b>	<b>2</b>
<b>Issues of certificates for pharmaceutical products</b>	<b>2023</b>	<b>2668</b>	<b>2708</b>

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Source: Annual Report Ministry of Health, 2007

**Figure 3 Inspections of premises manufacturing and wholesale**



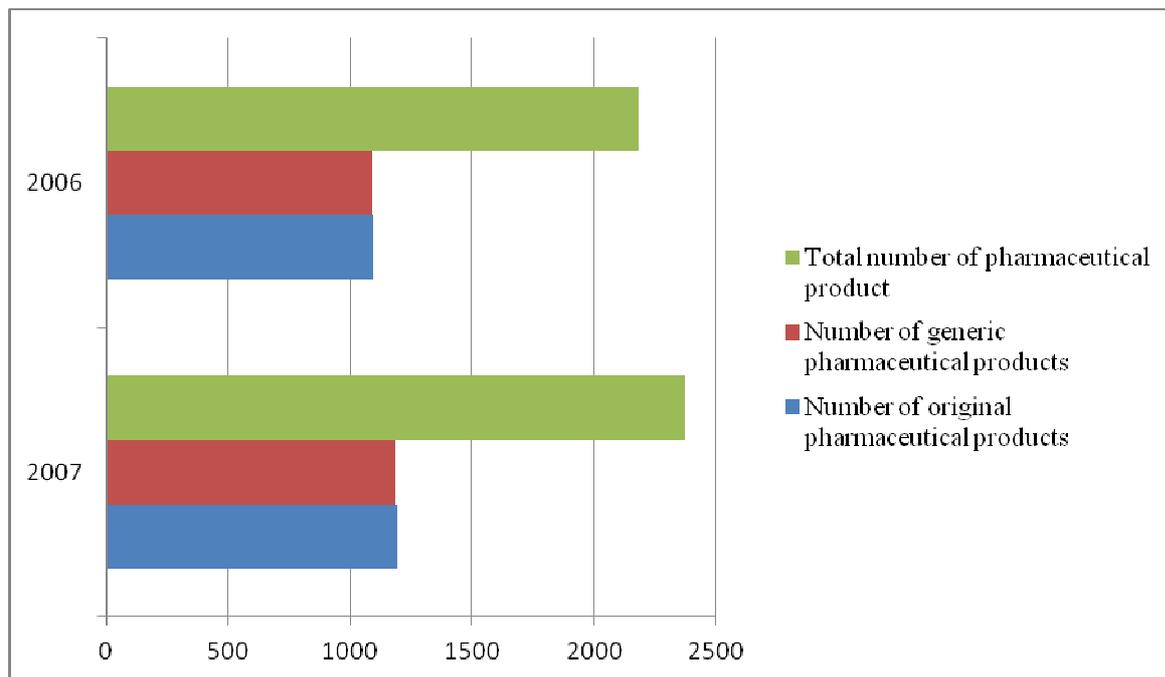
Source: Annual Report Ministry of Health, 2007

**Table 4. Available pharmaceutical products 2006-2007**

Year	Number of original pharmaceutical products	Number of generic pharmaceutical products	Total number of pharmaceutical product
2007	1193	1183	2376
2006	1095	1087	2182

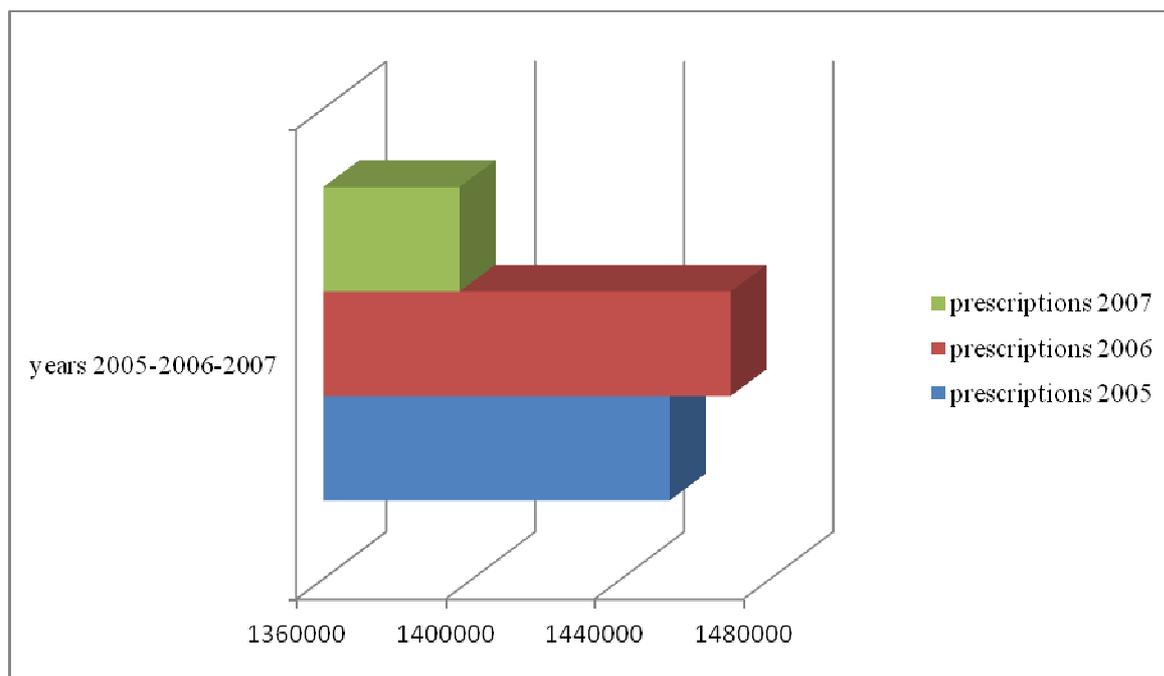
Source: Annual Report Ministry of Health, 2007

Figure 4. Available pharmaceutical products 2006-2007



Source: Annual Report Ministry of Health, 2007

Figure 5. Comparative diagram of prescriptions, 2005-2007



Source: Annual Report Ministry of Health, 2007

Table 5 Volume of Work done

	UNIT	2006	2007
Receipts	Number	5131	5703
Purchases of medicines	Euro	75,158,416	84,557,142
Issues	Number Of Executed Operative	6716	9909*
Computerization of drugs & medical supplies	Number Of New Items	101 Medicines & 90 Medical Supplies	135 Medicines & 153 Medical Supplies

\* It cannot be compared with previous years due to new procedures

Source: Annual Report Ministry of Health, 2007

**Table 6. Main categories of non-prescribed medicines used by sex**

Medicines	Males		Females		Total	
	number	%	number	%	number	%
For flu	2477	10.1	2716	8.2	5193	9.0
Analgesics	18769	76.5	27496	83.0	46265	80.2
Cold syrup	3460	14.1	2430	7.1	5800	10.1
Cold drops	0	0	367	1.1	367	0.6
Antibiotics	2730	11.1	1550	4.7	4280	7.4
Antireumatics	388	1.6	258	0.8	646	1.1
Vitamins, minerals, tonics	4361	17.8	6483	19.6	10844	18.8
For the heard, blood vessels, blood pressure	644	2.6	395	1.2	1039	1.8
Diuretics	0	0	133	0.4	133	0.2
Laxatives	135	0.6	522	1.6	657	1.1
Gastrointestinal or digestive preparations	124	0.5	692	2.1	816	1.4
Sleep inducing	155	0.6	287	0.9	442	0.8
Antidepressants	0	0	269	0.8	265	0.5
Tranquilizers and other medicines for nerves	0	0	265	0.8	265	0.5
For the skin (acme, eczema, itching, wounds)	261	1.1	899	2.7	1160	2.0
Allergy remedies	126	0.5	416	1.3	542	0.9
Antiasthmatics	123	0.5	258	0.8	381	0.7
Hormonal medicines during menopause	0	0	125	0.4	124	0.2
Antidiabetics (incl. Injections)	125	0.5	147	0.4	272	0.5
Antiepileptics	0	0	0	0	0	0
Antiparkinsons	0	0	0	0	0	0
Ophthalmic (ointments, drops)	0	0	552	1.7	552	1.0
For slimming	268	1.1	124	0.4	392	0.7
Homeopathics	0	0	0	0	0	0
Other medicines	0	0	531	1.6	531	0.9
Medicines of unknown type	0	0	0	0	0	0

\*Percentages refer to the population that used non-prescribed medicines

Source: Health Survey, 2003

**Table 7 Main categories of prescribed medicines used by sex**

Medicines	Males		Females		Total	
	number	%	number	%	number	%
For flu	6181	6.5	7404	5.6	13585	6.0
Analgesics	38601	40.1	67311	51.1	105912	46.6
Cold syrup	8702	9.1	10538	8.0	19240	8.5
Cold drops	887	0.9	929	0.7	1816	0.8
Antibiotics	15108	15.8	17016	12.9	32124	14.1
Antireumatics	6414	6.7	16165	12.3	22579	9.9
Vitamins, minerals, tonics	19478	20.3	55385	42.1	74863	32.9
For the heard, blood vessels, blood pressure	43817	45.8	50611	38.4	94428	41.5
Diuretics	12859	13.4	16540	12.6	29399	12.9
Laxatives	2243	2.3	4361	3.3	6604	2.9
Gastrointestinal or digestive preparations	7379	7.7	11537	8.8	18916	8.3
Sleep inducing	3782	3.9	6963	5.3	10745	4.7
Antidepressants	4699	4.9	9738	7.4	14437	6.3
Tranquilizers and other medicines for nerves	5922	6.2	9518	7.2	1540	6.8
For the skin (acme, eczema, itching, wounds)	6392	6.7	7384	5.6	13776	6.1
Allergy remedies	3996	4.2	6002	4.6	9998	4.4
Antiasthmatics	4226	4.4	6191	4.7	10417	4.6
Hormonal medicines during menopause	123	0.1	5535	4.2	5658	2.5
Antidiabetics (incl. Injections)	14200	14.8	10595	8.0	24795	10.9
Antiepileptics	1975	2.1	905	0.7	2880	1.3
Antiparkinsons	508	0.5	775	0.6	1283	0.6
Ophthalmic (ointments, drops)	7060	7.4	11028	8.4	18088	8.0
For slimming	219	0.2	0	0	219	0.1
Homeopathics	522	0.5	1050	0.8	1572	0.7
Other medicines	8880	9.3	26730	20.3	35610	15.7
Medicines of unknown type	0	0	665	0.5	665	0.3

\*Percentages refer to the population that used prescribed medicines

Source: Health Survey, 2003

4. Granting authorisations for the wholesale of pharmaceutical products.
5. Quality checks of the pharmaceutical products in circulation in Cyprus. These include collecting samples of pharmaceutical products from both the private and the public domains and sending them to the General Chemical State Laboratory for verification of their quality.
6. Awarding Regulations for Correct Manufacturing Practice certificates (GMP Certificates) to the pharmaceutical product manufacturing estates in accordance with criteria determined by the World Health Organisation (Mossialos et al. 2004).
7. Awarding certificates for pharmaceutical products manufactured in Cyprus and which are destined for exporting purposes (Certificate of Pharmaceutical Product - CPP), as established by the WHO.
8. Examining applications for registration in the Specialised Individuals Record.
9. Dealing with incoming Rapid Alert notifications, in accordance with the Rapid Alert Notification communication system used by the EU, MRA countries, PICS members.
10. Withdrawing any problematic drugs from the market and alerting (when necessary) the rest of the countries-members of the Rapid Alert Notification system.
11. Examining any complaints made by citizens, hospitals or clinics in terms of the quality of pharmaceutical products (Ministry of Health 2011).

### Pharmacovigilance Department

The department oversees data relating to the security of pharmaceutical products in the

market, so as to ensure Public Health and the patients' right of access to safe and effective medication. The Pharmacovigilance system in Cyprus was set up in the context of the Laws on Drugs for Human Use 2001, Part V. Reports of manifested and evaluated undesirable effects are forwarded to the EMEA and the WHO.

### Clinical Pharmaceutical Management

**The Secretariat** sets up the daily agenda of the Drug Committee and prepares the evaluation of new drugs that require in order for them to be included in the prescription drug list of state infirmaries (Table 4, Figure 4) (Ministry of Health, 2011)

### The Drug Committee

Deals with the following:

- The evaluation of new drugs that require authorisation in order for them to be included in the prescription drug database of state infirmaries. The evaluation is carried out by a specialised staff with the help of information systems provided by the Drug and Poisonings Information Centre. Clinical practice and economical considerations act as a base for these evaluations
- The examination of applications relating to special cases of drugs which are not yet in the prescription drug database of state infirmaries
- Constant re-evaluation of the prescription drug database so as to ensure the potential of adaptation to contemporary medical or social advances
- Creation of surveillance indices for the sufficiency of drugs, as determined by the state prescription drug database
- Drafting of protocols and guidelines relating to the listing of prescription drugs

Each application is evaluated only once the following relative records have been put together:

#### **Therapeutics:**

- Existing prescription drug database (cost/ consumption)
- Documents on epidemics related to the drug
- Documents concerning the approval of the drug (Registration Status)
- Therapeutic position of the drug based on international guidelines

#### **Economic evaluation of drugs:**

- Conclusions drawn by scientific evaluation to allow for their potential inclusion to other European Health Schemes
- Economic study of drugs (Budget Impact Analysis, Cost/Effectiveness analysis etc)

The evaluation of the Drug Committee (D.C) should be based on:

- Evidence Based Medicines for its classification in the given scientific bibliography
- An economic evaluation of every proposal in light of the required annual increase in the budget for drugs.

A specialised body has been formed to oversee the department's compliance and to collect information on the committee's decisions.

#### **State Prescription Drug Database**

Occasionally, the creation of a new state prescription drug database is deemed necessary by the Drug Committee. With the help of international bibliographies, the Committee re-evaluates the drugs available in state infirmaries. The drugs are purchased after receiving offers from abroad which comply with the strictest international specifications. The Pharmaceutical Services' laboratory and the General Chemical State Laboratory examine the quality of the products. Doctors must only prescribe drugs that

are included on the revised database, and must abide by the rules of it (Figure 5) (Ministry of Health 2011)

#### **Promotion of the Safe Use of Drugs**

The department of Clinical Pharmaceutics evaluates evidence on consumption and drug spending, preparing economic and epidemic studies to decide on corrective measures relating to drug use and the control of expenditure. (Ministry of Health 2011)

#### **Management of Drug Pricing**

Management of Drug Pricing deals with the determination of drug prices and the drafting of the annual price list. The new drug price policy (1st March 2005) was based on suggestions made by specialists in the London School of Economics (LSE), after carrying out relevant research. The adopted pricing system was based on the average of wholesale prices from 10 EU referee states. As a result of this, the price of many drugs was reduced by 25% leading to general discontent among druggists, who protest that their trading with the Cypriot market is becoming unprofitable. Therefore, in order for some drugs to remain on the market, a new pricelist was issued on the 1st June 2006, implementing the Ministerial Council's decision to increase wholesale prices of drugs. The price of such drugs had been decreased by more than £0.30 (Cypriot Pounds) with the implementation of the new pricing policy.

The decision also refers to generic pharmaceutical products, the retail price of which can reach up to 80% of the respective originals, provided that the authorisation holder applies for registration, and that the new retail price is not higher than the retail price of the same product in 2004. The pricelist contains 2195 pharmaceutical products (Merkur & Mossialos, 2004)

#### **Management of Drug Supply and Distribution**

This department deals with the reception, supply and distribution of drugs, in accordance with relevant laws passed between 2003- 2006. An improved version of the drug supply system has been implemented since, that includes a provision for the introduction of 3 new teams which have as a target the responsibility for the

supply of different categories of ATC by identifying the needs, calling tenders, monitoring the progress and completing the contracts (Ministry of Health 2011)

### Electronic Prescription for the National Health System

Private enterprises completed the project on electronic prescriptions at the request of the Cypriot National Health System (Table 5).

The main objectives of the project were:

- To introduce a complete solution to support the management activities for public hospitals and rural health centers concerning prescriptions
- To provide a complete electronic prescription file with access to past prescription information at a specific health unit
- To create the infrastructure for future implementation of procedures and automated flow without the use of paper-“paperless”-, in order to reduce and streamline operations

The system uses technology to automate medical orders (Computerized Physician Order Entry), in order to ensure a safer administration of drugs, as there is an on-line connection to the database with the patient's medical history. Also, there is access to the Clinical Decision Making Support System in order to warn the doctor about issues with dosage, allergies, side effects and contraindications so as to minimise prescription errors. Through the expansion of the IHCIS project, the implementation of the electronic prescription system in all pharmacies, state hospitals and health centres, was outsourced. The system allows for physicians and authorized users to order drugs from the pharmacy (Golna et al. 2004).

### Consumption of Drugs

Unfortunately, it is impossible to gather precise statistics on the consumption of drugs in Cyprus. The policy pursued by the Pharmaceutical Services does not allow for the publishing of details relating to drugs on the market (Statistical Service, 2008 and 2010).

Nevertheless, this research will attempt to comment on the few items that have been found. The cost of imported pharmaceutical products for public use, according to the Cyprus Association of Pharmaceutical Companies (CAPC), for the year 2009 are estimated at around € 100,000,000.00, while imports for private use are estimated at € 90,000,000.00. According to the annual report of 2007 ( Table 5) of the Pharmaceutical Services, public expenditure on drugs in 2007 amounted to 84,557, EUR 142,00 in 2006 to EUR 75,158,416.00. (Annual Report of Ministry of Health, 2007). Therefore, the CAPC calculations for 2009 are indeed valid, especially considering the additional purchase of vaccines for the prevention of influenza epidemics. There is a sharp increase in drug spending, the causes and future control of which should concern the relevant authorities (OECD, 2008). The statistics service identified two tables of special interest (Statistical Service, 2008) which show the percentage of people who use drugs without prescription (Table 6) and separately the percentage of people using drugs on prescription (Table 7). The results are reported for each drug class separately and thus one can distinguish which classes of drugs shown are being overused. More specifically, the high use of analgesics and antibiotics is noticeable. (Statistical Services, 2008). When adding up the percentage of people using prescription analgesics (46.6%) and the percentage of people using painkillers without prescription (80.2 %), the total percentage exceeds 100%. This might mean that that the majority of people takes painkillers without a prescription and probably also without medical attention. Unfortunately, given the information demonstrated by these statistics, it is impossible to distinguish the percentage of citizens using analgesics without prescription. However, problems with prescription abuse exist, particularly in the field of symptomatic treatment of diseases, a developing trend amongst the population (Mercur & Mossialos 2004).

### Conclusions

In recent years immense progress in the transformation of the Pharmaceutical Services has been achieved. However, the road is still long, or rather, endless. The effort must be continuous and persistent. The absence or

inability to recruit experienced and capable scientists who can study in detail the evidence concerning drug effectiveness, safety and quality, has caused Cyprus to be copying the decisions taken by other countries without proceeding to the creation of a specialised panel, able to take its own decisions based on the local particularities of Cypriot public health. Despite the fact that the Department of Clinical Pharmacy evaluates the information on consumption and costs in preparing economic and pharmacoepidemiological studies to take corrective measures relating to the use of drugs and to cost control, these procedures are not transparent and cannot be evaluated by independent researchers and experts. The Pharmaceutical Services' pricing plan is forcing pharmaceutical companies that trade with Cyprus to reconsider their presence on the Cypriot market, arguing that it is unprofitable for them. For this reason, the pricing policy should be revised after consultation with stakeholders. This should reduce the cost of drugs and maintain the current portfolio of drugs on the Cypriot market.

Furthermore, there is a sharp increase in drug spending, of which the causes and control should preoccupy the relevant authorities. It is also clear that a problem with prescription abuse exists, particularly in the field of symptomatic treatment of diseases- a developing trend amongst the population. Prescription abuse should be traced through the electronic prescription system and remedies should be proposed. It is also vital to enlighten the public

about the health risks involved in using drugs without medical supervision and prescription.

The absence of a pharmaceutical school in Cyprus does indeed restrict the development of independent research, be it in the field of new drugs, or the economics of drug trading. At the same time, it deprives Cyprus of academics who could offer their expertise in the field of Pharmaceutics.

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