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# MEDICAL PRESCRIPTIONS IN GREECE

(Diploma thesis)

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**HRADEC KRALOVE 2014** 

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<b>STATEMENT</b>
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I declare that this thesis is my original copyrighted work. All literature and other resources I used while processing are listed in the bibliography and properly cited.

01.05.2014

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# **ACKNOWLEDGEMENTS**

I would like to express my deepest appreciation to all those who provided me the possibility to complete this diploma thesis.

First of all, I would like to thank my tutor dr. Jana Kotlářová for her useful comments, remarks and for introducing me to the topic as well for the support on the way.

Furthermore, I need to thank my parents and my friends for their psychological support and for their patience to listen to me even when I was just complaining.

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# LIST OF ABBREVIATIONS

**ANPFCE** Army and Navy and Pension Fund Civil Employees

**CNS** Central nervous system

**DYPE** National Health System's Administrative Region (in gr.)

**EKAS** Subsidy of Social Security for Insurers (in gr.)

**EOF** National Agency for Medicines (in gr.)

**EOPYY** National Organization of Health Services (in gr.)

**EP** Electronic Prescribing

**ETAA** Fund of Independent Employees (in gr.)

**FSA** Pharmaceutical Association of Athens (in gr.)

G Official Gazette

**GDP** Gross domestic product

GGKA General Secretariat of Social Insurance (in gr.)
GHS Greek National Healthcare System (in gr.)

**ICF** Insurance Fund Dealers (in gr.)

**IDIKA** E Government Social Security (in gr.)

**IKA** Social Insurance Fund (in gr.)

**IKES** Electronic Registration and prescriptions (in gr.)

in gr. Abbreviation in greek languageMHW Ministry of Health and Welfare

MSS Ministry of Labor and Social Security (in gr.)

NSSG National Statistical Service of Greece

**OAED** Manpower Employment Organization (in gr.)

**OAEE** Freelance Security Agency (in gr.)

**OECD** Organization for Economic Co-operation and Development

OGA Agricultural Insurance Agency (in gr.)
OPAD Insurance Agency for Public (in gr.)
SLA Operational Support Contract (in gr.)

SPC Statistical process controlSSN Social Security Number

**TEVE** Fund Professionals and Craftsmen Association (in gr.)

**TSA** Motorist Pension Fund (in gr.)

**TSAY** Lawyers' Fund, the Pension Fund self-insurance Health (in gr.)

**TSMEDE** Pension Fund Engineers and Contractors (in gr.)

**YPEDYFKA** Service Control Health Costs of Social Security (in gr.)

### 1. INTRODUCTION AND AIM OF DIPLOMA THESIS

The health system in Greece is an area of friction and controversy for many years. Amid economic crisis, medical prescriptions, a major change was held, in order to organize, manage and reduce the chronic wasting, observed in reserves of pension funds. In general, attempts to summarize the existing operational framework.

This thesis is working on the issue of medical prescriptions in Greece. The introductory chapters are describing the historical overview and introduction of the social security system in Greece. It is also describes the historical evolution, the current structure and the main possibilities and disadvantages of the greek health system. Then it describes the main social security institutions and their characteristics. The legal status of prescription and general legal regime define the duties of health professionals and is described through presidential decrees and Greek law. In this thesis is given great importance to the Law concerning drug trafficking formulations as well as the fundamentals of ethics of the medical and pharmaceutical profession. The electronic prescribing is applied for many years in many Western countries. Plus, it is a modern achievement of contemporary Greek reality came after reactions of professional disciplines from many difficulties.

The aim of diploma thesis is to get current knowledge about medical prescriptions in Greece and rules of their use, to demonstrate their basic division according their kinds, formal look, practical handle with them and their payment and finally to gather samples of medical prescriptions. The secondary aim of this diploma thesis is to explain and describe the main characteristics of the greek health system, in order to support the general knowledge around way of dispensing and compensation of medicines and prescriptions and in Greece.

### 2. HEALTH SYSTEMS IN GENERAL AND IN GREECE

The following chapter describes the institutional framework, process, content, and implementation of health and health system in Greece. Also look at reforms in progress or under development and make an assessment of the health system based on stated objectives and outcomes with respect to various dimensions.

#### 2.1 HEALTH SYSTEMS GENERAL APPROACH

#### 2.1.1 GENERAL THEORY OF SYSTEMS

Theoretically, the term "system" refers to a set of components which are connected together. We could also define the system as a sum of independent parts, linked together in such a way as to create an integrated whole, able to perform a function. Today this concept is becoming less and less important and gaining ground in the systemic approach, namely that the system is the sum of the individual subsystems, but it is a whole, which has its own function. Liaropoulos [15] defines the system in a similar manner. He considers that the system is any group of interrelated and interdependent entities or processes that combine for a particular purpose. The key feature of this definition is the parallel operation of entities and processes. A more specific definition of the system considers the system as a whole and given a defined behavior, which consists of elements that are in a dynamic interdependence between them. As described by the systemic theory, we can define the notion of "system" based on the following data – assumptions [29]:

- The system is not just the sum of its parts
- the elements are in constant and dynamic interdependence between them, but in interaction with the environment
- the system as a whole, as individual items subsets, operate in such a way as to fulfill their reason for being and the purpose for which they were created

All systems have certain key feature, such as [29]:

- between the system and environment, relationship interaction and interdependence are developed
- each system is defined and defines its boundaries, in relation to the environment

- between system and environment, there is a constant exchange of information
- complexity of a system depends mainly on the amount of data that includes the relationships developed between the elements
- each system differs from the hierarchical structure that governs
- every system has a specific purpose and specific objectives to be achieved
- A detailed analysis of the system's behavior
- determine its ability to meet its objectives and to make changes depending on environmental conditions

#### 2.1.2 HEALTH SYSTEMS

Based on what we was analyzed previously, one can define the health system as a set of subsystems that are in constant interaction with each other and with the environment in order to achieve the purpose of the system is to maintain and promote health. We also define the health system as a specific mode of organization and management of human and material resources of the health sector, which through the planned development of services aimed at maximizing the level of health of the population in the economic potential of society. According to Kalogeropoulou and Mourdoukouta <sup>[6]</sup>, the health system of multiple subsystems that are in constant interaction and interdependence between them. An alternative approach is to assume that the first subsystem relates to the financing of health, the second subsystem associated with the logistics of the system, subsystem refers to the third generation of health services and goods. Also we can assume that the first subsystem concerned with primary health care, the second subsystem referred to secondary health care and the third sector reported higher health care. According to Soulis <sup>[29]</sup> the health system can be defined in three ways:

- Health Systems multivariate
- Health Systems total turnover
- Health Systems as a production process

According to the first aspect of the health system is a system of three variables [29]:

- Mechanism investigation of factors affecting the health status of the population
- Mechanisms of production and distribution of goods and services, health
- Mechanism for the costs of health

The second aspect of the health system as turnover believes that the health system consists of nine modules turnover [29]:

- Subsystem medical circle. Includes classic primary and secondary care, such as health centers, rural hospitals, private clinics, pharmacies, dentists, the ambulance
- Subsystem medical-social circle
- Subsystem domain environment. Care to ensure public health, hygiene and safety at work, environmental hygiene and school hygiene
- Subsystem alternative forms of care. Nursing home, support counseling center for AIDS, for battered women
- Subsystem research centers. Includes research units dealing purely with the health sector, such as Cancer Institute.
- Subsystem alternative medicine. Includes homeopathic centers, clinics acupuncture centers osteopathology etc.
- Subsystem production. Includes plants bio-medical engineering, medical materials, consumables etc.
- Subsystem secondary production. Is not primarily the task of producing health services, and health professionals use to offer health services in salons, dietetics, physical centers etc.

Finally, the third aspect of the health system as a production process considers the health system as a standard production model that includes <sup>[15]</sup>:

- Inputs. It is the human resources, physical infrastructure, technological equipment, etc.
- Process, used to produce health services, such as doctor visits, exams, etc.
- Outputs, as the result of the production process is measured by days of hospitalization, number and type of tests, etc.

• Results, in order to improve the level of health and quality of life.

# 2.2 HEALTH SYSTEM IN GREECE

#### **2.2.1 HISTORY**

Greece faces one of the biggest problems worldwide, a deficit that is transmitted from generation to generation. The lock according to studies is a key factor in increasing the deficit. If not handled with bravery and prudence, the margins for growth and competitiveness of the economy are shrinking, especially in the reality of globalization. Such an evolution leads mathematically to the recession, unemployment and the deterioration of living standards.

Early on, Greece's social security system resembled the German one (Bismarck). Subsidiary insurance appears in 1861 with the establishment of equity funds the Army and Navy and Pension Fund Civil Employees (ANPFCE). The supplementary pension covers gaps of the primary insurance and offers benefits to freelancers and employees. Its main feature is that it relates to specific classes of insurance and provides specific invalidity and death. The first insurance fund created is ANPFCE. Most funds were raised in the coming years regarding the coverage of people from accidents, illness and old age. Through the period of 1914-1933, the main funding sources of those funds were the contributions of workers and employers. [3]

The first serious attempt to formulate an insurance policy health appeared in the early 30's. After great social pressures and intense political controversy, the dictator Metaxas was forced to pass Law 6298/1934, which created the Social Insurance Institute (IKA) for employed workers and private sector employees. IKA began operating three years later (1937) due to economic problems and covered the risks of disease, old age and unemployment of the workers in urban centers. In 1961 he passed Law 4169/1961, according to which the Agricultural Insurance Organization (OGA) was created, in order to cover the rural population. Its main purpose was to grant pension benefits to old age people and widows and provide medical care to the rural population of the country. [15]

#### 2.2.2 CURRENT GREEK HEALTH SYSTEM

The Greek Healthcare System (GHS) is characterized as a mixed one. Primarily is based on compulsory social insurance. The Greek is described in this way because a

part of its funding comes from insurance contributions and another party, especially at the level of hospital care, from taxation. Also there is an increasing involvement of the private sector in both the provision and the financing of health services. The Greek Healthcare System (GHS) was founded in 1983 and aimed at general health care reform. Its main objectives were equitable provision and financing of health services with complete coverage of the population, the development of primary health care, decentralization of planning and improving the organization of health services [4].

The Ministry of Health and Welfare (MHW) is primarily responsible for the development of health policies in Greece. The financing of the health system is through a mixed system. The main resources are general taxation and social insurance and private spending. Private expenditure on health amounted to approximately 43 % of total expenditure on health. Primary care is provided by hospitals, health centers and insurers <sup>[25]</sup>. The services of hospitals and health centers funded by the state budget and the employees are paid a salary while in the case of employees in insurance funds, they are paid by the Fund itself. The key features of the GHS <sup>[6]</sup>:

- mixed system
- he funding system is funded through general taxation and social security
- The Ministry of Health and Welfare is primarily responsible for the development of health policies in Greece
- health services within the GHS administrative regions (DYPE)
- primary care is provided by insurance carriers, from outpatient hospitals, private practitioners and health centers
- secondary care is provided by hospitals
- fees are hospital doctor's salary or a private medical service

The main advantages of the GHS are [19]:

- equitable provision and financing of health services
- complete coverage of the population
- emphasis on hospital care
- limited citizen participation in the cost
- development of health education programs

The main drawbacks of the system are <sup>[25]</sup>:

- high health costs
- underdeveloped primary care
- limited freedom of choice of doctor by patients
- problems of geographical and economic disparities, fragmentation and lack of coordination bodies
- informal payments, problems of moral medical practice, many doctors and other health professionals shortage and patient waiting lists

The fact that Greece is going through a prolonged period in which the rights and achievements of workers and compressed welfare state shrinks. Timeless for historical and politicians was a significant delay in securing and developing institutions with a social content impact the state interventionism and living standards of the population. The main characteristics of the Greek pension system is complexity and a wide variety of provided services. It is a mixed system with elements from both classical protection systems Beveridge and Bismarck, vulnerable to fluctuations with all relevant consequences [3]. The causes are divided into intrinsic and extrinsic and in which included demographic, unemployment, economic recession, large number of actors, contribution evasion, the complexity of Law, lack of automation, favorable regulations, age limits etc. The reason why the insurance problem remains unresolved is that at the same, it is deeply structural. The system in organizational form and the sectoral dimension resembles a private funded scheme and its funding of is distributive. Features professional and public universal insurance systems coexist with sectoral fragmentation entities that do not allow the operation of the principle of solidarity with which conflicts with the principle of reciprocity and does not allow state aid and any participation at state to those categories of the population who have the greatest needs while it cannot be fought and contribution evasion only policing and converting insurers to services police structure and function.

The current system is plagued by <sup>[25]</sup>:

- I. Legislative complexity involved and opacity in expansion injustice: Greek workers contribute for themselves, years of service and same wages, taking different pensions
- II. Fragmentation and waste: The system is fragmented into individual groups.
  Investment is ineffective because of the low level of reserves of individual

industries and because not made by experts. The monitored and inspected in accordance with uniform rules are extremely difficult. It is impossible to achieve economies of scale.

- III. Lack of reciprocity: Contributions are not associated with benefits. The contributions cover the minimum pension benefits, replenishing social protection. The social policy exercised by governments at the expense of funds. The branches are often supported by health pension reserves, thus eliminating further the concept of return.
- IV. Disorganization: Due to fragmentation, excessive Law and complexity, the system as a whole cannot be recorded with a single accounting system and computerized way. It is noteworthy that the insured population of the country operate 171 supervised funds. The Greek society receives a fair share of technological development and economic progress. It is normal practice, with a tolerance of policy-holders, insurance-declared earnings will often represent a subset of the real. This option is often conscious of by workers due to lack of reciprocity and because for drafting counted only five rather than entire career [21].

In conclusion, the Greek healthcare system has significant problems that jeopardize its own personality and the needs of the population to health services. The Greek health system must address three major problems. The first problem relates to the economic - financial system. The second problem relates to the effective operation of the third problem relates to the satisfaction of the average Greek of health services [31].

The method of billing of hospital services (less than the actual cost), the hospital overpriced markets and other material wastage in the health system, the decrease in revenue due to evasion and undeclared work have resulted in budget deficits in the area of health. It is necessary for the system to achieve financial viability, because otherwise threaten the survival of the system and the health services. The second problem facing the system is ineffective. Not facilitate equal access of citizens to the health system and the cost of providing health services is higher than it should be because of the inflated bureaucracy. The third problem relates to the Greek citizen satisfaction from health services. This problem is independent of the previous two resulting [19].

# 2.2.3 INSURANCE FUNDS

It is a fact that the Greek Social Insurance Scheme is among the most generous pension systems in the world, as indicated in research studies, such as the one that Finance Alpha Bank titled, "Funding Social Security - The Role of the State pension system".

The average actual retirement age nowadays formed below 60 years where office workers in 58 years, employed in services and sellers to 58.9 years, in the Armed Forces 54.3 years, technologists - technical assistants in 56.9 years, while retirement at 65 was a rather unusual situation <sup>[19]</sup>. Under investigation by the NSSG in May year 2006, the average number of years of work stands at 31.5 years, while for graduates of higher education does not exceed 28.7 years. Moreover, the number of early retirement on grounds of disability, minor children, sailors, heavy and arduous professions, without the necessary financial coverage insurance systems are generally much higher in Greece than in other countries <sup>[26]</sup>.

The replacement rates of pensions in Greece is among the highest in the world and the greatest importance that formed at the same high level for all pensioners regardless of the amount of income before retirement, unlike most OECD countries where the high income replacement rate is very low. The imbalance caused by high rates of replacement and the relatively early retirement from politics compounded increase of pensions, for all income levels at rates higher than those salaries, which usually exceed and increase GDP [32]. This policy not only leads to a further increase in replacement rates than the already high levels prevailing during the initial payment of pensions. Also in connection with the tendency for a greater increase in the number of pensioners relative to the increase in the number of employees, it contributes to further destabilization of the system. It should also be noted here that any reform of the pension system should take into account the following considerations for pension levels nowadays, as follows [19]:

- The National Social Insurance Scheme should be based on private savings, which should promote and complement the state budget to provide adequate minimum pension to all elderly
- For workers in high-income or whose funds are supported today in financing from the state budget, their pensions will be determined by the amount of their contributions (capitalized using an average annual rate of selected performance)

based one average life expectancy after retirement without effective interconnection of benefits to contributions, the imposition of necessary mandatory of pension savings is virtually impossible. For example, tax evasion plaguing the General Discussion, we will not be overcome by establishing a system for identifying related pension contributions [32].

- One should consider more carefully the potential impact of the application of state-controlled pension programs especially those with limited tax-benefit linkage behavior of the insured therein. Has been observed in many countries, especially in Greece, the implementation of such programs leads to surge in early retirement with pensions too high and results in a dramatic reduction in the percentage of workers in the total population aged 52-64 years, adding substantially large problem viability of insurance schemes because of the tendency of the aging population [32].
- The compulsory nature of pension savings does not require a state-controlled pension funds. Instead, the funds may belong to the insured provided they are well organized and ensure effective management of the retirement savings of their members. The state sets the rules for the operation and control of these funds with the primary objective of protecting pension assets of insured and guaranteed pensions [2].

The four bigger insurance funds are described below. Their main characteristics and information about their previous and current situation are given as well.

# **SOCIAL INSURANCE INSTITUTION (IKA)**

The overall primary insurance carrier for employees is the Foundation Social Insurance, which was founded in 1934 and began to operate substantially in the decade of 1950. In 1958, IKA expanded the insurance coverage of private sector workers from across the population, thus broadening the protection afforded before the foundation of specific categories of workers through special main insurance funds employed, but also covering employees without insurance. Several special funds still operate today independently under the supervision of the Ministry of Labor and Social Insurance and some merged with IKA. IKA insure people, whose main occupation is to provide indirect employment and to protect special categories of people as accountants,

newsagents, writers, apprenticeship. Risks covered include maternity, family responsibilities, illness, old age, disability, death, accident and occupational disease, and unemployment <sup>[6]</sup>.

Those insured by IKA have the advantage to enlist to the Manpower Employment Organization (OAED), in case of unemployment, which was founded in 1954 and is supervised by the Ministry of Labor and Social Insurance. OAED also covers conscription risks and family responsibilities of employees. Social benefits in the form of housing programs, social tourism recreation are also provided to the insured by IKA. The special primary insurance funds cover specific categories of workers, not covered by IKA. Prerequisite eligible for insurance of these funds is to provide indirect employment or the pursuit of a specific occupational specialty. The auxiliary cover of the private sector workers, is provided by a number of associations of public and private law, grant additional retirement benefits, in the form of a monthly pension or single device [21].

#### AGRICULTURAL INSURANCE AGENCY (OGA)

Insurance protection for farmers is considered one of the main axes of the Greek social security system due to its particular development of the primary sector in the country and the increased contribution farmers in Greece's economy. Farmers covered by one self-insurer, the Agricultural Insurance Organization which operates as a legal entity under public law. OGA was founded in 1961 by Law 4169/1961, seeking cover specific risk insurance for individuals employed personally by main occupation of the rural economy. The Agency also covers specific categories of farmers and persons equated with farmers in order to acquire insurance protection. It insurance scheme for farmers is divided into three periods.

The first period (1961-1981) refers to the creation and development mechanisms of insurance protection to farmers through OGA operation, which covered the risks of disease, old age, disability and death. The Agency granted non-contributory benefits to policyholders, since despite legislative provision for the payment of the relevant arrangements not activated before. The Agency also granted compensation to owners or exploitative agribusiness in case of damage to production due natural disasters (hail, frost, etc.). The second period (1982-1995) provide insurance protection farmers, established in 1982 as the independent retirement in rural and introduced in 1987, the

institution of additional security for farmers. Law 1745/1987 <sup>[13]</sup> establishes a special separate and additional mandatory insurance industry of farmers, who gives contributory benefits in the form of additional pensions to members of OGA in old age. The main features of the new insurance scheme farmers is describes as followed <sup>[4]</sup>:

- The funding of pension benefits from the contributions of insured (contributions calculated at the rate of 7 % on amounts seven different insurance categories, in which insured classified after their relative statement) standardization of state funding to OGA (the percentage of state levy is set at 14 % on amounts seven insurance categories)
- The introduction of successive insurance for their farmers (i.e. the years carried insurance in case integration in new insurance scheme from another organization)
- The introduction of an automatic increase of pensions, which corresponds to the rate of indexation officials
- Extension of sickness benefits in kind for insured OGA pensioners and members of their family (For even the possibility of service of persons and those from the health services IKA)
- The sickness fund by contributions insured (contributions estimated at 1.5 % on amounts of seven different insurance categories, which insured classified after their relative statement)
- The establishment of a pension due to death in the same conditions (non-retirement, non-employment in another job other than those covered by OGA) in both the widow and the widow the introduction of thresholds for pensions and disability off work due to an accident (but there are no minimum limits for retirement pensions).
- The new insurance scheme for farmers allow integrated coverage of the rural population through a modern system protection that would ensure the medium level convergence benefits with their respective employees. The system is now based on established principles of social insurance (redistribution, reciprocity) and strengthened by the provision of state participation in financing. It also provides application programs social tourism, leisure and cultural activities for

policyholders and pensioners through OGA Account Rural Outbreak was established in 2002 and operates under the OGA [19]

#### OFFUND OF INDEPENDENT EMPLOYEES (ETAA)

The free and independent professionals are covered by separate social security agencies operating in the form of legal person public law. In 2002 there were five main actor's insurance professionals and three main insurance independent professionals.

The main insurer of professionals is Freelance Security Agency (OAEE) established the 1999, covering mandatory persons practicing the profession of trader, the artisan, the motorist and hotelier. The OAEE operates as a legal entity of public law and that p have merged three entities covered before the establishment of specific categories of skilled professionals, the Insurance Fund Dealers (ICF), the Fund Professionals and Craftsmen Association (TEVE) and Motorist Pension Fund (TSA). From an organizational perspective, includes two branches, the pension sector and the health sector, which have complete financial and accounting autonomy 65. The OAEE provides insurance coverage for free professionals in old age, disability, death, accident, sickness and maternity. It also provides coverage of members of families of the insured in case of illness or death [24].

The vectors represent the main independent insurance professionals, which is the Lawyers' Fund, the Pension Fund self-insurance Health (TSAY) and the Pension Fund Engineers and Contractors (TSMEDE). The Lawyers' Fund covering lawyers, notaries, bailiffs and certain categories judges. The TSAY cover those who practice the professions of doctor, dentists, veterinarians and pharmacists. TSMEDE covers qualified civil engineers, mechanical engineers, electricians and those who practice the profession of public contractors [19].

#### CARE INSURANCE AGENCY FOR PUBLIC (OPAD)

The security of public employees is covered by the main actors and supplementary insurance companies supervised by the Ministry of Labor and Social Security, the Ministry of Defense and Ministry Finance. Primary insurance carrier is the Public sector, covering civil servants insured through the state budget. The auxiliary and supplementary insurance varies, according to the categories of the policy holders. These

bodies supplementary grant pension and lump sum payment to persons falling within their scope. By 1999 there were twelve Public Relief Funds Employees, the Insurance Fund and Public Municipal Employees, the Insurance Fund Organizations Social Insurance, the Employees Provident Fund and the Pension Fund Policy Employees, which covered all regular civil servants. In 1999 it was decided to consolidate the twelve Relief Funds to ensure a greater administrative and financial flexibility and effectiveness of the system of public insurance subsidiary employees. So from 1.4.1999 a new body called 'Auxiliary Pension Fund of Public Employees which is supervised by the Ministry of Labour and Social Insurance [15].

#### 2.2.4 CURRENT GREEK PENSION SYSTEM

Since a big amount of greek population that has continuing access to the prescribing system of the country in monthly basis are the people of third age and mostly the pensioners, it is considered reasonable and necessary to understand who the greek pension system works.

The Greek pension system, like those of Europe, is public and redistributive. The system shows solidarity between generations, while each one undertakes to pay the pensions of the former. This insurance system ensures social cohesion and combating exclusion through participation in the development of economy. In this sense, the long-term actuarial balance system is a key component of development. Unlike threats balance was undermined growth medium [24]. The key question that often arises is whether the current retirement system responds to what extent the above. The following are worth highlighted:

- Although spent over 12 % of GDP pensions (10.5 % average in OECD countries) old age associated with a higher risk of poverty.
- The resources paid for by public insurance system budget year exceed 3 % of GDP, but other 1 % paid under Law 3029/02 in IKA, the others are not institutionalized.
- Existing over-regulation and unequal treatment of similar cases weaken the social acceptance of the system. Simultaneously leads to significant operating cost and distortions labor market.

 Continued threats for further changes without providing convincing answers to the problem, have strengthened the feeling Liquidity and insecurity among citizens and tough any initiative even marginal changes.

The Greek pension system therefore continues to have some inherent weaknesses that exist even before the starting act, on the future challenges (globalization, aging population, demographic, etc.) <sup>[1]</sup>. The shortfall of contributions is presented in pension funds by the following <sup>[19]</sup>:

- The fact that the government persists in failing to pay the entire Grant has
  established itself. Current debts to public pension funds amounted to 8.7 billion
  €, while the state often exempts itself from contributions.
- The vast extent of evasion because of the black and working uninsured. The uninsured work in our country surpasses the 1 million while 1 in 4 persons and 1 in 7 Companies do not exist for the IKA.
- The vast expanse of uninsured in many categories workers. For example, in 2005 9.1 % of insured IKA had average monthly wage to 100 €, 18.6 % had 101-300 € and 16.7 % had 301-500 €.
- Practice within the government to recruit uninsured employees. Contracts stage, that are currently growing form of employment in the public, do not
- Huge employer contribution evasion that only touches the IKA 3 billion drachmas fact that 33 % of these debts are insurance contributions that have paid employees to employers. Dozens are favorable arrangements for the nonperformance of all money paid by employers and the legal tax exemptions for so-called development reasons [25]

# 3. LEGAL STATUS OF HEALTH SYSTEM

# 3.1 INDEPENDENCE AND MEDICAL ETHICS

The primary concepts, definitions and scope of medical ethics are described in Law 3418/1985 from the Code of Medical Ethics as follows <sup>[20]</sup>:

1. Medical practice that has as its objective by any scientific method prevention, diagnosis, treatment and rehabilitation of human health.

- 2. As medical practices are those that have research character as designed and more accurate diagnosis, rehabilitation or improvement of human health and the promotion of science.
- The concept of medical practice including prescribing, the command to perform any kind of para-clinical examinations, issuing licenses and medical certificates and general counseling of the patient.
- 4. The term "patient" includes any user of health services, whereas the term "familiar" include relatives by blood and marriage in a straight line, adoptive parents and adopted children, spouses, permanent companions, brothers, spouses and permanent partners, legal guardians or curators of the patient and those who are under guardianship.
- 5. The provisions of this apply to the exercise of the medical profession and service charges primary, secondary or tertiary health care in the public or private sector, regardless of the mode or form of exercise of the medical profession, individually, in groups or as medicine company as a profession or not.

On the other hand the general rules, governing the medical ethics are described in Article 2  $^{[20]}$ . Specifically, the practice of medicine as a vocation:

- 1. The practice of medicine is a ministry that seeks to de-preservation, enhancement and restoration of physical, spiritual and mental health of man, and to his relief from pain.
- 2. The doctor observes the oath of Hippocrates, performs its task in accordance with applicable law and must, in the exercise of his profession, to avoid any act or omission which may harm the honor and dignity of the doctor and undermine the faith the public in the medical profession. He also maintains a high level of professional conduct that honors the conscience of society and promote the prestige and credibility of the medical profession. The doctor must demonstrate this behavior not only during the exercise of his profession, but in the general social facet of his personality.
- 3. The medical office is exercised in accordance with generally accepted and applicable rules of medical science. Governed by absolute respect for human life

- and human dignity and is open to all people without distinction of sex, race, religion, nationality, age, sexual orientation, social status or political ideology.
- 4. The doctor respects human life even under threat and does not use his knowledge against the principles of humanism. It is prohibited to provide support to torture or other forms of degrading and inhuman treatment, whatever the act for which he is accused or suspect is guilty or the victim of such procedures, in time of peace or war.
- The doctor, citing reasons of conscience, has the right not to participate in legitimate medical procedures which opposes consciousness, except in urgent cases.
- 6. If the clinician's judgment may be impaired by a medical condition from which they suffer, and if the doctor has or is a carrier of one contagious disease, should seek advice from a doctor or properly trained labor colleagues about the need or how to change provider its services. In these cases, the doctor should not be left to the exclusive personal assessment of the likelihood.

The doctor should promote equal access to health services and equal distribution of resources. He also avoids the discriminatory treatment resulting from educational, legal, economic, social and geographical differences. He or she should work harmoniously with colleagues and other staff and to take any action in order to prevent medical errors, ensure patient's safety, to gram minimum wastage of resources and maximize results for health care. The doctor must, without limiting the moral and scientific independence, and without losing sight of the benefit to the patient to prescribe and to proceed only on medical procedures that are necessary to ensure the quality, safety and efficiency of health - legal care or treatment provided. Finally, both individually and through their medical societies and associations, must contribute to the creation and implementation of mechanisms designed to encourage continuous quality improvement care provided [20]:

Article 9 describes the obligations of the doctor to the patient, as follows <sup>[20]</sup>:

• The doctor gives priority to protecting the health of the patient.

- The doctor cannot refuse the offer of services for reasons unrelated to his scientific competence, unless there is a specific reason that would make it objectively impossible to offer its services.
- The doctor must provide services for emergency response regardless of their specialty. The obligation falls on the doctor, even when there are no appropriate means for the practice of medicine, and is valid until the referral of the patient to an appropriate specialist doctor or transport to an appropriate unit of service and care. In each case, the doctor must exhaust the existing, under the circumstances, capabilities, according to the requirements of medical science.
- The doctor may discontinue providing the services already offered to the patient, for scientific reasons or personal and if there is an immediate danger to the health or life of the latter. In this case, it must, if requested, to designate another colleague for his replacement.
- The doctor must provide medical services, even without payment or compensation, in any event of an emergency or public disaster, regardless of their inclusion in a contingency reference volume.

#### 3.2 DRUG LAW

The drug origins are described in Law 1792/1987 <sup>[8]</sup>. Drugs are natural or artificial substances that act in the CNS and cause dependence of the individual receiving it. It should be clear that the term generally refers to drug substances with different chemical structure and activity in the CNS by stimulating suppressor up, with main feature is the ability to alter the thymic status of the individual and causing mental or physical dependence. It is understood that the term drug are pharmacologically suitable for all substances as that includes substances with precisely the opposite effect, i.e. stimulants, has prevailed but for the needs of the legislative framework that used to describe natural or synthetic, with addictive substances CNS activity. Drugs are classified into four tables <sup>[9]</sup>, as shown at table A-D of Annex 1.

By decision of the Ministry of Health and Welfare, issued an opinion from the Commission on Narcotic Drugs and be published in the Government Gazette, may be added or removed substances in the categories of this Article or transferred from one category to another or change the terms and conditions of their disposal, in particular in accordance with the international conventions [8].

The production, possession, importation, transportation, storage, processing in general raw materials and finished goods imported from abroad, as and movement of materials and pharmaceutical products Proprietary Panel B, made by the state monopoly following authorization and responsibility of EOF and opinion of the drugs Commission on Narcotic Drugs. The public availability of drugs in Table B as preparations or preparations made with special prescription drugs in quantity treatment of a day, which does not exceed the maximum daily dose, appearing in the Greek Pharmacopoeia V or determined by the Commission Drugs. The production, import, transport, storage and supply of substances in Table C and the finished pharmaceutical products and specialties containing these substances made by the state monopoly drugs after consulting the Commission with responsibility for Drugs EOF, who issues a permit and control the process. The public availability of drugs in Table C as formulations or preparations made with special prescription drugs in quantity treatment of a day, which does not exceed the maximum daily dose, appearing in the Greek Pharmacopoeia V or determined by the Commission Drugs. [8, 9]

The production, import, transport, storage and supply of substances in Table D and the final pharmaceutical products and specialties, containing these substances made by individuals after consulting the Commission on Narcotic, are responsibility of EOF. The public availability of drugs in Table D as formulations of simple prescription drugs, depend on the therapeutic needs. The pharmacist needs to acquire a special license from the Ministry of Health and Welfare, for permission to supply drugs. According to Law 17292/1987, pharmacies are not allowed to purchase any drug in Table A and Table B of the permit fee pharmacy, through the following drugs [8]:

- Powder opium
- Injections of morphine 15 mg or 20 mg
- Injections of 50 mg pethidine and 100 mg
- Sedative pills of 30 mg
- Pills of pethidine 50 mg

The pharmacist is obliged to keep his special or simple drug prescriptions for at least three years. Also is bound in a book (which takes the Management Drugs with drugs) at the end of each quarter, to indicate the quantity of drugs, at the beginning of the quarter, the amount of drugs, consumed by the sum of specific prescription drugs, and amount consumed for manufacture of pharmaceutical formulations <sup>[9]</sup>.

#### 3.3 LEGAL OBLIGATIONS OF UNIT HEALTH SERVICES

The Article 7 of Law 2472/1997 <sup>[7]</sup> refers to the powers and obligations of Social Security regarding e-prescribing. Paragraphs 1 and 2 provide the access of Social Security on the basis of application for registration and electronic prescriptions both for the purpose of clearing them and for the purpose of monitoring the prescription collection and statistical evaluation of data related to benefits health and medicare. It is understood that access is limited to the portion of the base on each entity and not the entire database. For reasons of data protection of policyholders and in accordance with the letter and spirit of the relevant provisions explicitly states that access to health data is permitted only to persons engaged in the provision of professional services health and are bound by confidentiality or other confidential under law or code of conduct or to persons specifically authorized to do so and subject to a duty of confidentiality <sup>[7]</sup>.

For the same reason, and in order to support the safety and efficient operation of the system, Article 3 expressly provides Social Security to take the necessary and appropriate technical and organizational security measures in infrastructure, IT systems and data. Although the commitments contracted by the social security doctors and pharmacists arising out of all of this configuration, Article 4 provides clarity for the obligation of operators to incorporate these provisions of this law on contracts awarded onwards either individually or collectively, with doctors and pharmacists. This section also points that the rules apply in all cases and for doctors and pharmacists, who have already signed contracts with social security until the expiration of those contracts [10].

# 4. MEDICAL PRESCRIPTIONS IN GREECE

# 4.1 KINDS OF MEDICAL PRESCRIPTIONS

There are in Greece three types of prescriptions - the regular (common) and the prescription of drugs with a single and double red line. Law 1729/1987 [13] describes in

detail the use, administration and distribution of the following products. Initially the active substances in Annex D Table 1, require a prescription with single red line and numbered seal, without the Prefecture or the IKA and in any quantity given by the doctor, e.g. 1,2,3 or 6 pieces. These prescriptions are kept in the pharmacy for 3 years, sealed with the seal of the pharmacy and placed in folders or binders. In Category D, under Law 1725/2001 decision of the Ministry of Health and Welfare, the drugs STILNOX, IMOVANE and SONATA were added. Conversely, drugs of table C. Law 1729/1987, which do not contain codeine administered by monorail certified by the District prescription, are guarded for 3 years [13].

The drugs which contain codeine are granted as follows:

- With simple prescription guarded for two years may be granted as many number of packages that the overall amount of codeine per prescription should not exceed 200 mg.
- With prescription Law 1729/1987 (single red line certified by the District) guarded for three years may be granted as many number of packages that the total amount of codeine per prescription should not exceed 400 mg.
- With special prescription drugs (crossed certified by the District) guarded for three years may be granted when a total number of packages, the amount of codeine per prescription than 400 mg.

The previous paragraph implies that if the amount of codeine per prescription exceeds 400 mg except that special prescription, crossed certified by the District, must be certified by the insurance fund. The drugs in Table C of Annex 1, to special prescription Drugs (crossed) certified by the District, are guarded for three years. The prescriptions are numbered and passed in the formulary, the same day. Medicines containing the substance methylphenidate are exempted from mandatory Prefecture [22].

Under Law 1725/2001 of the Ministry of Health and Welfare the proprietary IMALGENE, KETALAR and KETASET (transferred from Table D in C), were added to the category C. According to the decision of the Ministry of Health (4/4/2003), published in Law 448/2003, pharmaceutical formulations containing competitive opioid substances administered by pharmacies with specific "prescription agonists." This prescription is a duplicate and has the following elements: "prescription agonists" of

Law 2955/2001 and serial number, name, specialty, address and telephone number of the doctor issuing the prescription. In any given prescription, the doctor should bear legible name, address and social security number carrier identification number of the patient, etiology, date of issue and shall be signed and sealed by the doctor. Also signed by the recipient of drugs after police demonstration identity and finally signed and sealed by a pharmacist. The same information will be listed on the stem, while the prescriptions and their executives will be kept for three years. All prescriptions are simple monorail or stored and numbered month and is indicated "two-month". To formulary same day mandatory crossed all prescriptions [22].

An important issue in the prescribing of prescription is the fact on health problems affecting the local competent authority. The certified imported prescriptions are filed and available at any time. This section describes the basic rules governing those prescriptions:

- The prescriptions require a visa when the original value is over 60.00 €. Those
  prescriptions are below € 60.00 regardless of how many per month, do not
  require a visa.
- On repeated prescriptions visa by the auditors doctors will be once and for all three (3) prescriptions provided they are numbered in the order of their execution i.e. 1, 2, 3.
- Pharmacists will perform pharmaceutical commands that are certified by the examining doctor will dispense only two boxes the first three items, if not marked as "treatment month chronic disease" or "repeat prescription".
- All prescriptions are executed within five (5) working days of its disclosure by the prescriber. The case that is certified by the auditor doctor than 5 days, so runs the day the visa.
- If a prescription is certified and contains drug off the list without the required opinion or more than three or more than two per boxes kind without the words "chronic disease - treatment month" will not run.
- Prescriptions written in category D drugs
- Prescriptions written medication category EA, such as drugs containing codeine, do not require a visa, regardless of the amount of the package.

 Prescriptions carrying drugs of Law 1729/1987 except for EA and D categories are above require a visa regardless of the amount and value (i.e. crossed prescriptions). These drugs are named by the brand names: DELAVIRAL, DOVAVIXIN, DUO-EXTOLEN, DUROGESIC, CODEINE PHOSP medicine, FENTANYL, FORTAL, JACTUS, NUBAIN, ROMIDON, ULTIVA, ZIDERON.

The pharmacist in accordance with the MHW and MSS is by law responsible not only for the proper execution of prescriptions and share responsibility with the prescriber for participating policyholders. In cases where the disease is referred to as a diagnosis in the prescription clearly falls outside the categories for which they administered drugs, with reduced or no participation of the insured, then the pharmacist will receive a 25 % share or returns the correct prescription for the treating doctor. In any other case, the pharmacist is required to collect the share provided by the applicable law. For this reason, is presented a synopsis with the disease reduced and zero participation share, which must be followed by prescribers and pharmacists to check.

#### 4.2 REIMBURSEMENT OF MEDICAL PRESCRIPTIONS

#### 1. Diseases involving 0 % participation:

Participation is 0 % for drugs administered in an accident and for prescription in maternity (pregnancy- birth- partum). Also patients do not pay the participation to the following chronically ill conditions <sup>[23]</sup>:

- Neoplasms of all systems and leukemias (anti neoplastic drugs and their antidotes, and medicines needed to treat the effects of tumors)
- Diabetics only insulin
- People with psychoses for neuroleptics and antidepressants
- Epileptics on anticonvulsants
- Thalassaemic patients for chelation drugs and complications of the disease
- The hemophiliacs for anti-hemophiliacs factors
- Those who suffer from pituitary dwarfism and receive growth hormone

- Patients with renal insufficiency undergoing continuous replacement therapy by artificial means and having undergone a kidney transplant, patients with multiple sclerosis, paraplegics and quadriplegics and patients undergoing transplantation of solid organs or fluids for regardless of all the drugs.
- The insured cytostatic and immunomodulating drugs, regardless of the condition from which they suffer.
- HIV-positive patients on antiretroviral medicines prescribed by the recognized reference centers for AIDS diagnosis and recognized hospitals specific infections.
- Children and adults for vaccinations approved each time by the Ministry of Health and Welfare National vaccination program.
- Insured for medicines supplied by pharmacies IKA.

# 2. Diseases involving 10 % participation:

- Parkinson's disease and dystonias for antiparkinsonian drugs.
- Diabetes insipidus to vasopressin and its synthetic counterpart.
- Chronic rheumatic valvular disease and other valvular, chronic pulmonary heart disease, congenital heart disease, coronary artery disease, hyperlipidemia.
- Connective tissue disease (systemic lupus erythematosus, scleroderma, dermatommositis, vasculitis, rheumatoid arthritis, psoriatic arthritis).
- Osteoporosis and Alzheimer PAGET for drugs affecting bone metabolism.
- Patients who receive parasympathetics and corticosteroid medications.
- Fibrocystic disease.
- Tuberculosis.
- Chronic obstructive pulmonary disease.
- Inheritance vase edema
- Pituitary adenoma.
- Ulcerative colitis.
- Disease CROHN. Esp. Cirrhosis of the liver.
- Congenital ichthyosis.

- WILSON Disease's.
- Years and acquired immunodeficiency.
- Vitaminexartomeni rickets.

Also, retirees that are entitled to receive EKAS, by the current law, their family members participate with a 10 % share, in the value of medicines. Figures 1, 2 and 3 in Annex B, depict a typical electronic prescription from a private doctor and hospital standard prescription. Also figures 4, 5, 6, 7 of Annex B, demonstrate the current e-prescriptions of EOPYY [22].

# 5. ELECTRONIC PRESCRIPTIONS

The prescription of drugs and medical procedures is one of the most critical functions in the areas of Health and Social Security after badly affecting both public health and public finances. The medical expense insurance funds for 2009 amounted to EUR 5 billion, equivalent to 40 % of the annual state subsidy to them. The amount of the expense is due to many factors, including inducible, directed, illegal prescription, virtual use prescriptions or use them for other purposes. [17]

The share of all those in charge equivalent to 20-25 % of the total sum, and the control will lead to savings of around one billion  $\in$ . About 100 million prescriptions per year are respectively performed in Greece. This has led to the inclusion of electronic prescribing as an obligation of the country to the text of the Memorandum. [17]

Along with the funding problems of the current system medley of choices leads to significant system failures, suffering policyholders and serious deficiencies in the quality of the health services. So-insured citizens are forced to wait in long queues to get a prescription. Especially those suffering from chronic diseases should undergo the hassle every month. Alternatively, should pay medical visit to get the prescription from their private doctor. This translates to multiple medical visits, whether medication prescribed by doctors of several specialties. The result is that the difficulty in serving, pushes them to deliver their formulary pharmacist who receives them.

The medicinal and therefore an important part of the medical, historical, are

available in the third row, which is a privacy waiver. Some insurance companies require from their patients to provide them a prescription for pre-authorization, which in combination with commonly reduced working hours the past contributes to discomfort and increases their motivation for delivery of prescriptions to a pharmacist. In addition, citizens are not protected from mistakes in medication, either prescription or during the execution of the prescription.

Apart from the insured, the current regime creates important problems from the health professionals. So doctors in Organizations (mainly those of IKA) facing patients practically eliminate any possibility of providing health services with dignity. Also, doctors are pressured by their patients to prescribe their drugs of another specialty so that they can avoid multiple visits. The pharmacists are forced to market their own prescriptions for their patients in order not to lose them as customers, in order that they avoid the hassle. Furthermore under pressure from patients to manage their formularies blankly themselves to take various free products such as cosmetics, medicines life-style, orthopedic shoes, canes, etc. Finally, a very common phenomenon is the monitoring of prescribing habits of doctors from certain pharmacies which deliver these data to wholesalers and pharmaceutical companies in exchange for credit facilities and discounts.

In terms of social security funds and public entities, they are charged with millions of handwritten prescriptions stored in sacks cleared after months and controlled sampling. The cost of handling handwritten prescription is estimated at 2.3 per prescription. As a result, there is a lack of transparency in the production and handling of prescriptions and the inability to conceive fraud leads to an enormous waste of money. Other consequences are extremely inability to collect important data about the habits of health professionals and health of citizens, and hence, the inability policy planning, lack of appropriate tools in order for the state to implement policies identified (e.g. generics) and the lack of reliable data consumption to stabilize returns from pharmaceutical companies. With this bill the institutions founded Electronic Registration and prescriptions (IKES), major policy intervention towards modernization and transparency of medical services and reducing pharmaceutical expenditure. The project is to develop a web application for electronic prescriptions from a medical professional, their execution by pharmacists and their clearance from the insurance funds through IDIKA. [22]

The application will record data for electronic prescriptions from natural and legal persons involved in the process flow of the system of electronic prescriptions. It will also update with a continuous and ongoing process of data registers of doctors and pharmacists / pharmacy through the development of a new operating concept. The new system ensures the completeness, quality, confidentiality, integrity and security of data, provides opportunity beam and processing data from both internal and external sources of information and minimizes the chances of errors in excess of 60 % congestion and minimizes the chances of errors in excess of 60 %. Based upon IKA data, current errors in prescribing are distributed as follows [18]:

- Allocation of prescription drugs other 66.0 %
- Coupon code file except drugs (incl. IFET) 9.9 %
- Number of different drugs prescribed to 3.8 %
- Incorrect execution repeat prescription 3.7 %
- Prescribing more than 2 can without indicating chronic disease 3.3 %
- Other 10.2 %

Furthermore it has been estimated that the Electronic Registration and e-prescriptions will lead to savings of 100 hours per doctor/year, while even more important is to ease the workload of pharmacists. It should be noted that the importance of the MSS attributes in digital technologies for health, is not only politically entrenched, but also well documented by numerous studies and examples of successful application abroad. Please note that e-prescribing system already operate in the UK, France, Germany, Spain, Belgium, Holland, Luxembourg, Finland, Sweden, Norway and Denmark, but also in the U.S. [22].

# 5.1 APPLICATION OF E-PRESCRIBING IN GREECE

As the electronic production, distribution and monitoring of prescriptions and referrals for medical procedures is gradually replacing handwritten prescriptions and procedures, the provisions of this apply to all Agencies and Health Sector Social Security within the jurisdiction and supervision of the General Secretariat for Social

Security. A prerequisite for the application of the regulations of this is the existence of information and communications infrastructure and related applications, which does not exist at the same time for all social security institutions. For the sake of effective enforcement by all social security Law is introduced, by which the Secretary finds by resolution of technical assistance and organizational requirements for electronic prescribing and for reasons of legal certainty, clearly states the date applying this to the entity concerned. Since this is supervised by another Body Ministry, the decision signed by the relevant Minister and the MSS.

Under Law 3892/2010 (Official Gazette 189/ A'), it is established an institutional electronic execution and registration of prescriptions and referrals, medical examinations. The electronic prescribing is an interdisciplinary critical function, as it affects badly Public Health, Social Security and Public Economics. According to the explanatory memorandum, the purpose of the Act is to modernize and transparency of medical service and reduce pharmaceutical costs. Key prediction is the establishment and maintenance of web-based data entry for electronic prescriptions and referrals from doctors, implementing their pharmacists and health service units and clearing them from the social security institutions [18].

The above law takes into consideration of the finding in Communication Law 356/2004 of the European Commission: "e-Health - Improving health services for European citizens: An action plan for a European e-Health Area". Electronic prescribing has been included among the examples of integrated health information networks, which can link hospitals, laboratories, pharmacies, primary care and social services. Also, in accordance with the provisions of the Directive 95/46/EC of the European Parliament and the Council of 24.10.1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, the processing of health data allow, among other things, for reasons of public interest, provided that they are provided with appropriate safeguards for the protection of fundamental rights and privacy of individuals [5].

According to the MSS responsible for the implementation of the e-prescribing measure is the General Secretariat of Social Insurance (GGKA) and the E-Government Social Insurance (IDIKA SA). The measure was piloted by the Agency Security Self-Employed (OAEE) in October 2010. Before the recent actions - Pharmaceutical Price Watch (September 2010), a pilot program (October 2010), scanning IKA prescriptions,

in May 2011. The pharmaceutical expenditure in Greece was double the EU average. It seems that in principle there is scope for reducing pharmaceutical expenditure, and therefore need to take immediate concerted measures compression. According to a recent announcement of GGKA, phases of ET, the requirements of the memorandum over the reducement of pharmaceutical expenditure cost are classified into 3 individual phases, as follows [8]:

#### Phase A

From 18/10/2010 operates online (web-based) application, which pertains to electronic recording and dispensing OAEE is operated by the IDIKA to highlight that the project can work efficiently and to measure early results. From the initial findings have emerged the following elements:

- Functions are supported:
  - o Electronic prescription from your doctor
  - Electronic prescriptions from the pharmacy
  - o Aggregate reports
- Potential users:
  - o 4,100 affiliated doctors OAEE
  - o 9,500 pharmacies
- Usage information:
  - o 10,000 prescriptions daily

#### Phase B

On 24/1/2011 launched the first phase of expansion to larger funds (OAEE IKA fans, OGA), covering 90 % of the insured. The integration of these doctors funds done gradually.

- Average daily prescriptions posted: 22,000
- Average daily prescriptions that run: 17,000

The first users reacted somewhat cautiously, mainly because of the slow response time of the system, lack of coding, inability to access the help desk, running and some other technical reasons. At this stage the system is enhanced by additional infrastructure to improve the users access to service, support and spread gradually to give users sufficient structure telephone support. The potential for expansion came from sponsorship of the National Bank of Greece, amounting to 1,500,000 €.

#### Phase C

In phase C is already designed an integrated extension of the project to cover all operational needs of the System. Among others will be implemented:

- Rules prescribing, indications and contraindications of drugs
- Preventive Controls
- Interoperability with social security, Dias, hospitals
- Digital signature
- Business intelligence
- Operational Support Contract (SLA)
- Direct technical user support (help desk), etc.

For the expansion project has been designed by an invitation to tender, the timing of which provides as follows:

From the above flow phases of evolution IO stated that the project is treated as an individual project Informatics. The date of application IO thrived in a very short period of time, "pilot use" and to meet the mandatory requirements, this Memorandum, to reduce pharmaceutical expenditure. The challenge, as emerged from the consultation is the smooth development of an integrated technology platform that can manage effectively, seamlessly and over time, both as prescription and referral examinations of all members <sup>[9]</sup>.

The IO should provide and any additional functions, for reasons of urgency not achieved in the pilot, including a full-encoding, interoperability, business intelligence, etc. The electronic prescribing, as a new procedure in the field of health and social security, aimed at large and uneven set of participants (citizens, doctors, pharmacists, insurance funds, etc.) affecting their behavior and relationship. Focal point for the proper functioning of the measure is whether the structures and processes introduced by the implementation of e-prescribing, shape behavior toward desirable goals, set by the policy. Features of the attitudes of patients, the literature mentions the term "asymmetric information", while the characteristics of the attitude of doctors term "induced demand" and "moral damage" (moral hazard). Under the given constraints, could be critical to

investigate the contribution of modern tools of management to change these behaviors or at least to a degree control.

The existing institutional framework, which provides that the doctor and the pharmacist, will abide by confidentiality rules are further questions to adequately inform the insured of the potential manipulation of data generated by contact with their health care providers as to the confidentiality that must be met, and rights can be exercised. The reliability of the system requires smart solutions to the issue of sensitive information and protecting them to serve in a manner consistent with the guidelines of the European and Greek politics. In light of the above findings, was structured the themes and defined individual objectives, which were:

- Provide the full roadmap implementation of such a project,
- Consider alternative sources of funding,
- Identify extraneous but relevant factors and
- To include stakeholders, users and citizens, integrated picture.

#### 5.2 DATABASE OF E-PRESCRIPTIONS

Article 5 of Law 2472/1997 <sup>[10]</sup>, regulates the establishment and maintenance of a database application electronically record and prescriptions, which according to Paragraph 1 shall be supervised by the General Secretariat for Social Security and especially the Service Control Health Costs of Social Security (YPEDYFKA) due the specific control and supervisory powers conferred on it by the legislature <sup>[11]</sup> and the Department of Software Applications.

IDIKA SA already maintained the purpose assigned to it by the legislature or under statute (Article 3) Database insured all of Social Security under a single Social Security Number (SSN Register) explicitly provides searchable items insured using SSN for the purpose of identification of members by registering and execution of the prescription. In Paragraph 3 it is defined explicitly and restrictively the purpose of the base-line registration and application execution prescriptions involve support of Social Security to clear prescription and cover the drug treatment (Article 5 § 3 a), to support the more specific control prescriptions and overall supervision for all health services provided to insured persons and pensioners of Social Security and enabling the collection and statistical evaluation of data related to health benefits and pharmaceutical

care, in order to produce the relevant policies in the relevant fields. The fulfillment of these objectives requires access to the relevant bodies, such as the General Secretary for Social Security and Service Control Health Costs of Social Security, while Article 4 introduces the access and the data on which it is permitted under the condition of respect the principle of proportionality. Technical and organizational security measures in infrastructure, such as information systems and data are kept, in order to protect the rights of patients regarding their health data [11].

#### 5.3 BENEFITS OF E-PRESCRIBING

The electronic prescribing bring significant strategic benefits for healthcare as a whole - if designed and implemented in an integrated manner over time. It should therefore be accessed this way, and rather not as a truncated work. The expected economic benefits can be substantial. Directly but not guaranteed. Required time about 5 years to start producing the investments, as reported by the rapporteurs Jensen and Larson. The exact value of strategic gains depends on the performance of the healthcare system before the introduction of new services and the degree of interoperability with existing infrastructure. But directly attribute these services by combating illegal transactions (fraud), as pointed out by Stroetmann. It must, therefore, be treated as "project funding" from the beginning in an integrated way (Address financing challenges), which ensures the necessary resources over time according to the Swedish model [12].

#### 5.4 DISADVANTAGES OF E-PRESCRIBING

The disadvantages of e-prescribing are summarized as below:

To apply, there must be electronic computers, both in private clinics or hospitals and pharmacies. Most pharmacies already have PC's, but only 20 % doctors has already a computer. An important factor is the ignorance of professionals of larger age, who do not have any computer skills. The computerization of insurance organizations is essential. The use of electronic requires the knowledge of computers. An important notification is the safety of data, moving through the system and the database which will store all the data .Another big disadvantage is the cost of purchasing hardware (computers, printers, scanners) and software [12].

#### 5.5 LONG-TERM STRATEGIC PLANNING IN E-PRESCRIBING

Despite the fact that e-prescribing, initially may be considered as a "simple" project, international experience shows that developing electronic prescribing nationwide is a very complex and long-term project. It is characteristic that the printed or paper based prescription remains part of the process for several of years, along with the electronic submission (e.g. in Sweden after 10 years of implementation, 15 % of submissions is still in print). Based on the overall European experience (relevant recommendation of Stroetmann), the development of a national strategy for e-prescribing - part of an overall strategy for e Health - is usually the first step in a long term effort to achieve a high level cooperation at the national level on these issues. The second phase includes the steps to obtain the consent and acceptance of this strategy by all stakeholders in the public and other stakeholders (doctors, pharmacists, industry) [17]. Part of this design is the provision for a mechanism for [18]:

- Evaluation of the impact and evaluation of the efficiency of establishing regular evaluation and impact assessment
- Establishing effective governance structures of the project (establish e-Health governance framework) and management of change process.

The successful implementation of an e-prescribing project involves shaping the national framework for the standardization of health data. This need is directly related to providing high quality services to the citizens, to be achieved through the collection, longitudinal compliance, processing, evaluation and feedback of Health System with high quality data from the operational systems operators. All developed countries in the EU, in one form or another, have developed mechanisms for producing national standard minimum data sets and encoding, which are accessible and available to all. Thus supported the competitive growth of the National Medical Industry of Informatics. At European level, critical success factors of the system are non-technical measures (relative contributions of Jensen and Stroetmann), including [12]:

Provide support to public and patient (improve support for citizens and patients).
 Particularly critical success factor is the degree of acceptance of new services by the society and patients. Developing appropriate communication, education strategy is necessary.

- The interface of the service with existing infrastructure (re-use individual patient and other health system data). The degree of acceptance of new services depends largely on ensuring interoperability with existing IT infrastructure.
- Participation and mobilization of stakeholders. This one involves clinicians, industry and other stakeholders. From the above it is essential that the beginning dialogue and the effective mobilization of all stakeholders. The ways to achieve this goal depends on the specificities of the national environment.

# 6. LEGAL OBLIGATIONS IN E-PRESCRIBING 6.1 LEGAL OBLIGATIONS OF DOCTORS

Article 3 of Law 3459/2006 <sup>[14]</sup> defines the obligations of doctors, who are either doctors of Social Security or affiliated with them, for electronic filing of prescriptions. These obligations relate both to record in implementing e-prescribing and other process, the rights and obligations regarding electronic recording itself. Specifically, Article 2 defines specific data must be declared by doctors, in order to record in the application and their identification and to ensure the validity and confidentiality and additionally control for the registration of prescriptions. For clarity explicitly states that the registration and identification of necessary conditions for the electronic filing of prescriptions <sup>[14]</sup>.

Paragraphs 3, 4 and 5 specify the registration process, the necessary minimum content that must be registered with the doctor, such as the diagnosis, name, brand name or active ingredient, dosage, strength, quantity of prescription drugs, prescription category and the percentage participation of the insured. The prescription as listed in the application allows the unique identification and integration of the electronic registration. Special arrangements are made by granting proprietary or preparations containing substances listed in Article 1 of Law 3459/2006 [14].

Doctors are given the option to choose either the diagnosis from the list of coded diagnoses, when importing the code or enter a free text description of the diagnosis. Furthermore, onto Paragraphs 7 and 8 are displayed the rights of doctors dealing specifically with the possibility of stopping the same electronic process prescriptions, provided that they are not executed, and shall review and audit of prescriptions

themselves in the past. These actions are able to assist in providing medical care to the patient and update their records and to have oversight of prescriptions.

Article 9 also specifies the obligations regarding the availability of infrastructure (equipment, internet connection) necessary for the registration, identification and their connection with the implementation of electronic registration and dispensing and processing, recording and printing of electronic prescriptions [14].

#### 6.2 LEGAL OBLIGATIONS OF PHARMACISTS

Law 3459/2006 <sup>[14]</sup> affiliates with the respective social security institutions for electronic recording of the execution of prescriptions. The pharmacists are bound by the provisions of this or are affiliated either individually contracted through contracts awarded by pharmaceutical associations to which they belong. Specifically with Article 2, are defined the elements, required to state pharmacists to allow for the inclusion in the application and their identification and to ensure the validity and confidentiality and additionally control for the execution of prescriptions. As in the case of doctors for clarity explicitly states that the registration and identification of necessary conditions for the electronic filing of prescriptions.

Further, in Paragraphs 3 and 4 is described the e-registration process execution and data entered in the application and it is necessary to determine both the drugs / medications administered and the chemist who performed the prescription. Article 5 ensures the completeness and unity of computer records introduced the requirement for pharmacists to register themselves in the application content handwritten prescription on the strict condition that the handwritten prescription issued following emergency illness and doctor is not affiliated with the social security institution of a patient who presents a handwritten prescription.

Due to electronically record the prescription and auditability of the Social Insurance Institution deleted for electronic prescriptions visa for prescriptions, cost more than 150 € and in the case of administration or proprietary preparations containing substances Tables A'- D 'of Article 1 of Law 3459/2006 [14]. Paragraph 7 refers to the integration of performance: For the best and most complete control until the full electronic management system prescribing, pharmacists still have the requirement to affix the authenticity of pharmaceuticals executed on printed copies of completed prescriptions and send to the relevant social security during the general provisions.

Paragraph 8 concerns the special case of the gradual execution of a prescription. In Paragraph 9, the pharmacists are entitled to review electronically of the prescriptions themselves perform, while in Paragraph 10 sets out the obligations of pharmacists as to the availability of infrastructure necessary for registration, identification and their connection with the implementation of electronic registration and execution of prescriptions and the registration of the execution and printing of electronic prescriptions.

#### 7. PRESCRIBING PROCEDURE

#### 7.1 RULES OF PRESCRIPTION

It is noticed that under the current Law, the Comprehensive Health Care Regulation and EOPYY reports issued by the Agency, the following rules prescribing must be followed by doctors, as members of the Organization. Prescription for insured in EOPYY can be done by [12]:

- Medical EOPYY permanent and contract working in polyclinics and dispensaries EOGIYY.
- Family doctors and doctors who contract with the EOPYY. (With ordinances set for panel on the vehicle ceiling doctor's visits and pay per visit and only electronic prescriptions except where there is weakness in the system where the above procedure will be done manually in a single formulary former IKA ETAM)
- Medical specialists in outpatient government, military and university hospitals have been certified in electronic prescribing.
- Medical specialists and service debtors of rural health centers and regional clinics certified in electronic prescribing.
- Qualified junior doctors and medical treatment in GHS hospitals and other public hospitals and health centers.
- Doctor outpatient private non-profit hospitals that are certified in electronic prescribing.
- Doctors clinic of the Greek Parliament,
- Doctors working in ministries

- Doctors surgeries Security Forces (Greek Police and Fire), only with the
  Electronic Prescribing after certification. Please note that e-prescribing will be
  directly applicable to the Units and Health EOPYY, once completed the
  purchase of equipment and the electronic interconnection of Units.
   In addition they can prescribe [12]:
- "Not affiliated with EOPYY private doctors certified in electronic prescribing (at private expense) for an electronic prescription only," private doctors certified in electronic prescribing, affiliated KAPI and aged care units and only for issuing electronic prescriptions (visits not be charged to the Agency).
- The private doctors can prescribe to 2 prescriptions a month for each insured and covered treatment needs month or quarter for chronic diseases.
- From the above excluded individuals
- Allergists doctors who administered prescription formats, since desensitization vaccines are not registered in e-prescribing system.

#### 7.2 GENERAL PRESCRIBING

Doctors who provide services to its insured in EOPYY under Paragraph A of this. Require [23]:

- To comply with the Law, conditions of contract, medical ethics, the Comprehensive Benefit Regulations and circulars issued by the competent Ministries and EOPYY issued each time on the way, time and terms of delivery medicare.
- To control and health booklet to determine whether the person presents for examination identical to that indicated or shown in the passbook health while assuring that no insurance capacity.
- To record the medication in a health booklet to members of the IKA and OGA and copies of orders for insured health care supporters, and OAEE-TYDKI.
   Check the entries for any previous medication for the same disease.
- Examine the insured before issuing the prescription.

Doctors are required to register as users on the system for electronic prescriptions and register at the e-prescribing process all the information required by

Article 3 of Law 3892/2010 <sup>[17]</sup>. If it is impossible to access the e-prescribing system, it is possible to issue handwritten prescription in uniform formulary which records all the data required by the Law 2089/1998 <sup>[17]</sup>. Electronic recording of all prescription drugs from pharmacies to insurers has become mandatory <sup>[12]</sup>, regardless of how prescribing prescription from the doctor (electronic or handwritten), provided that each handwritten prescription entered electronically by the pharmacies. Doctors who prescribe manuscripts are burdened with the payment of compensation to pharmacies that register the prescriptions. Handwritten prescriptions in no way compensated and pharmacies may not require payment for prescriptions. With decision of the MHW and MSS was the amount, the recovery method and any other details on the implementation of this provision, while the No. 10480/14-03-2012 document EOPYY implementation of the new measure suspended until further notice <sup>[18]</sup>.

To prescribe proprietary pharmaceutical action relative with the disease, and only for the approved indications and the approved dosage as described in the Summary of Product Characteristics (8PG) and only for diseases of expertise, according to the provisions of PD / Tosh 121/08 and Article 8 of Law 3457/2006. According to Law 4052/2012, from 1 April 2012 all doctors will prescribe their policyholders Organizations making use exclusively the chemical name (active ingredient) of drugs of 10 largest consumption in active substances for which no medicines patented and generic, excluding those for chronic diseases. With No. DYG3 (a) / GY/149 the MHW and MSS identified the specific therapeutic categories. From 1 June 2012 the prescription by active substance became compulsory and universal. The National Medicines Agency shall list the chemical names of the active ingredients and their respective trade names of all the medicines, which display on the site until March 31, 2012 [12].

Doctors must not repeat the prescription drug if the dosage indicated in the prescription required and the timing is not justified by the exhaustion of the allocated to the previous prescription. Doctors are required to disclose only one unit where proprietary acute cases where they consider that the diagnosis is not completely secure and consider that for this reason there is no certainty about the effectiveness of treatment. More than one unit and up to two proprietary prescribed only where absolutely necessary to continue, this treatment the patient's time, for which there is not enough however, and one unit for a period not more than one (1) month per prescription

according to the dose of doctor. The above does not apply to packages containing a dose packaging for pharmaceutical specialties work necessities [12].

In cases where the insured is following a stable medication, determined by a medical specialist, medication or a specific time period of two or three months and to serve the insured, the doctors of EOPYY, permanent and contracted, should issue two months and prescriptions of three months [12], respectively in a sheet. Three-month prescriptions will be issued electronically only when done by amendment IDIKA. The prescriptions-month period may be issued and manuscripts, as applicable to the manuscript, which will be noted in the corresponding field on the prescription and the handwritten will require endorsement by the examining doctor. There also remains the possibility of a "repeated formula" three months insured patients suffering from chronic diseases and constant follow treatment in three (3) continuous sheets.

The rural doctors have to prescribe only one unit formulation. Exceptionally and only if a single dose injectable each, the rural doctor may indicate more than one unit of a drug, as much as is necessary to cover treatment. Also may be prescribed for chronically ill insured prescription treatment for up to one (1) month and "repeat prescription" three months only on advice of doctor specialty. The opinion is as long as doctor has told specificity but cannot exceed two years from its adoption. Residents prescribing in emergency situations for the patient one box per drug or chronically ill, with expert advice, quoting name, SSN and specialty of the treating medical specialist and date advice. Not in any way encourage insured persons to perform the prescriptions issued to a particular pharmacy and do not produce their own prescriptions to the pharmacy for execution. The breach involves and disciplinary action against the doctors by the competent disciplinary bodies. Prescription from pharmacies of the organization referred to on G55/863/30-9-2011, and G55/891/29-12-2011 1155/3-2-2012 EOPYY documents. The availability of these drugs will be available with a prescription which will be accompanied by an opinion State Hospital or private clinic for medicines Article 12 Paragraph 2 of Law 3816/2010 [17] and other drugs by treating opinion as required by the disposal operation. Doctors, who prescribe drugs that are bound and delivered by pharmacies of EOPYY, must:

Prescribe them only for approved indications by EOF.

- Instruct the insured to what pharmacy EOPYY be approached for the execution of the prescription you need to consider the case of a special committee with the documents they need, not to suffer the insured.
- Must not list the specialties they prescription with the same prescription from private pharmacies.
- Indicate the prescription the words "Sponsored by the pharmacy EOPYY"
- Prescription to attach to the opinion of the respective medical specialty, from a
  public hospital or private clinic, or if the same doctor at the same time.
- Be granted to the insured any additional documents for the administration as contained in the documents and G55/863/30-9-2011 1155/3- 2-12.

When doctors prescribe expensive medications and special treatments that require approval by a committee of EOPYY (Article 9 of the Unified Rules EOPYY providers) are required to issue an opinion on, check the documentation necessary to guide and inform the insured. Particularly for prescription drugs not marketed in Greece (external), the doctor must complete a special form A and gives the patient examinations from where the disease was identified and referred to in the course of the disease and refer the patient to NMY of local EOPYY to documents sent to the Commission [12].

#### 7.3 HOSPITAL CONSULTATION PRESCRIPTIONS

The prescriptions must be accompanied by medical reports (hospitals or private clinics) in the following cases [39]:

#### 1. Preparations whose authorization has limitation of disposal

It is described in the "for hospital use only" (Gazette No. 335/9-5-89 A6/1398 1st & 2: "The pharmaceutical products which were authorized under ". The term "for hospital use" may be administered outside of hospital pharmacies, in private clinics and in patients who continue a hospital treatment at their home, provided that the prescription of a private doctor or the Insurance fund must be accompanied by a certificate duplicate the clinic or hospital. Basically, this is an extension of hospital treatment, stating the exact necessary amount of drug [35].

- 2. Preparations for GG 569/30-4-2010
- 3. Preparations in dispensing them include processes which take place in a hospital or clinic, as described in their supply

The issue of medical reports (hospital or private clinic) must be done by a doctor who made the diagnosis in a hospital or private clinic, during a specific time period, which may not exceed the two (2) years. In case not, the doctor does not mention the treatment period. Medical examinations (hospitals or private clinics) in order to accompany the prescriptions, may be original or certified copies. Additional copies of medical reports for agents, whose authorization has limiting distribution, will be kept in the pharmacy for two (2) years (GG 335/9-5-89 No. A6/1398 Fri the 4th: for formulations whose authorization has limiting distribution "for hospital use only" the original advice from the clinic or hospital shall be submitted by the pharmacy to the fund, in order to cover the cost of the therapy. Afterward, the copy will be kept for two (2) years [35].

The medical reports issued by formations of the GHS, in order to be valid, it will be necessary, among other things, to bring [35]:

- Seal of the Hospital
- Seal with elements of doctor specialty

If the medical report is issued by a private clinic, it would necessarily bear the logo of the clinic, the appropriate seal and stamp with the elements of doctor specialty [35].

#### 7.4 OBLIGATIONS OF DOCTORS IN E-PRESCRIBING

Doctors are required to register as a user of NHI managed by the Agency of "Electronic Governance Social Security - IDIKA S.A.", on behalf of the General Secretariat for Social Security. Also, they have the obligations laid down in particular in the following Paragraphs [34].

When registering a prescription, the doctors mark the following [34]:

 a) Last Name, First Name, Middle Name, Mother's name b) professional license number and date of occupation c) Medical Specialty

- Register and date of enrollment
- Medical societies to which they belong
- Tax Identification Number
- Identity card number or passport number for foreign doctors
- Details of work address
- Password health unit
- Data contract with the Social Security Administration

Doctors who are registered as users, are identified when they enter their identifiers, username and password. The registration and identification is required for a electronic filing for prescriptions and referrals, defined by the law. Doctors, after undertaking the identification of the patient by showing their health booklet and use of serial number, they register online the appropriate prescription and specifically register the patient's diagnosis, medications and / or referrals. Regarding the drugs, they enter the name (brand name or active ingredient), dosage, quantity of prescription drugs, prescription category and the percentage of the insured patient. Doctor's diagnosis is selected from the list of coded diagnoses or either enter free a text description of the diagnosis and afterward import the prescription drugs from the list, approved by the Greek Organization for Medicines (EOF), legally circulating pharmaceuticals, under the general and special provisions of disposal of pharmaceuticals. If the prescription is granting proprietary or preparations containing substances contained in Tables A' – D of Article 1 of Law 3459/2006 (Government Gazette 103 A) and Paragraph 8 of Article 1 of Presidential Decree 148/2007 (Government Gazette 191 A), the prescription includes special marking, as provided in Paragraph 7 of Article 1 of p.d.148/2007 [35].

Referrals to doctors record the type of operation or Investigations that should be executed. Regarding the medical procedures, doctors may introduce a free text reason for referral to the insured in the respective field (when necessary). Also, they have the opportunity to choose the diagnosis, using the international coding standards. The prescription contains elements of the doctor who registered the prescription, the registration date and the start and end dates of the execution. Any prescription or referral recorded electronically is characterized by a unique code number that appears in

the form of barcode. In case of a repetitive prescription, these are also recorded automatically, but the registration date and the respective start and the end date of the medical execution must be noted [36].

After confirmation of comprehensive and successful e-registration of a prescription and referral, doctors print the copy of the prescription or registered referral. Afterward the prescription is signed and delivered to the patient, who hands it to the pharmacist or healthcare service unit, in order to perform the prescription or referral. If the prescription is granting preparations, containing substances from Tables A – D of Article 1 of Law 3459/2006, doctors printout of the prescription and these are kept for three years, as well as the handwritten prescription, which accompanies the electronic prescription. Prescriptions are made within five (5) working days of its registration [34].

Doctors can cancel prescriptions or referrals that have been registered, in case that they are not enforced. Doctors have the ability to review, prescriptions or referrals that have been registered by them, online. If it is necessary to determine the appropriate medication, doctors can consent the patient to access the data of any previous medication or medical transactions, recorded by other doctors. Doctors are allowed to use these data exclusively for the aforementioned purpose. Access is recorded in electronic prescribing. Doctors are required to have the necessary infrastructure for the registration, identification and their bandwidth connection, while processing, recording and printing of electronic prescriptions and referrals [34].

#### 7.5 OBLIGATIONS OF PHARMACISTS IN E-PRESCRIBING

Pharmacists contribute, either individually or collectively, with their social security required to register as users and managing body "e-Government Social Security - IDIKA SA", on behalf of the General Secretariat for Social Security. They have the obligations laid down, as described in the following Paragraphs [34].

Upon registration pharmacists confirm the following [34]:

- Last Name, First Name, Middle Name, Mother's Name
- Name of the business of the pharmacy, as the legitimate representatives
- Number of professional license
- Register of themselves and the date of recording

- Pharmaceutical Association to which they belong and their corresponding identification number
- Tax Identification Number
- Identity card number or passport number, for foreign pharmacists
- Date of profession / trader
- Code and address information of the pharmacy
- Data contract with the Social Security Administration

Pharmacists who are registered, are identified when they enter into the system using their identifiers. The registration and identification is required for the online registration and prescriptions, as defined in this law. Pharmacists enter the application password prescription electronically and the collection of the data of the patient, shown in the prescription registered with the information provided, by the patient's health card [34]

After undertaking the identification of patient that has registered the electronic prescription, the pharmacists import the drugs for sale in the application by inserting the two (2) bar codes that exist in the film authenticity of any medicinal product. After paying the stated participation and delivery of drugs by pharmacists, the prescription is considered as "executed". The entry includes the date of execution, details of proprietary delivered to the patient, accompanied by their barcodes and the cost (total and participation) [37].

Exceptionally, in cases of emergency disease if the patient presents handwritten prescription, which has been adopted by doctor, patient or an account with him but covered by insurance companies. During the general provisions, the pharmacist is obliged to electronic filing of the information contained in his handwritten prescription, including the patient and the doctor. After the complete and successful implementation of e-registration of prescription, pharmacists print the copy of the executed prescription, which is mounted by authenticity tapes. The copy is signed by the insured or the person who receives the drug and pharmacists sign and stamp the copies, according to current Law. If the prescription grants proprietary or preparations containing substances that are contained in Tables A - D of Article 1 of Law 3459/2006, pharmacists printout the prescription and finally the prescription is kept for three years, from the date of its

registration in accordance with the current Law. If it is desired by the insured, pharmacists grant to the patient a printout of the executed prescription [34].

Pharmacists may perform some or gradually one prescription at a time, by entering the information specified in Paragraph 4. The formulations are given to each partial execution. The pharmacists have the potential review of prescriptions executed electronically, by them. Pharmacists are required to register every prescription regardless of whether the patient is covered by an insurance company. Pharmacists are required to have or acquire the necessary infrastructure for recording, identifying and connecting with the central system, for the processing, recording and printing of electronic prescriptions [38].

#### 7.6 SANCTIONS

The breaches of the rules on prescribing, impose disciplinary, administrative and criminal penalties in accordance with the provisions of Law 121/2008, as modified by the provisions of Law 3846/2010, Law 3996/2011 and Law 4047/2012. For permanent, contract fixed or indefinite doctors and dentists of EOPYY and non-panel practitioners and dentists who violate regulations EOPYY, whether it be referred to the appropriate disciplinary body for violations of:

- Over prescription: greater quantity than that required to treat the disease, according to the regimen that necessarily indicated on the prescription and as defined by the SPC of the drug for this indication and on therapeutic protocols.
- Induced demand:
  - o Prescribing that does not match the health needs of the patient
  - o Medicines therapeutic effect has not been established
  - o Administering experimental treatment
  - Prescriptions the patient's demand
- Directed prescription:
  - Prescription pharmaceuticals specific producer
  - o Indication of the prescription execution to a specific pharmacy
  - o Denial of service members
  - Get beyond the statutory fee

• Violation of the provisions of PD 121/2008 [23] as amended, is imposed by decision of the President, for up to two (2) years.

The decision of the President of EOPYY expires with the passage of one year or by issuing a disciplinary decision by the competent disciplinary body. The above decision of the President of EOPYY issued, after calling the doctor to provide written explanations, explanations which will be deposited within five (5) days of notification of the call. This provision extends the backlog. In case of breach of Article 2 of Decree 121/2008 [23], imposed the following sanctions:

- A. Liability for damage caused by prescribing increased by fifty percent (50 %).
- **B.** Fines ranging from 3.000 € to 15.000 € depending on the frequency and severity of the offense. In cases cropped executed prescription considered by the examining doctor for violation of rules prescribing the Agency receives the value of the prescribing doctor. The certified non-contracted prescription before receiving the full operation of EOPYY and then not contracted must return the prescriptions they have received.

#### 7.7 MEDICAL ERRORS

The evaluation of private diagnostic laboratories and private clinics is aiming at the certification, according to the age of technological equipment, health professionals, the infrastructure and afterward reporting all the medical errors to the Deputy Health Minister. This intention of the Ministry is to place the formal change to a different path, compared to the past, in the field of medical errors <sup>[33]</sup>.

History should be remembered, because until the recent past few references that were made to medical errors, only a few cases reached the courts. The year 2000 the medical liability cases who took the path of justice was only 25. The current change in the official attitude of the state is a natural progression. The legislative framework had already launched its new course. Initially, in 1992, the Law on the protection of hospital patients and more decisively in 2005, the new Code of Medical Ethics, ended the paternalistic view of medicine in Greece. Additionally, complaints about medical errors are now multiplying and constantly increasing [33].

It's about time for the official state than someone has the obligation to bring out this big issue and on the other hand to deal with it, effectively. Let's not forget that every mistake is due to a "malfunction" of health services. The prevailing logic of the "cover-up" has simply preserved these glitches and caused further errors. The first priority is to create a formal mechanism for collecting complaints about medical errors. This mechanism should gather all the legal claims (lawsuits and pipelines) and complaints which ones, would not proceed in court. It is not possible even for the present era, the lack of official statistics of medical errors in Greece [33].

Certainly, such a data collection will have no value, unless without a subsequent evaluation. Evaluation which should be done by experts in this level will have the sense of thorough study of the data and then identifying the system's malfunctions, or ways of intervention and improvement. The political leadership of the Ministry of Health has officially brought out the issue of medical errors, in order to create a new perspective in the evaluation of health units. It is important from here on, that this prospect should not be limited to recording errors, but take decisive and further interventions. It's the only way to succeed in these tough economic times can offer to the Greek patients, safer health services [33].

#### 7.8 CROSS-BORDER PRESCRIPTIONS

In the light of the recent adoption of the Directive on Patients' Rights in Cross-Border Healthcare, the Pharmaceutical Group of the European Union (PGEU) has called for a comprehensive approach to cross-border prescriptions. Under the terms of the Directive, the European Commission will develop key features of the cross-border prescription system, including a non-exhaustive list of elements to be included in prescriptions. In a study of European prescription practices undertaken in 2009, PGEU found that prescriptions varied significantly across the EU, including different required information, validity periods, numbers of permitted items prescribed and the kind of forms that can be used to write prescriptions. [41]

In a statement adopted on the 21st March, PGEU points to various difficulties inherent in a cross-border prescription system, including medicines with different brand names, and the difficulties in identifying prescribers from other countries. The statement calls for the list of essential elements to be developed by the Commission to take into account the full range of EU practices with regard to prescriptions, including: **Prescription by International Non-proprietary Names (INN), Medicine Indication, Authentication and Validity of Prescription** and **Identification of Dispenser**. [41] (See figure 8 in Annex.)

#### 8. CONCLUSION

The Greek Health System stood at the beginning of the foundation of the Official Greek State. Its obligation is to provide medical care for all Greek citizens. According to international criteria, the Greek health system ensures greater number and range of services to its members. However this situation for many years was associated with unethical practices, like phenomena of over-prescribing.

However, despite all these drastic changes, the basic structures, rules, regulations and principles, relating to prescription, remain unchanged. The former setting is often combated with over-prescription and the establishment of economic interests in the area of health. The existing legal framework adequately, defines the rules for handling and marketing of pharmaceuticals, and is constantly updated with decrees and ordinances.

In this diploma thesis it has been described the existing model of medical prescriptions in Greece and have been given adequate information about their basic divisions, their kinds, their formal look, and their compensation. Also it is described the course of the prescription, from the doctor to the pharmacist, harmonized with modern electronic prescribing.

# The overview of the most important mentioned information about medical prescriptions is clearly summarized at Table 1.

Furthermore they have been collected samples of medical prescriptions and has been explained their way of handling by the doctors and the pharmacists. As last target of the diploma thesis, it was shortly analyzed the current situation of the greek health and social system and their parameters.

The provision of health services is performed by medical actions and medical prescription is a major part of this. In the past few years (since 2009), electronic prescriptions are adopted and aim to squander public finance and streamline the financial, earmarked for the health sector. Nowadays the usage percentage of electronic prescriptions in whole Greece is reaching 90 % with perspective to achieve in few years the absolute number.

Table 1: Overview of important information on medical prescriptions in Greece

Medical Prescriptions Information	Main Explanation	Special Information
Types of prescriptions	<ul> <li>Electronic Prescription</li> <li>Private doctor prescription: in a not standard, hand – written form</li> <li>Veterinary Prescription: in a not standard, hand – written form</li> <li>Green-type forms: It is a standard form, filled by hand</li> <li>Medical devices prescriptions</li> <li>Habituate red line prescriptions</li> </ul>	<ul> <li>They can be either from private doctor or from hospital</li> <li>The green-type forms are used by doctors or hospitals when the electronic prescription system is not available due to technical problems</li> </ul>
Repeated prescriptions	• The repeated prescriptions can be either for 2 months or 3 months	• The 2 months prescription is at a single prescription and the patient gets once all the medicine together. The 3 months prescription are 3 different prescriptions and the patient takes his medicine every month the same date
Stamp and signature from doctor	• It is neccesary to all types of prescriptions	
Validity	<ul> <li>Electronic Prescription: 7         working days</li> <li>Hand - written prescription from         private doctor: unlimited</li> <li>Veterinary Prescription in a hand         – written form: Not specified</li> <li>Green-type forms: 7 working         days</li> </ul>	
Habituate drugs	• Can be prescribed in any type of prescription, they must be with a special single or double red line hand written form	• The habituate special red line forms must be kept in the pharmacy for 3 years

Medical Prescriptions Information	Main Explanation	Special Information
Maximum number of different medicines	• In the compensated prescriptions only 3 different medicine are allowed per prescription	
Maximum number of packages	• Unlimited	
Generic prescribing	• Available	<ul> <li>Acc. doctor's decision, in all types of prescriptions</li> <li>Pharmacist can choose alone the concrete brand of medicine, only with patient's agreement</li> </ul>
Generic Substitution	Only in the electronic prescription can be substituted the brand of medicine	Pharmacist can choose alone the concrete brand of medicine, only with patient's agreement
Extra fee per prescription	• 1 € per prescription	• This fee is collected by the pharmacy and is given to the state as a tax
Storage of prescriptions in the pharmacy	<ul> <li>Electronic prescriptions: 1 month</li> <li>Hand-written prescription from private doctor: No obligation to keep or save</li> <li>Veterinary prescription: No obligation to keep or save</li> </ul>	Every month the pharmacist must submit the electronic prescriptions and the green type prescriptions to the insurance companies in order to be paid
Compensation by the insurance companies	Only electronic prescriptions and the green-type form prescriptions are compensated	• The amount that is paid by the patient can be: 0 %, 10 %, 25 % according to the disease of each patient

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### 10. ANNEX

#### 10.1 DRUGS CLASSIFICATION IN GREECE [36]

#### TABLE A'

- 1. DESOMORPHINE-.DIHYDRODESOXYMORPHINE
- 2. DET: N, N-DIETHYLTRYPTAMINE
- 3. DMHP: (DIMETHYL-1, 2 HEPTYL) -3 TETRAHYDRO-7, 8, 9, 10 TRIMETHYL-6,6,9, DIBENZO -6H (B, D)PYRANOL-1
- 4. DMT: N,N DIMETHYLTRYPTAMINE
- 5. HEROINE: DIACETYLMORPHINE
- 6. CANNABIS ET RESINE DE CANNABIS
- 7. CETOBEMIDONE. (M-HYDROXYPHENYL) -4 METHYL
- 1 PROPIONYL 4 PIPERIDINE
- 8. (+)- LYSERGIDE, LSD, LSD-25: (+)-N, N-DIETHYL-LYSERGAMIDE
- 9. MESCALINE: TRIMETHOXY-3,4,5PHENYLETHYLAMINE
- 10. PARAHEXYLE: HEXYL-3 TETRAHYDRO-7, 8, 9, 10 TRIMETHYL-6, 6, 9 DIBENZO-
- 6H (B, D) PYRANOL-1
- 11. PCE: N-ETHYL -1- PHENYLCYCLOHEXYLAMINE
- 12. PHP OR PCPY: 1 (1-PHENYLCYCLOHEXYL) PYRROLIDINE
- 13. STP, DOM: DIMETHOXY-2,5 METHYL-4 PHENETHYLAMINE
- 14. TCP: 1-[1- (2-THIENYL) CYCLOHEXYL]PIPERIDINE
- 15. PSILOCYBINE: O-PHOSPHORYL-HYDROXY-4 N,N-DIMETHYLTRYPTAMINE
- 16. PSILOCINE: (DIMETHYLAMINO-2ETHYL)-3INDOLOL-4
- 17. DMA: 2.5 DIMETHOXYAMPHETAMINE
- 18. DOET: 2,5 -DIMETHOXY -4 ETHYLAMPHETAMINE
- 19. CATHINONE: (-)-ALPHA-AMINOPROPIOPHENONE
- 20. MMDA: 5-METHOXY -3, 4-METHYLENEDIOXYAMPHETAMINE
- 21. MDMA: 3,4 -METHYLENEDIOXYMETHAMPHETAMINE
- 22. PMA: PARAMETHOXYAMPHETAMINE
- 23. TMA: 3,4, 5- TRIMETHOXYAMPHETAMINE
- 24. NABILONE: (±)-TRANS-3-(1-1-DIMETHYLHEPTYL)-6, 6A, 7, 8,10,10A, HEXAHYDRO-1-
- HYDROXY-6, 6-DIMETHYL- 9H- DIBENZO [B,A] PYRAN-9-ONE.
- 25. N-HYDROXY MDA: (±) N- (ALPHA-METHYL-3,4
- (METHYLENEDIOXY) PHENETHYL) HYDROXYLAMINE
- 26. N-ETHYLMDA:(±)-N-ETHYL-ALPHA-METHYL 3,4(METHYLENEDIOXY) PHENETHYLAMINE
- 27. 4-METHYLAMINOREX: (±)- CIS-2 AMINO-4-METHYL-5-PHENYL-2- OXAZOLINE H (±)- CIS -
- 4,5 -DIHYDRO -4 METHYL -5- PHENYL-2-OXAZOLAMINE
- 28. BROLAMFETAMINE H DOB: (+)-4- BROMO-2.5-DIMETHOXY A -
- METHYLPHENETHYLAMINE
- 29. TENAMFETAMINE OR MDA: A-METHYL 3,4 (METHYLENEDIOXY) PHENETHYLAMINE
- 30. ETRYPTAMINE: 3-(2-AMINOBUTYL) INDOLE

- 31. METHCATHINONE:2-(METHYLAMINO)-1-PHENYLPROPAN-1-ONE
- 32. 4-METHOXYMETHAMPHETAMINE. P METHOXY -N, A- DIMETHYLPHENETHYLAMINE
- 33. METHYLPHENETHYLAMINO) -A-PHENYLACETONITRILE
- 34. PHENATINE: N-(A-METHYLPHENETHYL)NICOTINAMIDE
- 35. DIHYDROETORPHINE: 7,8 DIHYDRO 7 A [1- (R) HYDROXY -1 METHYL-BUTYL] -6,14 -

#### ENDO-ETHANOTETRAHYDROORIPAVINE

- 36. 4 MTA: 4 METHYLTHIOAMPHETAMINE
- 37. METHYL-1-(1,3BENZODIOXOL-5-YL)-2-BUTANAMINE
- 38. ETORPHINE, M-99: TETRAHYDRO-(HYDROXY-L-METHYL-BUTYL-1)-7A-ENDOETHENO-
- 6.14 ORIPAVINE
- 39. PMMA H 4-MMA: 4-METHOXYMETHAMPHETAMINE
- 40. GHB: GAMMA-HYDROXYBUTYRIC ACID
- 41. 2C-B: 4 BROMO 2,5 -DIMETHOXYPHENYLETHYLAMINE
- 42. 2C-T-2: 2,5 DIMETHOXY -4 -ETHYLTHIOPHENETHYLAMINE
- 43. 2C-I: 2,5 DIMETHOXY 4 IODO -PHENETHYLAMINE
- 44. 2C-T-7: 2,5 -DIMETHOXY-4-(N)-PROPYLTHIOPHENETHYLAMINE
- 45. TMA-2: 2,4,5 TRIMETHOXYAMPHETAMINE
- 46. BZP: 1-BENZYLPIPERAZINE
- 47. TFMPP: 1-(3-TRIFLUOROMETHYLPHENYL)PIPERAZINE
- 48. PMEA: N-ETHYL-4-METHOXYAMPHETAMINE
- 49. DOC: 2,5-DIMETHOXY-4-CHLOROAMPHETAMINE
- 50. 5-MEO-DMT: 5-METHOXY-N,N-DIMETHYLTRYPTAMINE
- 51. 5-MEO-DIPT: 5-METHOXY-DI-ISOPROPYL-TRYPTAMINE
- 52. DPT: N,N-DIPROPYLTRYPTAMINE
- 53. A-MT: ALPHA-METHYLTRYPTAMINE
- 54. ALEPH-7: 2,5-DIMETHOXY-4-(N)PROPYLTHIOAMPHETAMINE
- 55. 2C-E: 2,5-DIMETHOXY-4-ETHYLPHENETHYLAMINE
- 56. 5-MEO-AMT: 5-METHOXY-ALPHAMETHYLTRYPTAMINE
- 57. CPP: 1(-3-CHLOROPHENYL) PIPERAZINE
- 58. 4-ACO-DET: 4-ACETOXY-N, N-DIETHYLTRYPTAMINE
- 59. 2C-D: 4-METHYL-2,5-DIMETHOXYPHENETHYLAMINE
- 60. SALTS AND ISOMERS, UNLESS IS SPECIFIED OTHERWISE IN OTHER PROVISION.

#### TABLE B'

- 1. ETHYLMORPHINE: ETHYL-3 MORPHINE
- 2. DEXTROMORAMIDE: (+) [METHYL-2-OXO-4 DIPHENYL-3, 3 (PYRROLIDINYL-1) -4 BUTYL]
- 4MORPHOLINE
- 3. COCAINE: ESTER METHYLIQUE DE LABENZOYLECGONINE
- 4. 3 METHADONE: DIPHENYL -4, 4DIMETHYLAMINO 6 HEPTANONE -3
- 5. MORPHINE
- 6. OPIUM
- 7.OPIUM CONCENTRATUM: MELANGE DES BROMHYDRATES DES ALCALOLDES DE L'OPIUM
- 8. PETHIDINE: ESTER ETHYLIQUE DE L'ACIDE METHYL 1 PHENYL 4 PIPERIDINE -

CARBOXYLIQUE -4

- 9. TETRAHYDROCANNABINOL: PENTYL-3 TETRAHYDRO-6A, 7, 10, TRIMETHYL-6,6,9 DIBENZO-6H(B,D) PYRANOL-1
- 10. ACETYLMETHADOL:ACETOXY -3 DIMETHYLAMINO -6 DIPHENYL-4, 4 HEPTANE
- 11. ALPHACETYLMETHADOL: ALPHA ACETOXY -3 DIMETHYL AMINO 6 DIPHENYL 4, 4 HEPTANE
- 12. DRONABINOL:DELTA-9-TETRAHYDROCANNABINOL
- 13. SALTS AND ISOMERS, UNLESS IS SPECIFIED OTHERWISE IN OTHER PROVISION.

#### TABLE C'

- 1. ETHYLMETHYLTHIAMBUTENE: ETHYLMETHYLAMINO-3 DL- (THIENYL-2') -1,1 BUTENE-1
- 2. ACETORPHINE: ACETYL -3-0 TETRAHYDRO -(HYDROXY -1 METHYL -BUTYL- 1) -
- 7A ENDOETHENO -6, 14 ORIPAVINE
- 3. ACETYLDIHYDROCODEINE
- 4. ALPHAMETHADOL:ALPHA-DIMETHYLAMINO-6 DIPHENYL-4, 4 HEPTANOL -3
- 5. ALPHA-ETHYL -3 METHYL -1 PHENYL -4 PROPIONOXY-4 PIPERIDINE
- 6. ALPHA- DIMETHYL -1, 3 PHENYL -4 PROPIONOXY -4 PIPERIDINE
- 7. ALFENTANYL: N-[L-2(4-ETHYL-4,5-DIHYDRO-5-OXO-1H TETRAZOL-1-YL) ETHYL] 4- (METHOXYMETHYL) -4- PIPERIDINYL] N- PHENYLPROPANAMIDE MONOHYDROCHLORIDE
- 8. ALLYL -3 METHYL -1 PHENYL -4 PROPIONOXY -4 PIPERIDINE
- 9. AMPHETAMINE: A METHYLPHENETHYLAMINE
- 10. ESTER ETHYLIQUE DE L'ACIDE P AMINOPHENETHYL $\,1$  PHENYL-A PIPERIDINE CARBOXYLIQUE -4
- 11. BEZITRAMIDE: (CYANO -3 DIPHENYL -3,3 PROPYLO) -1 (OXO -2 PROPIONYL -
- 3 BENZIMIDAZOLINYL-1) -4 PIPERIDINE
- 12. ESTER ETHYLIQUE DE L'ACIDE (BENZYLOXY -2 ETHYL) 1 PHENYL -4 PIPERIDINE CARBOXYLIQUE -4
- 13. BENZYL MORPHINE: BENZYL -3 MORPHINE
- 14. BETACETYLMETHADOL: BETA-ACETOXY -3 DIMETHYLAMINO -6 DIPHENYL -4, 4 HEPTANE
- 15. BETAMETHADOL:BETA-DIMETHYLAMINO-6 DIPHENYL-4, 4 HEPTANOL-3
- 16. BETAMEPRODINE: BETA-ETHYL-3 METHYL-1 PHENYL-4 PROPIONOXY-4 PIPERIDINE
- 17. BETAPRODINE: BETA-DIMETHYL -1, 3 PHENYL -4 PROPIONOXY -4 PIPERIDINE
- 18. CYCLOBUTYLOMETHYLO -3, 14 DIHYDROXY-MORPHINANE
- 19. BUTYRATE DE DIOXAPHETYL: MORPHOLINO -4 DIPHENYL -2, 2 BUTYRATE D' ETHYLE
- 20. DEXAMPHETAMINE: (+) -A- METHYLPHENETHYLAMINE
- 21. DEXTROPROPOXYPHENE: A(0) 4 DIMETHYLAMINO 3 -METHYL -1, 2 DIPHENYL-2 BUTANOL PROPIONATE
- 22. DIETHYLTHIAMBUTENE: DIETHYLAMINO -3 DL -(THIENYL -2') -1, 1 BUTENE -1
- 23. DIAMPROMIDE: [(N-METHYLPHENETHYLAMINO)-2 PROPYL] PROPIONANILIDE
- 24. DIMEPHEPTANOL: DIMETHYLAMINO-6 DIPHENYL-4,4 HEPTANOL-3
- 25. DIMETHYLTHIAMBUTENE: DIMETHYLAMINO-3 DI-(THIENYL-2')-1, 1 BUTENE-1
- 26. DIMENOXADOL: ETHOXY-1 DIPHENYL-1, 1 ACETATE DE DIMETHYLAMINO- 2 ETHYLE
- 27. DIPIPANONE: DIPHENYL-4, 4 PIPERIDINE-6 HEPTANONE-3
- 28. DIHYDROCODEINE: HYDROXY-6 METHOXY-3 N-METHYL-EPOXY-4, 5 MORPHINANE
- 29. DIHYDROMORPHINE: DIHYDROXY-3, 6N-METHYL-EPOXY-4, 5 MORPHINANE

- 30. DIPHENOXINE: ACIDE 1-(3-CYANO-3, 3 DIPHENYL-PROPYL)-4-PHENYL-4 PIPERIDINECARBOXYLIQUE
- 31. DIPHENOXYLATE: ESTER ETHYLIQUE DE L'ACIDE (CYANO-3 DIPHENYL-3, 3 PROPYL)-1 PHENYL-4PIPERIDINE-CARBOXYLIQUE 4
- 32. DROTEBANOL: (3,4 DIMETHOXY-17-METHYLMORPHINAN-6B, 14DIOL)
- 33. ECGONINE: LES ESTERES ET DERIVES SUSCEPTIBLES D'ETRE TRANSFORMES EN ECGONINEET COCAINE
- 34. COCA (FEUILLES DE COCA)
- 35. ETONITAZENE: (DIETHYLAMINO- 2 ETHYL)-1P-ETHOXYBENZYL-2

NITROBENZIMIDAZOLE-5

- 36. ETOXERIDINE: ESTER ETHYLIQUE DE L'ACIDE [(HYDROXY-2 ETHOXY)-2 ETHYL] -1 PHENYL-4 PIPERIDINE- CARBOXYLIQUE-4
- 37. THEBAÏNE
- 38. THEBACONE: ACETYLDIHYDROCODEL'NONE
- 39. ISOMETHADONE: DIMETHYLAMINO-6 METHYL-5 DIPHENYL-4,4 HEXANONE-3
- $40.\ BENZIMI\Delta AZO\Lambda IOCLONITAZENE: (P-CHLOROBENZYL)-2\ DIETHYLAMINOETHYL-1\ NITRO-PROBENZYL)-2\ DIETHYLAMINOETHYL-1$
- **5 BENZIMIDAZOLE**
- 41. CODOXIME: DIHYDROCODEINONE-CARBOXYMETHYLOXIME-6
- 42.. LEVOMETHORHANE: (-)-METHOXY-S N- METHYLMORPHINANE
- 43. LEVOMORAMIDE: (-)-[METHYL-2 OXO-4 DIPHENYL-3, 3 (PYRROLIDINYL -1) -4 BUTYLJ-4MORPHOLINE
- 44. LEVORPHANOL:(-)-HYDROXY-3N-METHYLMORPHINANE
- 45. LEVOPHENACYLMORPHANE: (-)-HYDROXY-3N-PHENACYLMORPHINANE
- 46. METHADONE INTERMEDIATE: CYANO-4 DIMETHYLAMINO-2 DIPHENYL-4, 4 BUTANE
- 47. METHAQUALON:METHYL-2(O-TOLYL)-3QUINAZOLONE-4
- 48. METHYLDESORPHINE:METHYL-6-D6-DESOXYMORPHINE
- 49. METHYLDIHYDROMORPHINE: METHYL-6 DIHYDROMORPHINE
- 50. METHAMPHETAMINE: (+) -N,A- DIMETHYLPHENETHYLAMINE
- $51.\,$  METHYLPHENIDATE: ESTER METHYLIQUE DE L'ACIDE A-PHENYL-PIPERIDINE-2 ACETIQUE
- 52. MECLOQUALONE: 3-(O- CHLOROPHENYL) 2- METHYL-4 (3H) QUINAZOLINONE
- 53. METAZOCINE: HYDROXY-2' TRIMETHYL-2,5,9 BENZOMORPHANE -6, 7
- 54. METOPON: METHYL-5 DIHYDROMORPHINONE
- $55.\ MORAMIDE\ INTERMEDIATE: ACIDE\ METHYL-2\ MORPHOLINO-3\ DIPHENYL-1,$
- 1 PROPANECARBOXYLIQUE
- 56. MORPHERIDINE: ESTER ETHYLIQUE DE L'ACIDE (MORPHOLINO-2 ETHYL)-1 PHENYL-
- 4 PIPERIDINECARBOXYLIQUE-4
- 57. BROMOMETHYLATE DE MORPHINE ET AUTRES DERIVES MORPHINIQUES A AZOTE QUATE RNAIRE
- 58. MYROPHINE: MYRISTYLBENZYLMORPHINE
- 59. NICODICODINE: NICOTINYL-6 DIHYDROCODEINE
- 60. NICOCODINE: NICOTINYL-6 CODEINE
- 61. NICOMORPHINE: DINICOTINYL-3, 6 MORPHINE
- $62.\ ETTTANIONORACYMETHADOL:\ ALPHA\ -(+)-ACETOXY-3\ METHYLAMINO-6\ DIPHENYL-4,$
- 4 HEPTANE

- 63. NORCODEINE
- 64. NORLEVORPHANOL: (-) HYDROXY -3MORPHINANE
- 65. 3 NORMETHADONE: DIMETHYLAMINO -6DIPHENYL -4, 4 HEXANONE -3
- 66. NORMORPHINE: DEMETHYLMORPHINE
- 67. NORPIPANONE: DIPHENYL-4, 4PIPERIDINO-6 HEXANONE-3
- 68. OXYCODONE: HYDROXY-14 DIHYDROCODEINONE
- 69. N-OXYMORPHINE: MORPHINE-N-OXIDE
- 70. OXYMORPHONE: HYDROXY-14 DIHYDROMORPHINONE
- 71. PETHIDINE INTERMEDIAIRE A:CYANO-4 METHYL -1 PHENYL -4 PIPERIDINE
- 72. PETHIDINEINTERMEDIAIRE B; PHENYL -4 PIPERIDINE CARBOXYLATE -4 D' ETHYLE.
- 73. PETHIDINE INTERMEDIAIRE C: ACIDE METHYLPHENYL-4 PIPERIDINE- CARBOXYLIQUE -4
- 74. PENTAZOCINE:DIMETHYLALLYL- 2 DIMETHYL -5.9 HYDROXY 2' BENZOMORPHANE
- 75. PIMINODINE: ESTER ETHYLIQUE DE L'ACIDE PHENYL -4 (PHENYLAMINO -3 PROPYL) -
- 1 PIPERIDINE-CARBOXYLIQUE -4
- 76. PIRITRAMIDE OU PIRINITRAMIDE: (CYANO-3 DIPHENYL -3, 3 PROPYL) -1 (PIPERIDINE -1)-
- 4 PIPERIDINE-4-CARBOXAMIDE
- 77. PROHEPTAZINE: DIMETHYL-1, 3 PHENYL-4 PROPIONOXY-4 AZACYCLOHEPTANE
- 78. PROPERIDINE: ESTER ISOPROPYLIQUE DE L'ACIDE METHYL-1 PHENYLPIPERIDINE -
- 4 CARBOXYLIQUE-4
- 79. PROPIRANE: (N(1-METHYL -2 PIPERIDINOETHYL) -N -2 PYRIDYLPROPIONAMIDE
- 80. RACEMETHORPHANE: (±) METHOXY-3 N- METHYLMORPHINANE
- 81. RACEMORAMIDE:  $(\pm)$  [METHYL -2 OXO -4 DIPHENYL -3, 3 (PYRROLIDINYL -1) -
- 4 BUTYL]MORPHOLINE
- 82. RACEMORPHANE:(±)-HYDROXY-3N-METHYLMORPHINANE
- 83. SULFENTANYL: N-[4-(METHOXYMETHYL)-1-[2-(2 THIENYL) ETHYL] -
- 4 PIPERIDYL] PROPIONANILIDE
- 84. THTILIDINE: (+) ETHYL -TRANS-2-(DIMETHYLAMINO)-1- PHENYL -3 CYCLOHEXENE -1-CARBOXYLATE
- 85. TRIMEPERIDINE:TRIMETHYL -1.2.5 PHENYL -4 PROPIONOXY -4 PIPERIDINE
- 86. HYDROCODONE: DIHYDROCODEINONE
- 87. HYDROMORPHINOL: HYDROXY-14 DIHYDROMORPHINE
- 88. HYDROMORPHONE: DIHYDROMORPHINONE
- $89.\mathrm{HYDROXYPETHIDINE}$ : ESTER ETHYLIQUE DE L'ACIDE M HYDROXYPHENYL -4 METHYL-1PIPERIDINE-CARBOXYLIQUE -4
- 90. PHENADOXONE: MORPHOLINO-6DIPHENYL -4,4 HEPTANONE -3
- 91. PHENAZOCINE: HYDROXY -2' DIMETHYL- 5,9 PHENETHYL-2 BENZOMORPHANE -6,7
- 92. PHENAMPROMIDE: N- (METHYL-1 PIPERIDINO-2 ETHYL) PROPIONANILIDE
- 93. PHENCYCLIDINE: (PHENYL-1CYCLOHEXYL)-1 PIPERIDINE
- 94. PHENMETRAZINE: METHYL -3 PHENYL-2MORPHOLINE
- 95. PHENOMORPHANE: HYDROXY-3 N-PHENETHYLMORPHINANE
- 96. PHENOPERIDINE: ESTER ETHYLIQUE DE L'ACIDE (HYDROXY -3 PHENYL -3 PROPYL) -
- 1 PHENYL -4PIPERIDINE -CARBOXYLIQUE-4
- 97. PHENTANYL: N (PHENETHYL -1 PIPERIDYL -4) PROPIONANILIDE
- 98. PHOLCODINE: MORPHOLINYLETHYLMORPHINE

- 99. FURETHIDINE: ESTER ETHYLIQUE DE L'ACIDE (TETRAHYDROFURFURYLO-OXYETHYL-2) - 1 PHENYL-4 PIPERIDINE-CARBOXYLIQUE  $4\,$
- 100. LEVAMPHETAMINE:L-ALPHA-METHYLPHENETHYLAMINE
- 101. LEVOMETHAMPHETAMINE:L-N, ALPHA DIMETHYLPHENETHYLAMINE
- 102. FENETYLLINE: DL-3,7 DIHYDRO-1,3-DIMETHYL-7-(2-[(1-METHYL-2-
- PHENYLETHYL)AMINO]ETHYL)-1H-PURINE-2,6-DIONE
- $103.\ CETYL-ALPHA-METHYLFENTANYL-[1-(A-METHYLPHENETHYL)-4-(A-METHYLPHENETHYLPHENETHYL)-4-(A-METHYLPHENETH$
- PIPERIDYL|ACETANILIDE
- 104. ALPHA-METHYLFENTANYL [N-[1-(A-METHYLPHENETHYL)-4-
- PIPERIDYL|PROPIONANILIDE
- 105. 3-METHYLFENTANYL N-(3-METHYL-1 -PHENETHYL-4-PIPERIDYL) PROPIONANILIDE
- 106. MPPP PROPIONATE (ESTER) DE METHYL-1 PHENYL-4 PIPERIDINOL-4
- 107. PEPAP ACETATE (ESTER) DE PHENETHYL-1 PHENYL-4 PIPERIDINOL-4
- 108. RACEMATE DEMETAMPHETAMINE (±-N, A-DIMETHYLPHENETYLAMIN
- 109. SECOBAPBITAL
- 110. CODEINE: ETHER METHYLIQUE DE LA MORPHINE
- 111. ALPHA-METHYLTHIOFENTANYL N-[1[1-METHYL-2-(2-THIENYL)ETHYL]-4-
- PIPERIDYL]PROPIONANILIDE
- 112. PARA-FLUOROFENTANYL 4-FLUORO-N-(1-PHENETHYL-4-PIPERIDYL)-PROPIONANILIDE
- $113.\ BETA\ HYDROXYFENTANYL\ N[1\ (BETA-\ HYDROXYFENTANYL)-4-PIPERIDYL)$
- PROPIONANILIDE
- 114. BETA-HYDROXY-3-METHYLFENTANYL N-[1(BETA-HYDROXYPHENETHYL)-3-METHYL-4-PIPERIDYL)PROPIONANILIDE
- 115 PENTANYL N-[1-(2-(2-THIENYL)ETHYL-4-PIPERIDYL]PROPIONANILIDE
- 116. 3-METHYLTHIOFENTANYL N-[3-METHYL-1-[2-THIENYL)ETHYL]-4-
- PIPERIDYL|PROPIONANILIDE
- 117. AMINOREX:2-AMINO-5-PHENYL-2-OXAZOLINE
- 118. CHLORPHENTERMINE: 4-CHLORO -A, A-DIMETHYLPHENETHYLAMINE
- 119. CLOBENZOREX: N -(2 -CHLOROBENZYL) -A -METHYLPHENETHYLAMINE
- 120. CLOFOREX: ETHYL -(P -CHLORO -A, A DIMETHYLPHENETHYL) CARBAMATE
- 121. CLORTERMINE: 2 -CHLORO -A, A DIMETHYLPHENETHYLAMINE
- 122. FENBUTRAZATE: 2-(3-METHYL-2-PHENYLMORPHOLINO) ETHYL 2-PHENYLBUTYRATE
- 123 PROPYLHEXEDRINE: 2-CYCLOHEXYL-N,1 DIMETHYLETHYLAMINE
- 124. ZIPEPROL: 1-METHOXY -3 -[4 -(B-METHOXYPHENETHYL) PIPERAZIN- 1 -YL] -
- 1 PHENYLPROPAN 2 OL
- 125. REMIFENTANIL:3-4-CARBOXYL-4-(N-PHENYLPROPIONAMIDE)-L-
- PIPERIDINE PROPIONIC ACIDDIMETHYLESTER MONOHYDRATE
- 126. TRAMADOL:2-[(DIMETHYLAMINO)METHYL]-1-(3-METHOXYPHENYL) CYCLOEXANOL
- 127. MEDETOMIDINE:(+/-)-4-(ALPHA,2,3-TRIMETHYLBENZYL)IMIDAZOLE
- 128. ATIPAMEZOLE: 4-(2-ETHYL-2,3-DIHYDRO-1 H-INDEN-2-YL)-1 H-IMIDAZOLE
- 129. ROMIFIDINE: 2-BROMO-6-FLUORO-2-IMIDAZOLIDINYLIDENEBENZAMINE
- 130. KETAMINE: 2 (2 -CHLOROPHENYL) -2 (METHYLAMINO) CYCLOHEXANONE
- 131. NALBUPHINE: 17-CYCIOBUTYLMETHYL- 7,8-DIHYDRO-14-HYDROXY-17-NORMORPHINE
- $132. \ \ 7\hbox{-}[(10,\!11\hbox{-}DIHYDRO\hbox{-}5HDIBENZO[A,\!D]CYCLOHEPTEN\hbox{-}5\hbox{-}YL)AMINO] \ HEPTANOIC \ ACID$
- 133. DEXMEDETOMIDINE: (S)-4-[1-(2,3-XYLYL) ETHYL] IMIDAZOLE.

#### TABLE D'

- 1. ETHINAMATE:CARBAMATE D' ETHINYL-1 CYCLOHEXYLE
- 2. ETHYL LOFLAZEPATE: ETHYL 7 -CHLORO-5- (O-FLUOROPHENYL) -2,3 -DIHYDRO -2 -OXO-1H-1.4-BENZODIAZEPINE -3 -CARBOXYLATE
- 3. ETHCHLORVYNOL:ETHYL-B-CHLOROVINYL-ETHINYL CARBINOL
- 4. HALAZEPAM: 7 -CHLORO-1, 3-DIHYDRO-5-PHENYL -1-(2,2,2- TRIFLUORO-ETHYL)-2H-1,4-BENZODIAZEPIN -2 -ONE
- 5. HALOXAZOLAM: 10-BROMO-11B (O-FLUOROPHENYL)-2,3,7, 11B-TETRAHYDROOXAZOLO [3,2-D] [1,4]-BENZODIAZEPIN-6(5H )-ONE
- 6. ALPRAZOLAM: 8 CHLORO -1- METHYL -6- PHENYL -4 H- S-TRIAZOLO [4,3-A]
- [1,4] BENZODIAZEPINE
- 7. AMOBARBITAL: ACIDEETHYL -5 (METHYL-3 BUTYL)-5 BARBITURIQUE
- 8. AMPHEPRAMONE: DIETHYLAMINO-2PROPIOPHENONE
- 9. BARBITAL: ACIDE DIETHYL -5, 5 BARBITURIQUE
- 10. BENZPHETAMINE: N-BENZYL-N,A-DIMETHYLPHENETHYLAMINE
- $11.\ BUPRENORPHINE:\ N-CYCLOPROPYL-METHYL-7A\ (L-(S)-HYDROXY-1,2,2-1)$
- $TRIMETHYLPROPYL) 6,14ENDOETHANO 6,7,8,14 \ TETRAHYDRO NORORIPAVINE$
- 12. BROMAZEPAM: 7- BROMO -1,3 -DIHYDRO -5-(2-PYRIDYL) -2H -1,4 -BENZODIAZEPIN -2-ONE
- 13. GLUTETHIMIDE: ETHYL -2 PHENYL -2GLUTARIMIDE
- 14. DEXTROMETHORPHANE: D-METHOXY-3N-METHYLMORPHINANE
- 15. DELORAZEPAM: 7- CHLORO-5- (O-CHLOROPHENYL)-1,3- DIHYDRO -2H-1.4 BENZODIAZEPIN-2-ONE
- 16. DIAZEPAM: 7-CHLORO -1,3 DIHYDRO -1 -METHYL-5-PHENYL-2H 1,4 BENZODIAZEPIN 2- ONE
- 17. ESTAZOLAM: 8 -CHLORO -6 PHENYL -4H -5-TRIAZOLO [4,3-A] [1,4] BENZODIAZEPINE
- 18. CAMAZEPAM: 7 -CHLORO -1,3 DIHYDRO -3-HYDROXY -1-METHYL -5 PHENYL -2H -1,4-BENZODIAZEPIN 2 ONE DIMETHYLCARBAMATE (ESTER)
- 19. KETAZOLAM: 11 -CHLORO -8, 12B -DIHYDRO-2,8 DIMETHYL -12B PHENYL -4H -[I,3]-OXAZINO-[3,2-D][L,4]-BENZODIAZEPINE-4,7 (6H) -DIONE
- 20. CLOBAZAM: 7-CHLORO-1-METHYL -5-PHENYL-1H-I.5 BENZODIAZEPINE -2,4 (3H.5H) DIONE
- 21. CLONAZEPAM: 5- (O-CHLOROPHENYL) -1,3-DIHYDRO -7 -NITRO 2H -1,4 -BENZODIAZEPIN-2-ONE
- 22. CLOXAZOLAM: 10-CHLORO-11B (O-CHLOROPHENYL) -2, 3, 7, 11B TETRAHYDRO OXAZOLO-[3,2-D] [1,4] BENZODIAZEPIN -6 (5H) ONE
- 23. CLOTIAZEPAM: 5-(O -CHLOROPHENYL) -7- ETHYL-1,3 DIHYDRO -1 METHYL -2H- THIENO [2,3-E] [1,4] DIAZEPIN-2-ONE
- 24. CYCLOBARBITAL: ACIDE(CYCLOEXENE-1YL-1)-5 ETHYL -5 BARBITURIQUE
- 25. MAZINDOL: 5- (P-CHLOROPHENYL)-2,5- DIHYDRO-3H-IMIDAZO (2,1-A)-ISOINDOL-5-OL
- 26. LOPRAZOLAM:6-(O-CHLOROPHENYL)-2,4-DIHYDRO-2-[(4-METHYL-1-
- PIPERAZINYL)METHYLENE]-8-NITRO-1H-IMIDAZO [1,2-A] [1,4] BENZODIAZEPIN-1-ONE

- 27. LORAZEPAM: 7-CHLORO-5- (O-CHLOROPHENYL)-1.3-DIHYDRO-3-HYDROXY-2H-
- 1,4BENZODIAZEPIN-2-ONE
- 28. LORMETAZEPAM:7-CHLORO-5-(0-CHLOROPHENYL),1,3-DIHYDRO-3-HYDROXY-1-METHYL-2H-1,4-BENZODIAZEPIN- 2-ONE
- 29. MEDAZEPAM: 7-CHLORO-2,3-DIHYDRO-1-METHYL-5- PHENYL-1 H -1,4-BENZODIAZEPINE
- 30. METHYLPHENOBARBITAL: ACIDE METHYL-1 ETHYL-5 PHENYL-5 BARBITURIOUE
- 31. METHYPRYLON: DIETHYL-3,3DIOXO-2,4 METHYL-5 PIPERIDINE
- 32. MEPROBAMATE:BICARBAMATE DE METHYL-2 PROPYL-2 PROPANEDIOL-1.3
- 33. METAZEPAM: 1,3 DIHYDRO-1-METHYL-7-NITRO-5-PHENYL-2H-1.4 BENZODIAZEPIN-2-ONE
- 34. BENZOΔIAZEΠIN -2-ONH NITRAZEPAM: 1,3 -DIHYDRO-7-NITRO-5-PHENYL -2H -
- 1,4 BENZODIAZEPIN -2 -ONE
- 35. NORDAZEPAM: 7-CHLORO-1,3-DIHYDRO-5-PHENYL -2 H -1,4- BENZODIAZEPIN -2 -ONE
- 36. OXAZEPAM: 7-CHLORO-1.3-DIHYDRO-3-HYDROXY-5-PHENYL-2H -1,4-BENZODIAZEPIN 2-ONE
- 37. OXAZOLAM: 10-CHLORO- 2, 3, 7, 11B- TETRAHYDRO- 2 METHYL -1 IB-PHENYLOXAZOLO (3,2-D) (1,4) BENZODIAZEPIN -6(5H )-ONE
- 38. PENTOBARBITAL: ACIDEETHYL-5 (METHYL-1 BUTYL) 5 BARBITURIQUE
- 39. PINAZEPAM: 7-CHLORO-1,3-DIHYDRO-5-PHENYL-1-(2-PROPYNYL) -2H-1.4-
- BENZODIAZEPIN -2-ONE
- 40. DIPHENYL-1,1 (PIPERIDYL-2)-1 METHANOL
- 41. PRAZEPAM: 7-CHLORO-1-(CYCLOPROPYLMETHYL)-1,3- DLHYDRO-5-PHENYL-2H-1,4-BENZODIAZEPIN-2-ONE
- 42. SPA: (-)-DIMETHYLAMINO-L DIPHENYL-1,2 ETHANE
- 43. PHENDIMETRAZINE: (+)-3,4-DIMETHYL-2-PHENYLMORPHOLINE
- 44. TEMAZEPAM: 7-CHLORO-1.3-DIHYDRO-3-HYDROXY-1-METHYL-5 -PHENYL-2H-1,4-BENZODIAZEPIN-2-ONE
- 45. TETRAZEPAM: 7-CHLORO-5-(CYCLOEXEN-1-YL)-1,3-DIHYDRO-1-METHYL-2H-1,4-BENZODIAZEPIN-2-ONE
- 46. TRIAZOLAM: 8-CHLORO-6-(O-CHLOROPHENYL)-1-METHYL-4H-S-TRIAZOLO [4,3-A] [1,4]BENZODIAZEPINE
- 47. PHENOBARBITAL: ACIDE ETHYL-5PHENYL-5 BARBITURIQUE
- 48. PHENTERMINE: A, A-DIMETHYLPHENETHYLAMINE
- 49. FLURAZEPAM:7-CHLORO-1-[2-{DIETHYLAMINO)ETHYL]-5-(O-FLUOROPHENYL)-1,3-DIHYDRO-2H-1.4-BENZODIAZEPIN-2-ONE
- 50. FLUDIAZEPAM: 7-CHLORO- 5- (O-FLUOROPHENYL)-1,3-DIHYDRO-1-METHYL-2H -1,4-BENZODIAZEPIN-2-ONE
- 51. FLUNITRAZEPAM:5-(O-FLUOROPHENYL)-1,3DIHYDRO-1-METHYL-7-N1TRO-2H-1,4-BENZODIAZEPIN-2-ONE.
- 52. CHLORAZEPATE: 7-CHLORO-2.3-DIHYDRO-2-OXO-5-PHENYL-1 H-1,4-BENZODIAZEPINE-3-CARBOXYLIQUE ACIDE
- 53. CHLORODIAZEPOXIDE: 7-CHLORO-2-(METHYLAMINO)-5- PHENYL-3H-1,4-BENZODIAZEPINE-4-OXIDE
- 54. ALLOBARBITAL : ACIDE DIALLYL-5,5BARBITURIQUE
- 55. VINYLBITAL: ACIDE(METHYL-1 BUTYL)-5 VINYL-5 BARBITURIQUE
- 56. BUTALBITAL: ACIDE ALLYL-5ISOBUTYL-5 BARBITURIQUE

- 57. BUTOBARBITAL: ACIDE BUTYL- 5ETHYL- 5 BARBITURIQUE
- 58. CATHINE: D-THREO-2-AMINO-L-HYDROXY-L-PHENYL PROPANE
- 59. MEFENOREX: DL-N -(3-CHLOROPROPYL) -ALPHA METHYLPHENETHYLAMINE
- 60. PYROVALERONE:DL-L-(4-METHYLPHENYL)-2-(1-PYRROLIDINYL)-1-PENTANONE
- 62. SECOBARBITAL: ACIDE SEC-BUTYL-5 ETHYL-5 BARBITURIQUE
- 63. FENCAMFAMIN: DL-N-ETHYL-3-PHENYLBICYCLO (2,2,I)-HEPTAN -2 -AMINE
- 64. FENPROPOREX: DL- 3- [(ALPHA -METHYLPHENETHYL) AMINO]-PROPIONITRILE
- 65. BROTIZOLAM: 2- BROMO-4- (2-CHLOROPHENYL) -9-METHYL-6H-THIENO [3,2-F] [1,2,4] TRIAZOLO-[4, 3-A]
- [1, 4] DIAZEPIN
- 66. PEMOLINE: 2-AMINO-5-PHENYL-2-OXAZOLIN-4-ONE
- 67. MIDAZOLAM: 8-CHLORO-6-(O-FLUOROPHENYL)-1-METHYL-4H-IMIDAZO(1,5-A) (1,4) BENZODIAZEPINE
- 68. QUAZEPAM: 7-CHLORO-5-(2-FLUOROPHENYL)-1,3-DIHYDRO-1-(2, 2, 2, -TRIFLUOROETHYL)-2H-1,4-BENZODIAZEPINE-2-THIONE
- 69. THIOPENTAL: 5-ETHYL-5-(1-METHYLBUTYL)-2 THIOBARBITURIC ACID
- 70.PROXIBARBAL: 5-(2-HYDROXYPROPYL)-5-(2-PROPENYL)-2, 4, 6 (1H, 3H, 5H)-
- PYRIMIDINETRIONE. 5-ALLYL-5-(2 HYDROXYPROPYL) BARBITURIC ACID.
- 71. MESOCARB: 3-(A-METHYLPHENETHYL)-N- PHENYLCARBAMOYL) SYNDONE (MINE
- 72. MODAFINIL: 2-[(DIPHENYLMETHYL) SYLFINYL] ACETAMIDE
- 73. ZOLAZEPAM: 4 (O- FLUOROPHENYL) 6,8- DIHYDRO 1,3,8 TRIMETHYLPYRAZOLO [3,4-E] [1,4] -DIAZEPIN 7 (1 H)-ONE
- 74. ZALEPLON: N-[3-(3-CYANOPYRAZOLO[1,5-A] PYRIMIDIN-7-YL)PHENYL]-N-ETHYLACETAMIDE
- 75. ZOLPIDEM: N,N,6-TRIMETHYL-2-(4 METHYLPHENYL) IMIDAZO(1,2-A) PYRIDINE-3-ACETAMIDE
- 76. ZOPICLONE: 6-(5-CHLOROPYRID-2-YL)-5-(4-METHYLPIPERAZIN-1 -YL) CARBONYLOXY-7-OXO-6, 7-DIHYDRO5H-PYRROLO- [3,4-B] PYRAZINE
- 77. SALTS AND ISOMERS, UNLESS IS SPECIFIED OTHERWISE IN OTHER PROVISION.

## 10.2 TYPES OF MEDICAL PRESCRIPTIONS

КО	ΔΙΚΟΣ Ι	E ONOMAZIA ПРОIONTOZ	ФАРМАКОТЕХНІКН МОРФН	ПЕРІЕКТІКОТНТА	T.	IYIKEYAXIA	ΤΡΟΠΟΣ ΔΙΑΘΕΣΗΣ	ΚΑΤΟΧΟΣ ΑΔΕΙΑΣ ΚΥΚΛΟΦΟΡΙΑΣ
Από το	υ στόματο	ς χορήγηση (στερεές μορφές)						
A03F	A01 ME	ETOCLOPRAMIDE HYDROCHLOR	DE MONOHYDRATE					
	42604	02 PRIMPERAN	TAB	10MG/TAB	Φ	BTx20 (BLIST 1x20)	ME IATPIKH ΣΥΝΤΑΓΗ	SANOFI-AVENTIS AEBE
A03F	A03 DC	OMPERIDONE						
	1609501	01 CILROTON	F.C.TAB	10MG/TAB	Φ	BTx30 (BLIST 3x10)	ME IATPIKH ΣΥΝΤΑΓΗ	JOHNSON & JOHNSON ΕΛΛΑΣ ΚΑΤΑ
	2810201	01 OROPERIDYS	OR.DISP.TA	10MG/TAB	Φ	BT x 30 TABS	ME IATPIKH ΣΥΝΤΑΓΗ	PIERRE FABRE FARMAKA AE
Από το	υ στόματο	ς χορήγηση (υγρές ή ημιστερεές μος	νφές)					
A03F	A01 ME	ETOCLOPRAMIDE HYDROCHLOR	DE MONOHYDRATE					
	42603	01 PRIMPERAN	SYR	5MG/5ML	Φ	FLX125ML	ME IATPIKH ΣΥΝΤΑΓΗ	SANOFI-AVENTIS AEBE
A03F	A03 DC	OMPERIDONE						
	4000500	01 CILROTON	ORAL.SOL	5MG/5ML	ф	FLx200ML(FYAA.ΦIAA)	ΜΕ ΙΑΤΡΙΚΉ ΣΥΝΤΑΓΉ	JOHNSON & JOHNSON EAAAS KATA

Figure 1. Medical prescription model from a private doctor  $^{[40]}$ 

Τύπος Συνταγής ΤΥΠΙΚΗ Ημ/νία Έκδοσης Συνταγής 29/6/20: *Επανάληψη (ΟΧΙ (ΑΠΛΗ) •	12	
<b>Διάγνωση</b> Διάγνωση (Ελεύθερο Κείμ	ιενο)	
Προσθήκη Διάγνωσης ICD-10		
<b>Θεραπεία</b> Προσθήκη Φαρμάκου	Θεραπεία Μηνός Π΄ Μονοδοσικά Π΄ Δικαιούχος Ε.Κ.Α.Σ. Π΄ Υψηλού κόστους Π΄	Εκτελείται μόνο από Φαρμακείο του Ι.Κ.Α. Γ΄ Ναρκωτικά Γ΄ Περιπτώσεις Μηδενικής Συμμετοχής για όλη τη συνταγή
Σχόλια Συνταγής.	Καταχώρης	η Συνταγής   Καθαρισμός

Figure 2. Filling form of a typical online prescription of EOPYY) [40]

AOPOTYTIO KAI TITADE GOPEA	EYNTACH GEIH BARCODE	1234567B01		
DATE OF THE PARTY		AMERICAL SERVICES AND SERVICES ASSESSMENT AS	BETH IPIAZOYZAZ	

Figure 3. Model of a hospital prescription [38]

AA Darrende:				
0 000	TANIA FNHEIOTHTAE	TAINIA FINESIOTHTAX	TANNA ZATHTOIZHMT	TAINIA FINHEIOTHTAE
	TAINIA FINHZIOTHTAS	TAINIA FINHEIOTHITAE	TANIA FINHEIOTHTAE	TAINIA FNHEIOTHTAE
V 3 ( S)	TANIA FNHEDOTHTAE	TAINIA FINHEIOTHTAE	TANIA FNHEIOTHTAE	TAINIA FNHEIOTHTAE
HAMMA EXTENSENS		- T	~ Z	,
(ALIGUMAN-TAMALIPA)	EPOSONON L. H OWNERS OF IN-		L.	J. TUN.
ı.	A. Dor Maland Dopped A. Eng Mong I. & M. vil	nameni drogodyma o spripir Ican apportin 4 ranto ramond	aprampie śrócość rąc, a capilyść too argumento je Aldińa na gaę appaytie najwa kynig nau addonowa je na slego	d entropy.

Figure 4. Rear view of a hospital prescription [38]



Figure 5. Sample of e-referral for medical examinations [40]



Figure 6. Medical prescription under the trade name of a drug [40]



Figure 7. Medical prescription without a brand name drug [40]



Figure 8. Illustration of a European prescription in the content of cross-border care [41]

**ABSTRACT** 

MEDICAL PRESCRIPTIONS IN GREECE

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Aim of diploma thesis:

The aim of diploma thesis is: to get current knowledge about medical

prescriptions (MP) in Greece and rules of their use; to prepare its basic division

according their kinds, formal look, practical handle with them and their payment; to get

sample of different MP and finally to describe the current Greek health, pension and

insurance system as a secondary aim.

**Results:** 

In this diploma thesis it has been described the existing model of medical

prescriptions in Greece and have been given adequate information about their basic

divisions, their kinds, their formal look, and their compensation. Also it is described the

course of the prescription, from the doctor to the pharmacist, harmonized with modern

electronic prescribing.

In the recent years (from 2009), Greece started the pilot implementation of e-

prescribing for the modernization of public administration. This reform was established

in order to fight against impunity and seemingly anti-ethical actions. The measure was

certified by the laws of the Greek State, whereas the first results are starting to show up.

**Conclusion:** 

Prescription of drugs in Greece is covered and described by certain basic

therapeutic and legal principles that determine the amount and prevent the emergence of

practices, such as over prescription. The doctor and the pharmacist are accountable and

responsible for the proper execution and sponsorship of these prescriptions. Otherwise,

they are requested by the competent supervisory authorities and if necessary, report to

the Greek justice.

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**ABSTRAKT** 

LÉKAŘSKÉ PŘEDPISY V ŘECKU

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Univerzita Karlova v Praze, Česká republika

Cíl práce:

Cílem práce je zpracovat základní materiály související s lékařskými předpisy a

pravidly jejich používání v Řecku; vytvořit přehled podle jejich druhů, formální

stránky, praktického zacházení s nimi a jejich úhrady; získat ukázky řeckých lékařských

předpisů. Dále přiblížit současný řecký zdravotní a sociální systém, včetně zdravotního

pojištění.

Výsledky:

V diplomové práci je popsán současný model lékařských předpisů v Řecku,

jejich základní rozdělení, druhy, formální úprava a možnosti jejich úhrady. Dále je

zachycen proces předepisování léčivých přípravků na cestě od lékaře k lékárníkovi, s

ohledem na moderní elektronickou preskripci.

V nedávné době (2009) byl v Řecku nastartován projekt implementace

elektronického předepisování léčivých přípravků přispívající k celkové elektronizaci a

modernizaci veřejné správy. Tato reforma je obecně realizována za účelem boje proti

podvodům a neetickému jednání. Nyní jsou již patrné první pozitivní výsledky.

Závěr:

Předepisování léčivých přípravků v Řecku je zaštiťováno a popsáno konkrétními

základními terapeutickými a zákonnými principy, které předcházejí vzniku situací, kdy

by např. došlo k předepsání jejich nadměrného množství. Lékaři a lékárníci jsou

zodpovědní za správné předepsání a vydání receptu. Při pochybení jsou pak

prověřování příslušným kontrolním úřadem, a pokud je to nezbytné, jsou předání

řeckému soudu.

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