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Review Article

Costs of medical manipulations and funding of medical staff across the Europe

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ABSTRACT

The Clinical University hospitals in European Union, including those from new European countries, are providing medical services according to high quality standards; however there are significant differences in medical service payment from the government. There are also differences in the amount of the payment for in- and outpatient services. According to World Bank's assessment several of new European Union members are ranked as high-income countries alongside to old European member countries, but the payment gap of medical services between these countries is very relevant. Health insurance costs vary a lot across the European Union countries, with the highest percentage in Germany (15.5%) and the lowest in France (100 Euro per year). In most countries the government finances the costs of surgical manipulations, but by contrast in Latvia patients have to pay fixed payment of EUR 43 for treatment even in case of malignancy and additional payments for staying in hospital. The salary of surgeons in field of gynecological oncology for the full workload ranges from 500 Euro in Macedonia to 4000 Euro in Denmark per month after the taxes. Reward from government varies a lot for the same manipulations in different countries. Despite the fact World Bank ranks new European countries as high-income countries there is tremendous difference in the manipulation costs covered by government and payment of medical staff.

Keywords: Costs, Gynecology, Medical manipulations, Oncology

INTRODUCTION

The Clinical University hospitals in European Union (EU) are providing medical services according to today's quality standards; it also relates to the new member countries of the European Union; however there are significant differences in medical service payment from the government. There are also some differences in the amount of the payment of medical services in ambulatory and hospitalization stage.^{2,5}

According to World Bank's assessment a number of new EU members are ranked as high-income countries alongside to old European member countries, but the

payment gap of medical services between these EU countries is very significant.⁷

The survey was carried out to compare the differences of gynaecological surgical manipulation costs, medical payments that are covered by the government and salaries of medical staff between Eastern and Western Europe countries.

The aim of the study was to compare the gynaecological service payment covered by the government, costs of different surgical gynaecological manipulations and salaries of medical staff across the European countries.

METHODS

Questionnaire that included 14 questions about gynaecological manipulation costs, government-funded medical services and medical staff salaries was established. The questionnaires were sent to gynaecological oncologists in 37 European countries. Thirteen questionnaires were received back from Romania, Denmark, Greece, Macedonia, Spain, Austria, Germany, Italy, Serbia, Poland, the Netherlands, France and Latvia from which eight were considered to be adequately completed and five were not fully completed.

RESULTS

In most countries health insurance provides a complete health care package, only in Italy in order to get better service or if medical service is not supplied as an emergency aid patients have to pay additionally. Health insurance in most countries is compulsory public insurance, but in some countries patients have the possibility to choose private or public insurance, such possibility is provided, for example, in Germany and France, but in the Netherlands only private companies provide insurance.

Insurance costs differ significantly in various countries, in some countries they are fixed, in other countries they are calculated as a percentage of income. In Denmark health care system is for free, but the taxes are above 50%, and if patient wants to receive medical assistance more rapidly, there is possibility to buy additional insurance from private insurance companies, so patient does not need to wait for an open time in the public free system. The highest insurance rate is in Germany and it is equal to 15.5% of revenues, followed by Poland with 9% and Romania with 5.5% of revenues, while in Latvia percentage is calculated based on Gross Domestic Product (GDP) and total tax revenues that are not fixed percentage value. Some countries specify the sum that has to be paid per year, the highest is in Serbia and it is equal to 1200 EUR per year, followed by Spain with 1000 EUR per year, followed by Greece with 800 EUR per year, followed by Macedonia, where annual insurance is equal to 200 EUR, and the lowest insurance cost is in France, where it is 100 EUR per year.

In six of the surveyed countries, the patient has no possibility to choose health care institution for money provided by the government or insurance company, the patient can choose services only within the specified hospital. However in other surveyed countries the patient can choose, where he wants to receive medical care and these services will be covered by compulsory public insurance or private companies' insurance.

From surveyed countries only in Netherland payment for medical care in state hospital is specified for the patient with gynecologic cancer. In Latvia fixed sum is 7.50 EUR per night; this sum has to be paid by the patient, it is a co-

payment, because the government pays remaining 28.25 EUR per night. In Greece, the patient does not need to pay for staying in hospital; public insurance covers 60EUR per night for patients with malignant gynaecological diseases. In Serbia, the government pays 150 EUR per night for a patient staying in hospital. In the remaining surveyed countries the average payment from government is between 60 - 150 EUR per night.

In most surveyed countries the patient with malignant gynaecological disease does not have to pay for medical assistance, but in Latvia in such cases the patient has to pay 13.5 EUR per night, but the government pays the rest (38.25 EUR per night). Also in Macedonia the patient with malignant gynaecological disease pays 10% of costs, for example, if total costs are 700 EUR, the patient pays 10 EUR for staying in hospital per night and the sum that has to be paid by the patient is 70 EUR for all period staying in hospital, thus the government pays the remaining 90% (630 EUR). In Greece the patient with malignant gynaecological disease does not have to pay for staying in hospital, because the government pays for each patient staying in hospital an amount of 60 EUR per night.

In nine of surveyed countries the patient does not need to pay for surgical manipulations; they are covered by the government. But in Macedonia the patient has to pay 10% of surgical manipulation expenses and the payment varies from 12 EUR (dilation and curettage) to 70 EUR for simple hysterectomy with bilateral salpingo-oophorectomy. In Latvia, the patient has to pay fixed payment for surgical manipulation that is equal to 43 EUR. In surveyed countries surgeon does not receive percentage or fixed payment for the manipulations they have carried out.

In three of surveyed countries the government or the insurance company does not cover the patient's outpatient consultations. In Denmark, Spain, Germany, Greece, Austria, Poland, France and the Netherlands the government pays for all outpatient consultations. In Macedonia the government covers 25 EUR of the outpatient costs, but in Latvia only 11.50 EUR of the outpatient visit costs.

In all surveyed countries patient expenses for the first and further visits differ significantly if the visit is related to the same gynaecological disease. In six countries for visiting gynaecologist-oncologist the patient does not need to pay for the first and further visits if the patient comes with the same diagnosis. In Germany costs depend on the procedure that had been carried out, thus consultation payment is 61.20 EUR, physical examination - 21.45 EUR, ultrasonography - 111.26 EUR, etc. In Greece payment for the first visit is 5 EUR and for further visits with the same gynaecological disease it is for the same price, similarly it is in Latvia, but cost is 4, 27 EUR for visits, and also in France, where payment for the first and following visits is 28 EUR. The cost for the first visit in Italy is 23 EUR and for further visits with the same gynaecological disease - 18

EUR, but in Macedonia the first visit is only for 2, 50 EUR and further visits are for free.

In 12 of surveyed countries radiological examination costs are paid by the government, but in Greece the patient has to pay for this service additionally.

In all surveyed countries salary for 160 working hours per month (full-time job) is specified for physicians. In surveyed countries full-time salaries differ significantly; the amount of payment physicians receive each month is shown in Figure 1. As the figure shows the highest salary for gynaecological oncologists is paid in the Western European countries, it can reach up to 4000 EUR per month. The lowest salary paid to physicians is in the Eastern European countries; and the lower incomes are in Macedonia, Romania and Latvia. The data of salaries in figure are without any premiums and are excluding the night shifts.

Table 1: Average costs for surgical manipulation performed in gynecologic oncology in surveyed countries.

Surgical manipulations	Surgical manipulation payment range in countries with well covered manipulation costs*, EUR	Surgical manipulation payment range in countries with poorly covered manipulation costs**, EUR
Hysteroscopy with endometrial sampling	1100-1800	140-560
Simple hysterectomy with bilateral salpingo-oophorectomy	3000-4500	300-800
Radical hysterectomy type II with pelvic lymphadenectomy	4500-6400	350-1200
Para-aortic lymphadenectomy	1000-4600	200-600
Pelvic lymphadenectomy	1000-4600	200-600
Omentectomy	1000-1500	150-600

*Western Europe countries - Spain, Germany, Denmark, Italy, France; **Eastern Europe countries - Latvia, Romania, Macedonia, Poland.

In four of surveyed countries premium is not based on the academic degree (for professor, assistant, etc.), but in most countries premium in such position is specified (shown in Figure 2). The highest premium is set in France if the physician who works in a hospital has professors' degree. France is followed by Poland and Italy. The lowest premium is set in Latvia and Macedonia.

To compare differences in gynaecological surgical manipulation payment that is covered by the government, survey included table with few of the most common surgical manipulations. Surveyed countries were divided in two groups – countries with well covered manipulation costs, which are Spain, Germany, Denmark and Italy, and countries with poorly covered manipulations costs – Latvia, Romania, Macedonia, Poland and France; Table 1 shows average costs for manipulations performed in gynecologic oncology.

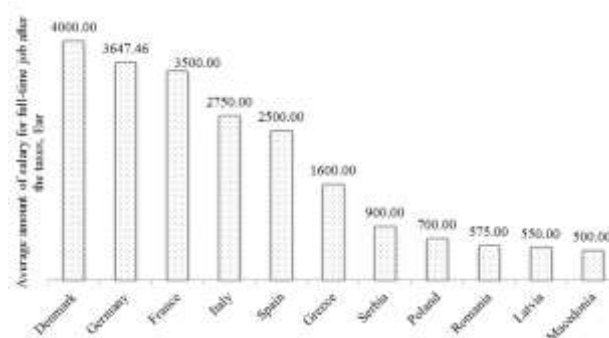


Figure 1: The average amount of salary for full-time job after the taxes for gynecologic oncologist in surveyed countries.

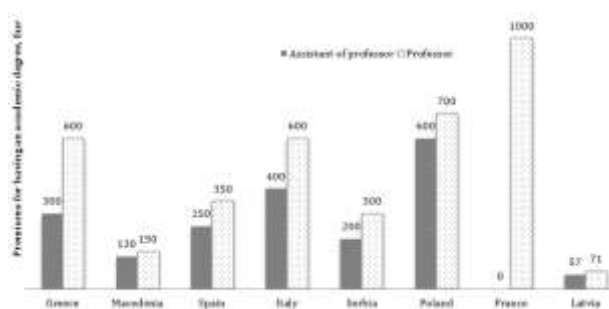


Figure 2: Premiums for having an academic degree (added to salary for full-time job every month) in surveyed countries.

DISCUSSION

According to the new classification of the World Bank the Baltic countries are in the category of the high-income countries (income above 12.746 \$), but data of our study do not support this statement.⁷ The income of Latvian physicians' is considerably lower than those calculated by the World Bank classification.

An average income of a physician in the Baltic countries is 600 EUR (732 \$) after the payment of taxes for one workload. Also, the income of physicians in Macedonia, Greece and other countries do not comply with the data published in the World Bank classification.

In order to become a physician one needs to continue developing skills and gaining new experience by visiting

various conferences and congresses on regular basis. The average cost of attending conferences in a foreign country varies from 1000 to 2000 EUR. Thus in countries where a physician's income is around 600 EUR per month, they barely can visit one or two conferences per year. That significantly decreases the possibility of improving their knowledge and gaining experience from other countries' representatives.

Also according to Piek et al., the educational climate between Western Europe countries and Eastern Europe countries did not differ significantly by region and is similar between Western or Eastern European countries. However scores did differ by country income, with higher income countries having apparently better overall educational climates than middle-income European countries.

The government has to be responsible for providing an appropriate income to the physician practicing in their country so they have a possibility to improve their knowledge and skills. It is also a benefit for the country because it gets highly qualified and competitive specialists.

First of all the government has to calculate physician's expenses related to a doctor's degree (accommodation, learning fee, transport costs, conferences, etc.) and secondly has to estimate their work and obtained remuneration. It should also create opportunities to continue improving one's skills during the practice period

According to research conducted by Reginato et al., that compared physicians' salary to an average income in the country, in most countries the physician's lowest salary is equal to an average salary in the country (Finland, France, Germany, Italy, Poland, Slovenia). However in Belgium, Denmark, Italy and the Netherlands the physician's average salary is higher than an average income in the country. Meanwhile in some countries, such as Latvia, Greece, Macedonia, Romania, the physician's salary is lower than average income in the country. Although the study of Reginato was conducted this assumption has not changed. Nowadays in Eastern European countries such as Greece, physicians' income is often lower than the average income in the country.

In Eastern European countries physicians' income is so low that physicians having obtained the education in their country often choose to work in another country, where they can earn better. It leads to a situation where the country at their own expense provides the education for professionals that choose to work in other countries. In this case the government does not receive their taxes and do not get returned the invested funds.

Several tens of thousands of physicians and nurses from Romania and Hungary have gone to work in England to carry out their work and get higher fees in the last year.^{2,3} Similarly the representatives of the Baltic countries

completing medical schools in their country go to work to other countries. Often health professionals from the Baltic countries choose to go to Germany or to England because of better salary. A research conducted by Michael Day also confirms the high salaries that are earned by physicians in England.¹ The research shows that in England physicians' average income per year is 150 000 EUR.

Not long ago in post-Soviet countries informal payments [6] or "envelope wages" were common - that indisputably made physicians less tense about low official salaries. Many patients would choose it as it was like a guarantee of the quality of provided service. Since 2007 new law was released in Latvia that prohibited physicians to receive any informal payments for providing services. Nowadays salaries have increased slightly, but without informal payments physicians' income is not sufficient.

The purpose of this paper is to draw attention of public officials to physicians' wages in different European countries taking into consideration that the quality of the service is similar. It is necessary to think how to approximate service costs to average fees in Europe. The increase of physicians' revenue will improve qualification, participating in international medical conferences, plenaries, congresses, etc., thus expanding the range of contacts and gaining new experience.

Other important fact is the possibility to stop physicians' emigration to countries where physicians' salaries are higher. As well as to eliminate the situation when relatively poorest European countries at their own expense prepare professional physicians for countries where economic situation is at higher level.

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