

# Comparison of Medical Education between Germany and Poland Considering Internal Medicine, General Medicine, and Anaesthesia

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## Abstract

With the continuing shortage of physicians in Germany, healthcare is increasingly being sustained by foreign physicians. The present paper addresses the comparability of medical education curricula in Germany and Poland and the qualification of physicians having Polish exams and specialist medical training for clinics and practices in Germany. The Medical Licensing Act and the Model Specialty Training Regulation of the German Medical Association were compared to the respective Polish regulations for medical education. In orienting surveys, physicians with Polish exams were questioned and they provided information regarding their current situation in German healthcare. Based on educational criteria, physicians with Polish exams and specialist training are well suited to work in medicine in Germany. They receive theoretical education comparable to that of German physicians; practical education during specialist medical training is more extensive in Germany. The survey could yield that Germany, as a job market, is very appealing for physicians with Polish exams. The primary reasons for this are better opportunities for training as well as better compensation. The solicitation of physicians equates to an economic loss for Poland. Nevertheless, the solicited physicians benefit from working in Germany. The European Union lacks common, detailed European standards for medical education.

## Keywords

Medical Education, Medical Studies, Specialist Medical Training, Polish Physicians, Shortage of Physicians

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## 1. Introduction

The medical care for the population in Germany has become increasingly dependent on

the work of foreign physicians.

The number of working foreign physicians in Germany has increased in the last ten years from 14,173 (2003) to 34,706 (2014), thus around one-tenth of working physicians in Germany are of foreign origin (BAEK, 2015). Particularly physicians from Eastern Europe provide a substantial contribution to healthcare in Germany.

As our largest neighbouring country, Poland is one of the countries, from which the greatest number of foreign physicians immigrates to Germany (BAEK, 2014b; BMBF, 2014). In 2014, 1936 Polish physicians were registered in Germany—an increase of 6 per cent over the previous year (BAEK, 2015). Of the Polish physicians working in Germany, the largest share, or around 70 per cent, worked in hospitals (BAEK, 2015). For Polish physicians, Germany represents an appealing and popular destination country (Krajewski-Siuda et al., 2012). Not only economic factors are reasons for the emigration to Germany, but also the geographic proximity to their homeland. Structural complications in an underfunded healthcare system, poor labour conditions, as well as below-average wages in their own country are crucial reasons for the emigration of Polish physicians (Kolodziejska et al., 2012).

EU Directive 2005/36/EC presents the basis of recognition of European foreign medical degrees and is originated in Coordination Directive 75/363 from 1975 (EU-RL, 2005; EWG, 1975). It describes broad framework conditions of medical education and training, on the basis of which degrees are equated. The question arises as to how foreign physicians can actually meet the German standard of quality in healthcare and whether or not qualitative equivalence can be assumed on the sole basis of the EU directive.

## 2. Problem Definition and Methodology

In order to find out how physicians with a degree from or specialist medical training in Poland are suited for clinics and practices in Germany, the educational curricula in Germany and Poland were compared and contrasted with the framework conditions of EU Directive 36/2005/EC. In this regard, the Medical Licensing Act was compared with Polish regulation Dz. U. 2012 Item 631 of the Ministry of Schools and Education dated 9 May 2012, and the Model Specialty Training Regulation of the German Medical Association was compared with the Polish regulation regarding training as examples for the disciplines of internal medicine, general medicine, and anaesthesia.

To represent the situation surrounding medical care as well as the immigration and emigration flow in Germany and Poland, statistics from the German Medical Association and the Polish Medical Association were analysed.

To explore the question regarding whether or not physicians with Polish exams would like to work in German healthcare and whether or not they are able to qualitatively and quantitatively cover the shortage of physicians, physicians having Polish exams were questioned within the scope of two orienting surveys. The first survey was aimed at physicians with Polish exams, who already work in Germany and was conducted among physicians of the group “*Polscy lekarze w Niemczech*” (*Polish physicians in Germany*). The second survey was aimed at students at Polish universities or physi-

cians with Polish exams, who do not or are not yet working in Germany, and was conducted by the student representation of the medical universities of Poznan and Lodz. The surveys were developed and the data was collected online from 01.01.2015 to 31.03.2015 with the survey portal [www.soscisurvey.de](http://www.soscisurvey.de). In the first survey 32 complete questionnaires were included to the analysis, in the second survey 26 complete questionnaires could be included. The first survey included 25 questions; the second survey included 19 questions regarding push and pull factors, integration, language skills and length of planned migration. The participants ranged in age from 25 - 39. Females constituted half of the sample.

### 3. Results

Do physicians with Polish exams have the same capabilities as physicians with German exams?

#### 3.1. Medical Studies

The legal foundation of basic medical education in Poland is regulation Dz. U. 2012 Item 631 of the Ministry of Schools and Education dated 9 May 2012 and is the equivalent of the German Medical Licensing Act (MNiSW (Ministry of Science and Higher Education), 2012). This resolution contains general as well as contextual, theoretical and practical requirements for studies and implements by its own account the provision pursuant to Article 24 of the EU directive regarding basic medical education (MNiSW, 2012: pp. 1-16).

The requirements and content of medical studies are described in extensive detail in this regulation regarding basic medical education:

- 1) General requirements: Studies shall last a minimum of 12 semesters and 5700 classroom hours and have a practical profile. The minimum number to achieve—the ECTS—shall be 360
- 2) General learning objectives
  - a) knowledge of student:
    - i) the development, construction and function of the human body in normal and pathological conditions,
    - ii) symptoms and course of the disease, ways of diagnostic and therapeutic procedures appropriate to the particular conditions,
    - iii) the ethical, social and legal conditions for the practice of medicine and the principles of health promotion and its,
    - iv) knowledge based on scientific evidence and accepted standards;
  - b) skills:
    - i) identify medical problems and define priorities for medical procedures,
    - ii) recognize life-threatening conditions, and require immediate medical attention,
    - iii) plan diagnostic and interpret its results,
    - iv) implement appropriate and safe therapeutic treatment and predict its effects;
  - c) in the field of social competence:

- i) ability to establish and maintain a deep and respectful contact with the patient,
  - ii) directs the good of the patient, placing them in the first place,
  - iii) respect the doctor-patient confidentiality and patient rights,
  - iv) has an awareness of his own limitations and the ability to lifelong learning;
- 3) Specific learning objectives
    - a) In the field of morphology—anatomy, histology, embryology—at least 300 classroom hours,
    - b) Medical fundamentals—biophysics, molecular biology, biochemistry, chemistry, physiology, cytology, pathophysiology, computer science, and biostatistics—at least 525 classroom hours,
    - c) Preclinical studies—genetics, microbiology, immunology, pathology, pharmacology, and toxicology—at least 525 classroom hours,
    - d) Behavioural and social studies—medical sociology, psychology, ethics, medical history, English—at least 240 classroom hours,
    - e) Clinical studies 1—paediatrics, internal medicine, neurology, geriatrics, psychiatry, dermatology, oncology, general medicine, infectious diseases, rehabilitation, laboratory diagnostics, clinical pharmacology—at least 1060 classroom hours,
    - f) Clinical studies 2—anaesthesiology and intensive medicine, general surgery, orthopaedics, and traumatology, emergency medicine, tumour surgery, gynaecology and obstetrics, urology, otorhinolaryngology, ophthalmology, neurosurgery, transplant medicine, imaging diagnostics—at least 900 classroom hours,
    - g) Legal and organisational aspects—hygiene, epidemiology, public healthcare, medical law, forensic medicine—at least 100 classroom hours;
  - 4) Organisation of studies
    - a) Minimum number of classroom hours of the respective learning objectives,
    - b) Internship in clinics or hospitals in the sixth year of studies at least 30 weeks corresponds to 900 classroom hours, including: Internal medicine 8 weeks, paediatrics 4 weeks, surgery 4 weeks, gynaecology and obstetrics 2 weeks, emergency medicine 2 weeks, general medicine 2 weeks, 6 weeks in a field of choice,
    - c) Holiday internship (at least 600 hours), including: Patient care 4 weeks, general medicine 3 weeks, internal medicine 4 weeks, intensive medicine, paediatrics, surgery, gynaecology and obstetrics respectively 2 weeks,
    - d) Students must have expense-free access to at least 30 hours of athletic activities per year;
  - 5) Testing of learning objectives – written and verbal tests (MNiSW, 2012).

After studies, the “Lekarski Egzamin Koncowy” LEK state exam is taken. Until 2013, the designation of the state exam was “Lekarski Egzamin Panstwowy” LEP. This involves nationwide theoretical testing, which is centrally organised by the “Centrum Egzaminow Medycznych” (CEM), the Polish Centre for Exams in Medical Subjects (MZ, 2012). The result of the LEK is the decisive factor in allocating medical specialist training positions.

Students, who started studies prior to October 2012, must participate in a 13-month internship after studies. This is completed proportionally in various disciplines. These

include: internal medicine, paediatrics, general surgery, gynaecology, and obstetrics, psychiatry, anaesthesia, intensive medicine, emergency medicine, as well as general medicine (MZ, 2013a). In addition, the graduates are trained in bioethics and medical law. The interns are monitored and accompanied by the regional medical associations during their professional practice. The internship is paid. It will be organised for the last time in October 2017 (MZ, 2013b).

Successful completion of the LEK and participation in the internship are requirements for receiving the approval for professional practice as a physician as well as for beginning specialist medical training.

With the inception of regulation Dz. U. 2012 Item 631, the 13-month internship was eliminated and instead the practical training was integrated into six-year studies with the goal of shortening the length of education (MNiSW, 2012). This renewal requires a revision of studies with respect to the practical education. A clinical internship was integrated into the sixth year of studies. Prior to that, the students will be prepared for this during the previous years of studies with practical exercises and simulations at training facilities. For this purpose, Medical Simulation Centres (Centrum Symulacji Medycznej, CSM) are being developed at the respective universities, at which the students are expected to exercise targeted practical capabilities in an audio-visual manner and on models and to gather experience. In Germany, teaching is currently conducted on 38 of the 43 medical faculties at medical simulation centres, which are also referred to as a skills lab.

One difference to studies in Germany is the possibility of studying for a fee as well as studying in English. Persons, who have not received regular placement at a university, may apply for placement, for which they must pay semester fees. In addition to regular studies in Polish, courses are offered in English. In Germany, there are currently no medical studies offered in English.

Whoever wishes to study medicine in Poland must elect the proper subjects already during their school years, namely biology, physics, and chemistry, and complete their final exams for completing secondary education in a scientific branch. This is the requirement when apply for placement at a university and the marks from the scientific subjects are crucial when competing for placement. In Germany, scientific knowledge is not a decisive factor when applying to a university. Thus, those beginning studies in Poland generally have more knowledge of basic subjects of studies. This requirement can be accompanied with better suitability of students for medical studies.

The Polish regulation regarding medical studies can be compared and equated to the German Medical Licensing Act in its scope and content; thus, a physician with a degree from a Polish medical faculty has the same knowledge as a physician from a German university.

### **3.2. Comparison of Specialist Medical Training**

In Germany, the state medical associations as a public law corporation are responsible for specialist medical training and therefore this is dependent upon the state. In Poland,

specialist medical training is centrally conducted by the Centre for Postgraduate Medical Education (CMKP—Centrum Medycznego Kształcenia Podyplomowego), such that specialist medical training is consistent nationwide (BAEK, 2014a; CMKP, 2014a).

### 3.2.1. Anaesthesiology

The specialisation of anaesthesiology complies with the EU directive of the Polish specialisation of “*Anestezjologia intensywna terapia*”, translated “Anaesthesiology and intensive therapy” (EU-RL, 2005). The minimum duration of medical training in this specialisation is three years pursuant to EU Directive (see Table 1) (EU-RL, 2005). In Germany, the educational period is five years and six years in Poland, and therefore, it is substantially longer in both countries than stipulated by the EU directive (BAEK, 2013: p. 26, CMKP, 2014d: p. 43, EU-RL, 2005).

The numerical requirements for training content in the examination and treatment procedures of the individual training courses are listed in the respective training regulations (BAEK, 2011; CMKP, 2014d: p. 27). In Germany, the number of anaesthesia procedures to be individually performed is 1800 and 1500 in Poland. Physicians must demonstrate more practical achievements during specialist medical education in Germany, though Polish physicians have an additional year of professional experience upon completing training.

### 3.2.2. Internal Medicine

Training designated as “General (internal) medicine” in the EU directive has a minimum duration of five years, which corresponds to the duration of education in Germany as

**Table 1.** Educational periods—anaesthesiology in Germany and Poland in comparison (CMKP, 2014d: p. 44, BAEK, 2013: p. 26).

Education to be completed	Germany	Poland
<b>Anaesthesia</b>	48 months in anaesthesiology, of which up to – 12 months of training can be credited in other fields of direct patient care – 18 months can be completed in an outpatient environment	139 weeks/corresponds to 32.5 months
<b>Intensive Medicine</b>	12 months in intensive medicine, of which – 6 months of intensive medicine can be credited in another field	69 weeks/17.25 months
<b>Intensive medicine-children</b>	N/A	2 weeks
<b>Anaesthesiology-children</b>	N/A	12 weeks/3 months
<b>Cardio-anaesthesia</b>	N/A	4 weeks/1 month
<b>Thoracic anaesthesia</b>	N/A	2 weeks
<b>Neuroanaesthesia</b>	N/A	2 weeks
<b>Anaesthesia and obstetrics</b>	N/A	6 weeks
<b>Pain diagnostics</b>	N/A	2 weeks
<b>Specialisation courses</b>	N/A	7 weeks
<b>Total time</b>	60 months/5 years	313 weeks/6 years

well as in Poland. The training period is divided into two parts in both countries (see **Table 2**) (BAEK, 2013: p. 72, CMKP, 2014c: p. 34, EU-RL, 2005). In Germany, around 2400 examination and treatment procedures must be demonstrated in the overall educational period, whereas only 270 procedures must be conducted individually according to the Polish training regulation. In Poland, not only are fewer procedures required in the individual disciplines, ultrasound examinations, of which a total of 650 are required in Germany, are not mentioned or expected pursuant to the Polish catalogue of achievements. Equivalence in education, particularly in practical capabilities in Germany and Poland cannot be distinguished solely on the basis of the training catalogue. If just the examination and treatment procedures to be demonstrated during the five-year education are actually to be performed in Poland, Polish physicians should gain practical experience under the guidance of an experienced physician before being equated to a physician with a German education.

### 3.2.3. General Medicine

The educational period in Germany is five years, one year less in Poland (see **Table 3**). The examination and treatment procedures of general medicine consist of basic training in the field of internal medicine. Basic education in the specialisations of internal

**Table 2.** Educational periods—internal medicine in Germany and Poland in comparison (BAEK, 2013; CMKP, 2014c).

Education to be completed	Germany	Poland
<b>DE inpatient basic training in a field of internal medicine PL module 1</b>	36 months	36 months/3 years including <ul style="list-style-type: none"> <li>▪ Basic education internal medicine 70 weeks</li> <li>▪ Intensive medicine 4 weeks</li> <li>▪ Cardiology 16 weeks</li> <li>▪ Pulmonology, gastroenterology, endocrinology respectively 6 weeks</li> <li>▪ Nephrology, haematology, rheumatology, infectiology, neurology respectively 3 weeks</li> <li>▪ Psychiatry 2 weeks</li> </ul> Specialisation courses 7 weeks
<b>DE inpatient training in internal medicine PL module 2</b>	24 months including 6 months of internal intensive medicine, which can be completed during basic training	24 months including <ul style="list-style-type: none"> <li>▪ Internal medicine 44 weeks</li> <li>▪ Intensive medicine 4 weeks</li> <li>▪ Cardiology 6 weeks</li> <li>▪ Pulmonology, gastroenterology respectively 4 weeks</li> <li>▪ Endocrinology 6 weeks</li> <li>▪ Nephrology, haematology respectively 3 weeks</li> <li>▪ Rheumatology 4 weeks</li> <li>▪ Infectiology 3 weeks</li> <li>▪ Geriatrics, palliative medicine respectively 2 weeks</li> <li>Healthcare 2 weeks</li> </ul> Specialisation courses 1 week
<b>Total time</b>	5 years	5 years

**Table 3.** Educational periods—general medicine in Germany and Poland in comparison (BAEK, 2013: p. 23; CMKP, 2014b: p. 33).

Education to be completed	Germany	Poland
<b>Inpatient basic training in the field of internal medicine</b>	36 months, of which 18 months can be credited in the fields of direct patient care (as well as 3 month periods) even in an outpatient environment	51 weeks/12 months <ul style="list-style-type: none"> <li>▪ Introduction to internal medicine 4 weeks</li> <li>▪ Internal medicine 21 weeks</li> <li>▪ Pediatrics 21 weeks</li> <li>▪ Surgery 3 weeks</li> <li>▪ Obstetrics/gynaecology 2 weeks</li> </ul> Internships can also be performed in an outpatient environment
<b>Elective internships</b>	N/A	16 weeks/4 months, 4 × 4 weeks 12 departments/specialisations are available for selection in the training regulation
<b>Training in outpatient general practitioner care</b>	24 months, of which 6 months in can be credited in surgery (as well as 3 month periods)	95 weeks/24 months
<b>Specialisation courses</b>	80 hours of course training pursuant to § 4 Section 8 in basic psychosomatic care	13 weeks
<b>Total time</b>	5 years	4 years

medicine and general medicine are therefore identical in Germany and Poland (see **Table 2**).

### 3.2.4. Minimum Requirements of the EU-Directive

The minimum requirements of the EU directive for specialist medical education curricula are greatly exceeded in both Germany and in Poland. As an example, the minimum duration of training in anaesthesiology is cited, which is two years longer in both countries than stipulated in the EU directive. The same scope of education cannot be achieved in countries, which meet only the minimum requirements (in the specified case the 3-year training duration), as in Germany or Poland; nonetheless, the specialist medical degrees are recognised as equivalent according to applicable EU law.

### 3.3. Differences between the Medical Education Systems

Many aspects of university education, access thereto, as well as specialist medical education are identical in Germany and in Poland (**Table 4**). Qualitatively, both countries have strict requirements for medical education, exceed the framework conditions of the EU directive for medical education, and thus ensure a high standard in medical care. A physician with a basic and/or specialist medical education from Poland will be highly capable of professional integration into the German healthcare system.

### 3.4. Analysis of the Statistical Number of Physicians in Poland

In January 2015, a total of 141,390 physicians were recorded in Poland, of which 90 per



**Table 4.** Substantial differences between the medical education systems in Germany and Poland.

Placement at university	In Poland, a selection of scientific subjects for the final secondary school exams is a requirement for placement at university.
Duration of studies	In Poland, education currently lasts one year longer than in Germany. Germany: 12 semesters including internship year, Poland: 12 semesters + 1-year internship.
Contents of studies	Identical in Germany and Poland. In Polish education regulations, the contents are presented in a very detailed manner. Requirements of EU Directive 36/2005/EC are complied with.
Universities	<p>Studies in Poland are only possible at state-run institutions due to concerns of compromising quality at private institutions; in Germany there are private universities.</p> <p>In Poland, students, who do not receive regular placement by means of the selective process, can participate in studies for a fee. Thus, the number of students is increased without burdening the state budget.</p> <p>In Poland, it is possible to study in the English language for a fee.</p>
Special medical education	<p>In Germany, this depends on the state. In Poland, central control via the CMKP (Centre for Medical Education).</p> <p>Duration and contents are similar.</p>
Percentage of women	In Poland, the percentage of women in the medical profession has been constant for many years at approx. 58 per cent. In Germany, the percentage of women is approx. 45 per cent, which triggered a debate regarding the feminisation of the medical profession.

cent are employed (CSIOZ, 2015). As of 2004, an overall increase of all physicians by barely 13 per cent can be recognised. Of employed physicians, only 85,789 are active in patient care—this corresponds to 60 per cent of the overall number of physicians (CSIOZ, 2015: p. 36). 68,654 specialists are active in curative care (CSIOZ, 2015: p.50). A decrease of employed physicians between 2004 and 2005 can be observed, which was caused by the emigration of physicians following Poland's EU membership (see Figure 1).

The ratio of the total of all certified physicians per 1000 residents is at 3.67 in 2014 (CSIOZ, 2015: p. 20). The number of physicians active in curative care per 1000 residents is substantially less at 2.23 (CSIOZ, 2015: p. 36), number of specialists active in curative care is 1.78 (CSIOZ, 2015: p. 50). In comparison, there are 4.0 treating physicians for 1000 patients in Germany in 2012 (OECD, 2014).

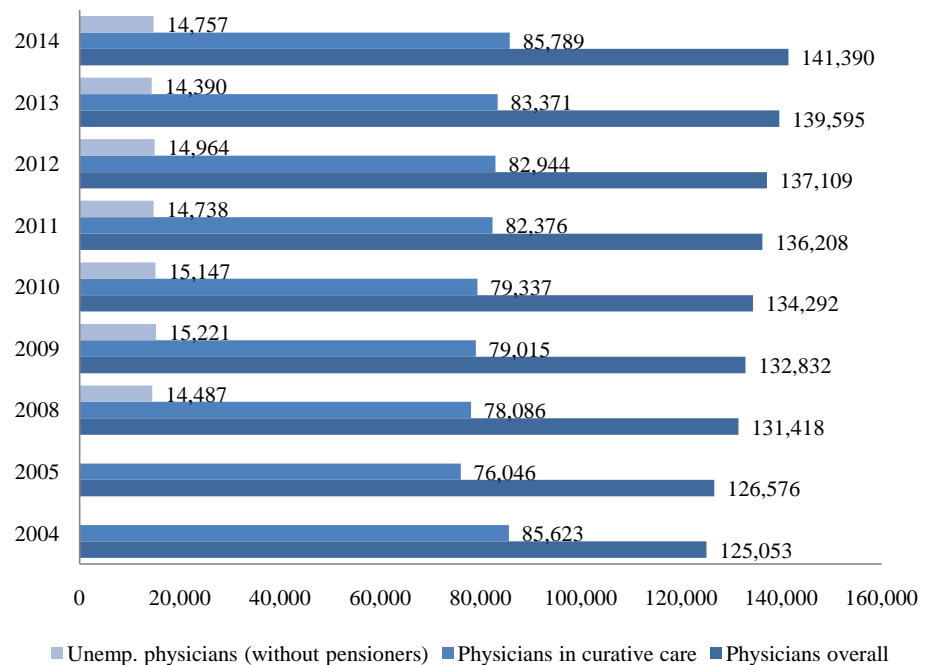
The average of physicians per 1000 residents in the 34 OECD countries is at 3.2 (OECD, 2014). It should be noted that this observation only occurred based on persons, and that criteria such as the age and employment structure were not included. The number of physicians active in curative care per 1000 residents in Poland varies broadly in the 16 different administrative districts between 2.49 (Mazowieckie) and 1.44 (Wielkopolskie) and has been steadily increasing as of 2005 (CSIOZ, 2014: p. 40).

### 3.5. Results of the Orienting Survey

What do physicians with a Polish exam say?

- *Would physicians with a Polish exam like to work in Germany?*

A strong 90 per cent of physicians could imagine working in Germany. Around half



**Figure 1.** Development of the total number of physicians in Poland from 2004-2014 (CSIOZ 2006, CSIOZ 2009, CSIOZ 2011, CSIOZ 2012, CSIOZ 2013, CSIOZ 2014, CSIOZ 2015).

of the participants state having taken specific steps for labour migration in the form of a language course and getting in contact with colleagues in Germany.

- *Why do physicians with a Polish exam work in Germany?*

The reasons for labour migration are multifaceted and the decision to emigrate is determined through the interaction of many factors. The most essential reason for beginning work in Germany is better *access to specialist medical education*. 87.5 per cent of those surveyed stated point as very important, 12.5 per cent as important, thus this circumstance is perceived as a crucial reason for labour migration for all participants. *Higher compensation* also carries a high significance, for which 78 per cent of those surveyed view as important or very important. Around 80 per cent of those surveyed stated earning more money than in Poland with consideration for the cost of living.

- *Who will take the first step?*

The question regarding the manner, in which initial contact to the German labour market was made, should provide information as to whether or not the initiative was taken on the part of the employee or the employer. The majority of survey participants became interested in the German labour market and pursued employment out of their own initiative. According to this survey outcome, Polish physicians are very interested in employment, as 80 per cent of those surveyed informed themselves actively about the German labour market. Based on these survey outcomes, the employees are more active in searching for work in Germany than employers are in soliciting physicians in Poland.

- *Are physicians with a Polish exam integrated and recognised in the German health-care system?*

Physicians with a Polish exam feel well integrated in the German workplace. The majority believe they are recognised both by the patients (97%) as well as from their German colleagues (91%). Two-thirds of the Polish physicians stated being supported in the workplace by their German colleagues.

- *Do physicians with a Polish exam speak German well?*

The key factor for successful and rapid integration is language competence. For the question regarding learning the German language, the majority of those surveyed stated having learned German through their own initiative. We can assume that the physicians learned specifically with respect to employment abroad. It should be noted that approx. half of survey participants state having learned German as a foreign language at school. This corresponds with the percentage of German language students at Polish schools, which is at 50 per cent (ORE, 2013: p. 7). The survey participants assess their language skills primarily as fluent and good. The majority of participants state having been confronted with language difficulties upon beginning employment. As of 2014, the technical language level of C1 must be achieved. The C1 language level is assessed as a sufficient requirement for employment by 91% of participants.

- *Do German employers promote language courses?*

Only a third of Polish physicians were offered a language course by their employer. These language courses were partially or fully financed in most cases by the respective employer.

- *How long do the physicians remain in Germany?*

To be able to assess, whether or not Polish physicians can or would like to contribute long-term to patient care, it is essential to look at their future plans. In the survey group of those physicians working in Germany, 80 per cent see their ongoing future in Germany. In contrast, half of the non-emigrated physicians state only desiring to work in Germany for a limited period.

### 3.6. Summary of Results

University graduates and specialist medical graduates from Poland are very well suited for work in German practices and clinics. Both the technical as well as the language competencies enable them to integrate without difficulty.

Medical studies at Polish universities are equivalent to those at German universities. Theoretical knowledge as well as the number of internships is comparable, such that a solid basic education is attained in both countries.

## 4. Discussion and Conclusion

After comparing the Germany Licensing Act to the respective Polish regulation regarding medical studies, a content-related and temporal equivalent of medical education was determined in the present paper. Prior to Poland becoming a member of the EU, a German commission of experts addressed the quality of medical studies in Poland in 2000 with a contrasting result (Popovic, 2000). At the time, the educational standards at Polish universities were classified as largely insufficient; only four of the

eleven evaluated universities met the educational standards of the EU (Popovic, 2000). According to this analysis, no general equivalence of medical education in Germany and Poland could be assumed (Popovic, 2000). In regard to Poland's EU membership, medical education was revised and adapted to EU standards. If the educational curricula and tests were still university-specific at the time, a uniform central state exam was introduced prior to EU membership.

The results of the present paper and the German commission of experts from 2000 do not contradict each other despite contrasting outcomes, but rather they complete the image of Polish medical education and training. If medical education was insufficient in Poland prior to EU membership, there is a standard today comparable to a German educational curriculum. According to the EU directive, all medical educations of member countries are not fundamentally perceived as equal, so the starting period of studies is crucial here. Pursuant to the EU directive, in the case of Poland, education must begin after 1 May 2004 for an automatic recognition of equivalence (EU-RL, 2005).

Specialist medical education in Germany is more extensive than that in Poland. In Germany, the treatment catalogue to be completed is more extensive. Polish specialist medical education does not meet the high standard of German training in all points. Physicians well educated in theory in Poland will be able to compensate their deficiencies in practical experience through professional experience.

The Polish labour market still presents a good opportunity for recruiting medical personnel for the German labour market. The surveys conducted revealed that the primary reasons for employment in Germany were easy access to specialist medical education, better labour conditions, and higher compensation. In a survey conducted in 2008 among 1214 students at five Polish universities, the same attracting factors were determined (Krajewski-Siuda et al., 2012).

Once a physician with a Polish exam has reached an adequate language level, he can be equated to a German colleague in patient care. Practices and clinics should promote language courses better.

Every solicited physician is an economic loss for Poland. The question arises, whether or not it is moral to solicit physicians from a country, in which a shortage of physicians prevails.

One outcome of the present paper is that, to the present day, there is no proper summary of European standards in medical education. There is no common spectrum of minimally required knowledge, capabilities, and competencies for basic medical education and training in the EU, which would ensure quality assurance in medical treatment. The framework conditions of medical education of the EU directive are formulated very broadly and permit too great of a margin of discretion (EU-RL, 2005). Purely based on the directive, we cannot assume an adaption in the context of a coordination of medical education of the respective countries.

There is currently no comparison of European medical education systems. It is necessary to compare the medical education systems of EU countries, such as in present paper between Germany and Poland in order to be able to assess the quality of the edu-

cation. Only if the same knowledge in education can be determined can physicians treat at the same level of quality. Before the point of view that an active exchange of physicians takes place in the EU, alone in Germany 10 per cent of physicians are of foreign origin, so congruency should be a requirement.

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