ABSTRACT

Aims: Insurance medicine being only in a few countries a recognized medical specialty, there are only in some countries registered insurance physicians. Yet in all countries, medical doctors carry out assessments in the context of the social security framework. In countries where there are no registered insurance physicians, these assessments are being carried out by doctors whose education and training are determined by history and national legislation. The aim of this study was to describe and compare the postgraduate education and training of physicians involved in insurance medical work in 15 European countries.

Methods: We organized a European expert meeting consisting of three phases: a preparatory phase in order for 21 participants to prepare themselves for the meeting, a written phase at the meeting, an oral phase with systematic rounds of questions and discussion followed by analysis and classification of data. Results: Education and training requirements for physicians involved in insurance medical work differ in Europe, as do the actual available training and education programs offered, both at the start and throughout the career in this field. The current situation varies from nonexistent in three countries to a full postgraduate program leading to a registered medical specialization in seven countries. Continuous medical education also varies from nonexistent, through general to specific insurance medical training in eight countries. Conclusion: Harmonization of the postgraduate education and training program of the physicians involved in the insurance medical work in Europe is needed. Setting the basis for European standards in insurance medicine education and advocating for competence-based training are not only the conditions for European recognition but would also further insurance medicine as a medical specialty.

Keywords: Continuous medical education, Disability assessment, Education, European insurance physicians, Insurance medicine, Training

INTRODUCTION

Throughout history medical practitioners have always been specialized to some extent. The modern medical specialties evolved gradually during the 19th century. The division of the practice of medicine into various specialties is somewhat arbitrary with overlap between some of the specialties, and the subdivision varies from country to country.

Training programs differ in length and structure according to specialty and can also depend on rate
of achievement of competencies. In Europe, medical training and specialization is determined at a national level as each Member State of the European Union is responsible for its own healthcare system and the associated training and recognition of medical specialties [1]. National authorities and bodies competent to issue the diplomas, certificates, and other evidence of formal qualifications have been designated for that purpose.

With Directive 2005/36/EC the European Union has reformed the system for recognition of professional qualifications, in order to help make labor markets more flexible, and to encourage more automatic recognition of qualifications, which should be based on the evidence of formal qualifications on the basis of coordinated minimum conditions for training. Access in the Member States to the professions of doctor should be made conditional upon the possession of a given qualification ensuring that the person concerned has undergone training which meets the minimum conditions laid down [2].

The European Union publishes a list of medical specialties recognized in the European Union. Insurance medicine is a comparatively young specialty that does not yet appear as a separate specialty on this European list [3]. Insurance medicine is a medical specialty in the domain of labor and health that deals with claims of various disability schemes in both the public and private sectors. Physicians working in the field of insurance medicine ensure an objective, transparent, consistent, reproducible, and verifiable assessment of the individual (work) capacity and reintegration potential of a claimant and their rights to compensation on the basis of laws and regulations. The insurance physician determines whether and to what extent there is impairment, injury, and/or disability and he or she focusses on promoting the recovery and rehabilitation behavior of the claimant [4]. If necessary, insurance physicians use reintegartion tools to intervene in absenteeism or disability [5]. The work takes place within the complexity of its own assessment findings, scientific research, and the framework of laws and regulations. These frameworks vary according to the work setting of the insurance physicians.

According to Directive 2005/36/EC automatic recognition of professional qualifications should apply to those new medical specialties common to at least two-fifths of Member States, meaning at least 11 Member States. Currently insurance medicine is only recognized in a few European countries as a separate medical specialty and hence there are only in a few countries registered insurance physicians. However, this Directive does not prevent Member States from agreeing among themselves on automatic recognition for certain medical specialties common to them but not automatically recognized within the meaning of this Directive, according to their own rules. For this purpose alignment and harmonization of the required training and education is needed. At present requirements for qualification and certification in insurance medicine differ among Member States.

In this study we therefore aimed to describe and compare the postgraduate education and training of the physicians involved in insurance medical work. We focused primarily on the assessment which takes place at the transition from short-term to long-term work disability as we know from previous research that it occurs in all social security systems in the member countries of the European Union of Medicine in Assurance and Social Security (EUMASS), though the moment at which it takes place may differ (e.g., from six months in Belgium to two years in the Netherlands). In all EUMASS member countries medical doctors are involved in the assessment of the transition from short-term to long-term work disability, whether it is carried out by a registered insurance physician or, in those countries where this comparatively young medical specialty does not exist, by physicians with various medical backgrounds. This assessment, considered by all participants in this study as a core task of the insurance medical work, was taken as the base for the inventory of the current national postgraduate education and training situation in insurance medicine in Europe [6].

METHODS

In this qualitative study we used a modified focus group design by starting with a written phase, followed by systematic rounds of questions. We organized an European expert meeting inviting all 27 EUMASS Council members from 16 member countries as Council representatives of EUMASS are considered to be national experts in the field of insurance medicine [7–12]. They have a good insight into the insurance medical work and the required and current training and education in their country. Therefore, we invited all EUMASS Council representatives (one or two per member country and all medical doctors) to participate in this study.

One month prior to the expert meeting, information about the meeting was sent to all participants in preparation of the expert meeting and discussion. In addition to general information about the purpose and proceedings of the meeting, we sent information about the topic of the discussion. Participants in the study could thus, if necessary, gather additional information about the content and structure of the national education and training program prior to the meeting and hence prepare themselves for the discussion.

We included five questions which formed the basis for the structure of the discussion at the expert meeting:

1. Is (assessment of) work disability part of the undergraduate program?
2. Is there a specific training/education program to provide the specific knowledge needed to carry out the medical assessment of long-term work disability?
Reckoning with the clarifying definition: training and education: additional qualification (beyond the general medical curriculum) required to carry out the medical assessment of long-term work disability, both on paper and/or assessing the claimant face-to-face.

(3) If so, is this training/education program part of a postgraduate program?

(4) Does this training/education program lead to a specific registration? In other words, does the additional training/education program lead to a certificate or medical specialization?

(5) Does a continuous medical education program exist?

In fact, the first question was a preliminary question to ascertain that the training/education had not already been addressed in the undergraduate program, hence, being no part of the postgraduate program.

The expert meeting started with a brief introduction about the purpose and proceedings of the meeting. We went over the clarifying definition and ran through the questions which had been sent in advance, after which three groups were formed, consisting of seven people, including a participating moderator, who also took notes at the group meeting. A form with the clarifying definition of the topic and the five questions was distributed to all participants. They were given time to answer these questions in writing, before discussion, by means of systematic rounds of questions. If a question was answered positively, an explanation was asked. All three groups used the same method in order to obtain complete and comparable responses by country (see Figure 1).

Data analysis

From all the notes and gathered information the common characteristics and structure of education and training were clustered. Thus, the distilled concise information per question and per country was sent to the same participants of the respective countries to be checked. After verification this information was then analyzed, classified, and put in tables. These results were again presented for verification to the respective, national participants.

RESULTS

Required preliminary education

It was clear from the European expert meeting that insurance medicine requires a broad knowledge of medicine and nonclinical skills, which include understanding of the legislation frameworks relating to work and benefits, ethics and communication, collaboration and leadership skills.

Only in one country (Italy), assessment of work disability and/or work disability in general, is a structural component of the undergraduate curriculum, including a mandatory final exam. In the other 14 countries there is little and usually optional or no attention to this subject in the curriculum.

In one-third of the participating countries (Czech Republic, Finland, Germany, Slovakia, and Slovenia), a physician needs a medical specialization of some sort, usually a clinical specialization before being allowed to start working and/or qualifying in the assessment of work disability. In the other 10 countries a previous medical specialty is not required.

Training and education

Some countries have no training (Iceland and Sweden, where only very few physicians complete an advanced master education program (1%), but the vast majority has...
no additional training/education program) or virtually no training (Norway: three days in-company training).

In Ireland there is no compulsory training/education, but a fellowship in occupational health or disability medicine is recommended.

In three countries (France, Slovenia, and United Kingdom) in-company courses are provided by the executing agencies and in addition in the United Kingdom, physicians are encouraged to obtain a Diploma in Disability Assessment Medicine (DDAM). In Germany physicians are offered a 1-year education program in Social Medicine. In the other seven countries (Belgium, Czech Republic, Finland, Italy, the Netherlands, Romania, and Slovakia) there is a structural postgraduate training and education program leading to a certificate (Slovakia) or registration as a qualified physician or medical specialist. Although the duration of the program differs (from two years in Belgium, Czech Republic, and Finland, via three years in Romania and Slovakia to four years in the Netherlands and 4–5 years in Italy) the programs have in common that they consist of a combination of theoretical courses, training on the job, and usually a final thesis and/or exam (see Figure 2).

**Continuous medical education**

Four countries (Ireland, Iceland, Sweden, and Slovenia) offer no continuous medical education program. Three countries (France, Norway, and Romania) do offer continuous medical education, but based on general, medical subjects, rather than specifically related to the assessment of work disability. The other eight countries (Belgium, Czech Republic, Finland, Germany, Italy, the Netherlands, Slovakia, and United Kingdom) offer a specific continuous medical education program, usually consisting of courses, seminars, and congresses. Only in the Netherlands the compulsory continuous medical education is required for reregistration as medical specialist every five years (Figure 3).

See Table 1 for an overview of the results.

**DISCUSSION**

In this study we described and compared the education and training of the physicians involved in insurance medical work in different European countries. In doing so, we have taken the assessment at the transition from short-term to long-term work disability as the starting point of the study, because this assessment is regarded as the core of the insurance medical practice and exists in all social security systems of the participating countries.
| Country          | Medical specialty needed beforehand | Training program | Education program | Registration | CME-program |
|------------------|-------------------------------------|------------------|-------------------|--------------|-------------|
| Belgium          | Yes                                 | No               | Yes               | Yes          | Yes         |
|                  | Specific knowledge                  | Specific skills and competencies | Master insurance medicine and medical expertise | Accredited seminars and congresses |
| Czech Republic   | Yes                                 | 24 months training by an assigned trainer at an accredited workplace with a logbook and a final exam | Medical assessment physician qualification (National Chamber of medical doctors) | Accredited seminars and congresses; needed for reregistration every 5 years |
| Finland          | Yes                                 | 2 year full-time (or longer part-time) program for insurance medicine: literature, courses, and practice. Theoretical education minimum 60 hours, in company training, tutor activities, special courses and guidebooks | Special competence | No |
| France           | No                                  | In company (CNAMTS) 6 months basic training, combining theoretical courses with daily practice with a local tutor. | No | A specific CME-program: CNAMTS doctors are obliged to attend courses in medicine, surgery and medico-social legislation every year |
| Germany          | Yes                                 | 1 year education program in social medicine | Specific training for required skills depending on the kind of social insurance with a general exam. | Certificate Social Medicine Competence Yes, program varies with different branches of insurances, but is not mandatory. |
| Iceland          | No                                  | No training program | No education program | No |
| Ireland          | They usually do, but it is no requirement | Fellowship occupational health or disability medicine are recommended | Mandated 6 weeks in company training | No | Mandatory accredited conferences internal and external, clinical audits |
| Country     | Medical specialty needed beforehand | Training program                                                                 | Education program                                           | Registration | CME-program |
|------------|-------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------|--------------|-------------|
| Italy      | Yes                                 | No 4–5 year postgraduate specialization: legal and insurance medicine with a specific training program, final thesis and exam | Specific skills and competencies                            | Yes          | No          | Yes         | No          |
|            |                                     |                                                                                   | Deontology                                                |              |             | Annual courses and at least 1 congress/year |
| The Netherlands | No                                    | 4 year competence based education program with courses, training on the job, internships and a portfolio | Program is based on CanMEDS                               | Yes          | No          | Accredited courses, seminars, and congresses needed for reregistration (every 5 years) |
| Norway     | No                                  | No; 6 months working under supervision                                           | No; only a 3 day in company training (NAV)                | No           | No          | 2 days/year by NAV and 2 days/year by professional organization; not compulsory |
| Romania    | No                                  | 3 year specialty program                                                          | 6 months training at the workplace within the 3 year specialty program | Yes          | No          | Congresses, conferences, seminars organized by the medical association of insurance physicians and short courses by the chair of the University of Bucharest |
| Slovakia   | Yes                                 | 3 year postgraduate program including courses at the University of Bratislava and practical training at the workplace. | 1 year tuition at the workplace                           | No, but certificate | Yes        |
| Slovenia   | Yes (including GP) + 2 or 4 years of experience in the specialty                  | In company training program                                                      | In company training at the workplace                      | No, a company certificate | No          | No          |

Table 1: (Continued)
Table 1: (Continued)

| Country        | Medical specialty needed beforehand | Training program | Education program | Registration | CME-program |
|----------------|-------------------------------------|------------------|-------------------|--------------|-------------|
| Sweden         | Yes                                 | No               | Yes (minority: 1%)| No           | No          |
|                | In practice yes, but no formal requirement | 22.5 Bologna credits preferably for all doctors in insurance medicine but not mandatory | Annual training program: 1–2 days/year | Yes, GMC     | Annual CME program incorporating feedback from auditing results required to maintain approved status by DWP. Interactive training events, seminars and distance-learning modules |
| United Kingdom | No                                  | Maximus course; encouraged to take Diploma in Disability Assessment Medicine (DDAM) | Random auditing and feedback | Yes (minority: 1%) | No          |

Abbreviations:
CME: Continuous Medical Education
EU: European Union
EUMASS: European Union of Medicine in Assurance and Social Security
CanMEDS: CanMEDS Physician Competency Framework

Main findings
Education requirements for physicians assessing long-term work disability differ, as do the actual available training and education programs offered, both at the start and throughout the career in this field.

In all, except for one country there is little and usually not even compulsory attention to the subject of the assessment of work disability and/or work disability in general in the undergraduate curriculum. Since the assessment of long-term work disability is barely addressed in the undergraduate program, young graduates are not really aware of the existence of insurance medicine, so they will hardly choose this specialization. A missed opportunity that should be addressed at a European level.

In one-third of the countries, the physician must have a medical specialization at the start of the work in the medical insurance field. It would be in line with the expectation that such a specialty program must provide the necessary knowledge, skills, and competencies required for the assessing tasks to be performed, but those programs are not subject-oriented and therefore not focused on the specialized insurance medical work. Even though insurance medicine is a broad subject in a complex context, in which a wide range of basic medical knowledge is always useful another medical specialization cannot replace a specific education and training program for the core tasks.

In order to properly execute his or her profession, a physician must not only have sufficient knowledge but also needs to develop various skills and competencies [13–15]. Within medicine, the required skills and competencies are described according to the now widely
accepted CanMEDS Physician Competency Framework that was first introduced in Canada. Competencies are important observable knowledge, skills, and attitudes, organized thematically around some arbitrary divisions called physician Roles. We know from previous research that physicians, throughout Europe when carrying out the assessment of long-term work disability, to a greater or lesser extent, fulfil all Roles of the CanMEDS framework, hence, fulfilling all core competencies of the international framework for all medical specialists [16]. Besides the appropriate knowledge and particular skills effective practice in insurance medicine requires appropriate attitudes and behaviors toward all stakeholders. All these aspects should be addressed in the education and training. Therefore, one would expect that, in accordance with other medical specialty training programs in general and specialist training programs for occupational medicine in particular, there exists a well-defined, competence-based, postgraduate training and education program in the insurance medical field in every European country [17–21]. However, there appear to be huge differences, ranging from no additional training/education at all to a 4–5 years postgraduate training and education program, so there is no harmonization yet.

That also applies to the continuous medical education programs. Although continuous medical education is nowadays commonplace for all medical doctors, four countries offer no continuous medical education program, three countries do offer a program, but generally medical instead of being insurance medical oriented and thus only half of the countries offer a specific continuous medical education program.

Perhaps there is a role for EUMASS to set the basis for European standards in insurance medicine education and to advocate for competence-based training and assessment. Insurance medicine thus having the four essential features of any medical specialty, which are a unique field of action, a defined body of knowledge, an active research program, and a rigorous training program.

Since Directive 2005/36/EC does not prevent Member States from agreeing among themselves on automatic recognition for certain medical specialties common to them but not automatically recognized within the meaning of this Directive, according to their own rules, it is a challenge to achieve such recognition for insurance medicine. Harmonizing the qualifications of insurance medicine physicians across Europe would offer European insurance physicians, the same free movement and opportunities as currently enjoyed by the more traditional medical specialists and would further insurance medicine as a truly global medical specialty.

Strengths and weaknesses

To our knowledge this is the first study that aims at describing and comparing the education and training of the physicians involved in the medical assessment of long-term work disability in different European countries.

We have collected data through European expert group meetings with experts from the EUMASS Council, who are in a good position to provide information about how the required training and education for the assessment of long-term work disability are organized in their country but they are usually not directly involved in the training and education as such. So they may have stricter standards than applicable in daily practice.

Because all participants were doctors, the data collection is solely from that perspective. The fact that in this study only EUMASS countries participated must be regarded as a limitation, as we therefore lack information from other countries with specific training in insurance medical work.

CONCLUSION

Education and training requirements for physicians involved in insurance medical work differ in Europe, as do the actual available training and education programs offered, both at the start and throughout the career in this field. The current situation varies from nonexistent to a full postgraduate program leading to a registered medical specialization. Harmonization of the postgraduate education and training program of the physicians involved in the insurance medical work is therefore needed in Europe.

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Annette E de Wind – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved
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Authors declare no conflict of interest.

Data Availability
All relevant data are within the paper and its Supporting Information files.

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