Rheumatology Education in Europe: results of a survey of young rheumatologists


ABSTRACT

Objective. To evaluate the level of education and participation in an internship abroad and to European league against rheumatism (EULAR) on line course of young rheumatologists. To define new tools for learning.

Methods. Questionnaires were administered to 170 trainees and young specialists in 2008-2009 during official EULAR meetings or using the mailing list of European young rheumatologists in training. The questions with related visual analogical scale (VAS score 0–10) for satisfaction encompassed the following issues: languages, computer, daily hours employed, different items of medical culture, internship abroad, EULAR on-line course and bursaries. VAS≥6 was considered a good level of satisfaction.

Results. 170 young rheumatologists (113 trainees and 57 specialists, 23±4.2 years old) from 32 EULAR countries did not approve their own national training (42.3%), believed in an European common education system (90.5%), had a good knowledge of English (85.7%) and computer (90.5%) and spent the majority of time in clinical practice (57.5%) in comparison with study and research. The young rheumatologists had higher competence in drug management (93.5%) than in clinical assessment and knowledge of imaging and anatomy, and mostly suggested new ways of communication (61.4% on-line courses and 66.1% DVD) to improve their education. 38% made stage abroad and participated to EULAR on-line course, with high satisfaction, but only half of them were granted by bursaries.

Conclusion. Young rheumatologists are low in confidence in their own education and believe that visits to other training centres and new ways of learning (on-line and DVD) might improve their competence.

Introduction

The patterns of rheumatology health care is highly variable across different countries in Europe, for historical reasons and local factors (1). Furthermore, there is still considerable diversity among European training centers in providing an adequate spectrum of expertise and experience to ensure the future specialists competence and suitability (2). The European rheumatologists in training organisation (EURORITS), recently integrated in the Emergent EULAR Network (EMEUNET), collaborates with European league against rheumatism (EULAR) Standing Committee on Educational and Training (ESCET) and Union Européene des Médecins Specialist (UEMS) to create a common high quality educational system. The first core curriculum in rheumatology created in 1999 for undergraduate students by ESCET (3), was successively developed in the UEMS European curriculum for young rheumatologists (4), that defined skills, attitude and knowledge that must be provided to trainees, with this objective. To date, however, there are no studies to confirm whether such curriculum is followed in medical schools and if the new doctors feel their training adequate for their education and practical skills.

Only few surveys were developed for single national realities (5, 6) or for specific items (7-9). Furthermore, integration of rheumatologists into a health care network might be obtained through encouraging and facilitating trainee visits to other centres in Europe and European meetings or on line network with the opportunity to discuss the dissimilar practices. For these reasons, EULAR supported exchanges between different countries with bursaries and created residential post-graduate and on line courses for young rheumatologists, until now not investigated with a survey. The aim of this study was to evaluate the level of education and the participation of young European Rheumatologists to international exchanges and EULAR on line course. A secondary purpose was to define new tools for common education, useful to develop guidelines for future EULAR courses that might be recommended to national and local training programs.

Methods

Study design

Questionnaires were administered to 170 trainees and young specialists (under 40 years old), personally (during the X and XI EULAR postgraduate and III EULAR capillaroscopy courses) or...
by e-mail (via the EURORITS mailing lists of different countries), from September 2008 to December 2009. The rheumatologists who had attended more than one course were evaluated only in the first analysis.

**Questionnaire design and content**

The questions encompassed the following issues: own national system of education and future common training European system approval (yes or no), daily hours spent (on clinical practice, study and research), competencies in different items of medical skills, languages spoken, use of computer, internships abroad, EULAR on-line courses, congresses and specific trainee sessions participation and bursaries (pharmaceutical companies, private foundation, university and EULAR).

Self-evaluation of knowledge encompassed four “educational red flags” (basic anatomy, clinical examination, imaging and drugs management), and the learning methods how they acquired their competencies and would like to improve them in the future (direct practice, on-line, DVD, books or formal lessons). A good level of satisfaction of their own competencies was defined using a visual analogue scale (VAS 0–10) score higher than 6/10. Specific imaging techniques were also investigated: ultrasonography (US), magnetic resonance (MRI), computerised tomography (CT), radiography, bone scintigraphy, electromyography, capillaroscopy, bone densitometry, joint injection, synovial fluid analysis, biopsies (synovial, salivary glands, etc.), arthroscopy, basic histopathology.

**Results**

The respondents, 113 trainees and 57 young specialists (33±4.2 years old) came from 32 EULAR countries: Albania, Austria, Belgium, Bulgaria, Czech Republic, Croatia, England, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Latvia, Lithuania, Moldova, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovenia, Sweden, Spain, Switzerland, and Slovenia. 100/170 (58.8%) answered to questionnaires during EULAR courses and 70/170 (41.1%) by mail. Their practice was 15.8% private and 64.1% public, at hospitals and universities (44%); 42.3% of the participants did not approve of their national training system and 90.5% believed in a future common European system of education; 85.3% had a good knowledge of English (mean 7.3/10) and 51.7% spoke two languages (20% more than three). The majority of daily working hours (calculated on 12 hours) was spent on clinical practice (6.9/12; 57.5%), in comparison to study (0.9/12; 7.5%), PubMed exploration (1/12; 0.1%), basic (0.5/12; 4.1%) and clinical research (1.2/12; 1%). 90.5% and 75.1% had a good knowledge of computers (mean 7.2±2) and of PubMed (mean 6.6±2.2), respectively.

**Educational red flags**

A higher percentage of young rheumatologists were satisfied with their ability in drug management (93.5%, mean 7.1/10) than in clinical examination (70.5%, mean 5.9/10), imaging (69.4%, mean 5.7/10), and anatomy (52.3%, mean 4.8/10) competencies. Seventy-seven percent were more interested in improving their knowledge in biologics than in traditional treatment (DMARDs 38.8%, NSAIDs 24.1%, corticosteroids 24.1%). In the field of imaging, they had good competence in radiography understanding (75.8%) and joint injection (68.2%) and were interested in improving their skills in US (68%) and MRI (66%) (Table 1).

Bursaries for courses were received by 46.4% from pharmaceutical companies (37%), more than from universities (13.5%), private foundations (6.4%) and EULAR (7.6%). In the past, they learnt mostly through direct practice (73.8%), books (50.8%) and formal lessons (48%); less, on-line (31.3%) and DVD (32%). In order to improve their education, and based on their previous experience, they suggested for the future to have more availability of DVDs (66.1%), on-line courses (61.4%), than direct practice (58.2%), books (40.7%) and formal lessons (40.1%). The preference of on-line teaching was the same if questionnaires of EULAR courses participants (actual use 33% and future employment 61.5%) were considered separately from the rheumatologists respondents by e-mail.

**International exchanges**

Regarding mobility, 38.2% had moved from 20 countries of western Europe (60%) and eastern Europe (40%) towards the 12 European community countries (EEC) (18% UK, 15% Germany, 13.3% Spain, 11.6% Italy, 10% Netherlands, 6.6% Austria and the other 8 less than 3% each one) and 5 non-EEC countries (6.6% USA and less than 3%: Australia, Canada, Peru, Lebanon), for a mean period of 5 months (range 1–28), with a high level of satisfaction (81.5%, mean 8.3/10). They visited other rheumatology centres during their training period.

<table>
<thead>
<tr>
<th>Diagnostic tools</th>
<th>Actual</th>
<th>Future</th>
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<tbody>
<tr>
<td>X-ray</td>
<td>75.8%</td>
<td>28.2%</td>
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<tr>
<td>Joint injection</td>
<td>68.2%</td>
<td>23.5%</td>
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<tr>
<td>Synovial fluid analysis</td>
<td>51%</td>
<td>30.5%</td>
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<tr>
<td>Ultrasound</td>
<td>50%</td>
<td>68.2%</td>
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<td>Bone mass density</td>
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<td>Computerised tomography</td>
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<td>Magnetic resonance</td>
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<td>61.7%</td>
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<td>Scintigraphy</td>
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<td>Synovial biopsies</td>
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<td>Arthroscopy</td>
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In conclusion, young rheumatologists’ confidence in their own education appears to be low and they believe that visits to other training centres and new ways of learning (on-line and DVD) might improve their competence.

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References