Further information on both the adult and paediatric HERMES projects, as well as the European Spirometry Driving Licence, can be found *via* the hermes.ersnet.org website. The European Examination in Adult Respiratory Medicine will be held in Vienna on September 12.

Paediatric respiratory training in Europe: political, educational and historical perspective*

Summary

The paediatric Harmonised Education in Respiratory Medicine for European Specialists (HERMES) initiative of the European Respiratory Society (ERS) has produced a new European syllabus for Paediatric Respiratory Medicine [1]. This review will first briefly describe the political landscape into which this syllabus is released, including the relevant European Union (EU) regulations and principles and the role of trans-European umbrella organisations. Special attention is paid to the difficult relationship between European training concepts and national traditions and regulations.

Secondly, the review takes an educational perspective, after briefly describing the competency-based approach to training and the current concepts of the European Academy of Paediatrics/Union Européenne des Médecins Spécialistes (UEMS)-Section of Paediatrics on training in a tertiary care paediatric speciality. This review illustrates how the different segments of a training programme (syllabus, curriculum, learning aids and quality-assurance measures) combine into a coherent whole. The parts of the programme that would be best provided on a European level are highlighted.

Thirdly, this review briefly describes the historical background of the current situation, from the development of the ERS Paediatric Assembly to the first syllabus, with a brief look at the adult HERMES initiative, and finally the current activities of the paediatric HERMES project.

Publication of the new paediatric respiratory syllabus can be considered as the first step on a long and demanding journey; the next components of the project and the political challenge of translating these emerging European concepts into national regulations are discussed in this review.

Standards of training in Paediatric Respiratory Medicine (PRM) and its status as a speciality differ widely across the EU. In a few countries training is officially regulated and is close to the highest possible standard; however, in many other countries training is deficient and there is considerable room for improvement. Harmonising and standardising training for PRM specialists at the European level can be expected to have a major positive impact on the quality of care for children with respiratory disorders.

The paediatric HERMES project was initiated by the ERS to develop European harmonisation and standardisation. The first fruits of this project, an updated European syllabus for PRM, were recently published in *Breathe* [1].

However, while this new syllabus is clearly structured, comprehensive and informative, it might still be difficult for many members of the European PRM community to fully understand the complexity of the political and educational landscape into which it is released. Furthermore, the entire paediatric HERMES project

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*... or how we learn to consider
Sisyphus a happy man.
"The struggle itself... is enough
to fill a man's heart. One must
imagine Sisyphus happy." Albert
Camus. 1942 (Le Mythe de
Sisyphus)

might be more clearly comprehensible when put into a historical perspective. It might be easier to realise where the initiative intends to go when we understand where it comes from. Being fully informed on the "why" of the concept will make it easier for European PRM specialists to understand and support the "how" of the programme. It is this informed support from the European PRM community that will ultimately decide the fate of the paediatric HERMES project. Will it remain only an intellectually stimulating exercise for a few, or, as we hope, develop into an important movement of many towards a better quality of PRM in Europe?

This review, written by a member of the European PRM family who has had the privilege to be personally involved in the entire history of the project so far, is intended to shed some light on the political, educational and historical aspects of the initiative in order to facilitate understanding and acceptance of the new syllabus. It also highlights the fact that the syllabus is only the first step on the long road towards a complete and solid European training concept. It is intentionally written from a European perspective to highlight which segments of the educational process might best be tackled at a European level. By outlining those "European" parts of the exercise, this review also takes a look at the other components of training, which must remain the responsibility of local institutions and national regulatory authorities. The special legal and administrative structure of the EU has an important background role but adds to the complexity of the exercise.

Political perspectives

The EU has provided free access for European medical specialists to the European job market *via* directives 75/362/EEC and 2005/36/EC. These directives amount to an automatic mutual recognition of diplomas and certificates of qualification in medicine in all member countries. From a critical perspective, such regulations might be considered as potentially creating an ethical problem: a physician who has been trained in European country A might choose to practice in European country B where training standards are much higher and, consequently, the general quality of medical care is better. Obviously, the EU has released these directives on the basis of an assumption that the quality of medical training is comparable across the entire EU. However, this might not always be the case. So it has been left to the initiative of European medical

umbrella organisations such as the UEMS to work towards standardisation of training of European physicians.

Within the UEMS structure sits the Section of Paediatrics, previously known as the Confederation of European Specialists in Paediatrics but recently renamed the European Academy of Paediatrics (EAP). Like all the other UEMS sections, the EAP has started to work towards homogenisation in training standards. It set up a European Board of Paediatrics as a standing committee in the early 1990s. It soon became clear that the task of this paediatric board was more extensive than that of any other board in the UEMS. It not only had to develop concepts for training in a common paediatric trunk and complement these by training programmes for primary and secondary paediatric care, but in addition, European training programmes also had to be developed for each of the paediatric tertiary care specialities. The EAP has met this challenge by setting up subsections and seeking the co-operation of European paediatric tertiary care speciality societies. Each of these societies is represented by a liaison officer in the so-called Tertiary Care Group of the EAP. Based on the realisation that these European paediatric tertiary care speciality societies not only had an interest in the development of European training concepts but also had the necessary professional expertise for doing this well, the EAP left the details of the paediatric tertiary care speciality syllabi to those societies and only involved itself as a synchronising body, making sure that the developing syllabi were comparable in terms of structure and level of desired expertise across the entire landscape of paediatric tertiary care specialities. For PRM, the relevant speciality "society" is the Paediatrics Assembly of the ERS.

The motives for the development of European training concepts stem not only from EU regulations but also from the realisation that harmonised and standardised training in paediatric tertiary care will have other positive consequences. Such harmonised training would, at least in part, define minimum standards for diagnosis and treatment. The mere existence of such a European syllabus might foster further specialisation and development of centres in regions where the speciality is under represented. It would discourage the common phenomenon of self-declared specialisation. Furthermore, it would support the free movement of trainees across national borders, thereby providing a broader perspective on speciality early in training. Such international experience, acquired in one's

paediatric tertiary care speciality training, would foster subsequent increased mobility of qualified specialists with greater cooperation of centres on the basis of personal friendships and acquaintances. Indirectly, harmonised training across Europe might thus encourage the development of international networks. Finally, the existence of a European training programme might support the tedious process of gaining national recognition (including the establishment of national training programmes) for any of the paediatric tertiary care specialities.

While the EU has produced a strong stimulus for European harmonisation and standardisation of training in medical specialities, it has also placed some obstacles on the road. The most obvious of these is the EU principle of subsidiarity, meaning that the regulation of training standards, assessment and qualifications is left to national authorities. This implies that no document produced on the European level has effective legal power; national authorities may, but do not necessarily have to, comply with European harmonisation and standardisation concepts. Any European syllabus or curriculum only has the strength of a guideline. However, the weight – and the influence at national level – of such European guidelines should not be underestimated. Arguing for national recognition of a paediatric tertiary care speciality (including the definition of training standards) will have to remain a national political effort but will be strongly boosted by the existence of a European syllabus/curriculum.

At first sight, it may seem a bit irrational to try to change a local or national situation *via* European guidelines and concepts. However, while the occasional short-sightedness of national regulatory authorities and politicians can rarely be overcome by constructive and sober argumentation, it may yield to the intellectual authority and prestige of European initiatives. In issues of medical training, care standards and health politics, one sometimes finds that the shortest route from A to B within a country is *via* a detour through Europe.

Educational perspectives

The competency-based approach to training

The competency-based approach to training did not originate in the medical world; it was driven by the political need to make national workforces more competitive globally [2]. Competency-based training works by defining the progress made by the trainee solely in terms of competencies

achieved without regard to the underlying process or the time served in a particular educational setting. Initially, assessment of competencies was based on narrowly defined outcomes. This “spotlight approach” to assessment has been criticised for ignoring the connection between individual tasks and their underlying meaning. It was replaced by a more holistic approach that takes into account the cultural and social context in assessing competencies and tries to find out how personal attributes are used to achieve desired outcomes in real life [3]. Such a “meta-competency” approach makes a competency-based assessment of the trainee’s progress less reductionist.

While the framework of medical training in Europe has traditionally been time-based, competency-based approaches are now taking over. Competencies are defined as a combination of knowledge, skills and attitudes, which when applied in the clinical setting lead to desired outcomes. In this context, a distinction between clinical competence (what the doctor can do) and clinical performance (what the doctor actually does) is relevant. Competency-based medical training relies on three basic steps:

- 1) defining appropriate competencies, *i.e.* (to be simplistic) the “what” of training (syllabus);
- 2) devising appropriate training programmes, *i.e.* the “how” of training (curriculum);
- 3) finding appropriate approaches to assessment including minimum pass standards.

However, the above distinction between syllabus and curriculum is somewhat simplistic; it tries to establish clarity in a field where confusion prevails. There is an ongoing debate in the educational literature as to whether it is possible to distinguish between “syllabus” and “curriculum” [4]. Notwithstanding these theoretical discussions and reservations, any attempt to construct a training programme must be based on clearly defined elements. For this purpose, this review assumes that a syllabus describes the content of the training programme, while a curriculum describes the ways in which this content is conveyed to the trainee.

When compared with the traditional time-based framework of medical training, advantages of the competency-based approach are more individualised and flexible training, more transparent standards and greater public accountability [2]. The pitfalls of this approach might be the risk of focusing too much on minimum acceptable standards and an increased administrative burden. Current criticism of the competency-based

approach is based on a variety of relevant issues, but the common denominator of all these reservations might be that it is extremely difficult to distil the enormous complexity of doctors' performance in real-life clinical situations down to a few standardised spotlight assessments. The search for "better" approaches to training and assessment techniques should be ongoing. However, while the current semi-philosophical discussions of experts in medical education on the pros and cons of the competency-based approach are interesting to follow, paediatricians confronted by the task of developing European training programmes for tertiary care paediatric specialities have no choice but to build their programmes on the conceptual foundation of the most widely accepted paradigm.

EAP concepts on training in a paediatric tertiary care speciality

The EAP/UEMS Section of Paediatrics has developed clear concepts for training in a paediatric tertiary care speciality (figure 1). This concept is helpful for understanding the different elements required to set up and run a training programme. The process can be divided roughly into a few basic steps and associated supportive mechanisms.

In developing such a system, the most important and difficult task is to strike a balance between applicability and acceptance on one side and the desired quality and depth of content on the other. Clearly, a European training concept should aim for the highest standards of patient care delivered by high-quality practitioners. However, aiming too high might hamper national recognition and translation of European standards into national ones, thus becoming more of an

obstacle than a facilitator of intended trans-European national acceptance. When developing a syllabus/curriculum this critical balance between aspiration and realism is difficult to strike: it usually turns out to be much more demanding than just compiling a simple list of training contents.

The qualified trainee

The EAP insists on a minimum of 3 years of general paediatric training (common trunk) as a prerequisite for entering any paediatric tertiary care speciality training. This should ensure the paediatrician has learned the generic skills of interacting with children and parents. It also provides experience of seeing the sick child as a whole person, rather than through the peephole perspective of an exclusively organ- or system-specific specialisation, thereby minimising the risk that additional or collateral morbidity is overlooked and/or neglected. For these reasons, the EAP does not support training adult physicians in PRM.

In addition, the trainee may require competence in closely related fields. In PRM, such fields would be paediatric cardiology, paediatric intensive care, neonatology and imaging.

Clearly the trainee should also be aware that he or she is aiming to work in the highly specialised setting of a tertiary care paediatric centre. In smaller European countries, in particular, there may be only a few such posts and it might thus be wise for the trainee to undergo not only to the 3 years of a common trunk but also additional training and qualification in primary and secondary care paediatrics, in order to keep the employment options as wide as possible.

The syllabus

The EAP has traditionally left the production of European syllabi to paediatric tertiary care speciality societies, which have the clinical and scientific expertise for this task. However, it requests that the syllabi of all tertiary care specialities maintain a certain degree of uniformity through a modular structure.

The EAP considers that all paediatric tertiary

Figure 1
A coherent concept for training in a paediatric tertiary care speciality.

care speciality training programmes should include research and teaching activities. The trainee should not only learn to critically assess medical literature but should also be actively involved in planning and conducting research projects including interpretation, presentation and publication of the study results. In addition, the trainee should be involved in teaching medical students and allied healthcare professionals and should contribute to postgraduate educational programmes.

Of course any syllabus developed should be in line with current educational concepts, *i.e.* should focus on accurately describing the necessary competencies for practising in any of the various tertiary care specialities. Over the years, a certain routine has established itself. The tertiary care paediatric speciality society develops the syllabus, which is then submitted for approval to the EAP. If approved, the syllabus becomes an official UEMS document.

The curriculum

If the term "curriculum" is understood as describing the "how" of training, it follows that a curriculum will have to remain a local or national responsibility to a considerable extent. So to what extent can European institutions exercise a harmonising and standardising influence on local and national curricula? Clearly, some humility is needed in the prescription of a European curriculum to national regulatory bodies and to local training institutions. The wide divergence in training and teaching traditions and the hesitant acceptance of modern training concepts across Europe have to be taken into account. Systems that have been established locally over decades will eventually have to change for the better, but this can only be achieved in small steps. So, for the time being, it might be advisable for European organisations to limit their ambitions to generally acceptable suggestions, *i.e.* "curriculum recommendations".

However, it may be perfectly possible to provide a spectrum of practical suggestions on how the competencies listed in the syllabus can be acquired. Thus, European curriculum recommendations may attempt to outline strategies, methods and techniques to ensure the transfer of the maximum knowledge and skills to the trainee. Again, these recommendations should put more focus on how to acquire various competencies rather than on the timeframe of this training. However, local and national authorities will usually insist on defining training within time limits; consequently, it seems acceptable that European

curriculum recommendations should address minimum training time. It is also advisable that the trainee monitors his or her own progress by means of some form of training record, such as a log book.

Learning aids

While training in skill-based competencies will largely remain a responsibility of the local centre, the trainee's efforts to acquire knowledge-based competencies can be facilitated by learning aids that, at least in part, can be provided on a European level.

Such "European" learning aids, specifically targeted to the needs of a trainee, might comprise a series of educational articles or a textbook, training courses (a "European School" for any given tertiary care paediatric speciality) and various modes of distance learning (e-learning). International skill laboratories and hands-on courses (*e.g.* practical training courses for flexible bronchoscopy in animal labs) blur the distinction between training in knowledge-based and skill-based competencies.

In addition to such "specific" European learning aids, a trainee could also benefit from European learning aids that do not target trainees alone, but could be developed within the framework of present continued medical education (CME) programmes (figure 2). These "non-specific" learning aids are European congresses, meetings, workshops, postgraduate courses, distance CME programmes, textbooks and articles in CME journals.

Other learning aids will have to remain local, provided by the training centre. Without going into unnecessary detail, the locally available spectrum of such learning aids (grand rounds, teaching elements of ward rounds, case-based discussions, regular reviews of the current literature, organised discussions of study results, *etc.*) can be summarised as the "teaching culture" of a centre.

Quality assurance: process quality

Implementation of any training programme brings

Figure 2

Doctors continuing their education taking the European Examination in Adult Respiratory Medicine.

with it a need for quality assurance measures. Assessing the training capacities and practice of a centre might thus be considered as one way of ensuring sufficient process quality. The modular structure of a syllabus makes assessment of a centre's training capacities easier, enabling detailed inspection using checklists. It has to be emphasised, however, that just assessing such details is not enough; assessing the "teaching culture" and evaluating the progress and satisfaction of the trainees are equally important.

Experience has shown that trying to evaluate the training capacities of centres using questionnaires is simply not good enough. Training centre directors will always tend to overestimate their centre's capacities, and a questionnaire-based list of training centres will thus always give a picture that is rosier than reality. This means that any accurate evaluation and accreditation of training centres must be based on a training centre visiting programme. The EAP has developed detailed guidelines for such visits, valid for any given paediatric tertiary care speciality. Visits have already begun in some specialities. As properly conducted evaluations and visits are costly in terms of manpower, time and finances, such a programme might turn out to be the most expensive and difficult detail of any European training system. Some European countries already have training centre visiting and accreditation programmes and there seems to be little sense in "doubling up" properly performed national programmes. However, for the large majority of European centres that are subject to no national visiting and accreditation programme, a European programme offers an additional quality label, bringing increased prestige and visibility. In addition, an international assessment result that points out some structural deficiencies might often be helpful in negotiations with hospital and university administrators.

The EAP does not organise and conduct European training centre visits and accreditations for paediatric tertiary care specialities directly, but rather leaves this to the various European speciality societies. Provided that the guidelines of the EAP are met in terms of quality and content, however, the EAP offers confirmation of the society's evaluation result in the form of a diploma.

Quality assurance: outcome quality

The individual results of training should be assessed, in line with the principle that "assessment drives learning". Formative assessment repeatedly evaluates the progress of the trainee, thereby producing an individual learning curve.

In contrast, summative assessment evaluates the trainee at the end of his or her training, thus giving an overall picture of the trainee's knowledge-based competencies. Educationalists consider formative assessment more important, since the feedback enables the trainee to further fine-tune their learning. However, it seems that for training in a medical speciality, summative assessment is here to stay: administrators, health politicians and regulatory bodies will continue to insist on exit examinations, which provide some kind of a rubber stamp for outcome quality.

Although it is possible to measure the trainee's performance in skill laboratories, conventional examination techniques are not suitable for assessing skill-based competencies. Special assessment techniques like the "directly observed procedure" or the "mini-clinical exercise" are required. Clearly, the assessment of skill-based competencies will largely remain the responsibility of the training centre.

Knowledge-based competencies, however, can be assessed on a larger scale. Trainees might sit an examination at the end of their training. As the English language should not be a problem for anybody training in a paediatric tertiary care speciality, such an exit examination could easily be offered on a European level. Some European countries may have a mandatory national exit examination of knowledge-based competencies; in this case, a voluntary European exit examination can offer an additional European quality label on top of the national diploma. However, in smaller European countries the number of paediatric tertiary care specialists to be examined each year might be relatively small; compiling a sufficient number of questions and organising a valid national examination for each of those specialities might be a disproportionally large exercise. Authorities in such countries might be interested in a top-level European examination and eventually might consider replacing a national exam with this European one. Annual European exit examinations in PRM should be an interesting medium-term target for the Paediatrics Assembly of the ERS.

The fully qualified European PRM specialist

Such people should be the end-product of the described training programme. They will be the future guarantors for top-quality tertiary paediatric respiratory care in Europe, carrying the load of innovative research in the field and teaching the speciality competently in all levels of medical education. As highly competent spokespeople, they will represent the speciality towards the

European public, providing the basis of a thriving and productive future for PRM in an increasingly competitive professional environment.

Historical perspectives

Early developments

The story of the ERS Paediatrics Assembly commenced with the birth of the ERS in 1990. Within a few years, the assembly had collected almost all active paediatric pulmonologists as members, contributed substantially to the annual congresses of the ERS and developed a wide spectrum of promising and productive programmes and activities. The previously existing European Paediatric Respiratory Society (EPRS) had merged into the Assembly. In the mid-1990s, the ERS Paediatrics Assembly started to focus some attention on the issue of a trans-European harmonisation and standardisation of training. It was felt that the speciality, then officially, recognised in only a few European countries, deserved better. It was hoped that a European training concept for PRM could serve as a political instrument to foster national recognition of the speciality and the development of national training programmes.

In 1995, the president of the ERS (at the time a paediatric pulmonologist) established contact with the UEMS Section of Paediatrics (now EAP). Through lengthy discussions, he convinced the officers of this section to focus more on tertiary care paediatrics. As a result of this lobbying, PRM became the first subsection of EAP; other paediatric tertiary care specialities quickly followed. European paediatric tertiary care speciality societies were asked to delegate liaison officers to this emerging "Tertiary Care Group". All these societies were asked to produce European syllabi for their respective paediatric tertiary care speciality.

The first European PRM syllabus

Work towards developing a first European paediatric respiratory syllabus began in 1996 within the long-range planning committee of the ERS Paediatrics Assembly. The concerted efforts of a small group of dedicated individuals finally resulted in the first European paediatric respiratory syllabus, which was endorsed by the UEMS in 1999 and published in 2002 [5]. This was the first European syllabus for a paediatric tertiary care speciality and served as a model for the syllabi of other specialities. To date, the EAP holds 11 different European syllabi for paediatric tertiary care specialities.

A major intention behind the development of

this first PRM syllabus was to use it as a political instrument for supporting widespread national recognition of the speciality in Europe. In addition, it was intended as a European guideline for the development of national syllabi, thereby serving as an instrument towards European harmonisation of content and quality. In retrospect, this first syllabus has fulfilled these hopes to a large extent. In countries where paediatric pulmonologists were ultimately successful in achieving national recognition for their speciality, the European document has served as a strong support for lobbying towards this goal; at the same time, those developing national syllabi used it as a guideline and so the presently existing national syllabi are comparable in terms of content and depth.

The author of this review has been personally involved in such a political campaign, for the national recognition of paediatric tertiary care specialities in Austria. A few years ago, this long process finally led to the official recognition of several such specialities (including PRM), but it was clear all along that the political success was strongly facilitated by the existence of European syllabi for these specialities.

Concomitant to the development of the first PRM syllabus, a committee on paediatric respiratory training in Europe was set up in order to compile a first paediatric respiratory training centre list. This committee consisted of one or two representatives per EU country, who mailed questionnaires to potential training centres in their country, requesting each centre's training capacities be defined according to the grid of modules given in the syllabus. The result was published by the ERS in the form of a booklet in 2002 [6]. This appearance of a European PRM training centre list nicely complemented the publication of the syllabus and gave a first flavour of the existing training possibilities. However, it also showed the limitations of such a questionnaire-based list; in many instances, the wishful thinking of training centre directors had obviously got the better of a sober assessment of reality.

The adult HERMES project

Discussions also led to a plan to establish European training concepts for adult pneumology. In 2005, the adult HERMES project was set up. The adult HERMES task force worked under the umbrella of the ERS School. Based on his role in the development of the first PRM syllabus, the author of the present review was invited to be an advisor to this task force. The first project

was the development of a European syllabus for adult pneumology. This was achieved with the involvement of a larger group of experts and national delegates. Consensus on crucial items was obtained *via* a repeated web-based Delphi procedure. The syllabus was finally presented and published in 2006 [7].

The task force then continued its work and started to develop a European curriculum for adult pneumology. Although complicated by problems in distinguishing clearly between syllabus and curriculum, the process was concluded successfully with the publication of a European curriculum document in 2008 [8]. This document is highly informative for anybody concerned with medical training; especially the first part of the document, which describes general principles of training in a medical speciality, is relevant far beyond adult pneumology.

At the same time as it was developing the curriculum, the adult HERMES task force established co-operation with the Swiss Pneumology Society and the Swiss Institute for Medical Education, which developed a multiple-choice exit examination for adult pneumology. Based on this pre-existing experience and the granted availability of validated multiple-choice questions, a first voluntary European examination in adult pneumology was organised for the 2008 ERS congress. The concept is to enlarge the pool of questions and to stage this voluntary European examination at the annual ERS meeting from now on. From the perspective of PRM, the experience gathered by our adult pneumology colleagues at these examinations will be extremely helpful in setting up a similar PRM exit examination.

The paediatric HERMES project

An online survey of the members of the ERS Paediatrics Assembly in 2006 indicated that the European PRM community was familiar with the first syllabus and found it useful. Not surprisingly,

considering the age of the syllabus, a majority of respondents also saw the need for updating. At the same time, the adult HERMES project offered itself as a useful model of how to carry out such an endeavour. This led to the paediatric HERMES initiative, which was endorsed by the ERS and, subsequently, carried out by the ERS School. The relevant task force is chaired by Monika Gappa with the administrative assistance of Julie-Lyn Noël.

The main body of work on the syllabus was carried out in 2008. Again, a web-based modified Delphi technique was used repeatedly to establish consensus between the task force and a wider group of pre-selected experts. The final document comprises 21 mandatory and three optional modules; each module consists of a list of clearly defined items with the recommended level of competence given for each item. The content, structure and details of the syllabus are in full agreement with the above outlined educational principles and with the current concepts of the EAP. This new syllabus has now been submitted for approval by the UEMS and has been published in *Breathe* [1].

The paediatric HERMES task force now faces the challenge of producing a European curriculum and planning for a voluntary European exit examination in PRM.

Conclusions

At present, the national situation of PRM is highly variable across Europe. In several countries, PRM is officially recognised, training systems are established and relevant regulations exist. PRM specialists in this advanced subgroup of nations should take care that their training programmes are compatible with European concepts, and thus, are comparable with each other in terms of structure and content.

Representatives of these countries should also be aware of their responsibility to serve as a positive example for the rest of Europe in terms of care-giving competence and scientific productivity. They have to illustrate that a properly regulated training programme will always produce better results.

The situation is more difficult for members of the European PRM family based in countries where the speciality is not officially recognised and no national training exists. Clearly, this larger subgroup of somewhat disadvantaged European paediatric pulmonologists will have to organise themselves at a national level and try to change the situation for the better.

Any such initiative towards establishing training standards for PRM at national level must be based on clear educational thinking, and, by its very nature, will have the character of a political campaign. Such a campaign will always run the risk of falling between two stools – European concepts and the existing national situation. However, this difficult interface between European guidelines and national traditions and regulations can also be used to the advantage of the campaign. Climbers work their way upwards through a rock chimney by alternatively getting hold on either side of the crevice. This (admittedly somewhat alpine) example might also help us to understand the strategy by which the representatives of a medical speciality, wishing to improve the standing and standards of their profession, can make use of this cleft between European concepts and national regulations. This way of working one's way up towards a better future for the profession seems particularly useful in matters of education and training where, at least in some European countries, parochialism, inertia and confusion reign. Top-quality European concepts and guidelines have an important role in this exercise

as they provide stable grips and footholds on one side of the crevice. However, they hardly ever work for themselves as their political usefulness critically depends on finding grips and holds on the opposite (national) side of the cleft as well. The products of the current paediatric HERMES initiative cannot be expected to magically become effective; they only provide useful tools that can help any dedicated group of paediatric pulmonologists to achieve the recognition of PRM and the establishment of top level training standards on their national level. Thus, the developing paediatric HERMES concepts are guidelines and tools that facilitate: 1) the national struggle for top quality training standards in PRM; and 2) the development of national training concepts that are comparable in terms of content and quality across Europe, *i.e.* in their sum, provide for the desired harmonisation of standards.

In conclusion, when reflecting on the history of paediatric respiratory training in Europe, one realises that we have already come a long way. However, it is equally evident that another long and tedious stretch of the road still lies ahead.

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