

This is a pre print version of the following article:

A guide for respiratory physiotherapy postgraduate education - the presentation of a Harmonized Curriculum / Troosters, T., Langer, D., Burtin, C., Chatwin, M., Clini, E., Emtner, M., Gosselink, R., Grant, K., Inal-Ince, D., Lewko, A., Main, E., Oberwaldner, B., Pitta, F.. - In: EUROPEAN RESPIRATORY JOURNAL. - ISSN 1399-3003. - 53:1900320(2019), pp. 1900320-1900320. [10.1183/13993003.00320-2019]

Terms of use:

The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

18/06/2026 09:21

(Article begins on next page)



A guide for respiratory physiotherapy postgraduate education - Presentation of the Harmonised Curriculum

Journal:	<i>European Respiratory Journal</i>
Manuscript ID	ERJ-00320-2019
Manuscript Type:	Editorial
Date Submitted by the Author:	14-Feb-2019
Complete List of Authors:	<p>Troosters, Thierry; University of Leuven, Department of Rehabilitation Sciences</p> <p>Tabin, Nathalie; European Respiratory Society,</p> <p>Langer, Daniel; KU Leuven, Faculty of Kinesiology and Rehabilitation; University Hospital / KU Leuven</p> <p>Burtin, Chris; Universiteit Hasselt, Faculty of Rehabilitation Sciences, Rehabilitation Research Centre</p> <p>Chatwin, Michelle; Royal Brompton Hospital, Department of Sleep and Ventilation</p> <p>Clini, Enrico; University of Modena, University Hospital of Modena Policlinico</p> <p>Emtner, Margareta; Uppsala University, Dep of Respiratory Medicine</p> <p>Gosselink, Rik; KU Leuven, Faculty of Kinesiology and Rehabilitation Sciences; University Hospitals KU Leuven, Respiratory Rehabilitation and Respiratory Division</p> <p>Grant, Kathleen; CHUV, Physiotherapy</p> <p>Inal-Ince, Deniz; Hacettepe University, School of Physical Therapy and Rehabilitation</p> <p>Lewko, Agnieszka; Kingston University and St Georges University of London, Rehabilitation Sciences</p> <p>Main, Eleanor; University College London Great Ormond Street Institute of Child Health Library</p> <p>Oberwaldner, Beatrice; Medizinische Universität Graz, Postgraduate school</p> <p>Pitta, Fabio; Universidade Estadual da Londrina Hospital Universitario da UEL, Department of Physiotherapy, Laboratory of Research in Respiratory Physiotherapy</p>
Key Words:	physiotherapy, education, curriculum, harmonised, European
Abstract:	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

A guide for respiratory physiotherapy postgraduate education - Presentation of the Harmonised Curriculum

Troosters T¹, Langer D¹, Burtin C², Chatwin M³, Clini E⁴, Emtner M⁵, Gosselink R¹, Grant K⁶, Inal-Ince D⁷, Lewko A⁸, Main E⁹, Oberwaldner B¹⁰, Tabin N¹¹, Pitta F¹²

1 Department of Rehabilitation Sciences, KU Leuven, Leuven Belgium

2 Reval Rehabilitation Research Center, BIOMED Biomedical Research Institute, Faculty of Rehabilitation, Hasselt University, Diepenbeek, Belgium

3 Academic and Clinical Department of Sleep and Breathing and NIHR Respiratory Biomedical Research Unit, Royal Brompton & Harefield NHS Foundation Trust, Sydney Street, London, United Kingdom.

4 Department Medical and Surgical Sciences University of Modena Reggio Emilia and University Hospital of Modena Policlinico, Modena, Italy.

5 Departments of Neuroscience and Medical Sciences, Uppsala University, Uppsala, Sweden.

6 Department of Cardio-respiratory Physiotherapy, Vaud University Hospital, Lausanne, Switzerland.

7 Department of Physiotherapy and Rehabilitation, Faculty of Health Sciences, Hacettepe University, Ankara Turkey.

8 Department of Rehabilitation Sciences, Faculty of Health, Social Care and Education. Kingston University and St. George's University of London, United Kingdom.

9 Physiotherapy department, Great Ormond Street Institute of Child Health, University College London, WC1N 1EH, United Kingdom. 10 Postgraduate School, Medical University, Graz, Austria.

11 Education department, European Respiratory Society, Lausanne, Switzerland

12 Department of Physiotherapy, Laboratory of Research in Respiratory Physiotherapy (LFIP) State University of Londrina (UEL) Londrina Brazil.

Corresponding author

Prof Thierry Troosters

UZ Gasthuisberg, Respiratory Division, Research and Development Building 1 Box 706

Herestraat49, 3000 Leuven

Thierry.troosters@kuleuven.be Tel +32 16 330798

1
2 Harmonising education is one of the most important challenges to ensure mobility of health
3 care professionals across countries and regions of the world. While patients are affected by
4 the same diseases, the health care systems in which they are cared for are very different and
5 the health care providers within these systems are trained very differently. Health education
6 in many countries is largely based on tradition. This is true for most medical specialities, as
7 well as for physical therapy education [1], including respiratory physiotherapy. The
8 responsibilities and the degree of professional and academic training vary widely across
9 countries and regions [2]. While all educational programmes are likely fit for purpose within
10 a given health care system, the variability in knowledge, skills, and attitudes makes mobility
11 and cross-certification difficult, if not impossible. In addition the growing body of evidence
12 for respiratory physiotherapy [3] makes it all the more important to foresee a framework for
13 postgraduate training that prepares the workforce for the future [4]. For a global
14 organization such as the European Respiratory Society (ERS), it also challenging to design
15 postgraduate education that matches the level of knowledge and skills of all members. The
16 ERS has a long tradition of providing such frameworks for harmonised education and training
17 in respiratory medicine [5]. Figure 1 provides an overview of all available curricula and
18 certified training programmes.

19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34 The design of a European (or global) curriculum for respiratory physiotherapy provides a
35 platform for educational tracks in order to match specific educational programmes to the
36 current consensus of what is expected from a trained respiratory physiotherapist. It also
37 makes suggestions as to how the knowledge, skills and attitudes can be obtained and at
38 which level they should be examined. Importantly, this curriculum also provides third parties
39 (chest physicians, general practitioners, nurses, thoracic surgeons, intensivists, funders and
40 patients) with a comprehensive description of what they can expect from a trained
41 respiratory physiotherapist.
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

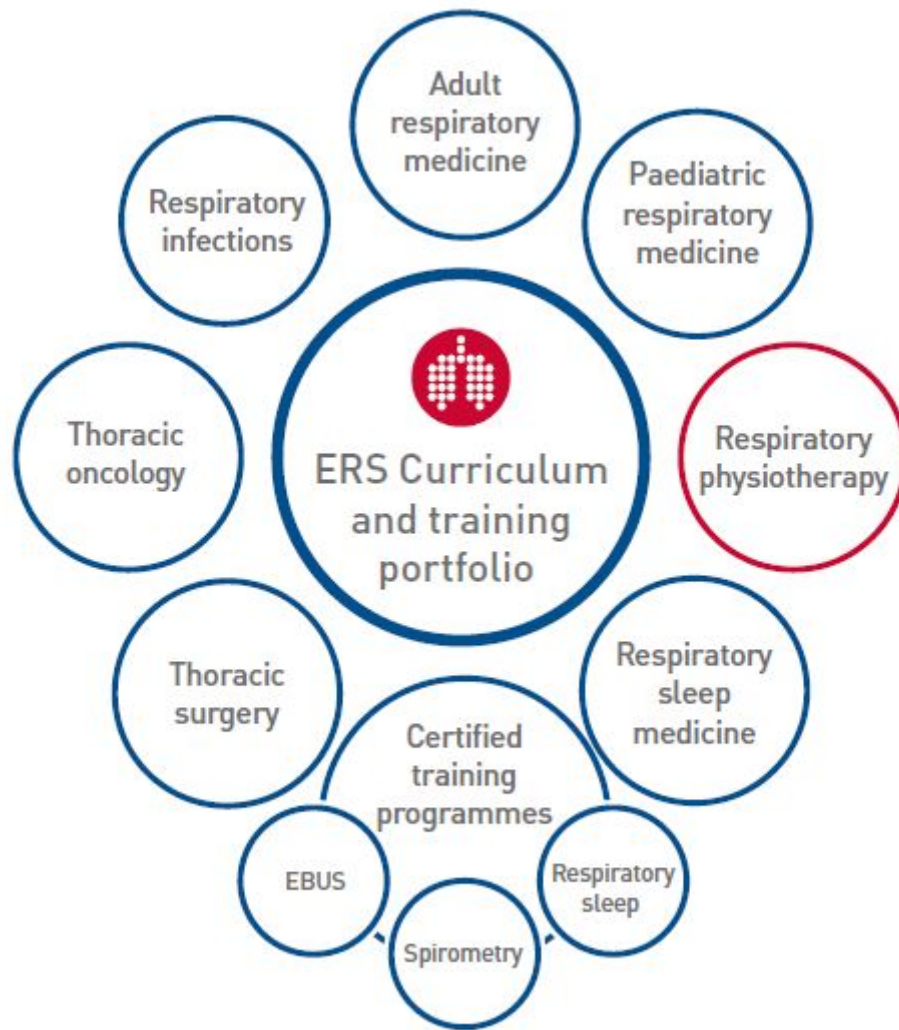


Figure 1: Overview of the portfolio of curricula and certified training programmes which have been developed by the ERS or are underway. See <https://www.ersnet.org/professional-development/ers-curriculum-design-a-summary-of-projects> for more information and relevant publications.

Physiotherapy is becoming more and more specialised. In several countries respiratory physiotherapy is a recognised subspecialty of physiotherapy. In Belgium, for example, six particular competencies are recognized today [6] and the list is growing. These include for example a particular competency in manual therapy, paediatric conditions, and respiratory physiotherapy. In the US, nine specialties are recognized by the American Physical Therapy Association (APTA). It is therefore no surprise that other branches of physical therapy have undertaken similar efforts to provide a standard set of expected knowledge, skills, and

1
2 attitudes. In the speciality of Orthopaedic Manipulative Therapy such a curriculum (or
3 standard) exists since 1977 [7]. The APTA recognizes a 'cardiopulmonary physical therapist',
4 and has a residency programme in accredited centres [8] as well as a formal exam for
5 accreditation as a cardiorespiratory physical therapists.
6
7
8
9

10
11
12 The ERS Respiratory Physiotherapy curriculum sets a new standard for post-graduate
13 respiratory physiotherapy education. It was developed to promote evidence based practice
14 and physical skills for the respiratory physiotherapist, but also incorporates the expectations
15 of other health care professionals who were involved in the development. The syllabus and
16 curriculum are tailored to the needs of physical therapists that completed their physical
17 therapy training (or training in rehabilitation sciences) according to the standards set out by
18 the World Confederation of Physical Therapy (WCPT) [9]. This is important as it is expected
19 that all respiratory physiotherapists should comply with the general professional attitudes
20 required from a trained physiotherapist at entry level. These attitudes encompass
21 accountability, humanity compassion/caring, cultural competence, ethical behaviour,
22 integrity, personal and professional development, professional duty, social responsibility and
23 advocacy, and teamwork [9].
24
25
26
27
28
29
30
31
32
33

34
35 Admittedly, the curriculum developed by the task force sets the bar high, both in terms of
36 knowledge needs, as well as with regards to the skills and attitudes required from a
37 professional. Conscious of the high standards, the curriculum is modular, with a separate
38 adult and paediatric track, and additional modules for intensive care. This choice was made
39 in order to accommodate the clinical reality of subspecialized professionals who are
40 oftentimes dealing with very specific patient populations and those that may only treat
41 adults or paediatrics.
42
43
44
45
46
47

48
49 Respiratory physiotherapists are professionals who collaborate within multidisciplinary
50 teams and the success of their actions is often measured by the success of the whole team.
51 The developed curriculum fits nicely with the 'description of physical therapy' provided by
52 the World Confederation of Physical Therapy. This description highlights the competences of
53 the physiotherapist in 1) undertaking and evaluating the findings of examinations and
54 assessments, 2) formulating a diagnosis, prognosis and treatment plan within their field of
55
56
57
58
59
60

1
2 expertise, 3) providing consultation and determining when clients need to be referred to
3 another professional, 4) implementing a physical therapy intervention, 5) determining the
4 outcomes for such an intervention and 6) making recommendations for self-management
5 (Description of Physical Therapy WCPT 2017).
6
7
8
9

10
11
12 The present curriculum contains not only items that need to be ‘known’ by respiratory
13 physiotherapists, but, also includes the skills and attitudes that can be expected from
14 respiratory physiotherapists. In addition, suggested forms of teaching as well as methods for
15 assessment are proposed. Though recognisably difficult, whenever possible suggestions are
16 made for minimal clinical training or exposure. This may prove to be the ‘weak spot’ of the
17 present curriculum. While it is clear that clinical exposure is necessary to provide proper
18 patient care, the exact quantity of that exposure is variable and hard to grasp. Nevertheless,
19 whenever possible, based on educational experience and validated by the expert reviewers,
20 a best guess was made for relevant clinical exposure. As it stands now, the proposed
21 curriculum provides educators with a blueprint for teaching, skills training and practical
22 training.
23
24
25
26
27
28
29
30
31
32

33 The curriculum is broad and spans the areas previously laid out in the syllabus [2]. The latter
34 was developed with direct input from a large panel of worldwide experts. Similarly, both the
35 adult and paediatric tracks of the curriculum have been subject to peer review to ensure
36 acceptability and credibility. Upon publication, members of the European Respiratory
37 Society will be able to provide input to the curriculum as it is seen as a dynamic document
38 that can, and should, be adapted over time.
39
40
41
42
43
44

45 In the document, all aspects of respiratory therapy are included. This does not mean that it
46 is exclusivity for respiratory physiotherapists. In different countries several health care
47 professionals may have specific competencies. For example, this is true for exercise training,
48 non-invasive mechanical ventilation or mechanical ventilation. It is therefore important to
49 align the local/regional requirements and local legal arrangements. In any case,
50 physiotherapists have the competences to set-up fruitful interdisciplinary collaborations and
51 this is also made clear throughout the document.
52
53
54
55
56
57
58
59
60

1
2 The next steps are now to compare the content of the curriculum with existing educational
3 programmes in different countries and to then subsequently align the educational
4 opportunities of the European Respiratory Society with the curriculum and establish
5 accredited centres where practical skills training as well as clinical training can be performed.
6
7 Leadership of the European Respiratory Society Group 9.2 (Physiotherapy) is committed to
8 set out a path towards implementation and acceptance of the curriculum so that it can
9 become an international standard for training in respiratory physiotherapy. Since
10 accreditation of physiotherapists (as it is with other health care specialists) is organised at a
11 country level, the ambition of ERS is not to provide a certificate for accreditation. Rather, the
12 idea is to organise modules that individual members can use as part of their own portfolio to
13 seek recognition as a respiratory physiotherapy specialist within their own accreditation
14 environment, or an environment they wish to transfer to as part of health care
15 professionals' mobility.
16
17
18
19
20
21
22
23
24
25

26 The current syllabus and curriculum will provide a framework for international training in
27 respiratory physiotherapy. It advises what knowledge, skills and attitudes need to be
28 mastered by a respiratory physiotherapist. It also provides an indication for clinical training
29 time, different forms of learning and examination. The syllabus and curriculum contain the
30 elements around which an E-portfolio can be built and it sets out a benchmark for
31 endorsement of educational opportunities organized by others as well as the ERS. The
32 expert group now invites the respiratory physiotherapy community to verify the proposed
33 curriculum against their own. As this is a dynamic document, feedback is surely welcome.
34 Further, within the Scientific Group 9.2 (Physiotherapy) this project is now managed in order
35 to exploit the curriculum to the benefit of all its members.
36
37
38
39
40
41
42
43
44

45 **References**

- 46 1. Foo JS, Storr M, Maloney S. Registration factors that limit international mobility of people
47 holding physiotherapy qualifications: A systematic review. *Health Policy (New York)*. 2016;
48 120: 665–673
- 49 2. Mitchell S, Pitta F, Troosters T. Standardised education and training for respiratory
50 physiotherapists. *Breathe* 2013; 9: 171–174.
- 51 3. Denehy L, Granger CL, El-Ansary D, Parry SM. Advances in cardiorespiratory physiotherapy
52 and their clinical impact. *Expert Rev. Respir. Med.* 2018; 12: 203-215.
- 53 4. Skinner EH, Williams CM, Haines TP. Embedding research culture and productivity in hospital
54 physiotherapy departments: Challenges and opportunities. *Aust. Heal. Rev.* 2015; 39: 312-
55
56
57
58
59
60

- 1
2 314.
3
4 5. Loddenkemper R, Séverin T, Eiselé JL, Haslam PL. Hermes: Good reasons for harmonising
5 education and training in respiratory medicine. *Eur. Respir. J.* 2006; 28: 470-471.
6
7 6. Federal Ministry of Health. Royal decree for particular competences for physical therapists
8 [Internet]. R. decree 2014. p. 57908 Available from:
9 [http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&cn=20140425G3&t](http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&cn=20140425G3&table_name=wet)
10 [able_name=wet](http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&cn=20140425G3&table_name=wet).
11
12 7. Lonneman, ME., Olson, KA. BJ. The history of IFOMPT: paving the way to global leadership in
13 OMPT excellence. *J Man. Manip. Ther.* 2017; 25: 223–226.
14
15 8. Furze JA, Tichenor CJ, Fisher BE, Jensen GM, Rapport MJ. Physical Therapy Residency and
16 Fellowship Education: Reflections on the Past, Present, and Future. *Phys. Ther.* 2016; 96:979-
17 960.
18
19 9. World Confederation of Physical Therapy (WCPT). Policy statement: Description of physical
20 Therapy [Internet]. World Confed. Phys. Ther. Policy statement 2015. p. 1–9 Available from:
21 [https://www.wcpt.org/sites/wcpt.org/files/files/resources/policies/2017/PS_Description_of_](https://www.wcpt.org/sites/wcpt.org/files/files/resources/policies/2017/PS_Description_of_physical_therapy_FINAL.pdf)
22 [physical_therapy_FINAL.pdf](https://www.wcpt.org/sites/wcpt.org/files/files/resources/policies/2017/PS_Description_of_physical_therapy_FINAL.pdf).
23
24
25

26 **Acknowledgements**

27 This task Force was supported by the European Respiratory Society. The Task Force members want to
28 thank all participants at the different stages of consultation throughout the process. We are also
29 grateful for the ERS staff support: Sharon Mitchell and Alexandra Niculescu for their dedicated
30 support in the development of the Syllabus and Curriculum.
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60