



ERS course on Pulmonary rehabilitation

23-25 June 2025

Aveiro, Portugal

Monday, 23 June 2025

08:00–08:30	Registration
08:30–08:40	Welcome to the University of Aveiro and introduction to course - A. Marques
	Session 1 - Introduction to pulmonary rehabilitation
	Chair: A. Oliveira
08:40–09:05	The burden of chronic lung diseases: rationale for pulmonary rehabilitation - J. Winck
09:05–09:30	Definition and organisational aspects of pulmonary rehabilitation - M. Spruit
09:30–09:55	Setting up pulmonary rehabilitation in high vs low resource settings - A. Marques
09:55–10:15	Discussion and Q&A
10:15–10:45	<i>Coffee break</i>
	Session 2 - Physical inactivity and problematic ADL
	Chair: C. Burtin
10:45–11:10	Physical inactivity and problematic activities of daily life in chronic respiratory diseases - F. De Oliveira Pitta
11:10–11:35	Extra-pulmonary consequences of physical inactivity - M. Spruit
11:35–12:00	Assessment of physical inactivity and problematic activities of daily life in chronic respiratory diseases - J. Cruz
12:00–12:25	Physical inactivity management in chronic respiratory diseases - P. Sobral Rebelo
12:25–12:45	Discussion and Q&A
12:45–13:45	<i>Lunch</i>



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Session 3 - Exercise limitations and assessment

Chair: R. Gloeckl

13:45–14:10	Assessing cardiopulmonary limitations - I. Vogiatzis
14:10–14:35	Assessing peripheral and respiratory muscle weakness - D. Langer
14:35–15:00	Properties and implementation of exercise field tests - S. Singh
15:00–15:20	Discussion and Q&A
15:20–15:45	<i>Coffee break</i>

Session 4 - Hands-on workshops I

15:45–16:00	Introduction of workshop leaders and workflow <i>Participants can attend 4 of the 15 workshops below <u>in this session</u>. Maximum 10 participants per workshop.</i>
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16:00–16:30	Round 1	<u>Workshops:</u> WS1 Body composition with bioimpedance - F. Franssen, G. Rodrigues WS2 1-RM assessment - C. Burtin WS3 MicroFET and handgrip strength test - T. Troosters WS4 Physical activity assessment - F. De Oliveira Pitta, J. Cruz WS5 6-minute walk test - P. Sobral Rebelo, M. Pinto Mendes WS6 ISWT / ESWT - S. Singh, R. Evans WS7 Chester step test - C. Paixão WS8 Tailoring pulmonary rehabilitation to exacerbations - E. Steed, A. Machado WS9 Health status questionnaires - A. Oliveira, A. Grave WS10 Neuromuscular electrical stimulation - I. Vogiatzis WS11 Sit-to-Stand tests, SPPB and Brief-BESTest - A. Marques, R. Marinho WS12 Balance training - T. Pereira de Pinho WS13 Testing of inspiratory muscle strength/endurance - R. Gloeckl, M. P. Almeida WS14 Inspiratory muscle training - D. Langer WS15 Problematic activities of daily living: physical performance test, grocery shelving task - C. Dias
16:30–17:00	Round 2	
17:00–17:30	Round 3	
17:30–18:00	Round 4	

18:00–19:00	<i>Welcome reception</i>
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Tuesday, 24 June 2025

Session 5 - Other impairments

Chair: M. Spruit

- 08:30–08:55 Symptoms of psychological distress - E. Steed
08:55–09:20 Cough and fatigue - A. Oliveira
09:20–09:45 Health illiteracy - J. Cruz
09:45–10:05 Discussion and Q&A

10:05–10:30 *Coffee break*

Session 6 - Fundamentals of exercise prescription

Chair: T. Troosters

- 10:30–10:55 Endurance training: continuous exercise - R. Gloeckl
10:55–11:20 Endurance training: interval exercise - I. Vogiatzis
11:20–11:45 Resistance training and NMES - M. Spruit
11:45–12:10 Inspiratory muscle training - D. Langer
12:10–12:30 Discussion and Q&A

12:30–13:30 *Lunch*

Session 7 - Adjuncts to exercise training

Chair: A. Marques

- 13:30–13:55 Pharmacotherapy and oxygen therapy - F. Franssen
13:55–14:20 Endurance training with non-invasive ventilation - J. Winck
14:20–14:45 Balance training - R. Gloeckl
14:45–15:10 Nutritional supplements - R. Domingues
15:10–15:30 Discussion and Q&A

15:30–16:00 *Coffee break*



Tuesday, 24 June 2025

Session 8 - Hands-on workshops II

Participants can attend 4 of the 15 workshops in this session.

Maximum 10 participants per workshop.

16:00–16:30	Round 1
16:30–17:00	Round 2
17:00–17:30	Round 3
17:30–18:00	Round 4

Workshops:

WS1 Body composition with bioimpedance - F. Franssen, G. Rodrigues

WS2 1-RM assessment - C. Burtin

WS3 MicroFET and handgrip strength test - T. Troosters

WS4 Physical activity assessment - F. De Oliveira Pitta, J. Cruz

WS5 6-minute walk test - P. Sobral Rebelo, M. Pinto Mendes

WS6 ISWT / ESWT - S. Singh, R. Evans

WS7 Chester step test - C. Paixão

WS8 Tailoring pulmonary rehabilitation to exacerbations - E. Steed, A. Machado

WS9 Health status questionnaires - A. Oliveira, A. Grave

WS10 Neuromuscular electrical stimulation - I. Vogiatzis

WS11 Sit-to-Stand tests, SPPB and Brief-BESTest - A. Marques, R. Marinho

WS12 Balance training - T. Pereira de Pinho

WS13 Testing of inspiratory muscle strength/endurance - R. Gloeckl, M. P. Almeida

WS14 Inspiratory muscle training - D. Langer

WS15 Problematic activities of daily living: physical performance test, grocery shelving task - C. Dias

Wednesday, 25 June 2025

Session 9 - Empowerment and collaborative self-management

Chair: S. Singh

08:30–08:55	Understanding and supporting behaviour change - E. Steed
08:55–09:20	Enhancing self-management - A. Oliveira
09:20–09:45	Enhancing social support: informal caregiving - A. Marques
09:45–10:10	Pulmonary rehabilitation and palliative care - M. Pinto Mendes
10:10–10:30	Discussion and Q&A
10:30–10:55	Coffee break



Wednesday, 25 June 2025

Session 10 - Handling additional complexity

Chair: D. Langer

10:55–11:20	Exacerbations: definition(s) and impact - F. Franssen
11:20–11:45	Pulmonary rehabilitation and multimorbidity - R. Evans
11:45–12:10	Pulmonary rehabilitation during and after exacerbations - A. Machado
12:10–12:30	Discussion and Q&A

12:30–13:30 *Lunch*

Session 11 - Widening the application of pulmonary rehabilitation

Chair: F. Pitta

13:30–13:55	Effectiveness of pulmonary rehabilitation in low resource settings - A. Marques
13:55–14:20	Cultural adaptations of pulmonary rehabilitation in low middle income countries - S. Singh
14:20–14:45	Pulmonary rehabilitation in non-COPD - C. Burtin
14:45–15:10	Pulmonary rehabilitation across settings - T. Troosters
15:10–15:30	Discussion and Q&A

15:30–15:55 *Coffee break*

Session 12 - Case reports on comprehensive assessment and management

15:55–16:05	Introduction to case studies - J. Winck <i>Participants will be divided into 5 groups to prepare the case studies</i>
16:10–17:40	Discussion of case studies Group 1 - A. Marques, M. Spruit, M. Pinto Mendes Group 2 - E. Steed, D. Langer, F. Franssen Group 3 - S. Singh, J. Winck, R. Gloeckl Group 4 - A. Oliveira, C. Burtin, I. Vogiatzis Group 5 - J. Cruz, T. Troosters, F. De Oliveira Pitta
17:40–18:00	Summary and goodbye