



ERS course on Pulmonary Rehabilitation

09-11 October 2023
Horn, Netherlands

Monday, 09 October 2023

Registration and Welcome

- 08:00–08:30 Registration
- 08:30–08:45 Welcome to CIRO and introduction of the ERS School Faculty - M. Spruit (Horn, Netherlands)

SESSION I - INTRODUCTION OF PULMONARY REHABILITATION

Chair: S.J. Singh (Leicester, United Kingdom)

- 08:45–09:10 The burden of multifaceted chronic lung diseases: rationale for pulmonary rehabilitation - F. Franssen (Horn, Netherlands)
- 09:10–09:35 Pulmonary rehabilitation: conceptual framework and definition - T. Troosters (Leuven, Belgium)
- 09:35–10:00 Organisational aspects of pulmonary rehabilitation - M. Spruit (Horn, Netherlands)
- 10:00–10:20 Discussion - F. Franssen (Horn, Netherlands)
- 10:20–10:45 Coffee break

SESSION II - PHYSICAL INACTIVITY AND PROBLEMATIC ADL

Chair: J. Cruz (Leiria, Portugal)

- 10:45–11:10 Physical inactivity and problematic activities of daily life in chronic lung diseases - F. De Oliveira Pitta (Londrina, Brazil)
- 11:10–11:35 Extra-pulmonary consequences of physical inactivity - M. Maddocks (London, United Kingdom)
- 11:35–12:00 How to assess physical inactivity and problematic activities of daily life in chronic lung diseases? - E. Gimeno Santos (Barcelona, Spain)
- 12:00–12:20 Discussion - F. De Oliveira Pitta (Londrina, Brazil)
- 12:00–13:00 Lunch



SESSION III - EXERCISE TESTING AND EXERCISE LIMITATIONS

Chair: I. Vogiatzis (Newcastle upon Tyne, United Kingdom)

- 13:00–13:25 Exercise field testing - S. Singh (Leicester (Leicestershire), United Kingdom)
- 13:25–13:50 Physiology of exercise limitation: cardiopulmonary limitations - C. Burtin (Diepenbeek, Belgium)
- 13:50–14:15 Physiology of exercise limitations: lower-limb and respiratory muscle dysfunction - D. Langer (Leuven, Belgium)
- 14:15–14:35 Discussion - S. Singh (Leicester (Leicestershire), United Kingdom)
- 14:35–15:00 Coffee break

SESSION IV - NON-PHYSIOLOGICAL IMPAIRMENTS

Chair: I. Jarosch (Schönau am Königssee, Germany)

- 15:00–15:25 Symptoms of anxiety and depression - D. Janssen (Horn, Netherlands)
- 15:25–15:50 Poor collaborative self-management - R. Evans (Leicester (Leicestershire), United Kingdom)
- 15:50–16:15 Health illiteracy - D. Janssen (Horn, Netherlands)
- 16:15–16:35 Discussion - D. Janssen (Horn, Netherlands)
- 16:35–18:00 Guided tour Ciro+ and Welcome cocktail



Tuesday, 10 October 2023

SESSION V - EXERCISE TRAINING

Chair: T. Troosters (Leuven, Belgium)

- 08:30–08:55 Endurance training - A. Vaes (Horn, Netherlands)
08:55–09:20 Interval training - I. Vogiatzis (Newcastle upon Tyne, United Kingdom)
09:20–09:45 Resistance training and NMES - M. Maddocks (London, United Kingdom)
09:45–10:00 Discussion - A. Vaes (Horn, Netherlands)
10:00–10:20 Coffee break

SESSION VI - ADJUNCTS TO EXERCISE TRAINING

Chair: M. Spruit (Horn, Netherlands)

- 10:20–10:45 Pharmacotherapy - F. Franssen (Horn, Netherlands)
10:45–11:10 Oxygen - R. Evans (Leicester (Leicestershire), United Kingdom)
11:10–11:35 Nutritional and hormonal supplements - A. Schols (Maastricht, Netherlands)
11:35–12:00 Non-invasive ventilation - I. Jarosch (Schönau am Königssee, Germany)
12:00–12:25 Inspiratory muscle training - D. Langer (Leuven, Belgium)
12:25–12:35 Discussion - F. Franssen (Horn, Netherlands)
12:35–13:15 Lunch

SESSION VII - BEHAVIOUR CHANGE AND COLLABORATIVE SELF-MANAGEMENT

Chair: F. Franssen (Horn, Netherlands)

- 13:15–13:40 Understanding and supporting behaviour change - L. Brighton (London, United Kingdom)
13:40–14:05 Enhancing self-efficacy - S. Singh (Leicester (Leicestershire), United Kingdom)
14:05–14:30 Collaborative self-management - R. Evans (Leicester (Leicestershire), United Kingdom)
14:30–14:55 Advance care planning - D. Janssen (Horn, Netherlands)
14:55–15:10 Discussion - L. Brighton (London, United Kingdom)
15:10–15:40 Coffee break

SESSION VIII - LUNG ATTACKS

Chair: L. Brighton (London, United Kingdom)

- 15:40–16:05 What is an exacerbation? - F. Franssen (Horn, Netherlands)



- 16:05–16:30 Early mobilization during severe exacerbations - C. Burtin (Diepenbeek, Belgium)
- 16:30–16:55 Post-exacerbation pulmonary rehabilitation - M. Maddocks (London, United Kingdom)
- 16:55–17:00 Discussion - F. Franssen (Horn, Netherlands)

SESSION IX - WIDENING THE APPLICATION OF PULMONARY REHABILITATION

Chair: T. Troosters (Leuven, Belgium)

- 17:00–17:20 Pulmonary rehabilitation in post-COVID, asthma, ILD, lung cancer, bronchiectasis, etc. - R. Evans (Leicester (Leicestershire), United Kingdom)
- 17:20–17:45 Other formats of exercise training: from home alone to urban training - E. Gimeno Santos (Barcelona, Spain)
- 17:45–18:00 Discussion - R. Evans (Leicester (Leicestershire), United Kingdom), E. Gimeno Santos (Barcelona, Spain)



Wednesday, 11 October 2023

SESSION X - HANDS ON WORKSHOPS

08:00–08:30	Introduction of workshop leaders and workshop instructions - M. Spruit (Horn, Netherlands)
08:30–09:00	Round 1
09:05–09:35	Round 2
09:40–10:10	Round 3
10:10–10:45	<i>Coffee break</i>
10:45–11:15	Round 4
11:20–11:50	Round 5
11:55–12:25	Round 6
12:30–13:00	Round 7
13:00–13:45	<i>Lunch</i>
13:45–14:00	Introduction case report
14:00–15:00	Case report: Group 1 - R. Evans (Leicester (Leicestershire), United Kingdom)
14:00–15:00	Case report: Group 2 - C. Burtin (Diepenbeek, Belgium)
14:00–15:00	Case report: Group 3 - E. Gimeno Santos (Barcelona, Spain)
14:00–15:00	Case report: Group 4 - I. Vogiatzis (Newcastle upon Tyne, United Kingdom)
14:00–15:00	Case report: Group 5 - D. Janssen (Horn, Netherlands)
15:00–16:45	Discussion of case report - F. Franssen (Horn, Netherlands)
16:45–17:00	Summary - M. Spruit (Horn, Netherlands)

WS1 1-RM assessment – A.W. Vaes
WS2 MicroFET strength test – T. Troosters
WS3 Body composition assessment (BIA/DEXA) – F.M.E. Franssen
WS4 Physical activity assessment – F. Pitta, J. Cruz
WS5 6-minute walk test – J. Delbressine, E. Gimeno-Santos
WS6 ISWT / ESWT – S.J. Singh, R. Evans
WS7 Cardiopulmonary exercise test - I. Vogiatzis
WS8 Health status questionnaires – D.J.A Janssen
WS9 Neuromuscular electrical stimulation - M.J.H. Sillen, M. Maddocks
WS10 Problematic activities of daily life - J. Wiechert. N. Nakken