

PULMONARY REHABILITATION IN POST-COVID LATIN AMERICA: WHAT ARE WE DOING 18 MONTHS AFTER THE PANDEMIC BEGINS?

I. PR Unit Demographics

1. Country where you work: _____
2. Indicate your profession
 - Physiotherapist / Kinesiologist
 - Respiratory therapist
 - Nurse
 - Occupational therapist
 - Speech therapist
 - Physician
 - Physical education professional
3. The age range of patients you attend (mark all those you see):
 - Under 18
 - Between 18 and 35 years
 - Between 35 and 50 years
 - Between 50 and 65 years
 - Between 65 and 80 years
 - More than 80 years
4. During the pandemic, did the PR program continue its service delivery activities?
 - Yes
 - Not
5. In case the service has been suspended, for how long were they suspended

- Less than a month
- Between one month and three months
- between three and six months
- More than six months

*II. Evaluation and intervention strategies (it is important that you answer the questions **in the current context of the pandemic**)*

6. Evaluation prior to the start of the rehabilitation program (You can select several options)

- Patient history
- Observation of vital signs at rest and with effort (RR, HR, SpO2)
- Spirometry
- Lung volume test
- Carbon monoxide diffusion test
- Cardiopulmonary exercise test
- Disease-specific quality of life test
- Generic quality of life test
- Anxiety and depression scales
- Dyspnea scales
- Muscle fatigue scales
- Evaluation of anthropometric measurements
- Evaluation of physical qualities (coordination, balance, flexibility)
- Walk test (6 minutes or 2 minutes)
- Incremental shuttle walking test (ISWT)
- Sit to Stand Test (5 repetitions, 30 seconds or 1 minute)
- Upper limb strength assessment
- Lower limb strength assessment
- Respiratory muscle strength assessment
- Evaluation of post COVID-19 functionality (e.g. Post COVID Functional Status Scale)
- Assessment of ADLs (Barthel, FIM, etc)

- Cognitive assessment (Minimental, MOCA, etc)
- Other: _____

7. Evaluation after the rehabilitation program

- Patient history
- Observation of vital signs at rest and with effort (RR, HR, Sat O2)
- Spirometry
- Lung volume test
- Carbon monoxide diffusion test
- Cardiopulmonary exercise test
- Disease-specific quality of life test
- Generic quality of life test
- Anxiety and depression scales
- Dyspnea scales
- Muscle fatigue scales
- Evaluation of anthropometric measurements
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- Assessment of ADLs (Barthel, FIM, etc)
- Cognitive assessment (Minimental, MOCA, etc)
- Other: _____

8. You have follow-up systems in your hospital or unit (for example, face-to-face or virtual check-ups, calls or home visits) after the end of the rehabilitation program
- Do not
 - Yes, up to 3 months after discharge
 - Yes, up to 6 months after discharge
 - Yes, until the year after discharge
 - Yes, until complete recovery of the previous functional level
9. If your hospital has a monitoring system, specify which of the following you use (you can check more than one):
- Face-to-face controls
 - Controls by telemedicine (virtual modality)
 - Phone calls
 - Home visits
 - Other: _____
10. What interventions do you use in your pulmonary rehabilitation program to improve aerobic capacity and muscle strength? (Please check all that apply)
- Community walks
 - Treadmill walk
 - Stationary bike
 - Endurance strength training using apparatus
 - Endurance strength training using free weights (dumbbells)
 - Vibrating platform
 - Water training (swimming pool)
 - Nordic walking
 - Recommendations in the habitual practice of physical activity
 - Elliptical
 - Circuit training
 - Respiratory muscle training
11. What interventions do you use in your pulmonary rehabilitation program to improve adjuvant aspects?

- Energy conservation techniques/activities of daily living training
- Self-care education
- Nutritional support
- Inspiratory muscle training
- Neuromuscular electrical stimulation (NMES)
- Tobacco cessation
- Psychosocial support
- Flexibility exercises-stretching
- Respiratory physiotherapy
- Occupational Therapy
- Speech therapy
- Other: _____

12. Check those tools you use to prescribe exercise intensity at the beginning of the rehabilitation program

- Peak oxygen consumption obtained by maximal exercise test
- Estimated oxygen consumption obtained by submaximal exercise test
- Calculated maximum heart rate
- Prescription based on signs and symptoms
- Perceived exertion-based prescription (Borg scale)
- Depending on the time in the rehabilitation program
- Other: _____

III. Structure of the rehabilitation program

13. What types of rehabilitation programs are offered at your centre? (Please check all that apply)

- Ambulatory
- Inpatient
- In the community (parks, squares, etc.)
- Domiciliary
- Telerehabilitation

- Others : _____

14. Who are the professionals who are incorporated into the pulmonary rehabilitation team? (Please check all that apply)

- Pulmonologist
- Physiotherapist/Kinesiologist/Physical Therapist
- Occupational therapist
- Speech therapist
- Social worker
- Psychologist
- Dietician/Nutritionist
- Exercise physiologist
- Internist
- Cardiologist
- General practitioner
- Psychiatrist/Rehabilitation Physician
- Pharmacist
- Nurse
- Other: _____

15. How are patients referred to the pulmonary rehabilitation program? (Please check all that apply)

- Through a health professional
 - Pulmonologist
 - General practitioner
 - Psychiatrist/Rehabilitator
- Self-referred
- Through a protocol that determines who should initiate PR
- Other: _____

16. Program structure (you can check more than one)

- Individual face-to-face
- Presential in groups. List how many individuals per group: _____
- Blended
- Remote (online)
- Other : _____

17. Duration of the pulmonary rehabilitation program

- Less than 4 weeks
- Between 4 and 8 weeks
- Between 8 and 12 weeks
- Older than 12 weeks

18. In total, how many patients do you see daily in your centre?

- 1 to 5
- 6 to 10
- 10 to 15
- 15 to 20
- More than 20

19. Frequency of supervised sessions (per week)

- one
- two
- three
- > three

20. Duration of the exercise in each session

- < 20 minutes
- 20-40
- 40 - 60

- > 60 minutes

21. In relation to adherence to rehabilitation programs of non-COVID patients

- It remains similar to before the start of the pandemic
- It has decreased in less than half of the patients (50%)
- It has decreased, but more than half of the patients still remain (50%)

22. On average, before the COVID19 pandemic, how much time did you have to work on rehabilitation with each patient without considering the time spent on administrative tasks?

- 0 to 20 minutes
- 20 to 30 minutes
- 30 to 50 minutes
- More than 50 minutes
- Undetermined based on patient requirements
- None of the above, the program was created after the pandemic

IV. Pulmonary rehabilitation in patients with COVID19

23. On average, after the start of the post-COVID 19 pandemic, how much time do you have to work in rehabilitation with each patient, without considering the time spent on administrative tasks?

- 0 to 20 minutes
- 20 to 30 minutes
- 30 to 50 minutes
- More than 50 minutes
- Undetermined based on patient requirements

24. If there was a change in the care time dedicated to each patient after the COVID 19 pandemic, why do you attribute this change?

- Staff amount
- Number of patients
- Biosafety requirements (including use of PPE, regulation of social distancing)
- Severity of patients
- Others: _____

25. To refer COVID 19 patients to pulmonary rehabilitation, this is done (Please check all that apply)

- Through a health professional
 - Pulmonologist
 - general practitioner
 - Physiatrist/Rehabilitator
- Self-referred
- Through a protocol that determines who should initiate PR
- Other: _____

26. In relation to the limitations to performing pulmonary rehabilitation in patients **with** COVID-19 (Check the ones you consider):

- Medical contraindication
- Patient instability
- Weakness or excessive fatigue
- Lack of patient cooperation
- Excessive desaturation
- Pain
- Obesity (BMI >30)
- Lack of staff
- Biosafety limitations (for example, spaces, excessive time or personal protection elements)

V. Perception of therapeutic strategies in the rehabilitation of COVID patients

27. In patients with COVID-19, it is in agreement with upper limb strength training

- Completely agree
- Agree
- Partially agree
- In disagreement
- Completely disagree

28. In patients with COVID-19, it is in agreement with lower limb strength training

- Completely agree
- Agree
- Partially agree
- In disagreement
- Completely disagree

29. In patients with COVID-19, it is in accordance with the training of the respiratory muscles

- Completely agree
- Agree
- Partially agree
- In disagreement
- Completely disagree

30. In patients with COVID-19, you agree with respiratory physiotherapy

- Completely agree
- Agree
- Partially agree
- In disagreement
- Completely disagree

31. In patients with COVID-19, you agree with education

- Completely agree
- Agree
- Partially agree
- In disagreement
- Completely disagree