

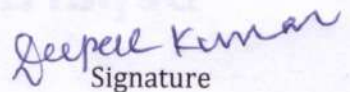


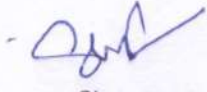
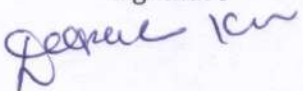




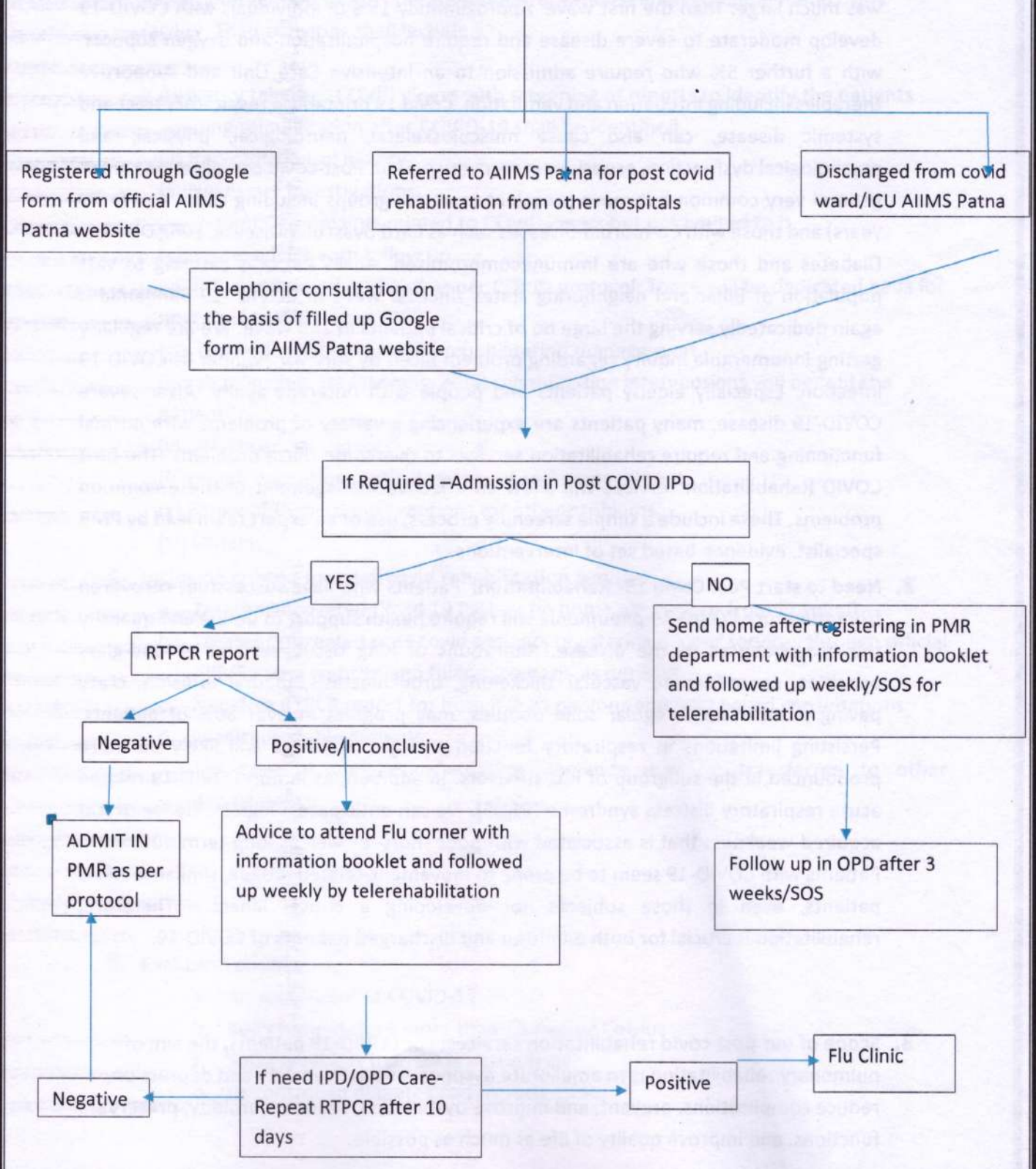
Standard Operating Procedures
For
Post COVID 19- Rehabilitation Services
Department of Physical Medicine and
Rehabilitation
AIIMS Patna

	Policy/ Procedure	SOP for Post COVID- 19 Rehabilitation services AIIMS Patna
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Post COVID 19- Rehabilitation Services

Flow diagram of Standard Operating Procedure for rehabilitation services of Post Covid 19 patients (recovered in home isolation/discharged from hospitals)





Post COVID 19- Rehabilitation Services

- 1. Background:** India has been severely affected by the unprecedented second wave of the coronavirus and hospitals in several states are struggling under the shortage of health workers, vaccines, oxygen, drugs, and beds. The second wave beginning in March 2021 was much larger than the first wave. Approximately 15% of individuals with COVID-19 develop moderate to severe disease and require hospitalization and oxygen support, with a further 5% who require admission to an Intensive Care Unit and supportive therapies including intubation and ventilation. Covid 19 primarily a respiratory tract and systemic disease, can also cause musculoskeletal, neurological, physical, and psychological dysfunction, especially in recovery period. Post-covid complications are in general very common but more prevalent in at-risk groups including Older Age (> 70 years) and those with Co-morbid Diseases such as Cardiovascular Disease, Lung Disease, Diabetes and those who are Immunocompromised. AIIMS Patna is catering to vast population of Bihar and neighboring states since 1st wave of COVID -19 pandemic is again dedicatedly serving the large no of critical patients in 2nd wave. We are regularly getting innumerable inquiry regarding problem faced by survivor /winner of COVID 19 infection. Especially elderly patients and people with different ability. After severe COVID-19 disease, many patients are experiencing a variety of problems with normal functioning and require rehabilitation services to overcome these problems. The post COVID Rehabilitation services will allow an effective management of these common problems. These include a simple screening process; use of an expert team lead by PMR specialist, evidence-based set of interventions.
- 2. Need to start Post Covid 19- Rehabilitation:** Patients who have successfully recovered from the acute COVID-19 pneumonia will require health support to define and quantify the consequences of the disease. Alterations of lung tissue such as ground-glass opacities, consolidation, vascular thickening, bronchiectasis, pleural effusion, crazy paving pattern and irregular solid nodules, may progress in over 80% of patients. Persisting limitations in respiratory function and gas exchange will likely be more pronounced in the subgroup of ICU survivors. In addition, as in non-COVID-19 related acute respiratory distress syndrome (ARDS), we can anticipate a high incidence of ICU acquired weakness that is associated with poor short- as well as long-term outcomes. Patients with COVID-19 seem to be prone to movement-related fatigue, similar to ARDS patients, even in those subjects not developing a critical illness. Therefore, rehabilitation is crucial for both admitted and discharged patients of COVID-19.
- 3. Scope of our post covid rehabilitation services:** For COVID-19 patients, the aim of pulmonary rehabilitation is to ameliorate dyspnea, alleviate anxiety and depression, reduce complications, prevent, and improve dysfunction, reduce morbidity, preserve functions, and improve quality of life as much as possible.



Post COVID 19- Rehabilitation Services

Dept of Physical Medicine and Rehabilitation at AIIMS Patna is having one of the best PMR faculty, team of resident doctors, Multipurpose Rehab Workers, physical therapist, occupational therapist, dietician, infrastructure included 30 Bedded IPD, minor intervention room, operation theatre, various rehab equipment and other facility. Their activities shall include

- (i) History taking of COVID illness with screening of reports to identify the patients needing rehabilitation after COVID-19 shall be identified.
- (ii) Relevant clinical history.
- (iii) Necessary investigations
- (iv) Patients' complaints related to COVID illness but not limited to it.
- (v) Clinical advice with follow up.
- (vi) IPD admission if required as per COVID protocol. There will be dedicated beds for post-Covid rehab in our IPD.
- (vii) Goal oriented time bound rehabilitation management.
Rehab management Planning-What rehabilitation interventions will benefit the patient?
- (viii) Psychosocial support.
- (ix) Health education particularly about self-management.
- (x) Range of tailored interventions for other problems.
- (xi) Others.

4. Inclusion criteria for post-covid rehabilitation services

- a. Treated/recovered Covid 19 Patient (in home isolation or from hospital)
- b. Treated/untreated post-covid patients registering for our services through official AIIMS Patna website and fulfilling criteria as per SOP.
- c. Negative RTPCR report for both IPD admissions and OPD based consultations
- d. Medically stable patients
*In case of emergency/situation demands may be transferred to other departments

5. Exclusion criteria

- a. An active case of COVID-19
- b. Body temperature more than 38 degree Celsius
- c. SpO2 level less than 90 % at room air
- d. Uncontrolled diabetes and hypertension.



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- e. Any major symptomatic illness like ischemic heart disease, chronic kidney disease etc.
- f. Dementia/ Cognitive impairment or symptomatic psychiatric illness where there is high chance of rehab failure.
- g. Impaired hearing and / or vision disability if high chance of rehab failure suspected.

(Note: point 'd' to 'g' are only applicable as exclusion criteria for indoor admission)

6. Duration of post covid rehab program: 4 weeks.
7. Timings for teleconsultation: Monday to Saturday, 10.00 am to 1.00 pm.

When to contact AIIMS Patna Post COVID Rehab Care

The impact of being hospitalized and being seriously unwell can be different for everyone. It is important to contact a PMR expert or medical specialist, if:

- If you feel breathless at rest that does not get better by using the breathing control techniques.
- You become short of breath with minimal activity and this does not improve with any of the positions for easing breathlessness.
- You experience any of the symptoms like reduced attention span, problem with memory, thinking, or tiredness which is not improving and making it very difficult for you to do your daily activities, or are stopping you from going back to work.
- Having joint pains, Bodyache, myalgia or weakness.
- Having difficulty in speech or swallowing.
- Generalized weakness.

Post-COVID Assessment Process

After Registration patients will be evaluated to determine their personal, health and rehabilitation needs.

Screening methods include:

Medication reconciliation if any.



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Rehabilitation Needs for :

- 1) Pulmonary Functioning
- 2) Cardiac endurance
- 3) Musculoskeletal and Neurological complaint
- 4) Pain
- 5) ADL/iAD performance
- 6) Swallowing and Speech
- 7) Mobility
- 8) Sleep
- 9) Skin and personal hygiene
- 10) Bowel and Bladder problem
- 11) Cognitive Functions

Upon completion of assessment, the patient's individual clinical needs will be identified. Faculty of Post COVID Rehab team will formulate and recommend time bound goal oriented customised rehab management program as per patients. Every phase of care is communicated to, and coordinated with the patient and primary and caregivers.

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Department of Physical Medicine and Rehabilitation

AIIMS Patna

Patient evaluation Booklet

Name:

Age:

Mobile no:

Gender:

CR No:

Pulmonary Rehab Clinic Registration No:

Address:

Date:



Post COVID 19- Rehabilitation Services

Initial Patient Assessment:

1. Relevant History:
2. Details of home stay-
Details of stay in hospital ward-
Details of ICU stay-
3. Respiratory complaints:
4. Cardiovascular complaints
5. Musculoskeletal complaints
6. Neurological complaints:
7. Others:
8. Radiological investigations/Xray/CT report
9. Covid 19 test report with date:

Assessment of:

- a) Exercise Capacity: 6-minute walk test:
- b) Breathlessness: mMRC SCALE:
10. Assessment of psychiatric co-morbidities, if present:
11. Clinical examination

Pulse: Temperature: B.P: RR:

Height: Weight: B.M. I:

Respiratory system examination:

RBS: ECG and/ or 2D Echo: SpO2:

Rehab protocol:

Name of Doctor In charge:	
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Post COVID 19- Rehabilitation Services

A. Patient education and counseling:

1. Information about disease:
2. Nutrition/Healthy eating:
3. Counseling in case of anxiety or depression:
4. Importance of physical activity and rehab exercises
5. Information about Energy conservation technique
6. ADL training and Posture care

B. Special Instruction:

Type of activity	Frequency/Duration
Pursed lip breathing exercises:	
Diaphragmatic breathing exercises:	
Huffing technique for expectoration of cough:	
Incentive Spirometry:	
Others	

C. Oxygen therapy: (only for selected cases depending upon assessment)



Post COVID 19- Rehabilitation Services

ACTIVITY

- 1. Warm up session
- 2. Stretching exercises (5 to 15 minutes)
- 3. Aerobic conditioning exercises:

Aerobic conditioning Exercises	Free arm /Leg lift and marching exercises	Endurance Training	Stair: climb up down
Warm-up: 5 min			
Moderate speed walking/cycling (5 to 45 minutes)			
Cool down: 5 min			
The total duration of the session			

- 4. Strength training exercises:

Upper extremity			Lower extremity	
Deltoid	Biceps	Triceps	Quadriceps femoris	Gluteus muscles, hamstrings

- 5. Follow up assessments/Outcome measures

Date	mMRC dyspnoea scale	30 Seconds Sit to stand test	6MWT	Other if any:
0 Week				
4 weeks				



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Annexure A

Six Minute Walk Test Recording Sheet

Name:

CR No:

Date:

Age:

Predicted HRmax (220-age):

Medications:

FEV₁:

FVC:

Initial Assessment

Walk 1

Walk 2

Date:

Date:

Time:

Time:

Bronchodilator/time since last dose:

Bronchodilator/time since last dose:

BP	Supplemental Oxyge	Gait Aid
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BP	Supplemental Oxyge	Gait Aid
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Time mins	SpO ₂	HR	Dyspnea	Rests
Rest				
1				
2				
3				
4				
5				
6				

Time min	SpO ₂	HR	Dyspnea	Rests
Rest				
1				
2				
3				
4				
5				
6				

Distance: _____ lapse X 60 meter

Distance: _____ lapse X 60 meter

Limiting factor to the test:

Limiting factor to the test:

SOB Low SpO₂

SOB Low SpO₂

Legs fatigue Other: _____

Legs fatigue Other: _____



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Annexure B

Modified Medical Research Council Dyspnea Scale

Please choose the one best response to describe your shortness of breath.

Grade	Description of Breathlessness
0	I only get breathless with strenuous exercise.
1	I get short of breath when hurrying on level ground or walking up a slight hill.
2	On level ground, I walk slower than people of the same age because of breathlessness or have to stop for breath when walking at my own pace.
3	I stop for breath after walking about 100 yards or after a few minutes on level ground.
4	I am too breathless to leave the house, or I am breathless when dressing.

Grade: _____



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Annexure C

Modified Borg Dyspnea Scale

0: Nothing at all

0.5 Very, very slight (just noticeable)

1 Very slight

2 Slight

3 Moderate

4 Somewhat Severe

5 Severe

6 Very severe

8 Very, very severe (almost maximal)

9. Maximal

Post Rehab Advise:

Date of Follow up: