

Evaluation for Congestive heart failure:

Categories	Criteria	Rationale
Age		Functional recovery/ dependence/ new job responsibilities
Sex		Baseline assessment and ongoing assessment
Occupation		Functional recovery/ demand of work load/ type of rehabilitation required.
Respiratory support/ other gadgets.		Level of dependency / functional residual capacity baseline and an ongoing assessment.
Level of consciousness		Level of co operation/ understanding ability.
Breathing pattern		Accessory muscle usage and the thoraco abdominal and abdomino-thoracic breathing is determined
Ankle swelling		The swelling of the ankle is due to the prolonged bedridden condition and this could be improved with the ankle toe movements and the right heart failure results in the ankle swelling.
History	Dyspnea Orthopnea Paroxysmal nocturnal dyspnea	At rest On level ground On climbing Stop when walking at own pace or on level ground after 100 yards
Physical examination	Heart rate Jugular venous pressure (\square 6 cm H ₂ O) Rales Crackles Wheezing S ₃ gallop	91–110 bpm \square 110 bpm Alone Plus hepatomegaly or edema Basilar crackles More than basilar crackles

Chest Radiography	<p>Alveolar pulmonary edema</p> <p>Alveolar fluid plus pleural fluid</p> <p>Interstitial pulmonary edema</p> <p>Interstitial edema plus pleural fluid</p> <p>Bilateral pleural effusion</p> <hr/> <p>Cardiothoracic ratio ≥ 0.5 (PA projection)</p> <p>Upper zone flow redistribution</p>	Evaluation of radiographic findings to determine the existence and magnitude of pulmonary edema
ECG		Evaluation of Pulse and ECG to determine the heart rate and rhythm to determine the action of the right heart.
Specific questions to be asked for categorizing the patients	<p>When did the symptoms start?</p> <p>Are the symptoms stable or are they getting worse?</p> <p>Are symptoms provoked or do they occur at rest?</p> <p>Are there accompanying symptoms such as chest pain or calf claudication?</p> <p>Is orthopnea or PND present?</p> <p>How far can you walk?</p> <p>Do you retain fluid?</p> <p>Do you restrict sodium in the diet?</p>	To categorize the patient having congestive heart failure into a particular diagnosis and sector so that the patient can be categorized for the particular rehabilitation.

	<p>What sorts of activity can you no longer do?</p> <p>Are you losing or gaining weight?</p> <p>How do you sleep?</p>	
Evaluation of respiratory rate and breathing pattern		The check for the dyspnea and some other changes associated with the crackles and rales in the lung and abnormal heart murmurs to give the baseline and an ongoing assessment.
Auscultation of the heart and lungs with a stethoscope		The abnormal murmurs are calculated with the use of the auscultator points
Performance of laboratory blood studies to determine the PaO_2 and PaCO_2 levels		The level of the ABG reading determines the performance of the respiration and the level of ability of the patient during the evaluation to provide a baseline and an ongoing assessment value.
Evaluation of the oxygen saturation levels via oximetry		This provides the level of the patients exercise tolerance for the particular sort of exercise and the level of baseline vale and an ongoing assessment value
Palpation for fremitus and percussion of the lungs to determine the relative amount of air or solid material in the underlying lung		The level of pulmonary and edema and other categories of the lung fluids present inside during the initial assessment and an ongoing assessment.
Performance of sit-to-stand test to evaluate heart rate		Patient ability to carry out its daily tasks from his own efforts or the

and blood pressure (orthostatic hypotension) as well as dyspnea		determination of dependency of him.
Objective measurement of other characteristic signs produced by fluid overload, such as peripheral edema, weight gain, and jugular venous distension		The right heart failure is due to the fluid over load the level of sodium in the blood and the water should have to be categorized made to fall into a separate category.
Assessment of cardiopulmonary response to exercise (e.g., heart rate, blood pressure, electrocardiogram)		The exercise tolerance should have to be categorized and the level is predetermined for the exercise prescription of the later stage.
Administration of a questionnaire to measure quality of life		The quality of the life is determined from the questionnaire and also it is a baseline value and the alterations are made according to the particular need of the patient and the improvement is focused on the specificity of the patient.

Progression Notes:

Intervention	Guidelines	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Exercise training (In general)	Low level, low-impact exercise (e.g., walking) for 5–10 min/day gradually increasing duration to 30 min. Intensity should be monitored via level of dyspnea or						

	perceived exertion. Frequency: 1–2□/day for 5–7 days/wk.					
Exercise training with intravenous inotropic agents	Progressive increase in low-impact exercise with monitoring of blood pressure response. If patient has an ICD, monitor for ICD firing, especially with exercise.					
Exercise with LVADs	Progressive increase in exercise; should demonstrate normal responses. May have flow limitations (10 to 12 L/min), or cardiovascular function from the mechanically driven cardiac output, and the effects of a 6-lb mass resting below the diaphragm that may alter ventilatory performance.					

Exercise with continuous positive airway pressure (CPAP)	CPAP may function to reduce preload and afterload on heart, and decrease the workload on inspiratory muscles which may also increase lung compliance.						
Breathing exercises	Exercise program set at a specific percentage of the maximal inspiratory pressure or maximal expiratory pressure (similar to aerobic exercise training) with a device that resists either inspiration or expiration.						
Expiratory muscle training	Performed in a variety of ways; most commonly with weights upon the abdomen and hyperemic breathing. Results in						

	improved symptoms, functional status, and pulmonary function and reduced pulmonary complications. May also use positive end-expiratory pressure devices.						
Inspiratory muscle training	One protocol: Threshold inspiratory muscle trainer at 20% of maximal inspiratory pressure, 3 times a day, for 5 to 15 min.						
Instruction in energy-conservation techniques	Balancing activity and rest, and performing activities in an energy-efficient manner; scheduling activities and rest.						
Self-management techniques	Incorporate the individual into the management of the disease						

	by making them responsible for their own health.					
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Activity Regime to be followed for patient having Congestive heart failure (hospitalized patient)

Day	Standard activity Regime	Gradual activity regime
1	• . Commode/chair	Bed rest
2	• Room ambulation	Bed rest /gentle active strengthening exercises
3	• Hallway ambulation and cycle ergometry $\square 2$ (1–10 min) MET (metabolic equivalent of task) level goal $\square \square 2.0\text{--}3.0$	Commode/chair/bathroom/rest-orator cycling/room Ambulation/gentle strengthening exercises
4	• Independent hallway ambulation $\square 3$ (1–15 min) MET level goal $\square \square 3.0\text{--}4.0$; patient adequately ascends/ descends two flights of stairs and showers independently Has adequate understanding of home exercise prescription. Outpatient cardiac rehabilitation appointment scheduled. Patient discharged.	Hallway ambulation/restorator or cycle ergometry $\square 2$, exercise duration (1–5 min): MET level goal $\square \square 1.0\text{--}2.0$ strengthening exercises
5.	•	Hallway ambulation/restorator or cycle ergometry $\square 2$, exercise duration (1–8 min) MET level goal $\square \square 1.5\text{--}2.5$ strengthening

		exercises
6.	•	Hallway ambulation/restorator or cycle ergometer $\square 2$, Exercise duration (1–10 min.) MET level goal $\square\ 2.0\text{--}3.0$ strengthening exercises
7.	•	Hallway ambulation $\square 2$, exercise duration (1–15 min) MET level goal $\square\ 2.0\text{--}4.0$ strengthening exercises; patient adequately ascends/descends two flights of stairs and showers independently Has adequate understanding of home exercise prescription. Outpatient cardiac rehabilitation appointment scheduled. Patient discharged.

Discharge summary notes:

Proper prescription of physical activity	Decrease or discontinue exhaustive activities Decrease or discontinue full-time work or equivalent activity, introducing rest periods during the day Gradual progressive exercise training that fluctuates frequently from day to day Exercise intensity determined by level of dyspnea or adverse physiologic effort (i.e., angina or decrease in systolic blood pressure)
Restriction of sodium intake	Institute a low-sodium diet
Energy conservation techniques.	Sit while working whenever possible. Before you get tired stop and rest. Spread tedious tasks out throughout

	<p>the week.</p> <p>Do the tasks that require the most energy at times that you have the most energy.</p> <p>Alternate easy tasks with difficult tasks, and plan a rest period.</p> <p>Devote a portion of your day to an activity you enjoy and find relaxing.</p> <p>Keep items within easy reach.</p> <p>Plan ahead so you don't have to rush or push yourself hard.</p> <p>Decide activities that are not necessary for you to do, and delegate to other family members or caregivers/ share the work.</p>
Adherence to medication regime	
Adherence to regular exercise program	
Control of comorbid conditions (diabetes, elevated blood pressure, elevated lipids)	