

#### Progressive Mobilization Program for Patients With Acute Heart Failure Reduces Hospital Stay and Improves Clinical Outcome

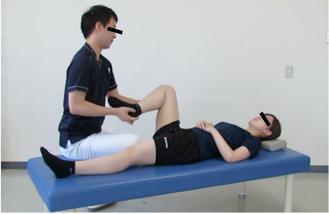
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### **Supplementary Figure**

# Exercise program: Stage I

- Purpose:
  - To prevent contractures
- Programs:
  - Elevating the head of the bed
  - Passive ROM exercise (upper and lower extremity and trunk)







## Exercise program: Stage II

#### • Purpose:

- To improve muscle power output
- To maintain trunk muscles strength and sitting balance

#### Repetitions:

- **-** 3–5 repetitions
- Programs:
  - Manual resistance training of lower extremity (Eccentric contraction)
  - Active ROM exercise (Trunk flexion/extension, rotation, and lateral bending)







## Exercise program: Stage III

- Purpose:
  - To increase muscle strength, flexibility, and balance for the passive transfer
- Intensity:
  - **-** <30% of 1-RM, RPE <12
- Repetitions:
  - 5–10 repetitions
- Programs:
  - Calisthenic exercise (e.g., trunk exercise and reaching in the sitting position)
  - Keep standing position
  - Weight shift and stand up







## Exercise program: Stage IV

- Purpose:
  - To improve standing balance and endurance
- Intensity:
  - **-** 30–40% of 1-RM, RPE 12–13
- Repetitions:
  - **-** 10–20 repetitions
- Programs:
  - Calisthenic exercise (e.g., squat, weight shift in the standing position, and stepping in the standing position [slow])
  - Endurance training (e.g., stepping in the sitting position [>30 sec])







## Exercise program: Stage V

- Purpose:
  - To improve gait ability and to achieve walking endurance to the bathroom
- Intensity:
  - **-** 30–40% of 1-RM, RPE 12–13
- Repetitions:
  - **-** 10–20 repetitions
- Programs:
  - Calisthenic exercise (e.g., squat, bridge + stepping, and reaching in the standing position)
  - Endurance training (e.g., stepping in the standing position [>30 sec])







### Exercise program: Stage VI, VII

#### • Purpose:

- To increase muscle strength and exercise tolerance
- To improve the physical function that is required for ADL post-discharge

### Programs:

- Endurance training (e.g., ergometer, by walking)>5 min, RPE <12</li>
- Resistance training using dumbbells and weight machines
  40%–60% of 1-RM, RPE <15, 8–15 repetitions</li>
- Advanced training (e.g., one leg standing, one leg squat, side lunge, and one arm chest press)

30%-40% of 1-RM, RPE 12-13











