

**Volume of exercise in patients admitted for decompensated heart failure**

**Authors:**

BRUNO Delgado<sup>1</sup>, IVO Lopes<sup>1</sup>, BÁRBAR Gomes<sup>2</sup>, ANDRÉ Novo<sup>3</sup>, <sup>1</sup>Hospital Center of Porto, Cardiology - Porto - Portugal, <sup>2</sup>University of Porto - Porto - Portugal, <sup>3</sup>Escola Superior de Saude do IPB - Bragança - Portugal,

**Topic(s):**

Rehabilitation: Exercise Programmes

**Citation:**

**Introduction**

Decompensated Heart Failure (HF) patients have a significant functional dependence, impairment of performance in activities of daily living and low exercise tolerance. Exercise is a well establish cardiac rehabilitation intervention which leads to improvement of symptoms. The amount of Exercise is directly related to its benefits

**Purpose**

To evaluate the volume of exercise that HF patients preform during the hospitalization

**Methods**

50 patients performed an aerobic exercise training program (ERIC-HF: Early rehabilitation in cardiology – heart failure) with 5 sequential stages: respiratory training, cyclo ergometer for 5 to 10 min, walking training for 5 to 10 min and then for 10 to 15 min and walking training for 10 to 15 min followed by 5 min climbing stairs. The patient progresses on the program according to his synthons and nurse clinical judge. The volume of exercise is registered in number of turns on the cyclo ergometer, meters walked, number of steps and the amount of time they spent exercising. Subjective perception of exertion using Borg scale, and vital signs are evaluated in every training session (twice a day for 5 days a week). At discharge patients preform a 6 minute walking test (6MWT).

**Results**

Patients performed 683 sessions of exercise with an average of 14 sessions each, for 16 (±9) days of hospitalization. Patients performed progressive periods of exercise, for more time and with lower levels of perceived exertion, presenting an average value of 6 (±3) in the admission and 2(±2) at the discharge day. 27 patients reached the final stage of the program (climbing stairs) with an average of 87 steps in 5 minutes. The patients who performed a bigger volume of Exercise walked more distance in the 6MWT: 293 (±87) meters compared with patients who didn't performed stairs: 245 (±31)

**Conclusions**

AET can be well tolerated by patients admitted due to decompensated HF and patients who are capable to perform a bigger volume of exercise can improve much more their functional capacity showed by the 6MWT results.

		Average values
Cyclo ergometer	n° of turns	239 (±123)
	n° of sessions	123
Walking training	Meters	425 (±190)
	n° of sessions	560

Stairs	n° of steps	108 ( $\pm$ 62)
	n° of sessions	35
Time of exercise		12 minutes