Table II - *General characteristics of the included studies in the systematic review*

Author, year	Type of Cardiac Surgery	Sample(N-IG/CG)	Intervention vs. Control	Results	Outcomes
Chen *et al.*, 2019 [6]	Myocardial revascularization graft and/or valve	197- 98/ 99 Patients scheduled for cardiac surgery (graft and/or coronary artery bypass graft) aged ⩾50 years and able to understand informed consent were eligible.	IG = They received five days of preoperative inspiratory muscle training at 30% of maximal inspiratory pressure. As (Threshold IMT) for 20 minutes in addition to the usual care received by patients in the control group. CG= Usual care (education, coughing and early mobilization) and abdominal breathing training before surgery. They trained using the same protocol as participants in the intervention group for the same number of repetitions, frequency, duration and supervision, but the intensity was fixed at the minimum device load (9 cm H2O) throughout the training period.	Pulmonary function test Pre-CG MIP = 90,06±22,55 cmH$_2$O FEV$_1$ = 87,93±16,21% IG MIP =86,93±23,03 cmH$_2$O FEV$_1$= 88,04±11,85% Post-pulmonary function test CG MIP =93,22±23,12 cmH$_2$O FEV$_1$= 87,28±14,87% IG MIP =100,08±23,36 cmH$_2$O FEV$_1$=91,14±15,10%	Primary was the occurrence of postoperative pulmonary complications. Secondary were inspiratory muscle strength, lung function and length of hospital stay.
Rodrigues, Barboza 2009 [13]	Myocardial revascularization surgery and/or valve surgery	30- 15/15 30 patients of both sexes, without ethnic discrimination, under 50 years of age	IG = They were included in a home program of at least 2 weeks of preoperative training of the inspiratory muscles, using a device with a load corresponding to 40% of the maximal inspiratory pressure. CG = Received general guidance and did not train the inspiratory muscle.	Pulmonary function test Pre-CG FVC =3,2±0,7L FEV$_1$=2,4±0,6L IG FVC =2,9±1,14L VEF$_1$=2,3±0,89L Post-pulmonary function test CG FVC =3,2±0,74L FEV$_1$=2,4±0.61L IG FVC =3,1±1,6L FEV$_1$=2,4±0,9L	Primary respiratory muscles are affected after cardiac operations. Clinical secondary as: ventilatory function, forced vital capacity and maximum voluntary ventilation.
Hulzebos *et al.*, 2006 [14]	Myocardial revascularization surgery	279- 140/139 Patients with the ability to understand informed consent were eligible.	IG = They received IMT in the preoperative period of cardiac surgery. CG = Usual treatment in the preoperative period.	Pre-CG MIP = 80,3±31,4 cmH$_2$O Peak Pressure 50,7 ±14,4% IG MIP =81,1±29,5 cmH$_2$O Peak Pressure 48,8± 15,7% Post-CG MIP =79,5±31,3(p = 0,28) cmH$_2$O Peak Pressure 51,8 ± 16,4% IG	The primary feasibility outcome variables were the occurrence of adverse events and patient satisfaction and motivation. Secondary outcome variables were postoperative pulmonary complications and length of hospital stay.

				MIP =95,6±31,6 cmH$_2$O Peak Pressure 56,0±15,1%	
Weiner et al., 1998 [15]	Revascularization of the myocardium	84- 42/42 with ages ranging from 33 to 82 years, they were evaluated before the operation and randomized into two groups.	IG = IMT using a training threshold for 30 min/day for 2 weeks, 1 month before the operation. CG = simulated training.	Pre-CG MIP = 77,8±64,2%, FVC 90,0±62,8 % FEV$_1$=90,0±63,6% IG MIP =76,1±65,0% Post-CG MIP = 75,6±64,8% FEV$_1$=80,0±63,2% FVC=81,1±63,0 (p = 0,001) IG MIP = 87,0±65,2% (p = 0,001)	Myocardial revascularization surgery has a significant deteriorating effect on inspiratory muscle function. The decrease in these parameters can be avoided by prophylactic inspiratory muscle training, which can also prevent postoperative pulmonary complications
Cahalin et al. 1997 [16]	Heart transplant	14-14/0 14 patients (12 men and 2 women) with chronic heart failure for an average of 4 years. Subjects had a mean age of 52 years.	IG = Inspiratory muscle training was performed at 20% of maximal inspiratory pressure (MIP) for 5 to 15 minutes, three times a day, for 8 weeks. CG = There wasn't.	Pre-IG MIP =51,2cmH20 Dyspnea at rest = 2 Post-IG MIP =63,5cmH2O (p = 0,001) Dyspnea at rest =1.3 (p = 0,001)	Effects of inspiratory muscle training (IMT) on ventilatory muscle strength and dyspnea in patients with chronic heart failure.

N = Total sample number; CG = Control Group l; IG = Intervention Group; IMT = Inspiratory muscle training; POPCs = Postoperative pulmonary complication; MEP = Maximum expiratory pressure; CI = Cardiac insufficiency; MIP = Maximum inspiratory pressure; FEV$_1$ = Forced expiratory volume in the first second; FVC = Forced vital capacity