

**Table I - General characteristics of the studies**

Author/ Year	Patients	Average age	Hospital Unit	Inclusion
Sklar <i>et al.</i> [16], 2020	193	60	ICU	Invasively mechanically ventilated patients for less than 36 hours (initially, patients were eligible for enrollment within 72 hours after intubation; for the present analysis, patients were excluded if the first Tdi measurement was obtained > 36 hours after intubation). Also, if they had been intubated for less than 36 hours because of acute brain injury, moderate or severe acute respiratory distress syndrome, septic shock, or pneumonia.
Vivier <i>et al.</i> [17], 2019	191	68	Three ICUs	Patients at high risk of reintubation (ie, aged > 65 years, with any underlying cardiac or chronic lung disease, or intubated > 7 days before extubation) were eligible for the study if they met all weaning criteria and had undergone successfully to a TRE.
Eltrabili <i>et al.</i> [18], 2019	35	52	Surgical ICU of a trauma and emergency department	Individuals on mechanical ventilation for 48 hours with intra-abdominal sepsis.
Zhang <i>et al.</i> [19], 2020	37	74	ICU	All patients with acute respiratory failure due to COPD and requiring MV.
Palkar <i>et al.</i> [20], 2018	73	72	Medical ICUs UTIs médica	The ICU team decided on the readiness of the patient to wean from MV, the moment of the beginning of the ERT and extubation based on the clinical evaluation.
Dres <i>et al.</i> [21], 2016	76	58	Medical ICU	Patients intubated and ventilated for up to at least 24 hours.
Khan <i>et al.</i> [22], 2018	90	55	Medical ICU	Patients on MV for more than 48 hours, without having tracheobronchial secretions and underlying disease (the reason for intubation) must have been resolved. All participants were alert, cooperative and hemodynamically stable.
Soliman <i>et al.</i> [23], 2019	100	57	ICU	Patients mechanically ventilated for more than 48 hours were included when the underlying cause that required intubation was resolved.

Huang <i>et al.</i> [24], 2017	40	84	Medical ICU	Patients were included when they met all of the following criteria: age $\geq$ 80 years, received mechanical ventilation for $>$ 48 hours, suitable for an ERT, minimal doses of sedatives and analgesic drugs were allowed, but the patient should be easily aroused (score of Ramsay 3-4), and muscle paralyzing agents must have been discontinued $\geq$ 2 days prior to entry into the study and aminoglycosides were not allowed.
Pirompanich <i>et al.</i> [25], 2018	34	66	Medical wards and ICUs	Inclusion criteria were age $\geq$ 18 years, respiratory failure with MV for more than 24 hours, and the ability to tolerate ERT for 1 hour before ultrasound.
Yoo <i>et al.</i> [26], 2018	60	69	Medical or surgical ICU	Patients were included when they met all of the following criteria for the ERT: age $\geq$ 18 years, $FiO_2 < 50\%$ , positive ex-end expiratory pressure level $\leq 5$ cmH <sub>2</sub> O, respiratory rate (RR) $\leq 30$ breaths / min, $PaO_2 / FiO_2 > 200$ mmHg, Glasgow coma score $\geq 14$ and hemodynamic stability in the absence of vasopressors.

COPD = chronic obstructive pulmonary disease;  $FiO_2$  = fraction of inspired oxygen;  $PaO_2$ : partial pressure of oxygen; Tdi: diaphragm thickness; TRE = spontaneous breathing test; ICU = intensive care unit; VM = mechanical ventilation