Table II - *Characteristics of the included studies and definition of failure in weaning / extubation*

Author / Year	Country	Study design	Cutoff values of DTF	Cutoff values of DE	Defining weaning / extubation failure
Sklar *et al.* [16], 2020	Canada	Cohort	≤ 2.3mm		Complications of acute respiratory failure were defined as the occurrence of any of the following events: reintubation, tracheostomy, prolonged ventilation (> 14 days) or death.
Vivier *et al*. [17], 2019	France	Cohort	< 30%	< 10mm	The definition of extubation failure was heterogeneous and included patients who failed the ERT and were not extubated, those extubated to the end of life or those who developed an episode of acute respiratory failure.
Eltrabili *et al.* [18], 2019	Egypt	Cohort	30,7%	10,4 mm	Weaning failure was defined as reintubation or use of non-invasive ventilation within 48 hours after extubation.
Zhang *et al.* [19], 2020	China	Cohort		DE > 1.72 cm; DE > 1.63 cm; ΔDE > 0.16 cm;	Extubation failure was defined as reconnection to the ventilator (invasive or non-invasive) within 48 hours due to respiratory failure or other reasons.
Palkar *et al.* [20], 2018	USA	Cohort		< 1 cm	Inability to maintain spontaneous breathing for at least 48 hours, without any form of ventilatory support. Patients who required reintubation or NIV within 48 hours after extubation were included in the "failure" group.
Dres *et al.* [21], 2016	France	Cohort	2.20 ± 0.60 mm	0.82 ± 0.42 cm	Weaning failure was defined as patients with failed ERT, requiring reintubation or any form of ventilatory support (including NIV for post-extubation acute respiratory failure, but not prophylactic NIV) during 48 hours after extubation.
Khan et al. [22], 2018	Pakistan	Cohort	1.35 cm		Failure to wean was considered if the patient required noninvasive or invasive ventilation within 48 hours after extubation.
Soliman *et al.* [23], 2019	Egypt	Cohort	> 29.5%		Weaning failure was defined as: ERT with failure, reintubation and / or ventilation or death within 48 hours.
Huang *et al.* [24], 2017	China	Cohort	10.7 mm	> 10 mm	Failure was considered: IRRS> 105, FR <10 and> 35 breaths / min, HR> 140 beats / min or altered < 20% compared to baseline or onset of new arrhythmia, tidal volume <4 mL / kg, SaO2 < 90%.
Pirompanich, *et al.* [25], 2018	Thailand	Cohort	3.4 ± 1,3 mm		Weaning failure was defined as the inability to maintain spontaneous breathing within 48 hours.
Yoo *et al*. [26], 2018	Korea	Cohort	1.4 cm	1.53 cm	Failure extubation was defined as reintubation and application of NIV within 48 hours or requiring tracheostomy.

DE = diaphragmatic excursion; DTF = Fraction of diaphragmatic thickening; IRRS = rapid and shallow breathing index; FR = respiratory rate; HR = heart rate; SaO_2 = arterial oxygen saturation; NIV = non-invasive ventilation; IMV = invasive mechanical ventilation; TRE = spontaneous breathing test; ΔDE = variation in diaphragmatic excursion