

Table 1. Characteristics of included studies

Author, year	N, total	Population	Intervention	Control	Intubator experience	Follow-up
<i>Randomized controlled trials included in Hansel (2022)</i>						
Abdelgalel 2018	97	Patients in the ED requiring emergency intubation	GlideScope VL	Macintosh DL	>3-year experience in anesthesia and > 30 intubations with VL	NR
Ahmadi 2015	120	ICU patients aged \geq 18 years	I) GlideScope VL II) Airtraq VL	Macintosh DL	2nd or 3rd year emergency medicine residents	NR
Dey 2020	248	ICU patients requiring elective tracheal intubation	C-MAC VL	Macintosh DL	>50 VLs. Intubators were categorized into junior (<3 years), senior (3–8 years) and consultant (>8 years)	NR
Dharanindra 2020	140	Patients 18–70 years requiring intubation in the ICU for any physiological derangement	King Vision VL	Macintosh DL	NR	NR
Driver 2016	198	Adult patients undergoing emergency orotracheal intubation in the ED	C-MAC VL	C-MAC Macintosh DL	3rd year emergency medicine residents with > 4 months regular intubating experience with both devices	Until hospital discharge
Gao 2018	167	Adult ICU patients needing tracheal intubation to allow mechanical ventilation	UEScope VL	Macintosh DL	Trained in both DL and VL. Physicians involved had either worked at ICUs for > 5 years or worked at ICUs for > 1 year after receiving > 2 months of anesthesiology training.	NR
Goksu 2016	150	Patients (aged \geq 16 yrs) in the ED due to blunt trauma requiring tracheal intubation	C-MAC VL	Macintosh DL	Different skill mix with unclear prior experience with intubation in general and specifically with VL	NR
Griesdale 2012a	40	ICU patients > 16 years of age requiring urgent tracheal intubation	GlideScope VL	Macintosh DL	All inexperienced operators (<5 intubations in the preceding 6 months)	Until hospital discharge

Janz 2016	150	ICU patients ≥ 18 years old undergoing tracheal intubation	McGrath MAC (98.6%) or GlideScope (1.4%) VL	Macintosh or Miller DL	Pulmonary and critical care medicine fellows with varying experience, but more DL than VL experience	Until hospital discharge
Lascarrou 2017	371	ICU patients needing orotracheal intubation to allow mechanical ventilation	McGrath MAC VL	Macintosh DL	Experts (>5 years at ICU or worked at ICUs for > 1 year after receiving > 2 years of anesthesiology training and) and nonexperts (not meeting the criteria)	28 days
Sanguanwit 2021	158	age > 18 years requiring intubation in ED, acute respiratory failure	GlideScope VL	Macintosh DL	Varied skill mix, from senior residents (overall > 3 years intubating experience) to medical students (<1 year)	NR
Silverberg 2015	117	patients who required urgent or emergent intubation in the ICU	GlideScope VL	Macintosh DL	Critical care fellows, most in their 1st year so likely inexperienced with both devices	NR
Sulser 2016	147	Patients aged 18-99 years undergoing emergency RSI in the ED	C-MAC VL	Macintosh DL	Experienced anesthesia consultants	NR
Yeatts 2013	623	Patients who required tracheal intubation in the trauma resuscitation unit	GlideScope VL	Macintosh DL	Residents with a minimum of 1 year of previous intubation experience	30 days
<i>Additional randomized controlled trial</i>						
Ilbagi 2021	70	Patients requiring endotracheal intubation in ED	GlideScope VL	Macintosh DL	Second year emergency medicine resident with sufficient skill in DL and VL	NR

DL: direct laryngoscope; ED: emergency department; ICU: intensive care unit; NR: not reported; RSI: rapid sequence intubation; VL: videolaryngoscope