

Table 1. Study characteristics

| Study | Setting | Population | Comparison | INTERVENTION | | | CONTROL | | |
|---------------------|---|---|--|---------------------------------------|--|---|------------------|----------------------------------|-------------------|
| | | | | Before induction | Between induction and intubation | During intubation | Before induction | Between induction and intubation | During intubation |
| Casey, 2019 | 7 ICUs, USA | N=401 Critically ill adults undergoing induction and tracheal intubation | bag-mask ventilation from induction until the initiation of laryngoscopy vs. no ventilation | any | BVM (active oxygenation) | none | any | none | none |
| Caputo, 2017 | Single center, academic ED | N=206 Adults (age > 18 years old) presenting to the ED requiring endotracheal intubation | supplemental oxygen via nasal cannula at flush flow rate during laryngoscopy or no supplemental oxygen during laryngoscopy | - | nasal cannula ≥15 L/min + jaw thrust (passive oxygenation) | nasal cannula ≥15 L/min (passive oxygenation) | - | none | none |
| Jaber, 2016 | Single center, ICU, France | N=49 Hypoxaemic respiratory failure | preoxygenation with HFNO combined with NIV vs. preoxygenation with NIV only | NIV + HFNO | HFNO (passive oxygenation) | HFNO (passive oxygenation) | NIV | none | none |
| Shahul Hameed, 2024 | Single center, large tertiary care center ED, India | N=76 Acute hypoxaemic respiratory failure | Oxygenation through a nasopharyngeal cannula plus BVM preoxygenation vs. receiving standard BVM preoxygenation alone | BVM + nasopharyngeal cannula 15 L/min | nasopharyngeal cannula 15 L/min (passive oxygenation) | nasopharyngeal cannula 15 L/min (passive oxygenation) | BVM | none | none |

| | | | | | | | | | |
|-----------------|-----|-------------------------|---|---|---|---|---|------|------|
| Semler, 2016 | ICU | N=150 Critically ill | supplemental oxygen during apnea (HFNO) vs. usual care without supplemental oxygen | - | nasal cannula 15 L/min (passive oxygenation) | nasal cannula 15 L/min (passive oxygenation) | - | none | none |
|-----------------|-----|-------------------------|---|---|---|---|---|------|------|

BVM: bag-valve mask; ED, emergency department; HFNO: high flow nasal oxygen; ICU: intensive care unit; NIV: noninvasive ventilation; NRM: non-rebreathing mask