

Supplemental Table 2. Risk of bias of included studies

Study Name: Abdullah 2013		
Bias	Authors' judgement	Support for judgement
Random sequence generation	Low risk	Randomization was done via a computer-generated list.
Allocation concealment	Low risk	The sequence concealed in individual opaque envelopes.
Blinding of participants and personnel	High risk	Investigators were not blinded to allocation due to their participation in the intubation process.
Blinding of outcome assessment	High risk	Investigators were not blinded to allocation due to their participation in the intubation process.
Incomplete outcome data	Low risk	Among the 60 patients initially included in the study, no patient was excluded from the study.
Selective reporting	Uncertain risk	Information regarding registration identifier was not mentioned. Information regarding primary and secondary outcomes were available in this study.
Other bias	Low risk	The authors have no funding, financial relationship, or conflicts of interest to disclose.

Study Name: Byhahn 2008

Bias	Authors' judgement	Support for judgement
Random sequence generation	Low risk	Patients were randomly allocated to one of two groups, and randomization was established by simple shuffling of the envelopes.
Allocation concealment	Low risk	Allocation concealment was achieved with the use of coded, sealed, opaque envelopes.
Blinding of participants and personnel	High risk	The physician who performed the tracheal intubation was not blinded to the airway device being used.
Blinding of outcome assessment	High risk	The physician who performed the tracheal intubation was not blinded to the airway device being used.
Incomplete outcome data	Low risk	All participants completed the study and their data were analyzed for the primary outcome according to their original group allocation, with no missing data.
Selective reporting	Uncertain risk	Information regarding registration identifier was not mentioned. Information regarding primary and secondary outcomes were available in this study.
Other bias	Uncertain risk	The Bonfils intubation fibrescopes were provided on a complimentary basis by Karl Storz GmbH and Co. KG, Tuttlingen, Germany. There were no other sources of funding. None of the authors has any conflicts of interest related to the products and/or companies mentioned in the manuscript.

Study Name: Gupta 2015

Bias	Authors' judgement	Support for judgement
Random sequence generation	Low risk	The patients were then randomly allocated to either the Bonfils intubation fibrescope or to left molar laryngoscopy (Macintosh laryngoscope size 3) using computer generated codes that were maintained in sequentially numbered sealed opaque envelopes.
Allocation concealment	Low risk	The patients were then randomly allocated to either the Bonfils intubation fibrescope or to left molar laryngoscopy (Macintosh laryngoscope size 3) using computer generated codes that were maintained in sequentially numbered sealed opaque envelopes.
Blinding of participants and personnel	High risk	The physician who performed the tracheal intubation was not blinded to the airway device being used.
Blinding of outcome assessment	Uncertain risk	No specific statement
Incomplete outcome data	Low risk	Among the 120 patients initially included in the study, 5 patients were excluded from the study.
Selective reporting	Uncertain risk	Information regarding registration identifier was not mentioned.
Other bias	Low risk	The authors have no funding, financial relationship, or conflicts of interest to disclose.

Study Name: Kok 2012

Bias	Authors' judgement	Support for judgement
Random sequence generation	Low risk	In this crossover study, the randomized laryngoscopy sequence (i.e., Macintosh/LFS or LFS/Macintosh) was determined by a computer-generated list without blocking.
Allocation concealment	Low risk	The results were placed in sealed opaque envelopes and opened after induction of anesthesia by the research coordinator.
Blinding of participants and personnel	High risk	The operators were not blinded to the intubation devices
Blinding of outcome assessment	High risk	No specific statement
Incomplete outcome data	Low risk	Among 94 patients, only three patients were not included for analysis.
Selective reporting	Uncertain risk	Information regarding registration identifier was not available in this study.
Other bias	Low risk	The authors have no funding, financial relationship, or conflicts of interest to disclose.

Study Name: Turkstra 2007

Bias	Authors' judgement	Support for judgement
Random sequence generation	Low risk	A sealed envelope containing a computer-generated random assignment was opened, assigning patients to both groups. Block randomization was used to ensure an equal number of patients in each group.
Allocation concealment	Low risk	A sealed envelope containing a computer-generated random assignment was opened, assigning patients to both groups.
Blinding of participants and personnel	High risk	The operators were not blinded to the intubation devices
Blinding of outcome assessment	Low risk	The fluoroscopy video monitor was not visible to the laryngoscopist during the study.
Incomplete outcome data	Low risk	Twenty-four eligible patients agreed to participate and received their allocated intervention, and one patient was excluded from the study.
Selective reporting	Low risk	This trial was registered at clinicaltrial.gov (registration identifier: NCT00310999). Information regarding primary and secondary outcomes were available in this study.
Other bias	Low risk	The authors have no conflicts of interest with the manufacturers of any of the medical devices used in this study. The Shikani Optical Stylet for this trial was provided on loan from Clarus Medical Inc. for the duration of the trial. Clarus Medical Inc. had no input with respect to study design or data analysis, and provided no financial support.