

## Supplementary Materials

### Search strategy for Pubmed

((("paediatrics"[All Fields] OR "pediatrics"[MeSH Terms] OR "pediatrics"[All Fields] OR "paediatric"[All Fields] OR "pediatric"[All Fields]) AND ("laryngoscope s"[All Fields] OR "laryngoscopes"[MeSH Terms] OR "laryngoscopes"[All Fields] OR "laryngoscope"[All Fields] OR "laryngoscopic"[All Fields] OR "laryngoscopical"[All Fields] OR "laryngoscopically"[All Fields]) AND ("intubate"[All Fields] OR "intubated"[All Fields] OR "intubates"[All Fields] OR "intubating"[All Fields] OR "intubation"[MeSH Terms] OR "intubation"[All Fields] OR "intubations"[All Fields] OR "intubator"[All Fields] OR "intubators"[All Fields])) AND (humans[Filter])

### Search terms for the Cochrane library

#1 tracheal intubation  
#2 intubation  
#3 #1 or #2  
#4 videolaryngoscope  
#5 video laryngoscope  
#6 videolaryngoscopes  
#7 video laryngoscopes  
#8 indirect laryngoscope  
#9 #4 or #5 or #6 or #7 or #8  
#10 paediatrics  
#11 pediatrics  
#12 paediatric  
#13 pediatric  
#14 child  
#15 # 10 or #11 or #12 or #13 or #14  
#16 #3 and #9 and #15

### Search strategy for EMBASE

(tracheal intubation OR intubation)  
AND (videolaryngoscope OR video laryngoscope OR videolaryngoscopes OR video laryngoscopes OR indirectlaryngoscope OR indirect laryngoscope)  
AND (paediatrics OR pediatrics OR paediatric OR pediatric OR child)

Figure S1. Search strategy.

The risks of bias was estimated in the following methodological domains: sequence generation; allocation concealment; blinding of participants; incomplete outcome data; selective outcome reporting; and other potential threats to validity.

Figure S2. The methodological domain of risks of bias.



<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 2.733(0.701,10.663) Direct odds ratio: 4.242(0.764,23.549) Indirect odds ratio: 1.289(0.137,12.118) <b>Inconsistency measures</b> Ratio of odds ratios: 3.291(0.196,55.263) P value: 0.408 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 1.030(0.199,5.329) Direct odds ratio: 0.696(0.069,7.052) Indirect odds ratio: 1.533(0.149,15.811) <b>Inconsistency measures</b> Ratio of odds ratios: 0.454(0.017,12.152) P value: 0.638 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 3.415(0.697,16.720) Direct odds ratio: 1.696(0.192,14.989) Indirect odds ratio: 7.552(0.742,76.869) <b>Inconsistency measures</b> Ratio of odds ratios: 0.225(0.009,5.417) P value: 0.358 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 4.776(0.586,38.951) Direct odds ratio: 4.923(0.282,85.841) Indirect odds ratio: 4.611(0.210,101.403) <b>Inconsistency measures</b> Ratio of odds ratios: 1.068(0.016,71.909) P value: 0.976 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 5.968(0.740,48.139) Direct odds ratio: 5.800(0.360,93.513) Indirect odds ratio: 6.192(0.262,146.145) <b>Inconsistency measures</b> Ratio of odds ratios: 0.937(0.014,63.080) P value: 0.976 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: direct</b> Direct odds ratio: 1.432(0.118,17.317) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: direct</b> Direct odds ratio: 0.030(0.001,0.869) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.869(0.149,5.076) Direct odds ratio: 0.324(0.025,4.270) Indirect odds ratio: 2.074(0.184,23.331) <b>Inconsistency measures</b> Ratio of odds ratios: 0.156(0.005,5.367) P value: 0.304 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 1.086(0.188,6.283) Direct odds ratio: 2.685(0.242,29.830) Indirect odds ratio: 0.389(0.030,5.054) <b>Inconsistency measures</b> Ratio of odds ratios: 6.902(0.205,232.595) P value: 0.282 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 4.565(0.661,31.526) Direct odds ratio: 3.193(0.254,40.149) Indirect odds ratio: 7.519(0.378,149.635) <b>Inconsistency measures</b> Ratio of odds ratios: 0.425(0.008,21.372) P value: 0.668 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.670(0.213,2.107) Direct odds ratio: 0.605(0.158,2.316) Indirect odds ratio: 0.880(0.097,7.973) <b>Inconsistency measures</b> Ratio of odds ratios: 0.688(0.052,9.072) P value: 0.776 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.837(0.235,2.985) Direct odds ratio: 0.957(0.185,4.951) Indirect odds ratio: 0.686(0.092,5.098) <b>Inconsistency measures</b> Ratio of odds ratios: 1.395(0.104,18.664) P value: 0.801 Incoherence judgment: No concerns

<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 2.132(0.305,14.910) Direct odds ratio: 1.517(0.184,12.530) Indirect odds ratio: 14.322(0.097,2109.276) <b>Inconsistency measures</b> Ratio of odds ratios: 0.106(0.000,23.932) P value: 0.417 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 3.518(0.618,20.019) Direct odds ratio: 3.231(0.304,34.326) Indirect odds ratio: 3.891(0.299,50.694) <b>Inconsistency measures</b> Ratio of odds ratios: 0.830(0.025,27.205) P value: 0.917 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.350(0.036,3.414) Direct odds ratio: 1.000(0.014,72.879) Indirect odds ratio: 0.231(0.016,3.407) <b>Inconsistency measures</b> Ratio of odds ratios: 4.320(0.027,682.116) P value: 0.571 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.437(0.055,3.481) Direct odds ratio: 0.320(0.031,3.318) Indirect odds ratio: 1.381(0.016,122.940) <b>Inconsistency measures</b> Ratio of odds ratios: 0.231(0.001,36.558) P value: 0.571 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.377(0.102,1.397) Direct odds ratio: 0.382(0.078,1.869) Indirect odds ratio: 0.367(0.036,3.714) <b>Inconsistency measures</b> Ratio of odds ratios: 1.039(0.063,17.193) P value: 0.979 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 5.252(0.963,28.654) Direct odds ratio: 7.824(0.928,65.957) Indirect odds ratio: 2.637(0.160,43.480) <b>Inconsistency measures</b> Ratio of odds ratios: 2.967(0.088,100.354) P value: 0.545 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 3.314(0.681,16.137) Direct odds ratio: 2.435(0.257,23.081) Indirect odds ratio: 4.486(0.484,41.621) <b>Inconsistency measures</b> Ratio of odds ratios: 0.543(0.023,12.865) P value: 0.705 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 2.548(0.336,19.294) Direct odds ratio: 4.229(0.397,45.038) Indirect odds ratio: 0.636(0.013,31.874) <b>Inconsistency measures</b> Ratio of odds ratios: 6.649(0.069,644.258) P value: 0.417 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: direct</b> Direct odds ratio: 0.643(0.052,7.933) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 1.748(0.159,19.269) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 2.849(0.142,57.111) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 92.573(2.415,3548.570) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 3.144(0.379,26.073) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 4.080(0.772,21.574) Inconsistency measures: Not applicable Incoherence judgment: No concerns

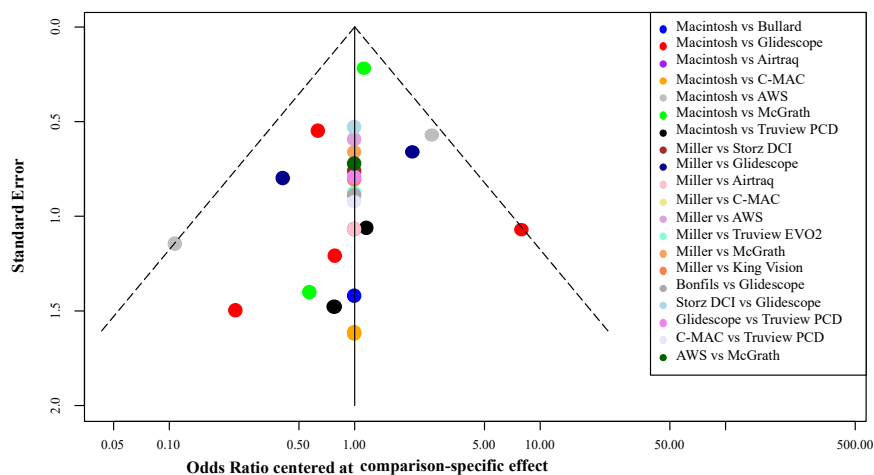


<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 7.813(0.635,96.130) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 8.700(0.782,96.805) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 2.195(0.112,42.910) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 14.355(1.743,118.250) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 4.980(0.174,142.451) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 161.790(3.021,8664.591) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 5.495(0.416,72.574) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 7.131(0.757,67.209) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 13.655(0.766,243.447) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.801(0.166,19.537) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.770(0.018,33.119) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 5.037(0.241,105.225) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.034(0.001,1.542) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.044(0.001,1.568) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.084(0.001,4.983) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.011(0.000,0.419) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.037(0.001,1.372) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.094(0.002,5.142) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.024(0.000,1.939) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.155(0.004,6.824) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>

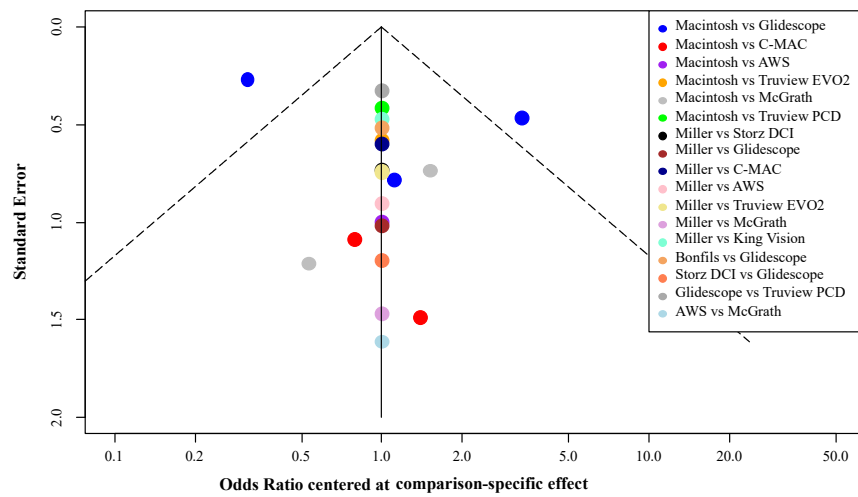
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 15.205(0.916,252.447) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 3.837(0.146,100.635) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 25.088(1.854,339.441) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 32.486(0.417,2530.570) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.103(0.049,24.896) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 2.742(0.090,83.747) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.959(0.062,14.908) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.362(0.018,7.139) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.198(0.073,19.674) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 3.053(0.129,72.082) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.298(0.200,8.421) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 2.485(0.176,35.146) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.328(0.040,2.668) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 2.767(0.218,35.156) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.698(0.033,14.968) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.915(0.184,19.886) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.253(0.049,1.300) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.538(0.032,8.993) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.132(0.011,1.608) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.113(0.064,19.304) Inconsistency measures: Not applicable Incoherence judgment: <span>No concerns</span>

<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.281(0.011,7.310) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 1.837(0.123,27.509) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 1.249(0.348,4.488) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 3.183(0.375,27.026) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.803(0.048,13.468) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 8.444(0.769,92.786) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 2.131(0.109,41.525) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 13.934(1.733,112.000) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 4.204(0.639,27.641) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.252(0.010,6.359) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 1.650(0.132,20.569) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 6.539(0.283,151.109) Inconsistency measures: Not applicable Incoherence judgment: No concerns

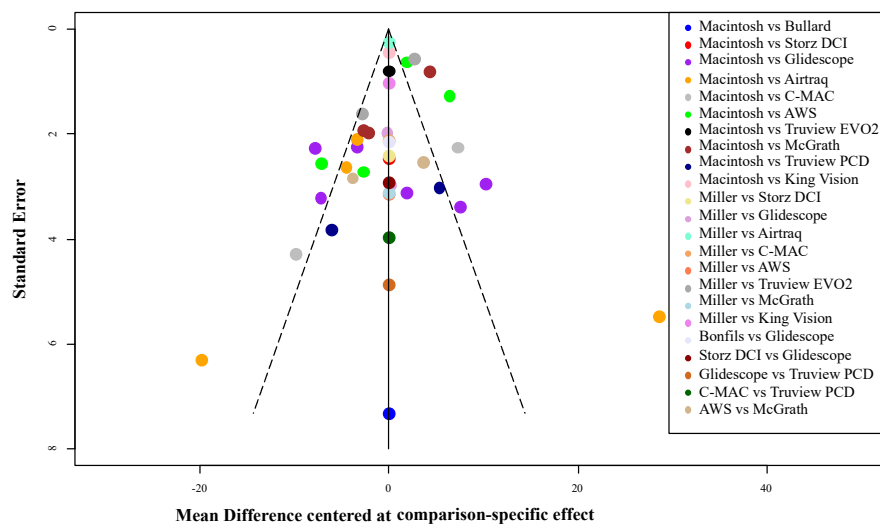
Figure S5. Results of inconsistency of the primary outcome.



(A)



(B)



(C)

Figure S6. Results of funnel plot of the primary (A) and secondary outcome (B, C).

AWS					0.03 (0.00; 0.59)	3.10 (0.07; 145.21)	0.32 (0.02; 5.42)			
0.15 (0.00; 4.42)	Bonfils		1.25 (0.11; 13.93)							
0.51 (0.04; 7.09)	3.48 (0.14; 89.62)	C-MAC			0.20 (0.02; 2.07)		0.28 (0.02; 3.39)			
0.18 (0.02; 2.02)	1.25 (0.11; 13.93)	0.36 (0.04; 3.14)	Glidescope		1.11 (0.27; 4.48)		0.10 (0.01; 1.94)	0.50 (0.02; 12.42)		4.86 (0.50; 47.66)
0.22 (0.01; 5.57)	1.49 (0.03; 70.10)	0.43 (0.02; 9.04)	1.20 (0.06; 24.04)	King Vision			0.46 (0.04; 4.99)			
0.14 (0.02; 1.16)	0.95 (0.06; 14.66)	0.27 (0.04; 1.76)	0.76 (0.21; 2.78)	0.64 (0.04; 11.29)	Macintosh	3.64 (0.47; 27.90)			4.00 (0.34; 47.27)	1.38 (0.13; 14.24)
0.67 (0.05; 8.54)	4.59 (0.18; 117.88)	1.32 (0.11; 15.94)	3.68 (0.42; 32.27)	3.08 (0.12; 77.98)	4.84 (0.80; 29.18)	McGrath	0.10 (0.00; 3.88)			
0.10 (0.01; 0.91)	0.69 (0.03; 14.20)	0.20 (0.03; 1.33)	0.55 (0.09; 3.43)	0.46 (0.04; 4.99)	0.73 (0.14; 3.65)	0.15 (0.02; 1.33)	Miller	5.00 (0.36; 68.66)	4.00 (0.62; 25.72)	
0.30 (0.01; 7.63)	2.05 (0.05; 80.78)	0.59 (0.03; 12.45)	1.64 (0.10; 26.25)	1.38 (0.04; 44.11)	2.16 (0.14; 34.54)	0.45 (0.02; 10.73)	2.98 (0.24; 37.12)	Storz DCI		
0.45 (0.04; 5.59)	3.09 (0.13; 74.96)	0.89 (0.09; 8.66)	2.48 (0.31; 19.93)	2.07 (0.12; 36.43)	3.26 (0.53; 19.90)	0.67 (0.06; 7.52)	4.49 (0.91; 22.19)	1.51 (0.08; 27.57)	Truview EVO2	
0.43 (0.02; 8.34)	2.92 (0.12; 71.88)	0.84 (0.05; 13.63)	2.34 (0.28; 19.27)	1.96 (0.06; 65.35)	3.08 (0.37; 25.86)	0.64 (0.04; 10.11)	4.24 (0.32; 55.81)	1.42 (0.05; 41.20)	0.94 (0.06; 14.55)	Truview PCD

Figure S7. League table of the secondary outcome (glottic visualization).

<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 9.409(0.545,162.471) Direct odds ratio: 59.555(1.139,3112.869) Indirect odds ratio: 1.290(0.021,78.281) <b>Inconsistency measures</b> Ratio of odds ratios: 46.150(0.154,13813.477) P value: 0.188 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 1.619(0.059,44.212) Direct odds ratio: 0.312(0.003,34.080) Indirect odds ratio: 8.214(0.078,868.094) <b>Inconsistency measures</b> Ratio of odds ratios: 0.038(0.000,28.329) P value: 0.333 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 15.102(0.743,306.832) Direct odds ratio: 3.471(0.070,171.743) Indirect odds ratio: 131.894(1.156,15043.481) <b>Inconsistency measures</b> Ratio of odds ratios: 0.026(0.000,12.170) P value: 0.245 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: direct</b> Direct odds ratio: 0.774(0.021,28.129) Inconsistency measures: Not applicable Incoherence judgment: Major concerns



<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 4.436(0.360,54.615) Direct odds ratio: 5.733(0.276,118.914) Indirect odds ratio: 2.537(0.029,223.096) <b>Inconsistency measures</b> Ratio of odds ratios: 2.260(0.010,503.911) P value: 0.767 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 7.120(0.481,105.436) Direct odds ratio: 4.889(0.124,192.116) Indirect odds ratio: 11.050(0.209,585.286) <b>Inconsistency measures</b> Ratio of odds ratios: 0.442(0.002,98.642) P value: 0.767 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 1.051(0.154,7.195) Direct odds ratio: 0.584(0.072,4.778) Indirect odds ratio: 21.911(0.184,2606.856) <b>Inconsistency measures</b> Ratio of odds ratios: 0.027(0.000,4.935) P value: 0.174 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 1.687(0.129,22.003) Direct odds ratio: 14.286(0.260,786.270) Indirect odds ratio: 0.381(0.013,10.807) <b>Inconsistency measures</b> Ratio of odds ratios: 37.487(0.203,6935.442) P value: 0.174 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.567(0.013,24.150) Direct odds ratio: 2.069(0.031,136.497) Indirect odds ratio: 0.003(0.000,13.763) <b>Inconsistency measures</b> Ratio of odds ratios: 688.489(0.056,8431624.365) P value: 0.174 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.160(0.006,4.086) Direct odds ratio: 0.034(0.001,1.231) Indirect odds ratio: 155.369(0.081,299269.565) <b>Inconsistency measures</b> Ratio of odds ratios: 0.000(0.000,0.948) P value: 0.049 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: direct</b> Direct odds ratio: 2.341(0.068,80.875) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.172(0.016,1.899) Direct odds ratio: 0.250(0.015,4.050) Indirect odds ratio: 0.059(0.001,6.678) <b>Inconsistency measures</b> Ratio of odds ratios: 4.232(0.017,1024.336) P value: 0.607 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.238(0.017,3.273) Direct odds ratio: 0.148(0.004,5.901) Indirect odds ratio: 0.387(0.009,16.092) <b>Inconsistency measures</b> Ratio of odds ratios: 0.381(0.002,72.125) P value: 0.719 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.152(0.006,3.838) Direct odds ratio: 0.668(0.019,23.171) Indirect odds ratio: 0.000(0.000,0.293) <b>Inconsistency measures</b> Ratio of odds ratios: 5484.055(1.056,28485336.384) P value: 0.049 Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 9.325(0.502,173.157) Direct odds ratio: 11.117(0.122,1010.499) Indirect odds ratio: 8.211(0.177,380.201) <b>Inconsistency measures</b> Ratio of odds ratios: 1.354(0.004,504.214) P value: 0.920 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.336(0.010,11.824) Direct odds ratio: 0.145(0.003,6.228) Indirect odds ratio: 476.515(0.008,29793475.960) <b>Inconsistency measures</b> Ratio of odds ratios: 0.000(0.000,35.431) P value: 0.174 Incoherence judgment: No concerns

<b>Comparison</b> <b>Evidence: mixed</b> NMA odds ratio: 0.148(0.015,1.478) Direct odds ratio: 0.191(0.013,2.757) Indirect odds ratio: 0.073(0.001,6.608) <b>Inconsistency measures</b> Ratio of odds ratios: 2.623(0.014,496.111) P value: 0.719 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 11.571(0.088,1526.603) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 2.121(0.060,75.286) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 8.950(0.328,243.886) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 6.451(0.062,674.317) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 5.075(0.059,438.298) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 2.240(0.067,74.426) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 1.433(0.020,100.816) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.183(0.002,20.017) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.557(0.002,160.405) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.813(0.014,47.904) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.140(0.001,15.044) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 1.305(0.016,108.115) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.439(0.002,79.115) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.194(0.002,21.181) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 0.124(0.001,15.635) Inconsistency measures: Not applicable Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 4.220(0.206,86.349) Inconsistency measures: Not applicable Incoherence judgment: Major concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect odds ratio: 3.041(0.035,260.708) Inconsistency measures: Not applicable Incoherence judgment: Major concerns

<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.764(0.027,21.452) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 2.393(0.034,167.922) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.056(0.042,26.832) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.676(0.012,38.199) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.721(0.009,57.277) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.181(0.009,3.612) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.250(0.012,5.137) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.459(0.022,97.251) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.251(0.003,24.769) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.787(0.005,119.426) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.347(0.005,23.691) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.222(0.001,40.029) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.605(0.168,15.322) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.539(0.012,24.690) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 3.134(0.041,238.913) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 1.383(0.049,38.784) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.885(0.016,47.904) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.095(0.002,4.236) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.441(0.007,26.851) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect odds ratio: 0.282(0.002,34.012) Inconsistency measures: Not applicable Incoherence judgment <a href="#">Major concerns</a>

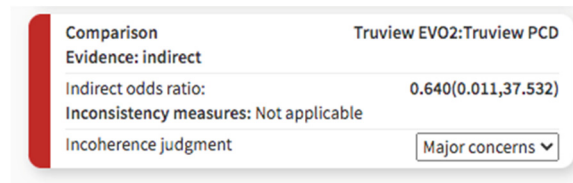


Figure S8. Results of inconsistency of the secondary outcome (glottic visualization).

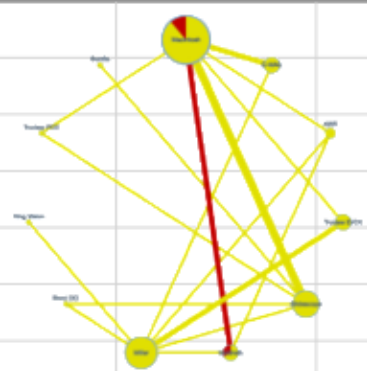
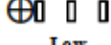
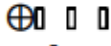
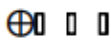

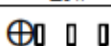
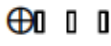


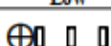
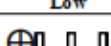
Patients: pediatric patients who received tracheal intubation				
Interventions: indirect laryngoscope, direct laryngoscope				
Comparator (reference): macintosh laryngoscope				
Outcome: glottic visualization				
Setting: elective surgery				
Total studies: 16 RCT Total Participants: 1459		Relative effect (95% CI)	Certainty of evidence	Reasons for downgrading
Airway scope (2 RCT; 195 participants)		0.14 (0.02-1.16)	 Low	Risk of bias and imprecision
Bonfils (1 RCT; 91 participants)		0.095 (0.06-14.7)	 Low	Risk of bias and imprecision
C-MAC (2 RCT; 116 participants)		0.27 (0.04-1.76)	 Low	Risk of bias and imprecision
Glidescope (3 RCT; 226 participants)		0.76 (0.21-2.78)	 Low	Risk of bias and imprecision
King Vision (1 RCT; 100 participants)		0.64 (0.04-11.3)	 Low	Risk of bias and imprecision
Macintosh (9 RCT; 384 participants)		No estimable	Reference comparator	No estimable
McGrath (2 RCT; 216 participants)		0.21 (0.03-1.24)	 Low	Risk of bias, imprecision and heterogeneity
Miller (5 RCT; 489 participants)		1.38 (0.27-6.93)	 Low	Risk of bias and imprecision
Storz DCI (1 RCT; 62 participants)		0.46 (0.03-7.39)	 Low	Risk of bias and imprecision
Truview EVO2 (1 RCT; 50 participants)		0.31 (0.05-1.87)	 Low	Risk of bias and imprecision
Truview PCD (2 RCT; 156 participants)		0.32 (0.04-2.73)	 Low	Risk of bias and imprecision
RCT: Randomized controlled trial, CI: Confidence interval				

Figure S9. Summary of findings table for the secondary outcome (glottic visualization).



Airtaq								1.2 (-5.6; 7.9)		-3.6 (-14.6; 7.4)			
-1.4 (-9.1; 6.4)	AWS							2.4 (-3.4; 8.2)	0.3 (-8.3; 9.0)	-4.0 (-16.6; 8.6)			
5.8 (-8.0; 19.6)		7.2 (-6.3; 20.8)	Bonfils				-12.2 (-24.0; -0.4)						
-37.0 (-56.0; -18.0)	-35.6 (-54.4; -16.8)	-42.8 (-64.8; -20.8)	Bullard					37.0 (18.9; 55.1)					
9.4 (0.3; 18.5)	10.8 (2.0; 19.6)	3.6 (-10.7; 17.9)	46.4 (26.9; 65.9)	C-MAC				-13.0 (-22.0; -4.0)	-6.1 (-17.9; 5.7)				-12.7 (-26.2; 0.8)
-6.4 (-13.5; 0.8)	-5.0 (-11.7; 1.7)	-12.2 (-24.0; 0.4)	30.6 (12.0; 49.2)	-15.8 (-24.0; -7.6)	Glidescope			8.8 (3.8; 13.8)	0.9 (-7.6; 9.4)	-8.9 (-21.3; 3.5)			-5.0 (-19.6; 9.6)
-3.6 (-13.4; 6.2)	-2.2 (-11.8; 7.3)	-9.4 (-24.3; 5.4)	33.4 (13.5; 53.3)	-13.0 (-23.6; -2.5)	2.8 (-6.3; 11.8)	King Vision		0.9 (-10.2; 11.9)	5.9 (-5.3; 17.1)				
0.0 (-5.9; 6.0)	1.4 (-3.8; 6.6)	-5.8 (-18.4; 6.8)	37.0 (18.9; 55.1)	-9.4 (-16.7; 2.1)	-6.4 (2.0; 10.9)		3.6 (-4.6; 11.9)	-3.4 (-10.0; 3.3)		-6.5 (-18.5; 5.5)	5.9 (-5.2; 17.0)		-14.9 (-24.1; -5.8)
-2.2 (-10.2; 5.9)	-0.8 (-7.4; 5.8)	-8.0 (-21.8; 5.7)	34.8 (15.8; 53.7)	-11.6 (-20.7; -2.6)	4.2 (-2.9; 11.2)		1.4 (-8.4; 11.2)	-2.2 (-7.9; 3.4)	McGrath	-0.5 (-13.1; 12.1)			
-0.5 (-7.4; 6.3)	0.9 (-5.9; 7.6)	-6.4 (-19.5; 6.8)	36.5 (17.7; 55.2)	-10.0 (-17.7; -2.2)	5.8 (0.1; 11.6)		3.1 (-5.2; 11.3)	-0.6 (-5.6; 4.5)	1.7 (-5.4; 8.7)	Miller	-10.0 (-22.0; 2.0)	-4.6 (-12.5; 3.4)	
-9.9 (-19.9; 0.0)	-8.6 (-18.2; 1.1)	-15.8 (-30.4; 1.2)	-27.0 (7.2; 46.9)	-19.4 (-30.1; -8.7)	-3.6 (-12.2; 5.0)	-6.4 (-17.6; 4.9)	-10.0 (-18.2; -1.7)	-7.8 (-17.6; 2.1)	-9.4 (-18.1; -0.7)	Storz DCI			
-1.4 (-10.2; 7.5)	0.0 (-8.6; 8.7)	-7.2 (-21.4; 7.1)	35.6 (16.1; 55.1)	-10.8 (-20.5; -1.1)	5.0 (-3.0; 13.1)	2.2 (-8.0; 12.4)	-1.4 (-8.7; 5.9)	0.8 (-8.1; 9.8)	-0.8 (-7.5; 5.9)	8.6 (-1.8; 19.0)	Truview EVO2		
-11.4 (-21.6; 1.2)	-10.0 (-19.9; 0.2)	-17.2 (-32.1; 2.4)	-25.6 (5.6; 45.5)	-20.8 (-30.7; -11.0)	-5.0 (-14.1; 4.1)	-7.8 (-19.5; 3.8)	-11.4 (-19.9; -3.0)	-9.2 (-19.3; 0.9)	-10.9 (-20.4; -1.4)	-1.5 (-13.1; 10.2)	-10.1 (-21.0; 0.9)	Truview PCD	

Figure S10. League table of the secondary outcome (intubation time).

<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 1.415(-3.768,6.598) Direct mean difference: 2.428(-3.387,8.243) Indirect mean difference: -2.501(-13.935,8.934) <b>Inconsistency measures</b> Difference of mean differences: 4.929(-7.899,17.757) P value: 0.451 Incoherence judgment: No concerns	AWS:Macintosh	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -0.812(-7.432,5.808) Direct mean difference: 0.330(-8.293,8.953) Indirect mean difference: -2.451(-12.781,7.879) <b>Inconsistency measures</b> Difference of mean differences: 2.780(-10.676,16.237) P value: 0.685 Incoherence judgment: No concerns	AWS:McGrath
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 0.858(-5.885,7.600) Direct mean difference: -4.000(-16.599,8.599) Indirect mean difference: 2.807(-5.174,10.788) <b>Inconsistency measures</b> Difference of mean differences: -6.807(-21.721,8.107) P value: 0.371 Incoherence judgment: No concerns	AWS:Miller	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 0.036(-5.885,5.957) Direct mean difference: 1.195(-5.558,7.949) Indirect mean difference: -3.814(-16.125,8.496) <b>Inconsistency measures</b> Difference of mean differences: 5.010(-9.032,19.051) P value: 0.484 Incoherence judgment: No concerns	Airtaq:Macintosh
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -0.521(-7.355,6.312) Direct mean difference: -3.600(-14.607,7.407) Indirect mean difference: 1.409(-7.308,10.127) <b>Inconsistency measures</b> Difference of mean differences: -5.010(-19.051,9.032) P value: 0.484 Incoherence judgment: No concerns	Airtaq:Miller	<b>Comparison</b> <b>Evidence: direct</b> Direct mean difference: -12.200(-23.972,-0.428) Inconsistency measures: Not applicable Incoherence judgment: No concerns	Bonfils:Glidescope



<b>Comparison</b> <b>Evidence: direct</b> Direct mean difference: 37.020(18.938,55.102) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -9.396(-16.662,-2.131) Direct mean difference: -12.989(-21.991,-3.987) Indirect mean difference: -2.679(-14.988,9.630) Inconsistency measures Difference of mean differences: -10.310(-25.560,4.939) P value: 0.185 Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -9.954(-17.686,-2.222) Direct mean difference: -6.100(-17.864,5.664) Indirect mean difference: -12.885(-23.143,-2.626) Inconsistency measures Difference of mean differences: 6.785(-8.824,22.394) P value: 0.394 Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -20.845(-30.714,-10.976) Direct mean difference: -12.700(-26.180,0.780) Indirect mean difference: -30.253(-44.741,-15.765) Inconsistency measures Difference of mean differences: 17.553(-2.236,37.342) P value: 0.082 Incoherence judgment <input type="button" value="Major concerns"/>
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 6.406(1.952,10.859) Direct mean difference: 8.799(3.756,13.842) Indirect mean difference: -2.068(-11.557,7.421) Inconsistency measures Difference of mean differences: 10.867(0.121,21.613) P value: 0.048 Incoherence judgment <input type="button" value="Major concerns"/>	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 5.848(0.085,11.611) Direct mean difference: 0.913(-7.601,9.427) Indirect mean difference: 10.022(2.192,17.852) Inconsistency measures Difference of mean differences: -9.109(-20.676,2.458) P value: 0.123 Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -3.578(-12.194,5.038) Direct mean difference: -8.900(-21.301,3.501) Indirect mean difference: 1.389(-10.592,13.369) Inconsistency measures Difference of mean differences: -10.289(-27.531,6.954) P value: 0.242 Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -5.043(-14.141,4.056) Direct mean difference: -5.000(-19.564,9.564) Indirect mean difference: -5.070(-16.722,6.583) Inconsistency measures Difference of mean differences: 0.070(-18.582,18.721) P value: 0.994 Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 3.625(-4.616,11.866) Direct mean difference: 0.870(-10.159,11.899) Indirect mean difference: 7.107(-5.293,19.508) Inconsistency measures Difference of mean differences: -6.237(-22.833,10.358) P value: 0.461 Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 3.067(-5.196,11.330) Direct mean difference: 5.900(-5.284,17.084) Indirect mean difference: -0.338(-12.598,11.924) Inconsistency measures Difference of mean differences: 6.237(-10.358,22.833) P value: 0.461 Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -2.227(-7.896,3.442) Direct mean difference: -3.357(-9.972,3.258) Indirect mean difference: 0.897(-10.104,11.898) Inconsistency measures Difference of mean differences: -4.254(-17.090,8.583) P value: 0.516 Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -9.984(-18.249,-1.719) Direct mean difference: -6.500(-18.503,5.503) Indirect mean difference: -13.125(-24.521,-1.728) Inconsistency measures Difference of mean differences: 6.625(-9.927,23.177) P value: 0.433 Incoherence judgment <input type="button" value="No concerns"/>

<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -1.389(-8.670,5.892) Direct mean difference: 5.900(-5.207,17.007) Indirect mean difference: -6.883(-16.525,2.760) <b>Inconsistency measures</b> Difference of mean differences: 12.783(-1.926,27.491) P value: 0.088 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -11.448(-19.883,-3.014) Direct mean difference: -14.944(-24.052,-5.835) Indirect mean difference: 9.594(-12.754,31.943) <b>Inconsistency measures</b> Difference of mean differences: -24.538(-48.671,-0.405) P value: 0.046 Incoherence judgment: Major concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: 1.670(-5.374,8.713) Direct mean difference: -0.500(-13.079,12.079) Indirect mean difference: 2.660(-5.840,11.162) <b>Inconsistency measures</b> Difference of mean differences: -3.160(-18.342,12.021) P value: 0.683 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -9.426(-18.109,-0.744) Direct mean difference: -10.000(-21.965,1.966) Indirect mean difference: -8.788(-21.407,3.831) <b>Inconsistency measures</b> Difference of mean differences: -1.212(-18.602,16.178) P value: 0.891 Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: mixed</b> NMA mean difference: -0.831(-7.519,5.856) Direct mean difference: -4.564(-12.512,3.384) Indirect mean difference: 8.219(-4.157,20.595) <b>Inconsistency measures</b> Difference of mean differences: -12.783(-27.491,1.926) P value: 0.088 Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -1.379(-9.123,6.366) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 7.210(-6.340,20.759) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -35.605(-54.415,-16.795) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 10.812(2.033,19.591) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -4.990(-11.698,1.717) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -2.210(-11.764,7.344) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -8.569(-18.192,1.054) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 0.026(-8.645,8.697) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -10.033(-19.886,-0.180) Inconsistency measures: Not applicable Incoherence judgment: No concerns
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 5.831(-7.957,19.619) Inconsistency measures: Not applicable Incoherence judgment: No concerns	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -36.984(-56.010,-17.957) Inconsistency measures: Not applicable Incoherence judgment: No concerns

<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 9.433(0.337,18.529) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -6.369(-13.547,0.808) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -3.589(-13.389,6.212) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -2.191(-10.250,5.868) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -9.948(-19.861,-0.034) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -1.353(-10.228,7.523) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -11.412(-21.629,-1.195) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -42.814(-64.845,-20.783) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 3.602(-10.737,17.941) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -9.419(-24.261,5.422) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -5.794(-18.381,6.792) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -8.022(-21.754,5.711) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -6.352(-19.459,6.755) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -15.778(-30.367,-1.190) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -7.183(-21.441,7.075) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: -17.243(-32.121,-2.364) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 46.416(26.929,65.904) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 30.614(11.992,49.236) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>
<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 33.395(13.524,53.266) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>	<b>Comparison</b> <b>Evidence: indirect</b> Indirect mean difference: 34.793(15.843,53.742) Inconsistency measures: Not applicable Incoherence judgment <span>No concerns</span>



<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 36.462(17.683,55.241) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 27.036(7.155,46.917) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 35.631(16.138,55.124) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 25.572(5.619,45.524) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -15.802(-23.989,-7.616) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -13.021(-23.580,-2.463) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -11.624(-20.676,-2.572) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -19.380(-30.059,-8.702) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -10.786(-20.452,-1.119) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 2.781(-6.257,11.818) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 4.178(-2.893,11.249) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 5.017(-3.027,13.061) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 1.398(-8.400,11.195) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -6.359(-17.630,4.912) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 2.236(-7.971,12.443) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -7.823(-19.476,3.829) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -0.558(-5.627,4.512) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -7.757(-17.629,2.116) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>
<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: 0.838(-8.090,9.767) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>	<b>Comparison</b> <b>Evidence:</b> indirect Indirect mean difference: -9.221(-19.331,0.889) Inconsistency measures: Not applicable Incoherence judgment <input type="button" value="No concerns"/>

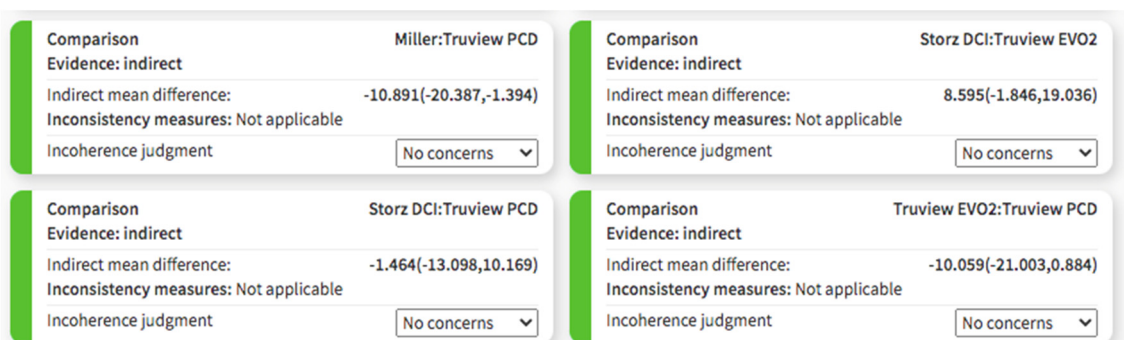
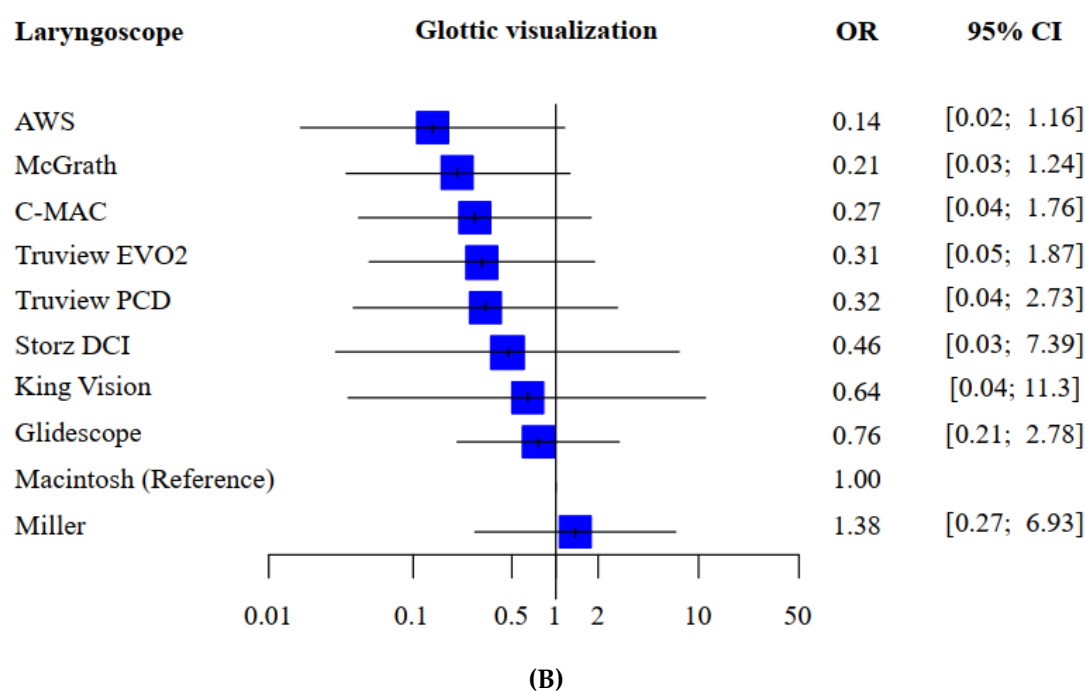
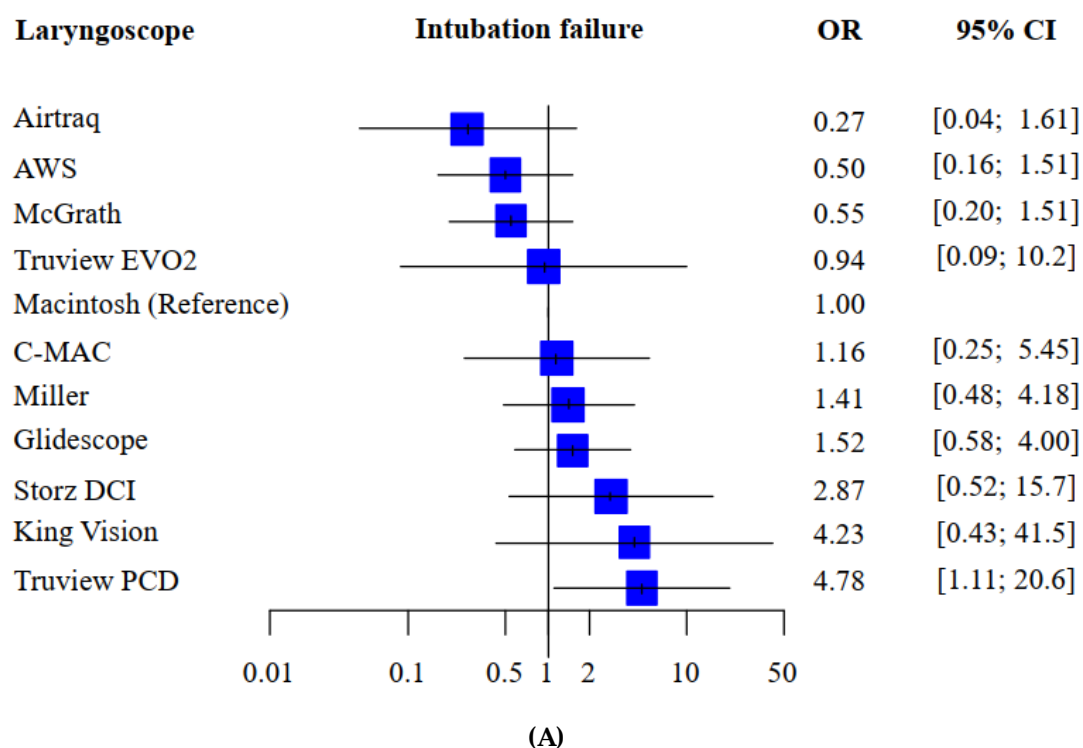


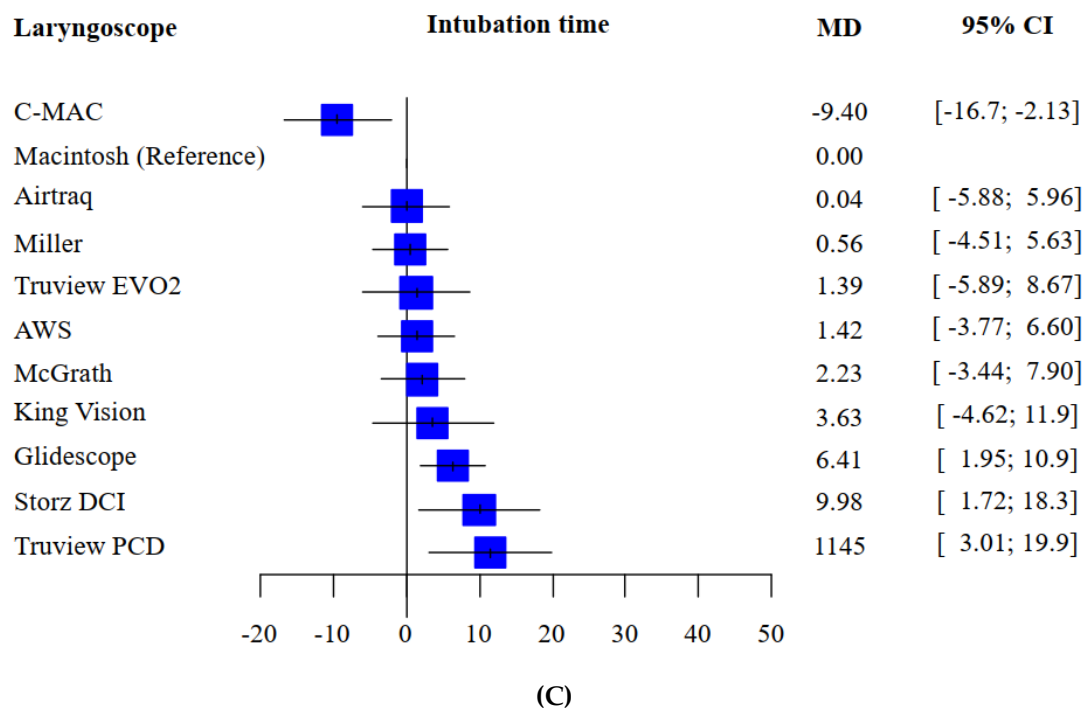
Figure S11. Results of inconsistency of the secondary outcome (intubation time).

<b>Patients:</b> pediatric patients who received tracheal intubation <b>Interventions:</b> indirect laryngoscope, miller laryngoscope <b>Comparator (reference):</b> macintosh laryngoscope <b>Outcome:</b> intubation time <b>Setting:</b> elective surgery				
Total studies: 31 RCT Total Participants: 2599	Mean difference (95% CI)	Certainty of evidence	Reasons for downgrading	P score
Airtraq (1 RCT; 34 participants)	0.56 (-5.88 to 5.96)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.66
Airway scope (2 RCT; 216 participants)	1.42 (-3.77 to 6.60)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.57
Bonfils (1 RCT; 44 participants)	-5.79 (-18.4-6.79)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.85
Bullard (1 RCT; 40 participants)	37.0 (18.9 to 55.1)	⊕⊕⊕⊕⊕ Moderate	Risk of bias	0.001
C-MAC (2 RCT; 131 participants)	-9.40 (-16.7 to -2.13)	⊕⊕⊕⊕ Low	Risk of bias and heterogeneity	0.97
Glidescope (7 RCT; 671 participants)	6.41 (1.95-10.9)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.28
King Vision (1 RCT; 78 participants)	3.63 (-4.62 to 11.9)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.44
Macintosh (24 RCT; 1052 participants)	No estimable	Reference comparator	No estimable	0.68
McGrath (3 RCT; 287 participants)	2.23 (-3.44 to 7.90)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.52
Miller (6 RCT; 577 participants)	0.56 (-4.51-5.63)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.63
Storz DCI (1 RCT; 60 participants)	9.98 (1.72 to 18.3)	⊕⊕⊕⊕ Low	Risk of bias and heterogeneity	0.18
Truview EVO2 (3 RCT; 170 participants)	1.39 (-5.89 to 8.67)	⊕⊕⊕⊕ Low	Risk of bias and imprecision	0.57
Truview PCD (4 RCT; 380 participants)	11.5 (3.01 to 19.9)	⊕⊕⊕⊕ Low	Risk of bias and heterogeneity	0.15
RCT: Randomized controlled trial, CI:Confidence interval				

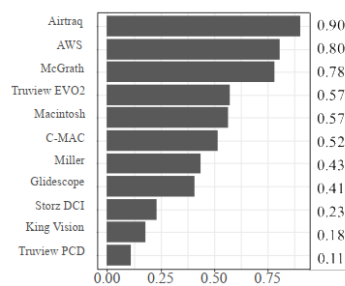


**Figure S12.** Summary of findings table for the secondary outcome (intubation time).

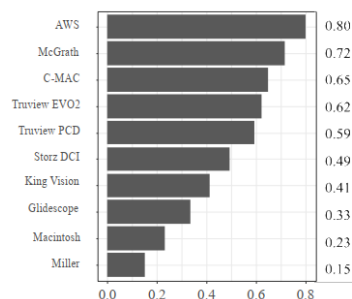




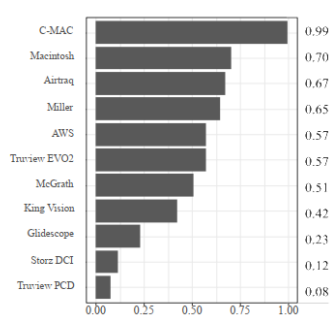
**Figure S13.** Forest plot of the subgroup analysis. (A:Forest plot of the intubation failure of tracheal intubation using the indirect laryngoscope compared with the Macintosh laryngoscope. B:Forest plot of glottic visualization with the indirect laryngoscope compared with the Macintosh laryngo-scope, Cormack–Lehane grade 1 and 2 vs. other grades. C:Forest plot of intubation time for tra-cheal intubation using the indirect laryngoscope compared with the Macintosh laryngoscope).



(A)

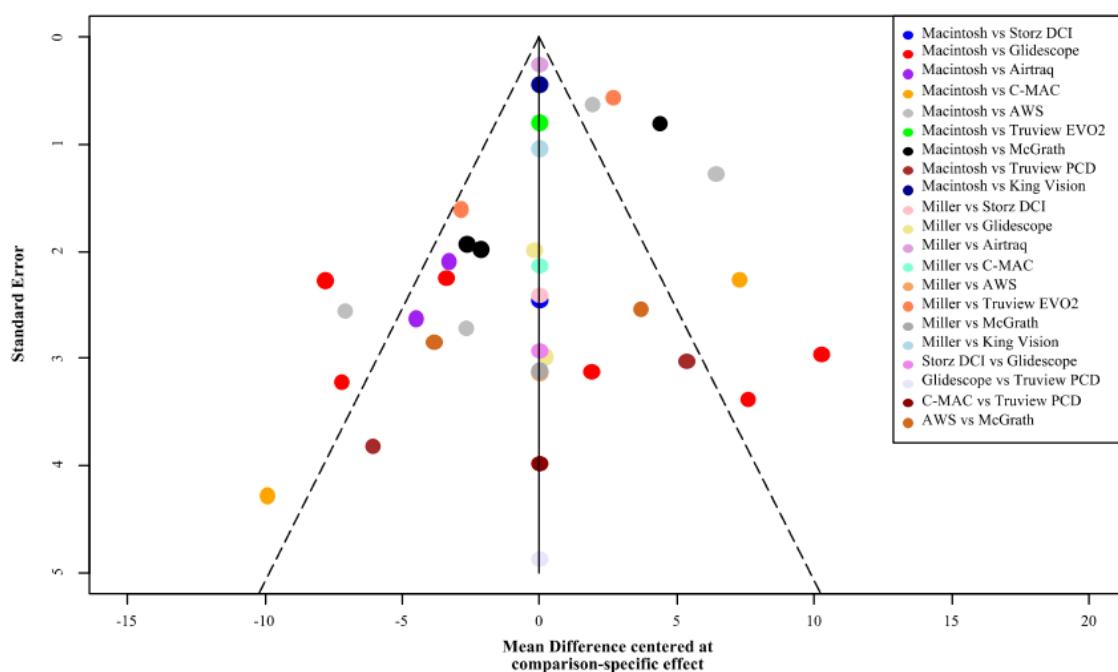


(B)

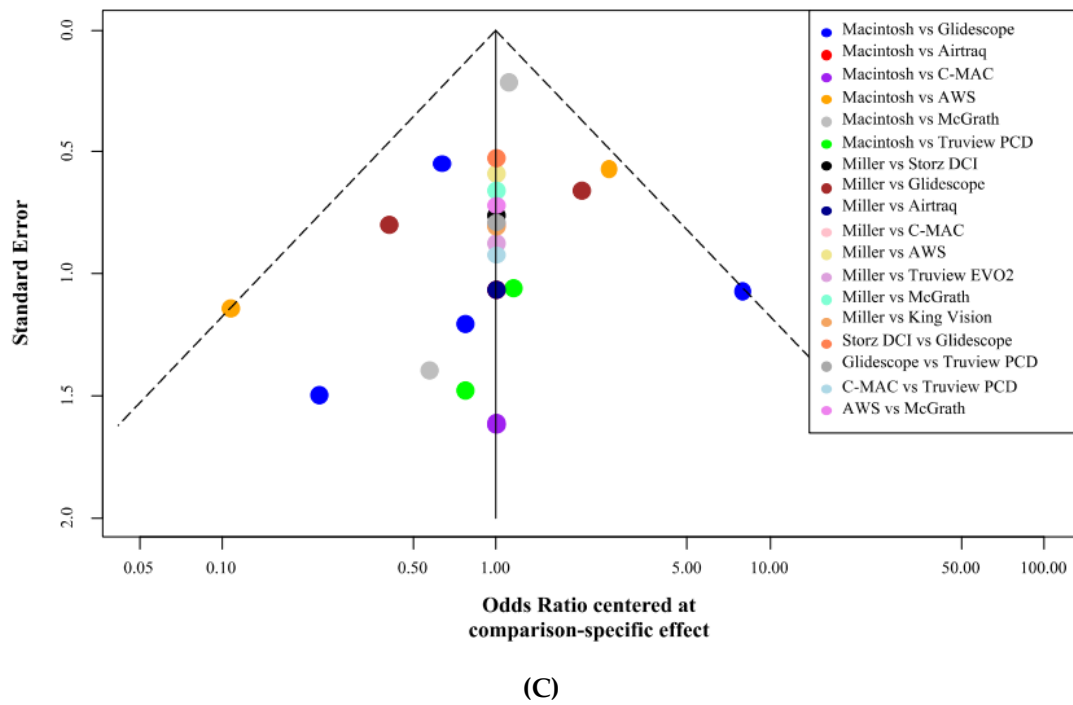
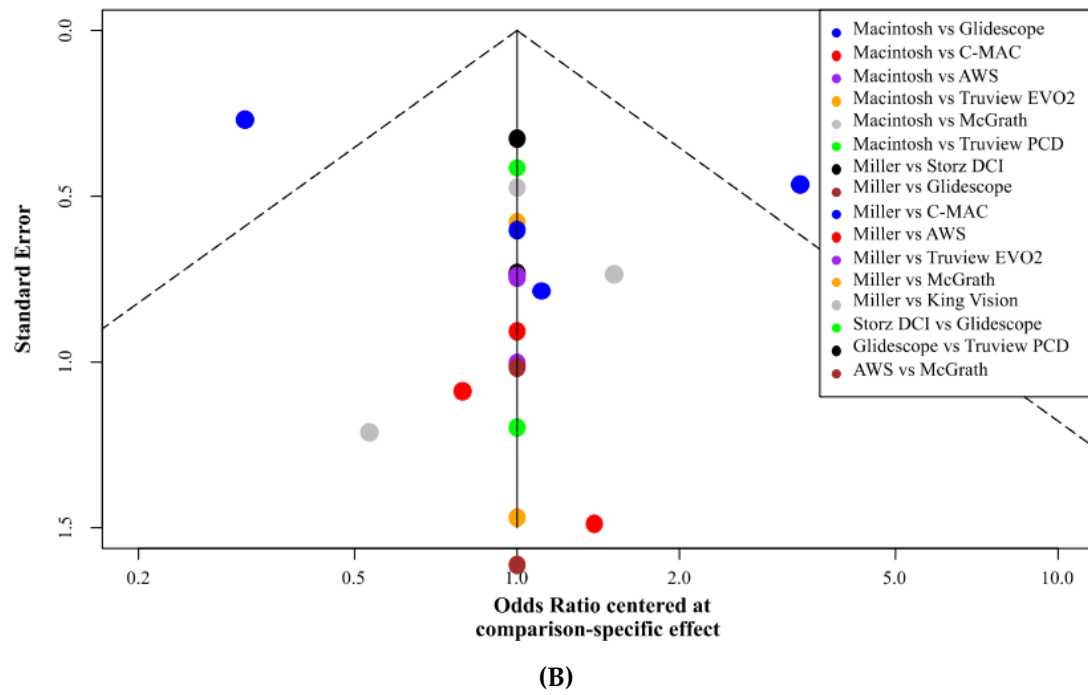


(C)

**Figure S14.** The results of subgroup analysis (A intubation failure, B glottic visualization, and C intubation time) by P score ranking.



(A)



**Figure S15.** The results of funnel plot of the subgroup analysis (A: intubation failure, B: glottic visu-alization, and C: intubation time).