

Table 1. Study characteristics – Module Postoperatieve ademhalingsondersteuning

Study	Type of surgery	Intervention	Comparator	Patients (I/C) <i>N; mean age; sex; existing respiratory diseases</i>	Outcomes	Risk of bias
<i>Included in systematic review Hui, 2022</i>						
Alexandropoulou, 2019	Upper GI, bariatric	NIV	Standard postoperative care	24/23; 33/31 years; NR; NR	PPC, pneumonia	High ²
Böhner, 2002	Vascular	CPAP	Standard postoperative care	116/121; 64.1/64.5 years; NR; 28 (28%)/31 (30%)	Pneumonia, LOS	Some concerns ⁴
Cavalcanti, 2018	Upper GI, bariatric	NIV	Standard postoperative care	27/27; 30.62/28.68 years; NR; 0 (0%)/ 0 (0%)	Pneumonia, LOS	High ^{2,4,5}
Ferrando, 2018	Upper GI, lower GI, HPB, vascular	CPAP (3 intervention arms)	Standard postoperative care	I1: 257; 63.4 years; NR; 13 (5%) I2: 256; 64.7 years; NR; 18 (8%) I3: 250; 66.5 years; NR; 12 (5%) C: 249; 64.8 years; NR; 18 (7%)	PPC, pneumonia, pulmonary aspiration, LOS	Low
Ferrando, 2019	Upper GI, bariatric	HFNO	Standard postoperative care	32/32; 46.3/46.4 years; NR; NR	Pneumonia, LOS	Some concerns ²
Hewidy, 2016	Upper GI	CPAP	Standard postoperative care	24/22; 31.25/26.86 years; NR; 0 (0%)/ 0 (0%)	Pneumonia	High ⁴
Kilic, 2017	Upper GI, lower GI, HPB	CPAP, NIV	Standard postoperative care	CPAP: 15; 49 years; NR; 0 (0%) NIV: 15; 49.5 years; NR; 0 (0%) C: 15; 47.7 years; NR; 0 (0%)	PPC, LOS	Some concerns ^{2,4}
Lindner, 1987	Upper GI, HPB	CPAP	Standard postoperative care	17/17; 66/65 years; NR; 0 (0%)/ 0 (0%)	PPC, pneumonia	Low

Pearse, 2021	Upper GI, lower GI, HPB, vascular, intra-peritoneal surgery	CPAP	Standard postoperative care	2,405/2,401; 67.8/67.9 years; NR; 491 (20%)/ 446 (19%)	Pneumonia, LOS	Low
Pessoa, 2010	Upper GI	NIV	Standard postoperative care	10/8; 36.7/43.1 years; NR; 0 (0%)/ 0 (0%)	LOS	High ⁴
<i>Individual studies</i>						
Fulton, 2021	Bariatric	HFNO	Conventional oxygen therapy	25/25; 48/46 years; female 19/20; asthma 4 (16%)/ 4 (16%), OSA 9 (36%)/ 14 (56%), using CPAP 6 (24%)/ 14 (56%), COPD 0 (0%)/ 0 (0%), other 0 (0%)/ 2 (8%)	PPC, LOS	Some concerns (lack of blinding)
Li, 2022	Orthopedic	HFNO	Conventional face mask	30/30; 72.5/72.8 years; female 20/21; NR	PPC	Some concerns (lack of blinding)
Soliman, 2022	Upper abdominal	HFNO	Face mask	40/40; 59.20/59.20 years; female 21/20; NR	Pneumonia, LOS	Some concerns (lack of blinding)
Frassanito, 2023	Major gynaecological surgery	HFNO	Conventional oxygen treatment with a Venturi mask	42/41; 61/55 years; female 42/41; chronic respiratory disease 5 (12%)/ 2 (5%)	PPC	Some concerns (lack of blinding)
Sun, 2024	Robotic-assisted laparoscopic rectal cancer surgery	HFNO	conventional nasal cannula oxygen therapy	39/39; 67.95/68.75 years; female 16/17; NR	Pneumonia, LOS	Low

PPC: postoperative pulmonary complications; GI: gastrointestinal; HPB: Hepato-pancreato-biliary; CPAP: continuous positive airway pressure; NIV: non-invasive ventilation; HFNO: high-flow nasal oxygen; LOS: length of stay; NR: not reported.

¹ **bias due to randomization**

² **bias due to deviations from intended intervention**

³ **bias due to missing data**

⁴ **bias due to outcome measurement**

⁵ **bias due to selection of reported result**