a. The length of hospital stay

| | Conservativ | Conservative oxygen therapy Liberal oxygen therapy | | | | | | Mean Difference Mean | | |)ifferen | ce | |
|---|-------------|--|-------|------|------|-------|--------|----------------------------|------------|-----------------------|-------------|------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% C | | IV, Rand | om, 95° | % CI | |
| Girardis 2016 | 21 | 18.5 | 216 | 21 | 16.3 | 218 | 26.9% | 0.00 [-3.28, 3.28] | | | + | | |
| Lång 2018 | 15.6 | 11.1 | 27 | 11.5 | 10.6 | 38 | 13.5% | 4.10 [-1.27, 9.47] | | | - - | | |
| Mackle 2020 | 12.4 | 13.1 | 484 | 13.1 | 14.3 | 481 | 46.8% | -0.70 [-2.43, 1.03] | | | • | | |
| Panwar 2016 | 20 | 11.1 | 52 | 16 | 17 | 51 | 12.8% | 4.00 [-1.56, 9.56] | | | - | | |
| Total (95% CI) | | | 779 | | | 788 | 100.0% | 0.74 [-1.48, 2.95] | | | • | | |
| Heterogeneity: Tau ² = Test for overall effect: | | = 0.18); l² | = 38% | | | | -100 | -50 Favours less oxygen | 0 Favou | 50 Jrs more oxygen | 100 | | |

b. The length of ICU stay

| | Conservative | e oxygen th | erapy | Liberal ox | Liberal oxygen therapy | | | Mean Difference | Mean Difference | | | | |
|-----------------------------------|-------------------------------|---------------|--------------|------------|---------------------------|---------|--------------------------|---------------------|-----------------|------|----------|--|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight IV, Random, 95% C | | | % CI | | | |
| Asfar 2017 | 11 | 12 | 217 | 12 | 13 | 217 | 8.6% | -1.00 [-3.35, 1.35] | | | 1 | | |
| Girardis 2016 | 6 | 4.4 | 216 | 6 | 5.2 | 218 | 24.0% | 0.00 [-0.91, 0.91] | | | • | | |
| Jakkula 2018 | 4 | 2.1 | 61 | 4.2 | 2.1 | 59 | 26.6% | -0.20 [-0.95, 0.55] | | | • | | |
| Lång 2018 | 11.4 | 8.5 | 27 | 6.5 | 5.1 | 38 | 4.3% | 4.90 [1.31, 8.49] | | | - | | |
| Mackle 2020 | 4.8 | 5.3 | 484 | 5.2 | 5.8 | 481 | 27.4% | -0.40 [-1.10, 0.30] | | | • | | |
| Panwar 2016 | 9 | 5.9 | 52 | 7 | 5.9 | 51 | 9.1% | 2.00 [-0.28, 4.28] | | | - | | |
| Total (95% CI) | | | 1057 | | | 1064 | 100.0% | 0.14 [-0.65, 0.94] | | | | | |
| Heterogeneity: Tau ² = | 0.48; Chi ² = 12.0 |)8, df = 5 (F | e = 0.03); I | ² = 59% | | | | | H | | <u> </u> | | |
| Test for overall effect: | | | | -100 | -50 Favours less oxyge | n Favou | 50 Irs more oxyge | 100 n | | | | | |

c. Mechanical ventilation-free days up to day 28

| | Conservativ | Liberal o | xygen the | erapy | | Mean Difference | Mean Difference | | | | | | |
|---|-------------|-------------|-----------|-------|------|-----------------|-----------------|---------------------|------------------|----------------------|-------------|------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% C | | IV, | Random, 95° | % CI | |
| Asfar 2017 | 13 | 11 | 217 | 11 | 10 | 217 | 37.9% | 2.00 [0.02, 3.98] | | | • | | |
| Mackle 2020 | 15.5 | 11.8 | 484 | 16 | 11.5 | 481 | 45.2% | -0.50 [-1.97, 0.97] | | | • | | |
| Panwar 2016 | 14.7 | 10.3 | 52 | 16.4 | 11.3 | 51 | 16.8% | -1.70 [-5.88, 2.48] | | | 4 | | |
| Total (95% CI) | | | 753 | | | 749 | 100.0% | 0.25 [-1.78, 2.27] | | | • | | |
| Heterogeneity: Tau ² = Test for overall effect: | | = 0.09); l² | = 59% | | | | -100 Fa | -50 vours more o | 0 xygen Favou | 50 Irs less oxyge | 100 n | | |

d. New-onset pneumonia

| | Conservative oxygen | onservative oxygen therapy Liberal oxyge | | | | Risk Ratio | Risk Ratio |
|--|---------------------------------------|--|---------------------|-------|--------|---------------------|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Asfar 2017 | 32 | 217 | 30 | 217 | 34.0% | 1.07 [0.67, 1.69] | |
| Barrot 2020 | 17 | 99 | 22 | 102 | 22.3% | 0.80 [0.45, 1.41] | |
| Girardis 2016 | 30 | 216 | 37 | 218 | 36.8% | 0.82 [0.53, 1.27] | |
| Lång 2018 | 6 | 27 | 6 | 38 | 7.0% | 1.41 [0.51, 3.90] | |
| Total (95% CI) | | 559 | | 575 | 100.0% | 0.92 [0.71, 1.21] | • |
| Total events | 85 | | 95 | | | | |
| Heterogeneity: Tau ² = | 0.00; Chi ² = 1.58, df = 3 | P = 0.66); | l ² = 0% | | | | |
| Test for overall effect: $Z = 0.57$ (P = 0.57) | | | | | | | 0.01 0.1 1 10 100 Favours less oxygen Favours more oxygen |

e. New-onset infection

| | Conservative oxygen therapy Libera | | Liberal oxygen | therapy | | Risk Ratio | | Risk Ratio | | | |
|-----------------------------------|---------------------------------------|-------------|---------------------|---------|-----------|-------------------------|----------|----------------------|-----------|-------|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | | M-H, R | andom, 95 | 6% CI | |
| Asfar 2017 | 45 | 217 | 45 | 217 | 47.7% | 1.00 [0.69, 1.44] | | | + | | |
| Girardis 2016 | 39 | 216 | 50 | 218 | 46.1% | 0.79 [0.54, 1.14] | | | | | |
| Lång 2018 | 6 | 27 | 6 | 38 | 6.2% | 1.41 [0.51, 3.90] | | | | _ | |
| Total (95% CI) | | 460 | | 473 | 100.0% | 0.91 [0.71, 1.18] | | | • | | |
| Total events | 90 | | 101 | | | | | | | | |
| Heterogeneity: Tau ² = | 0.00; Chi ² = 1.53, df = 2 | (P = 0.46); | l ² = 0% | | | | | | | | |
| Test for overall effect: | | | | | 0.01 F | 0.1 avours less oxyg | en Favou | 10 Irs more oxyge | 100 n | | |

f. New-onset ARDS

| | Conservative oxygen | therapy | Liberal oxygen t | herapy | Risk Ratio | | | Risk Ratio | | | |
|-----------------------------------|---|------------|------------------|--------|--------------------------|---------------------|----------------------|------------|-----------|-------|---------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% C | | M-H, R | andom, 95 | 6% CI | |
| Girardis 2016 | 14 | 216 | 14 | 218 | 48.5% | 1.01 [0.49, 2.07] | | | | | |
| Jakkula 2018 | 1 | 61 | 1 | 59 | 3.3% | 0.97 [0.06, 15.11] | | | | | |
| Lång 2018 | 3 | 27 | 0 | 38 | 2.9% | 9.75 [0.52, 181.35] | | | | | \rightarrow |
| Panwar 2016 | 11 | 52 | 11 | 51 | 45.3% | 0.98 [0.47, 2.06] | | | • | | |
| Total (95% CI) | | 356 | | 366 | 100.0% | 1.06 [0.65, 1.75] | | | • | | |
| Total events | 29 | | 26 | | | | | | | | |
| Heterogeneity: Tau ² = | 0.00; Chi ² = 2.34, df = 3 (| P = 0.50); | l² = 0% | | | | | | <u> </u> | | |
| Test for overall effect: | Z = 0.24 (P = 0.81) | | | 0.01 | 0.1 Favours less oxyg | ז Jen Favou | 10 Irs more oxyge | 100 en | | | |

g. Atelectasis

| | Conservative oxygen | Liberal oxygen | herapy | | Risk Ratio | | Risk Ratio | | | | |
|--|---------------------|----------------|--------|-------|------------|---------------------|------------|--------------------------|---------------|--------------------|------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | | | andom, 9 | 5% CI | |
| Asfar 2017 | 13 | 217 | 26 | 217 | 46.9% | 0.50 [0.26, 0.95] | | _ | | | |
| Lång 2018 | 14 | 27 | 18 | 38 | 53.1% | 1.09 [0.67, 1.79] | | | - | | |
| Total (95% CI) | | 244 | | 255 | 100.0% | 0.76 [0.34, 1.70] | | | | | |
| Total events | 27 | | 44 | | | | | | | | |
| Heterogeneity: Tau ² = 0.26; Chi ² = 4.04, df = 1 (P = 0.04); l ² = 75% Test for overall effect: Z = 0.67 (P = 0.50) | | | | | | | 0.01 | 0.1 Favours less oxyg | 1 en Favou | 10 Jrs more oxy | 100 gen |

h. Pneumothorax

| | Conservative oxygen | Liberal oxygen t | herapy | Risk Ratio | | | Risk Ratio | | | | |
|---|---------------------|------------------|--------|------------|--------|---------------------|------------|--------------|----------|------|-----|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% CI | | M-H, Rar | dom, 95% | % CI | |
| Asfar 2017 | 5 | 217 | 5 | 217 | 38.7% | 1.00 [0.29, 3.40] | | | + | | |
| Barrot 2020 | 6 | 99 | 10 | 102 | 61.3% | 0.62 [0.23, 1.64] | | | + | | |
| Total (95% CI) | | 316 | | 319 | 100.0% | 0.74 [0.35, 1.60] | | | | | |
| Total events | 11 | | 15 | | | | | | | | |
| Heterogeneity: Tau ² = 0.00; Chi ² = 0.36, df = 1 (P = 0.55); I ² = 0% | | | | | | | 0.01 | 0.1 | 1 | 10 | 100 |
| Test for overall effect: | | | | | 0.01 | Favours less oxyger | Favour | rs more oxyg | | | |

i. Mesenteric ischaemia

| | Conservative oxygen | therapy | Liberal oxygen t | herapy | Risk Ratio | | | Risk Ratio | | | |
|--|---------------------------------------|-------------|------------------|--------|------------|----------------------|------|---------------------|-----------------|----|-------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H. Random, 95% CI | | M-H, Ran | <u>dom, 95%</u> | CI | |
| Asfar 2017 | 4 | 217 | 7 | 217 | 32.2% | 0.57 [0.17, 1.92] | | | +- | | |
| Barrot 2020 | 5 | 99 | 0 | 102 | 9.2% | 11.33 [0.63, 202.23] | | - | | | \longrightarrow |
| Schjørring 2021 | 32 | 1453 | 29 | 1457 | 58.7% | 1.11 [0.67, 1.82] | | - | - | | |
| Total (95% CI) | | 1769 | | 1776 | 100.0% | 1.11 [0.43, 2.82] | | | | | |
| Total events | 41 | | 36 | | | | | | | | |
| Heterogeneity: Tau ² = | 0.32; Chi ² = 3.70, df = 2 | (P = 0.16); | l² = 46% | | | | 0.01 | 0.1 | 1 | 10 | 100 |
| Test for overall effect: Z = 0.21 (P = 0.83) | | | | | | | 0.01 | Favours less oxygen | Favours | | |