

# THE LANCET

## Global Health

### Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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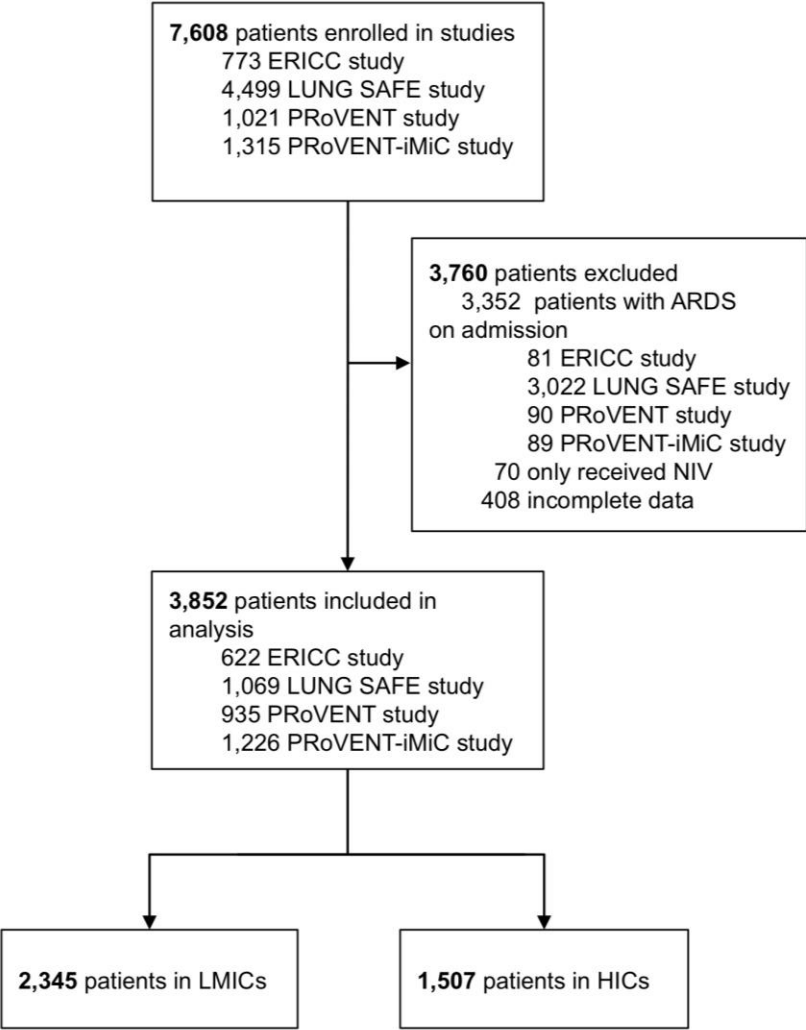
**Geo–Economic Variations in Epidemiology,  
Ventilation Management and Outcome in invasively  
ventilated ICU patients without ARDS – a pooled  
analysis of 4 observational studies**

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# ADDITIONAL RESULTS

## eFigure 1. Patient flow

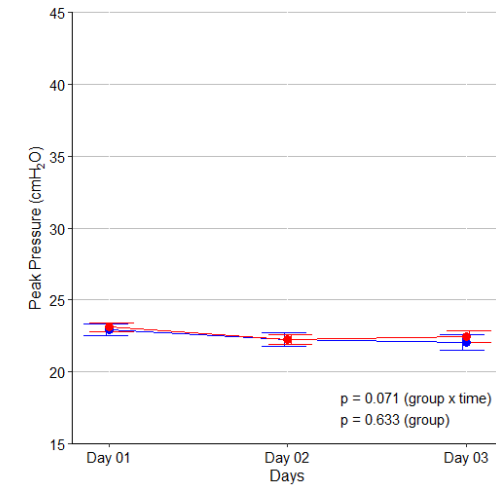
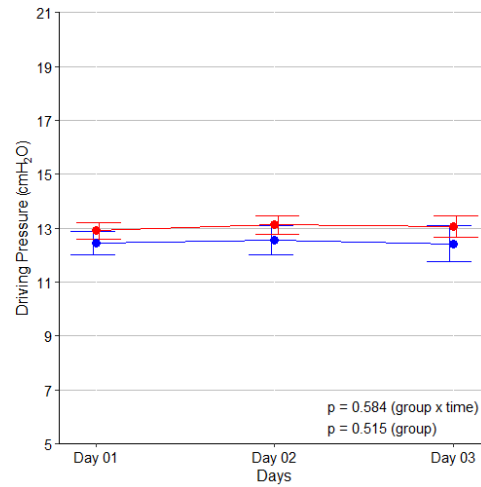
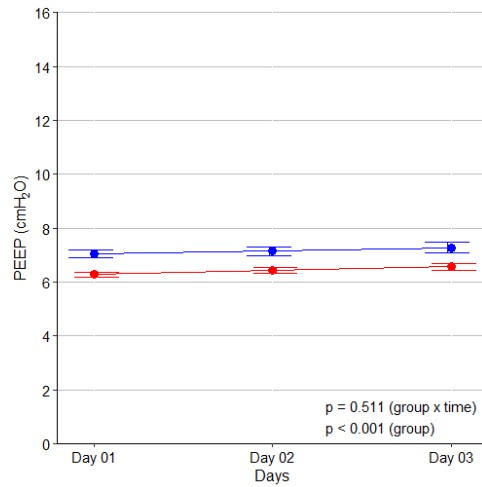
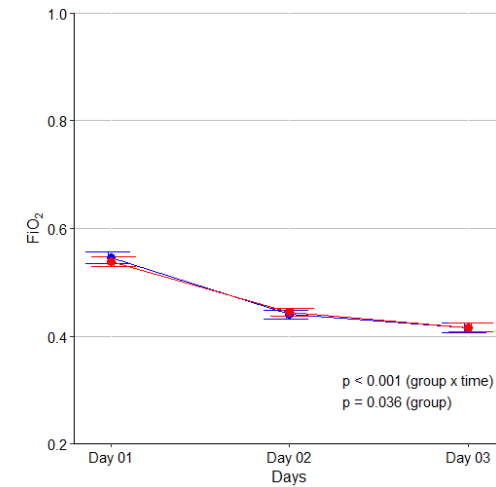
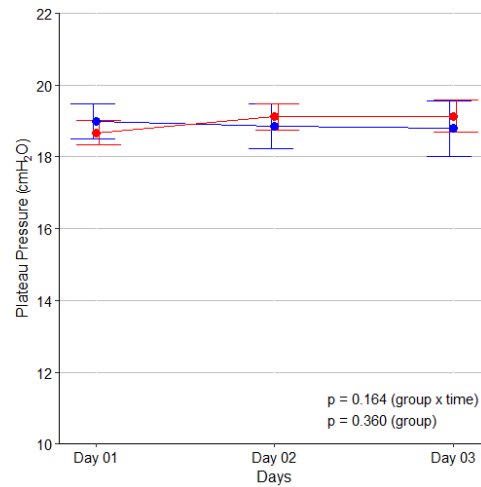
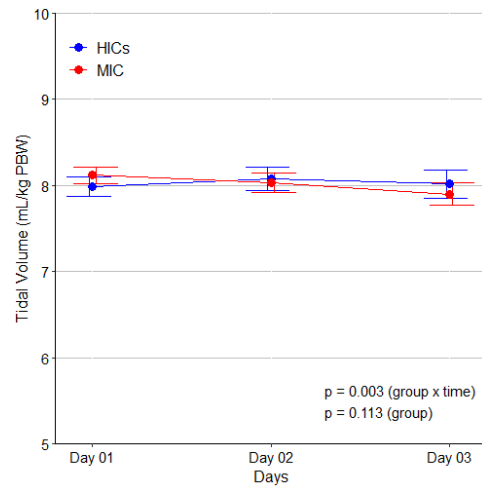
Abbreviations: ERICC, ‘Epidemiology of Respiratory Insufficiency in Critical Care’; LUNG SAFE, Large observational study to Understand the Global impact of Severe Acute respiratory Failure; PRoVENT, Practice of VENTilation in critically ill patients without ARDS study; PRoVENT-iMiC, Practice of VENTilation in critically ill patients in middle income countries study; ARDS, acute respiratory distress syndrome; NIV, non-invasive ventilation; LMICs, low- and middle-income countries; HICs, high-income countries



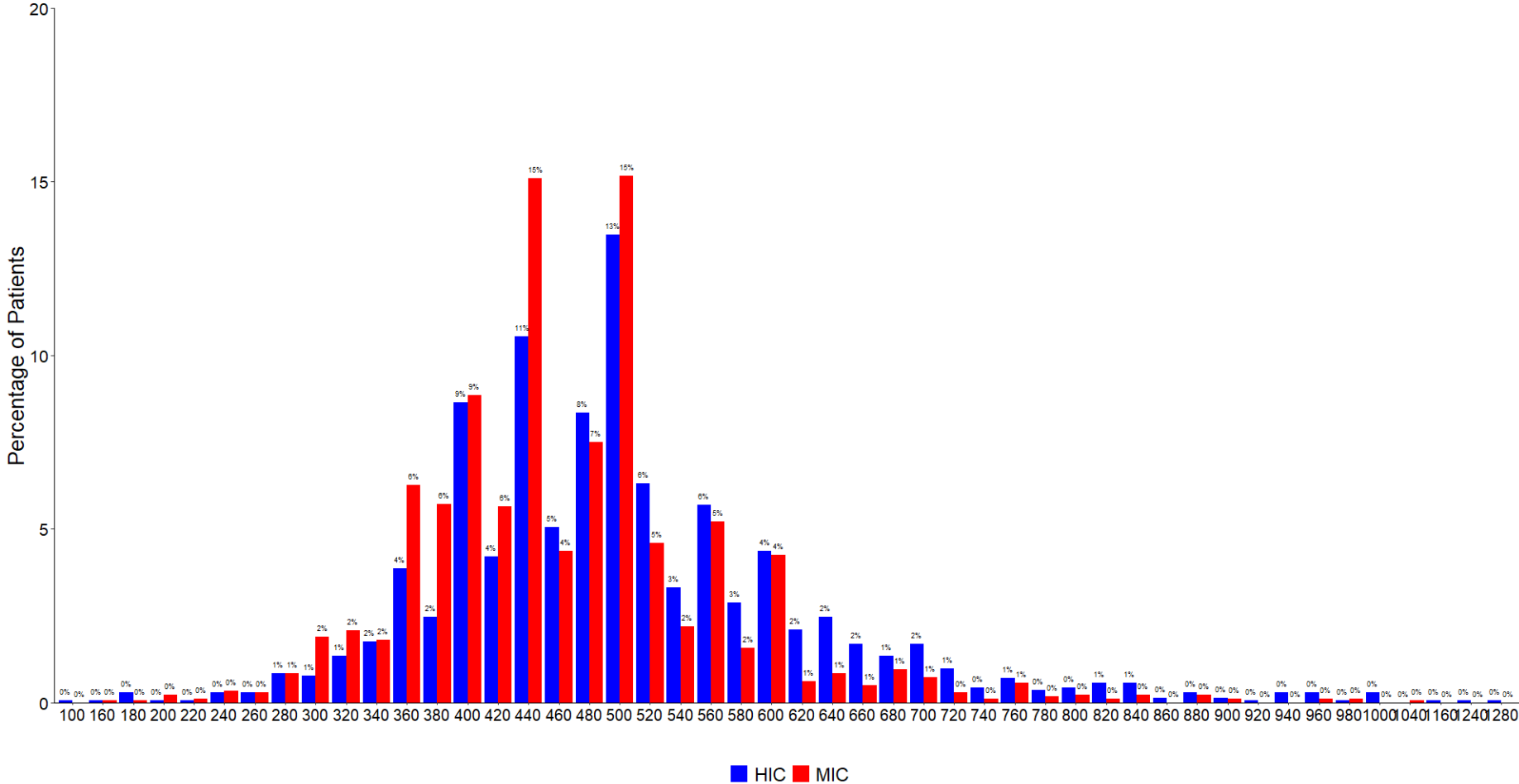
**eFigure 2 - Ventilatory parameters in the first 3 days of mechanical ventilation in patients stratified by economic group**

Lines are means and 95% confidence intervals. P value is for group and time–group interaction.

Abbreviations:  $V_T$ , tidal volume; PBW, predicted body weight; PEEP, positive end–expiratory pressure; Ppeak, peak pressure;  $FiO_2$ , fraction of inspired oxygen; Pplat, plateau pressure; HIC, high–income countries; MIC, middle–income countries



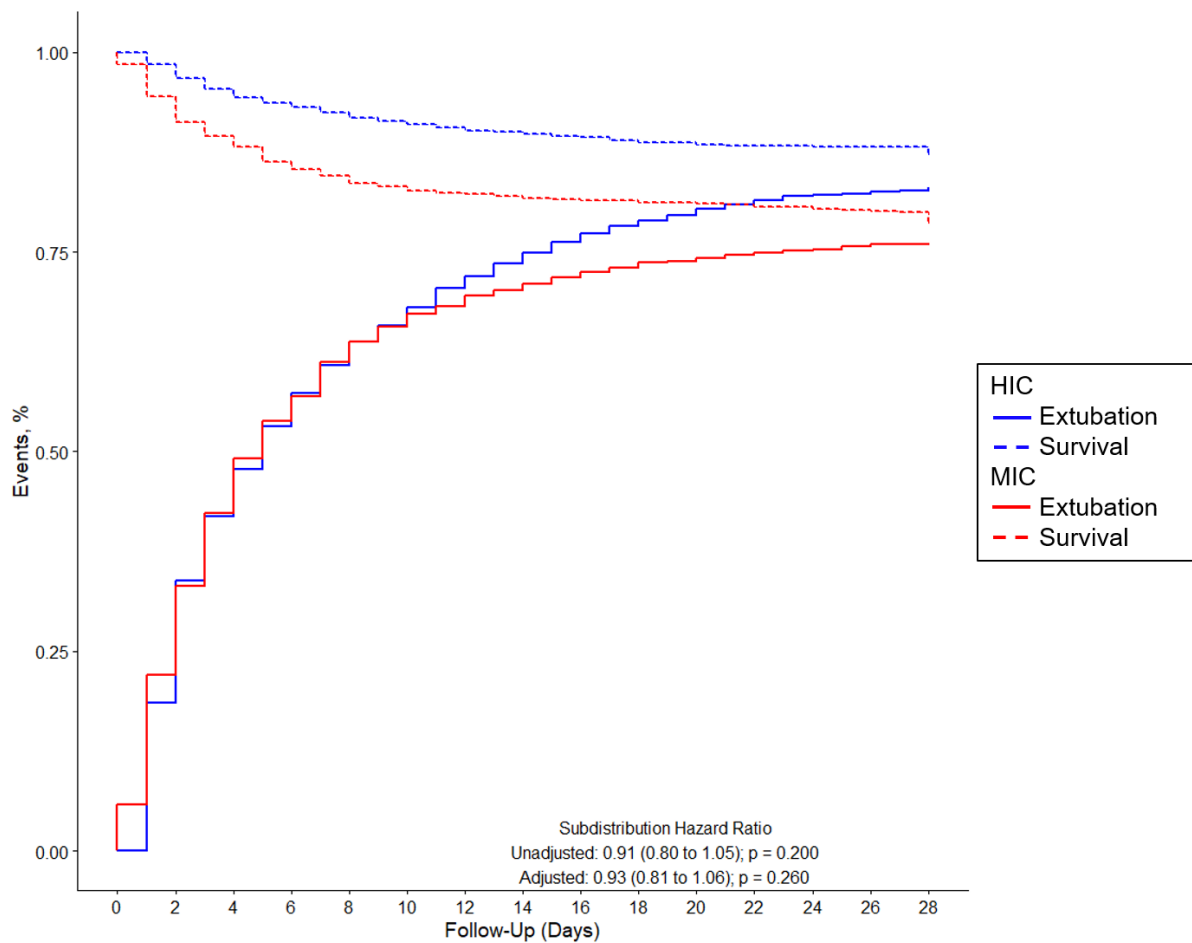
eFigure 3 - Histogram of tidal volume stratified by economic group



**eFigure 4. Probability of discontinuing mechanical ventilation when accounting for the competing risk of death before extubation**

Estimates are shown as hazard ratio (95% confidence intervals). The cumulative incidence function curves estimate the instantaneous probability over time of *extubation* (shown in continuous lines) when accounting for the risk set attrition due to the occurrence of the competing risk (*death before extubation*, shown as dotted lines). The 'Fine and Gray' proportional subdistribution hazards analysis was used to model the subdistribution hazard and derive P-values.

Abbreviations: HIC, high-income countries; MIC, middle-income countries

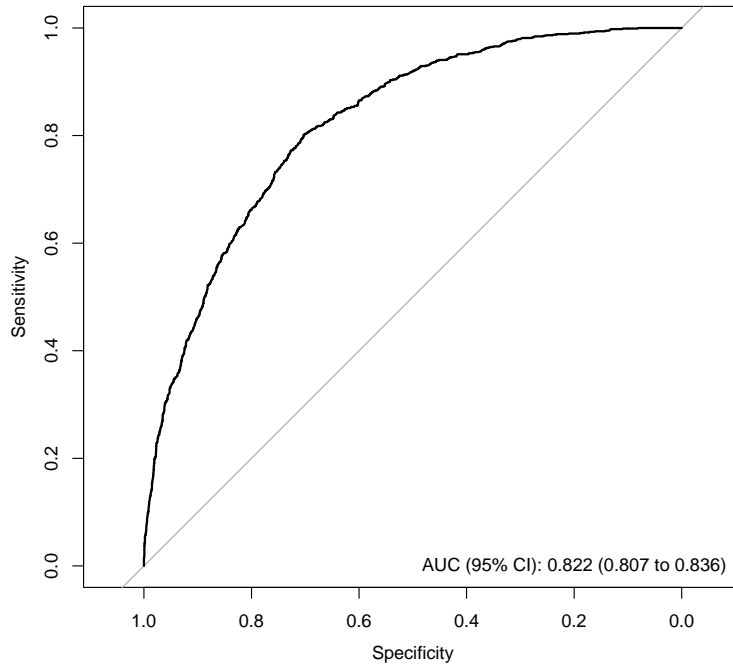


### eFigure 4 - Performance of baseline risk model

The performance was assessed through area under the curve for discrimination (panel A) and calibration belts (panel B).

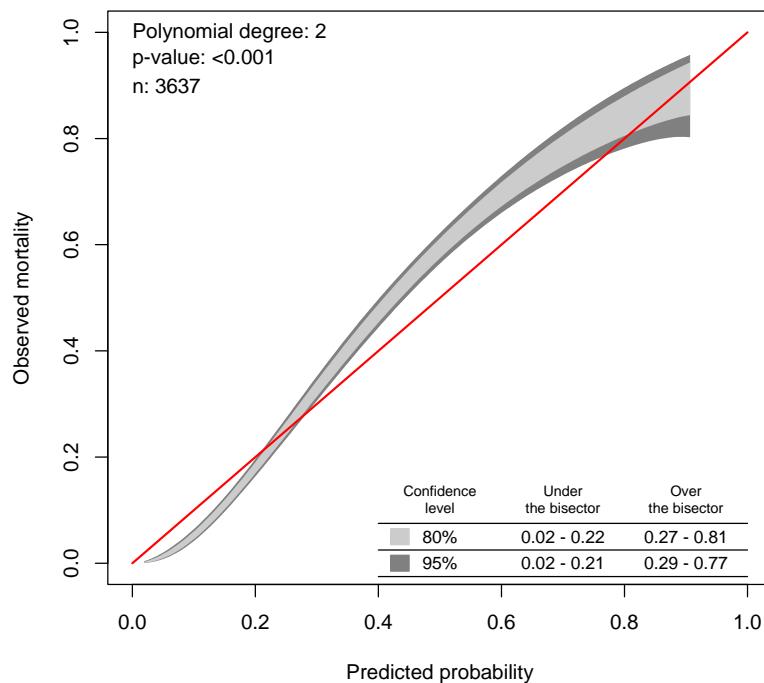
Abbreviations: AUC, area under the curve.

**A**



**B**

#### Calibration Belt



**eTable 1 - Rate of missing data**

|                           | <b>Overall<br/>(n = 3,852)</b> | <b>MIC<br/>(n = 2345)</b> | <b>HICs<br/>(n = 1507)</b> |
|---------------------------|--------------------------------|---------------------------|----------------------------|
| Age                       | 26 (0.7)                       | 20 (0.9)                  | 6 (0.4)                    |
| Gender                    | 26 (0.7)                       | 20 (0.9)                  | 6 (0.4)                    |
| Height                    | 137 (3.6)                      | 80 (3.4)                  | 57 (3.8)                   |
| Weight                    | 1360 (35.3)                    | 1290 (55)                 | 70 (4.6)                   |
| BMI                       | 1408 (36.6)                    | 1300 (55.4)               | 108 (7.2)                  |
| Type admission            | 35 (0.9)                       | 24 (1)                    | 11 (0.7)                   |
| LIPS                      | 1691 (43.9)                    | 837 (35.7)                | 854 (56.7)                 |
| Total SOFA                | 105 (2.7)                      | 46 (2)                    | 59 (3.9)                   |
| COPD                      | 47 (1.2)                       | 22 (0.9)                  | 25 (1.7)                   |
| Diabetes mellitus         | 39 (1)                         | 21 (0.9)                  | 18 (1.2)                   |
| Chronic kidney disease    | 38 (1)                         | 21 (0.9)                  | 17 (1.1)                   |
| Active cancer             | 47 (1.2)                       | 24 (1)                    | 23 (1.5)                   |
| Immunosuppression         | 1267 (32.9)                    | 1250 (53.3)               | 17 (1.1)                   |
| Hematologic cancer        | 935 (24.3)                     | 282 (12)                  | 653 (43.3)                 |
| Heart failure             | 41 (1.1)                       | 21 (0.9)                  | 20 (1.3)                   |
| Chronic liver failure     | 39 (1)                         | 21 (0.9)                  | 18 (1.2)                   |
| Pneumonia                 | 37 (1)                         | 21 (0.9)                  | 16 (1.1)                   |
| Non-pulmonary sepsis      | 659 (17.1)                     | 643 (27.4)                | 16 (1.1)                   |
| Gastric aspiration        | 37 (1)                         | 21 (0.9)                  | 16 (1.1)                   |
| Pancreatitis              | 2783 (72.2)                    | 2130 (90.8)               | 653 (43.3)                 |
| Trauma                    | 1 (0)                          | 1 (0)                     | 0 (0)                      |
| Smoke inhalation          | 622 (16.1)                     | 622 (26.5)                | 0 (0)                      |
| Pulmonary contusion       | 659 (17.1)                     | 643 (27.4)                | 16 (1.1)                   |
| Burn                      | 2783 (72.2)                    | 2130 (90.8)               | 653 (43.3)                 |
| Pulmonary vasculitis      | 2783 (72.2)                    | 2130 (90.8)               | 653 (43.3)                 |
| Non-cardiogenic shock     | 0 (0)                          | 0 (0)                     | 0 (0)                      |
| Near-drowning             | 622 (16.1)                     | 622 (26.5)                | 0 (0)                      |
| Drug overdose             | 2783 (72.2)                    | 2130 (90.8)               | 653 (43.3)                 |
| TRALI                     | 2783 (72.2)                    | 2130 (90.8)               | 653 (43.3)                 |
| Limitation of support     | 665 (17.3)                     | 644 (27.5)                | 21 (1.4)                   |
| Use of LTVV first 3 days  | 678 (17.6)                     | 570 (24.3)                | 108 (7.2)                  |
| Use of LTVV on day 1      | 711 (18.5)                     | 583 (24.9)                | 128 (8.5)                  |
| Tidal volume on day 1     | 641 (16.6)                     | 558 (23.8)                | 83 (5.5)                   |
| PEEP on day 1             | 304 (7.9)                      | 246 (10.5)                | 58 (3.8)                   |
| FiO <sub>2</sub> on day 1 | 298 (7.7)                      | 248 (10.6)                | 50 (3.3)                   |
| Peak pressure on day 1    | 549 (14.3)                     | 421 (18)                  | 128 (8.5)                  |
| Plateau pressure on day 1 | 2416 (62.7)                    | 1376 (58.7)               | 1040 (69)                  |
| Driving pressure on day 1 | 2475 (64.3)                    | 1401 (59.7)               | 1074 (71.3)                |
| Respiratory rate on day 1 | 392 (10.2)                     | 330 (14.1)                | 62 (4.1)                   |
| pH on day 1               | 421 (10.9)                     | 329 (14)                  | 92 (6.1)                   |



**eTable 1 - Rate of missing data**

|  | <b>Overall<br/>(n = 3,852)</b> | <b>MIC<br/>(n = 2345)</b> | <b>HICs<br/>(n = 1507)</b> |
|--|--------------------------------|---------------------------|----------------------------|
| PaO <sub>2</sub> / FiO <sub>2</sub> on day 1 | 665 (17.3)                     | 557 (23.8)                | 108 (7.2)                  |
| PaCO <sub>2</sub> on day 1                   | 442 (11.5)                     | 338 (14.4)                | 104 (6.9)                  |
| Patient at risk for ARDS                     | 1691 (43.9)                    | 837 (35.7)                | 854 (56.7)                 |
| Development of ARDS during follow-up         | 148 (3.8)                      | 64 (2.7)                  | 84 (5.6)                   |
| Duration of ventilation, days                | 190 (4.9)                      | 102 (4.3)                 | 88 (5.8)                   |
| ICU length of stay, days                     | 474 (12.3)                     | 274 (11.7)                | 200 (13.3)                 |
| ICU mortality                                | 214 (5.6)                      | 105 (4.5)                 | 109 (7.2)                  |

Data are N (%)

MIC, middle-income countries; HIC, high-income countries; BMI: body mass index; LIPS: Lung Injury Prediction Score; ARDS: acute respiratory distress syndrome; SOFA: Sequential Organ Failure Assessment; COPD: chronic obstructive pulmonary disease; TRALI: transfusion-related acute lung injury

**eTable 2 - Numbers of patients and ICUs in each country**

|                    | MIC<br>(n = 2,345) |                       | HIC<br>(n = 1,507) |                       |
|--------------------|--------------------|-----------------------|--------------------|-----------------------|
|                    | Number of<br>ICUs  | Number of<br>patients | Number of<br>ICUs  | Number of<br>patients |
| Argentina          | 13                 | 38 (1.6)              | --                 | --                    |
| Bangladesh         | 6                  | 123 (5.2)             | --                 | --                    |
| Brazil             | 61                 | 720 (30.7)            | --                 | --                    |
| China              | 26                 | 60 (2.6)              | --                 | --                    |
| Colombia           | 1                  | 3 (0.1)               | --                 | --                    |
| Costa Rica         | 1                  | 3 (0.1)               | --                 | --                    |
| Croatia            | 6                  | 83 (3.5)              | --                 | --                    |
| India              | 11                 | 128 (5.5)             | --                 | --                    |
| Iran               | 4                  | 21 (0.9)              | --                 | --                    |
| Kosovo             | 1                  | 6 (0.3)               | --                 | --                    |
| Malaysia           | 4                  | 247 (10.5)            | --                 | --                    |
| Maldives           | 1                  | 3 (0.1)               | --                 | --                    |
| Mexico             | 5                  | 17 (0.7)              | --                 | --                    |
| Morocco            | 1                  | 1 (0.0)               | --                 | --                    |
| Nepal              | 1                  | 18 (0.8)              | --                 | --                    |
| Pakistan           | 10                 | 232 (9.9)             | --                 | --                    |
| Peru               | 1                  | 1 (0.0)               | --                 | --                    |
| Philippines        | 1                  | 1 (0.0)               | --                 | --                    |
| Romania            | 2                  | 8 (0.3)               | --                 | --                    |
| Russian Federation | 1                  | 4 (0.2)               | --                 | --                    |
| Serbia             | 3                  | 7 (0.3)               | --                 | --                    |
| South Africa       | 1                  | 7 (0.3)               | --                 | --                    |
| Sri Lanka          | 10                 | 159 (6.8)             | --                 | --                    |
| Thailand           | 13                 | 290 (12.4)            | --                 | --                    |
| Tunisia            | 4                  | 8 (0.3)               | --                 | --                    |
| Turkey             | 19                 | 119 (5.1)             | --                 | --                    |
| Vietnam            | 2                  | 38 (1.6)              | --                 | --                    |
| Australia          | --                 | --                    | 13                 | 79 (5.2)              |
| Austria            | --                 | --                    | 1                  | 13 (0.9)              |
| Belgium            | --                 | --                    | 9                  | 41 (2.7)              |
| Brunei Darussalam  | --                 | --                    | 1                  | 5 (0.3)               |
| Canada             | --                 | --                    | 5                  | 21 (1.4)              |
| Chile              | --                 | --                    | 5                  | 12 (0.8)              |
| Czech Republic     | --                 | --                    | 3                  | 23 (1.5)              |
| Denmark            | --                 | --                    | 2                  | 6 (0.4)               |
| France             | --                 | --                    | 35                 | 146 (9.7)             |
| Germany            | --                 | --                    | 4                  | 83 (5.5)              |
| Greece             | --                 | --                    | 2                  | 4 (0.3)               |

**eTable 2 - Numbers of patients and ICUs in each country**

|                | MIC<br>( <i>n</i> = 2,345) |                       | HIC<br>( <i>n</i> = 1,507) |                       |
|----------------|----------------------------|-----------------------|----------------------------|-----------------------|
|                | Number of<br>ICUs          | Number of<br>patients | Number of<br>ICUs          | Number of<br>patients |
| Ireland        | --                         | --                    | 7                          | 40 (2.7)              |
| Italy          | --                         | --                    | 32                         | 158 (10.5)            |
| Japan          | --                         | --                    | 21                         | 36 (2.4)              |
| Latvia         | --                         | --                    | 1                          | 1 (0.1)               |
| Netherlands    | --                         | --                    | 8                          | 117 (7.8)             |
| New Zealand    | --                         | --                    | 5                          | 10 (0.7)              |
| Norway         | --                         | --                    | 2                          | 11 (0.7)              |
| Poland         | --                         | --                    | 1                          | 2 (0.1)               |
| Portugal       | --                         | --                    | 9                          | 28 (1.9)              |
| Saudi Arabia   | --                         | --                    | 3                          | 7 (0.5)               |
| Spain          | --                         | --                    | 30                         | 84 (5.6)              |
| Sweden         | --                         | --                    | 8                          | 18 (1.2)              |
| Switzerland    | --                         | --                    | 2                          | 9 (0.6)               |
| United Kingdom | --                         | --                    | 78                         | 373 (24.8)            |
| United States  | --                         | --                    | 32                         | 158 (10.5)            |
| Uruguay        | --                         | --                    | 6                          | 22 (1.5)              |

Data are N (%)

MIC, middle-income countries; HIC, high-income countries;

**eTable 3 - Characteristics of the participating ICUs, economic indices of geo-economic groups and numbers of patients enrolled by country**

|                                   | <b>MIC</b><br><b>(n = 2,345)</b> | <b>HIC</b><br><b>(n = 1,507)</b> | <b>p value</b>    |
|-----------------------------------|----------------------------------|----------------------------------|-------------------|
| <b>ICU organization</b>           |                                  |                                  |                   |
| Number of units                   | 209 (39.1)                       | 325 (60.9)                       | ---               |
| Non-academic hospitals            | 682 (33.5)                       | 212 (25.2)                       | < 0.001           |
| Hospital beds                     | 900 (500 – 1350)                 | 718 (530 – 1000)                 | < 0.001           |
| ICU beds per unit                 | 16 (10 – 30)                     | 18 (12 – 26)                     | 0.002             |
| Staff physicians per unit         | 2 (1 – 3)                        | 3 (2 – 5)                        | < 0.001           |
| Nurses per unit                   | 10 (8 – 15)                      | 10 (6 – 17)                      | 0.004             |
| Nurse-to-bed ratio                |                                  |                                  | < 0.001           |
| 1:1                               | 98 / 681 (14.4)                  | 712 / 1,364 (52.2)               |                   |
| 1:2                               | 353 / 681 (51.8)                 | 403 / 1,364 (29.5)               |                   |
| 1:3                               | 178 / 681 (26.1)                 | 156 / 1,364 (11.4)               |                   |
| 1:4 or more                       | 52 / 681 (7.6)                   | 93 / 1,364 (6.8)                 |                   |
| <b>GDP per capita, US-dollars</b> | <b>8,713 (3,886 – 8,713)</b>     | <b>41,074 (36,962 – 46,008)</b>  | <b>&lt; 0.001</b> |

Data are median (quartile 25% – quartile 75%) or N (%)

ICU: intensive care unit; GDP, gross domestic product; MIC, low- and middle-income countries; HIC, high-income countries.

**eTable 4 – Clinical outcomes according to the economic group after multiple imputation\***

|                                      | <b>LMICs<br/>(n = 2345)</b> | <b>HICs<br/>(n = 1507)</b> | <b>Adjusted Effect<br/>(95% confidence<br/>interval)**</b> | <b>p value</b> |
|--------------------------------------|-----------------------------|----------------------------|--|----------------|
| Patient at risk for ARDS             | 953 (63.2)                  | 257 (39.4)                 | 20.6 (9.3 to 31.9) <sup>a</sup>                            | < 0.001        |
| Development of ARDS during follow-up | 184 (8.1)                   | 151 (10.6)                 | -3.2 (-7.4 to 1.0) <sup>a</sup>                            | 0.137          |
| Duration of ventilation, days        | 3.0 (1.0 – 7.0)             | 4.0 (2.0 – 10.0)           | -1.0 (-3.3 to 1.3) <sup>b</sup>                            | 0.397          |
| ICU length of stay, days             | 6.0 (2.0 – 12.0)            | 7.0 (3.0 – 14.0)           | -1.0 (-3.8 to 1.8) <sup>b</sup>                            | 0.480          |
| ICU mortality                        | 684 (30.5)                  | 283 (19.9)                 | 16.8 (10.3 to 23.3) <sup>a</sup>                           | < 0.001        |

Data are median (quartile 25% – quartile 75%) or N (%)

MIC, middle-income countries; HIC, high-income countries; ARDS: acute respiratory distress syndrome; ICU intensive care unit.

\* Multiple imputation by chained equations considering baseline variables and outcomes, and five imputed datasets.

\*\* Adjusted effect calculated from models with group as fixed effect, hospitals and countries as random effect, and adjusted for age, type of admission, active cancer, PaO<sub>2</sub>/FiO<sub>2</sub> at day 1, total SOFA at day 1 and an interaction between SOFA and the group

<sup>a</sup>effect estimate is risk difference from a mixed-effect model

<sup>b</sup>effect estimate is mean difference from a mixed-effect model

**eTable 5 - Baseline characteristics and clinical outcomes according to the missing data in tidal volume per predicted body weight**

|                              | No Missing         |                    |         | Missing            |                    |         |
|------------------------------|--------------------|--------------------|---------|--------------------|--------------------|---------|
|                              | MIC<br>(n = 1,762) | HIC<br>(n = 1,379) | p value | MIC<br>(n = 583)   | HIC<br>(n = 128)   | p value |
| Age, years                   | 59 (43 - 70)       | 64 (51 - 75)       | < 0.001 | 62 (43 - 76)       | 65 (56 - 75)       | 0.147   |
| Male gender                  | 1058 (60.0)        | 900 (65.3)         | 0.003   | 326 (57.9)         | 71 (57.7)          | 0.999   |
| Height, cm                   | 165 (158 - 170)    | 170 (163 - 177)    | < 0.001 | 167 (160 - 175)    | 170 (158 - 175)    | 0.290   |
| Weight, kg                   | 70 (63 - 80)       | 76.0 (65.0 - 89.2) | < 0.001 | 70 (60 - 80)       | 78 (66 - 86)       | < 0.001 |
| BMI, kg/m <sup>2</sup>       | 24.8 (22.5 - 27.8) | 25.8 (23.0 - 29.4) | < 0.001 | 24.7 (22.7 - 27.8) | 26.4 (22.9 - 30.7) | 0.021   |
| <b>Type of admission</b>     |                    |                    | < 0.001 |                    |                    | 0.002   |
| Medical                      | 1077 (61.2)        | 781 (56.7)         |         | 366 (65.1)         | 67 (56.8)          |         |
| Surgical elective            | 354 (20.1)         | 267 (19.4)         |         | 47 (8.4)           | 22 (18.6)          |         |
| Surgical urgency             | 231 (13.1)         | 259 (18.8)         |         | 91 (16.2)          | 23 (19.5)          |         |
| Trauma                       | 97 (5.5)           | 71 (5.2)           |         | 58 (10.3)          | 6 (5.1)            |         |
| <b>LIPS#</b>                 | 4 (3 - 6)          | 3 (2 - 5)          | < 0.001 | 3 (0 - 5)          | 1 (0 - 3)          | 0.149   |
| At risk of ARDS              | 922 (63.9)         | 239 (41.4)         | < 0.001 | 31 (47.7)          | 18 (23.7)          | 0.005   |
| <b>Total SOFA</b>            | 7 (5 - 10)         | 7 (5 - 10)         | 0.002   | 8 (5 - 10)         | 7 (4 - 10)         | 0.200   |
| Neurological                 | 3 (0 - 4)          | 2 (0 - 4)          | 0.043   | 2 (0 - 4)          | 3 (1 - 4)          | 0.515   |
| Renal                        | 0 (0 - 2)          | 1 (0 - 3)          | < 0.001 | 0.50 (0 - 3)       | 0 (0 - 2)          | 0.393   |
| Respiratory                  | 2 (0 - 3)          | 2 (2 - 3)          | < 0.001 | 2 (0 - 2)          | 2 (2 - 3)          | 0.016   |
| Hematological                | 1 (1 - 1)          | 0 (0 - 1)          | < 0.001 | 1 (0 - 1)          | 0 (0 - 1)          | 0.069   |
| Liver                        | 0 (0 - 0)          | 0 (0 - 1)          | 0.012   | 0 (0 - 0)          | 0 (0 - 1)          | 0.188   |
| Circulatory                  | 0 (0 - 3)          | 1 (0 - 2)          | 0.889   | 0 (0 - 2)          | 0 (0 - 2)          | 0.917   |
| <b>Co-morbidities</b>        |                    |                    |         |                    |                    |         |
| COPD                         | 154 (8.7)          | 275 (20.0)         | < 0.001 | 53 (9.4)           | 19 (17.4)          | 0.021   |
| Diabetes mellitus            | 484 (27.5)         | 301 (21.9)         | < 0.001 | 116 (20.6)         | 15 (13.2)          | 0.087   |
| Chronic kidney disease       | 215 (12.2)         | 157 (11.4)         | 0.527   | 47 (8.4)           | 6 (5.3)            | 0.363   |
| Active cancer                | 218 (12.4)         | 154 (11.2)         | 0.347   | 104 (18.5)         | 15 (13.3)          | 0.232   |
| Immunosuppression            | 53 (9.6)           | 96 (7.0)           | 0.062   | 20 (3.7)           | 7 (6.1)            | 0.344   |
| Hematologic cancer           | 28 (1.8)           | 19 (2.4)           | 0.471   | 24 (4.5)           | 2 (3.8)            | 0.999   |
| Heart failure                | 183 (10.4)         | 182 (13.2)         | 0.015   | 44 (7.8)           | 8 (7.1)            | 0.937   |
| Chronic liver failure        | 82 (4.7)           | 47 (3.4)           | 0.100   | 17 (3.0)           | 5 (4.4)            | 0.635   |
| <b>Risk factors for ARDS</b> |                    |                    |         |                    |                    |         |
| Pneumonia                    | 388 (22.0)         | 387 (28.1)         | < 0.001 | 140 (24.9)         | 29 (25.9)          | 0.921   |
| Non-pulmonary sepsis         | 318 (19.3)         | 158 (11.5)         | < 0.001 | 11 (19.6)          | 9 (8.0)            | 0.053   |
| Gastric aspiration           | 130 (7.4)          | 161 (11.7)         | < 0.001 | 21 (3.7)           | 11 (9.8)           | 0.012   |
| Pancreatitis                 | 2 (1.0)            | 15 (1.9)           | 0.569   | 0 (0.0)            | 2 (3.8)            | 0.999   |
| Trauma                       | 105 (6.0)          | 77 (5.6)           | 0.709   | 58 (9.9)           | 6 (4.7)            | 0.087   |
| Smoke inhalation             | 34 (2.1)           | 22 (1.6)           | 0.412   | 0 (0.0)            | 1 (0.8)            | 0.999   |

**eTable 5 - Baseline characteristics and clinical outcomes according to the missing data in tidal volume per predicted body weight**

|                               | No Missing         |                    |         | Missing          |                  |         |
|-------------------------------|--------------------|--------------------|---------|------------------|------------------|---------|
|                               | MIC<br>(n = 1,762) | HIC<br>(n = 1,379) | p value | MIC<br>(n = 583) | HIC<br>(n = 128) | p value |
| Pulmonary contusion           | 29 (1.8)           | 51 (3.7)           | 0.001   | 0 (0.0)          | 1 (0.9)          | 0.999   |
| Burn                          | 2 (1.0)            | 4 (0.5)            | 0.769   | ---              | ---              | ---     |
| Pulmonary vasculitis          | 1 (0.5)            | 7 (0.9)            | 0.918   | ---              | ---              | ---     |
| Non-cardiogenic shock         | 278 (15.8)         | 118 (8.6)          | < 0.001 | 41 (7.0)         | 11 (8.6)         | 0.669   |
| Near-drowning                 | 3 (0.2)            | 1 (0.1)            | 0.745   | ---              | ---              | ---     |
| Drug overdose                 | 4 (2.0)            | 22 (2.7)           | 0.710   | 0 (0.0)          | 1 (1.9)          | 0.999   |
| TRALI                         | 6 (3.0)            | 25 (3.1)           | 0.999   | 2 (16.7)         | 1 (1.9)          | 0.155   |
| Limitation of support         | 57 (3.5)           | 184 (13.4)         | < 0.001 | 8 (14.0)         | 19 (17.4)        | 0.733   |
| Development of ARDS           | 107 (6.2)          | 144 (10.8)         | < 0.001 | 77 (14.2)        | 7 (8.1)          | 0.172   |
| Duration of ventilation, days | 3 (1 - 6)          | 4 (2 - 10)         | < 0.001 | 5 (2 - 9)        | 2 (1 - 5)        | < 0.001 |
| ICU length of stay, days      | 4 (2 - 9)          | 7 (3 - 14)         | < 0.001 | 11 (6 - 18)      | 5 (3 - 11)       | < 0.001 |
| ICU mortality                 | 494 (29.0)         | 263 (19.8)         | < 0.001 | 190 (35.1)       | 20 (22.5)        | 0.026   |

Data are median (quartile 25% – quartile 75%) or N (%)

# Data on LIPS available in 2250 (58.4%) of patients.

MIC, low- and middle-income countries; HIC, high-income countries; BMI: body mass index; LIPS: Lung Injury Prediction Score; ARDS: acute respiratory distress syndrome; SOFA: Sequential Organ Failure Assessment; COPD: chronic obstructive pulmonary disease; TRALI: transfusion-related acute lung injury

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