

| SUPPLEMENTARY<br>TABLE S3  |            | Differences over time on characteristics of 153 LT patients readmitted to 5 ICUs in Spain. |                  |             |              |         |
|--|------------|--|------------------|-------------|--------------|---------|
| Year   | 2012       | 2013   | 2014             | 2015        | 2016         | P value |
| N° patients  | 15         | 48   | 42               | 33          | 15           | -       |
| Age  | 56 [43-63] | 56 [42.8-59.2]   | 60.5 [52.5-63.8] | 58 [53.-63] | 61 [56.5-66] | 0.01    |
| Gender <sup>m</sup>  | 12 (80)    | 39 (81.3)  | 31 (73.8)        | 14 (42.4)   | 9 (60)       | 0.8     |
| <b>Pre-transplant lung disease</b>                                     |            |  |                  |             |              | 0.6     |
| IPF  | 6 (40)     | 18 (37.4)  | 15 (35.6)        | 14 (42.5)   | 8 (53.3)     |         |
| COPD   | 5 (33.3)   | 15 (31.3)  | 18 (42.9)        | 8 (24.2)    | 5 (33.3)     |         |
| Cystic fibrosis  | 1 (6.7)    | 7 (14.6)   | 1 (2.4)          | 3 (9.1)     | 0            |         |
| DILD   | 0          | 0  | 4 (9.5)          | 3 (9.1)     | 1 (6.7)      |         |
| Bronchiectasis   | 1 (6.7)    | 1 (2.1)  | 2 (4.8)          | 1 (3)       | 1 (6.7)      |         |
| Pulmonary  | 0          | 1 (2.1)  | 2 (4.8)          | 1 (3)       | 0            |         |
| hypertension   |            |  |                  |             |              |         |
| Other <sup>a</sup>   | 2 (13.3)   | 6 (12.5)   | 0                | 3 (9.1)     | 0            |         |
| <b>Type of LT</b>  |            |  |                  |             |              | 0.7     |
| Bilateral  | 9 (60)     | 27 (56.3)  | 26 (61.9)        | 14 (42.4)   | 6 (40)       |         |
| Left   | 4 (26.7)   | 12 (25)  | 10 (23.8)        | 10 (30.3)   | 4 (26.6)     |         |
| Right  | 2 (13.3)   | 9 (18.7)   | 6 (14.3)         | 9 (27.3)    | 5 (33.4)     |         |
| <b>History of early<sup>b</sup> complications after LT<sup>+</sup></b> |            |  |                  |             |              |         |
| Phrenic paresis  | 2 (13.3)   | 8 (16.7)   | 15 (35.7)        | 13 (39.4)   | 2 (13.3)     | 0.08    |
| PGD  | 2 (13.3)   | 11 (22.9)  | 9 (21.4)         | 9 (27.3)    | 2 (13.3)     | 0.9     |
| AKI  | 3 (20)     | 6 (12.5)   | 9 (21.4)         | 8 (24.2)    | 1 (6.7)      | 0.3     |
| Pneumonia  | 2 (13.3)   | 10 (20.8)  | 4 (9.5)          | 4 (12.1)    | 2 (13.3)     | 0.6     |
| Gastroparesis  | 5 (33.4)   | 7 (14.6)   | 9 (21.4)         | 5 (15.2)    | 1 (6.7)      | 0.6     |
| Tracheobronchitis  | 0          | 3 (6.3)  | 6 (14.3)         | 5 (15.2)    | 2 (13.3)     | 0.5     |
| Haemorrhage  | 0          | 4 (8.9)  | 5 (11.9)         | 3 (9.1)     | 1 (6.7)      | 0.9     |
| Thrombosis   | 1 (6.7)    | 2 (4.2)  | 5 (11.9)         | 3 (9.1)     | 1 (6.7)      | 0.6     |
| CMV replication  | 0 ()       | 3 (6.3)  | 5 (11.9)         | 2 (6.1)     | 0            | 0.7     |
| Suture stenosis  | 0 ()       | 4 (8.3)  | 0                | 2 (6.1)     | 0            | 0.3     |
| Suture dehiscence  | 0 ()       | 1 (2.1)  | 1 (2.4)          | 2 (6.1)     | 0            | 0.8     |
| <b>History of late complications after LT<sup>+</sup></b>              |            |  |                  |             |              |         |
| Infection  | 1 (6.7)    | 9 (18.7)   | 14 (33.3)        | 12 (36.4)   | 5 (33.3)     | 0.2     |
| CLAD   | 4 (26.7)   | 16 (33.3)  | 5 (11.9)         | 6 (18.2)    | 4 (26.6)     | 0.06    |
| History of acute rejection episode                                     | 4 (26.7)   | 13 (27.1)  | 9 (21.4)         | 3 (9.1)     | 1 (6.7)      | 0.06    |
| CKD  | 3 (20)     | 12 (25)  | 7 (16.6)         | 4 (12.1)    | 3            | 0.05    |
| Bronchial stenosis   | 0          | 6 (12.5)   | 6 (14.3)         | 7 (21.2)    | 2 (13.3)     | 0.3     |
| Diabetes mellitus  | 2 (13.3)   | 3 (6.3)  | 8 (19.1)         | 5 (15.2)    | 2 (13.3)     | 0.8     |
| High blood pressure  | 1 (6.7)    | 2 (4.2)  | 2 (4.8)          | 3 (9.1)     | 3 (20)       | 0.2     |
| Osteoporosis   | 0          | 0  | 3 (7.1)          | 7 (21.2)    | 1 (6.7)      | 0.01    |
| <b>Time LT-ICUr,month</b>  | 3 [2-10]   | 5.5 [1-18.5]   | 6[3-24]          | 9[4-25]     | 3[1-29.5]    | 0.1     |
| <b>APACHE II score</b>   | 18 [14-21] | 18.5 [14-27.2]   | 20.5 [15.2-25.8] | 19 [15-24]  | 22 [16-24]   | 0.8     |
| <b>SOFA score</b>  | 4 [2-6]    | 5.5 [3-9]  | 4 [3-6.8]        | 4 [3-8]     | 6.5 [3.5-10] | 0.2     |
| <b>Indication for ICUr</b>   |            |  |                  |             |              | 0.7     |
| ARF  | 13 (86.7)  | 32 (66.7)  | 31 (73.8)        | 25 (75.8)   | 9 (60)       |         |
| Shock  | 1 (6.7)    | 3 (6.3)  | 2 (4.8)          | 2 (6.1)     | 1 (6.7)      |         |
| Post-operative   | 0          | 4 (8.9)  | 1 (2.4)          | 2 (6.1)     | 1 (6.7)      |         |
| Neurologic   | 0          | 1 (2.1)  | 2 (4.8)          | 1 (3)       | 1 (6.7)      |         |
| compromise   |            |  |                  |             |              |         |
| Other <sup>a</sup>   | 1 (6.7)    | 8 (16.7)   | 6 (14.3)         | 3 (9.1)     | 3 (20)       |         |
| <b>Conditions in patients with ICUr<sup>+</sup></b>                    |            |  |                  |             |              |         |
| Infection  | 13 (86.7)  | 29   | 16 (38.1)        | 10 (30.3)   | 7 (46.7)     | 0.3     |
| Pneumonia  | 12 (80)    | 16   | 13 (40)          | 9 (27.3)    | 6 (40)       | 0.4     |
| Sepsis   | 1 (6.7)    | 24   | 13 (40)          | 10 (30.3)   | 7 (46.7)     | 0.3     |
| Septic Shock   | 0          | 18   | 8 (19.1)         | 7 (21.2)    | 4 (26.6)     | 0.3     |
| <b>Techniques and Support</b>  |            |  |                  |             |              |         |
| IMV requirement  | 8 (53.3)   | 35 (72.9)  | 24 (57.1)        | 19 (57.6)   | 9 (60)       | 0.5     |

|                           |          |            |           |           |          |      |
|---------------------------|----------|------------|-----------|-----------|----------|------|
| Vasopressor requirement   | 1 (6.7)  | 20 (41.7)  | 8 (19.1)  | 7 (21.2)  | 4 (26.6) | 0.05 |
| <b>Deaths in ICU</b>      | 8 (53.3) | 21 (43.8)  | 9 (21.4)  | 12 (36.4) | 5 (33.4) | 0.2  |
| <b>Deaths in hospital</b> | 9 (60)   | 26 (54.2%) | 14 (33.3) | 15 (45.5) | 5 (33.4) | 0.4  |

Data are presented as median [Interquartile range (IQR)] or Number/Total (%) unless otherwise indicated.

LT, Lung transplant; IPF, Idiopathic pulmonary fibrosis; COPD, Chronic obstructive pulmonary disease ; DILD, Diffuse interstitial lung disease; PGD, Primary graft dysfunction; AKI, Acute kidney injury; CMV, Cytomegalovirus; CLAD, Chronic lung allograft dysfunction; CKD, Chronic kidney disease; APACHE II, Acute Physiology and Chronic Health Evaluation II; SOFA, Sequential Organ Failure Assessment; ARF, Acute respiratory failure; IMV, Invasive mechanical ventilation.

\*Data are presented as median [IQR] or Number (%) proportion of patient per center, unless otherwise indicated.

<sup>m</sup>Male gender

<sup>†</sup>Diagnoses are not mutually exclusive.

<sup>a</sup>It encompasses all categories with  $\leq 3$  patients.

<sup>b</sup>Immediate post-operative period