

## Supplemental digital content (SDC)

### SDC, Figure 1: Flow-Chart of data availability.

COPD=chronic obstructive pulmonary disease; ILD=interstitial lung disease;  
SLTx=single lung transplantation; DLTx=double lung transplantation; 6MWD=6-minute walk distance.

### SDC, Table 1. Postoperative limitations after lung transplantation (LTx)

| Postoperative limitations following minimal invasive LTx surgery                                    |  |
|---|--|
| Post-operative progress   | Limitations  |
| 1-2 weeks post LTx  | - No stretch or traction to the scar tissue, m. pectoralis major, m. serratus anterior and carry loads < 5kg   |
| 3-6 weeks post LTx  | Glenohumeral joint: flexion and abduction maximally 90°  |
| After 6 weeks post LTx  | Carry loads > 5kg  |
| After 3 month post LTx  | Range of motion of the upper body and load capacity should be fully given  |
| Postoperative limitations following transverse thoracosternotomy LTx surgery ("clamshell incision") |  |
| 1-8 weeks post LTx  | Sternum protection: change of body position only with patient's arms crossed before breast; fix the sternum while coughing; Patients should not: - brace their body with arms – elevate arms over 90° - lie on the side – pull or push heavy objects – carry items which weigh more than 1.5kg – rotate their upper body |
| After 9 weeks post LTx  | Carry loads < 5kg;<br>bilateral distribution of load   |
| After 3 month post LTx  | Working on full range of movement of the upper body and load capacity;<br>Carry loads > 5kg; overhead loads possible   |

543 **SDC, Table 2: Dropout rates during pulmonary rehabilitation (data presented**  
544 **as absolute value)**

|   | COPD, n=333   |   |                           | ILD, n=389  |  |                           |
|---|---|---|---------------------------|---|--|---------------------------|
|   | SLTx, n=129   | DLTx, n=204   | $\Delta$ SLTx<br>vs. DLTx | SLTx, n=135   | DLTx, n=254  | $\Delta$ SLTx<br>vs. DLTx |
| Dropout of<br>PR, n (%)                                       | 13 (10.0)   | 10 (4.9)  | p=0.079 <sup>b</sup>      | 15 (11.1)   | 17 (6.7)   | p=0.174 <sup>b</sup>      |
| Reasons for<br>referral<br>back to<br>hospital/<br>LTx center | -Acute<br>infection<br>(n=8)<br>-Acute organ<br>rejection<br>(n=4)<br>-Pneumo-<br>thorax<br>(n=1) | - Acute infection<br>(n=3)<br>-Acute organ<br>rejection<br>(n=2)<br>-Bronchial<br>stenosis<br>(n=4)<br>-Dislocated<br>sternum fracture<br>(n=1) |                           | -Acute<br>infection<br>(n=6)<br>-Acute organ<br>rejection<br>(n=8)<br>-Pneumo-<br>thorax<br>(n=1) | -Acute infection<br>(n=8)<br>-Acute organ<br>rejection<br>(n=3)<br>-Bronchial<br>stenosis<br>( n=5)<br>-Wound<br>dehiscence<br>(n=1) |                           |

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546 COPD=chronic obstructive pulmonary disease; ILD=interstitial lung disease;  
547 SLTx=single lung transplantation; DLTx=double lung transplantation; PR=Pulmonary  
548 rehabilitation; LTx=lung transplantation.  
549 <sup>b</sup>=exact fishers test.

550 **SDC, Table 3: Analyses of dyspnea and leg fatigue (Borg scale) at the end of 6-**  
551 **minute walk test (data presented as median and interquartile range)**

| <b>BORG-Scale</b>  | <b>COPD, n=286</b>           |                                |                            | <b>ILD, n=334</b>             |                                |                            |
|--------------------|------------------------------|--------------------------------|----------------------------|-------------------------------|--------------------------------|----------------------------|
| <b>Dyspnea</b>     | <b>SLTx, n=108</b>           | <b>DLTx, n=178</b>             | <b>Δ SLTx<br/>vs. DLTx</b> | <b>SLTx, n=117</b>            | <b>DLTx, n=217</b>             | <b>Δ SLTx<br/>vs. DLTx</b> |
| Admission          | 5.0 [4.0-7.0]                | 4.0 [3.0-6.0]                  |                            | 6.0 [5.0-7.0]                 | 5.0 [3.0-7.0]                  |                            |
| Discharge          | 5.0 [4.0-7.0] <sup>c,#</sup> | 5.0 [3.0-6.0] <sup>c,#</sup>   | p=0.609 <sup>d</sup>       | 6.0 [5.0-7.0] <sup>c,#</sup>  | 5.0 [3.0-6.0] <sup>c,#</sup>   | p=0.505 <sup>d</sup>       |
| <b>Leg fatigue</b> |                              |                                |                            |                               |                                |                            |
| Admission          | 7.0 [5.0-8.0]                | 7.0 [5.0-8.0]                  |                            | 6.0 [5.0-7.0]                 | 7.0 [5.0-8.0]                  |                            |
| Discharge          | 6.0 [5.0-7.0] <sup>c,#</sup> | 6.0 [5.0-7.0] <sup>c,***</sup> | p=0.255 <sup>d</sup>       | 5.0 [4.0-6.0] <sup>c,**</sup> | 5.0 [4.0-7.0] <sup>c,***</sup> | p=0.379 <sup>d</sup>       |

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555 <sup>c</sup>=Wilcoxon test; <sup>d</sup>=Mann-Whitney-U-test; \*\*0.01≥p>0.001; \*\*\*p≤0.001; #p>0.05.

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