

Supplementary table 1. Effectiveness of tacrolimus and sirolimus at 3 months

|   | Tacrolimus           | Sirolimus            | P value      |
|---|----------------------|----------------------|--------------|
| Change of SLEDAI-2K                                   | -4.00 (-8.00, 0.00)  | -4.00 (-7.00, -2.00) | 0.911        |
| SLEDAI-2K reduction $\geq 4$ and PhGA increase $<0.3$ | 23/39 (58.97%)       | 25/43 (58.14%)       | 1.000        |
| Change of PhGA  | -0.20 (-0.50, 0.20)  | -0.20 (-0.50, 0.00)  | 0.964        |
| PhGA reduction $\geq 0.3$                             | 15/37 (40.54%)       | 19/41 (46.34%)       | 0.653        |
| Clinical remission on therapy                         | 0 (0%)               | 0 (0%)               | N/A          |
| Remission or LLDAS                                    | 2/33 (6.06%)         | 8/33 (24.24%)        | 0.082        |
| Change of C3 (g/L)                                    | 0.07 (-0.03, 0.27)   | 0.19 (0.06, 0.39)    | <b>0.017</b> |
| Change of C3 (%)                                      | 8.11 (-2.99, 34.57)  | 25.32 (8.47, 50.06)  | <b>0.034</b> |
| Change of C4 (g/L)                                    | 0.01 (0.00, 0.04)    | 0.04 (0.01, 0.07)    | <b>0.024</b> |
| Change of C4 (%)                                      | 11.36 (0.00, 37.21)  | 35.14 (7.63, 79.17)  | <b>0.017</b> |
| Recovered hypocomplementemia                          | 22/42 (52.38%)       | 24/52 (46.15%)       | 0.678        |
| Normalized anti-dsDNA                                 | 20/24 (83.33%)       | 18/30 (60.00%)       | 0.078        |
| Change of GC dose (mg/d)                              | 0.00 (-10.00, 0.00)  | 0.00 (-17.50, 0.00)  | 0.864        |
| Change of GC dose (%)                                 | 0.00 (-28.57, 0.00)  | 0.00 (-50.00, 0.00)  | 0.548        |
| No GC use   | 0 (0%)               | 0 (0%)               | N/A          |
| GC dose $\leq 7.5$ mg/day prednisone                  | 6/34 (17.65%)        | 17/35 (48.57%)       | <b>0.010</b> |
| Renal efficacy  |                      |                      | 0.859        |
| Complete remission                                    | 2/10 (20%)           | 3/14 (21.43%)        |              |
| Partial remission                                     | 2/10 (20%)           | 5/14 (35.71%)        |              |
| No remission  | 6/10 (60%)           | 6/14 (42.86%)        |              |
| Change of 24hUP                                       | -1.25 (-3.66, -0.46) | -0.89 (-1.49, 0.62)  | 0.279        |
| Hematuria   | 10/39 (25.64%)       | 13/33 (30.23%)       | 0.806        |

SLEDAI-2K: Systemic Lupus Erythematosus Disease Activity Index 2000; PhGA: physician's global

assessment; LLDAS: lupus low disease activity state; anti-dsDNA: anti-double-stranded DNA; GC:

glucocorticoid; 24hUP: 24-hour urine protein; N/A: not applicable.

Supplementary table 2. Effectiveness of tacrolimus and sirolimus at 9 months

|   | Tacrolimus           | Sirolimus             | P value      |
|---|----------------------|-----------------------|--------------|
| Change of SLEDAI-2K                           | -4.00 (-6.50, -0.50) | -4.00 (-6.00, -2.00)  | 0.616        |
| SLEDAI-2K reduction ≥4 and PhGA increase <0.3 | 12/20 (60%)          | 10/17 (58.82%)        | 0.300        |
| Change of PhGA                                | -0.45 (-0.80, -0.30) | -0.25 (-0.70, 0.10)   | 0.259        |
| PhGA reduction ≥0.3                           | 16/20 (80%)          | 8/16 (50%)            | 0.081        |
| Clinical remission on therapy                 | 1/15 (6.67%)         | 1/13 (7.69%)          | 1.000        |
| Remission or LLDAS                            | 4/15 (26.67%)        | 3/13 (23.08%)         | 1.000        |
| Change of C3 (g/L)                            | 0.06 (-0.08, 0.28)   | 0.20 (0.10, 0.26)     | 0.108        |
| Change of C3 (%)                              | 7.15 (-8.51, 34.20)  | 24.27 (9.81, 61.13)   | 0.108        |
| Change of C4 (g/L)                            | 0.01 (-0.04, 0.04)   | 0.03 (0.01, 0.04)     | 0.156        |
| Change of C4 (%)                              | 8.97 (-15.35, 32.21) | 46.91 (12.50, 95.24)  | 0.059        |
| Recovered hypocomplementemia                  | 14/24 (58.33%)       | 14/24 (58.33%)        | 1.000        |
| Normalized anti-dsDNA                         | 8/20 (40%)           | 12/24 (50%)           | 0.556        |
| Change of GC dose (mg/d)                      | 0.00 (-20.00, 0.00)  | -4.00 (-9.00, 0.00)   | 0.343        |
| Change of GC dose (%)                         | 0.00 (-66.67, 0.00)  | -50.00 (-61.90, 0.00) | 0.402        |
| No GC use                                     | 0 (0%)               | 0 (0%)                | N/A          |
| GC dose ≤7.5mg/day prednisone                 | 5/15 (33.33%)        | 11/14 (78.57%)        | <b>0.025</b> |
| Renal efficacy                                |                      |                       | 0.679        |
| Complete remission                            | 0/5 (0%)             | 1/3 (33.33%)          |              |
| Partial remission                             | 2/5 (40%)            | 1/3 (33.33%)          |              |
| No remission                                  | 3/5 (60%)            | 1/3 (33.33%)          |              |
| Change of 24hUP                               | -3.36 (-4.86, -0.12) | -1.22 (-1.85, 0.02)   | 0.423        |
| Hematuria                                     | 7/20 (35.0%)         | 2/17 (11.8%)          | 0.137        |

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Supplementary table 3. Effectiveness of tacrolimus and sirolimus at 12 months

|   | Tacrolimus           | Sirolimus               | P value      |
|---|----------------------|-------------------------|--------------|
| Change of SLEDAI-2K                           | -4.00 (-9.00, -2.00) | -2.00 (-6.00, 0.00)     | 0.243        |
| SLEDAI-2K reduction ≥4 and PhGA increase <0.3 | 12/19 (63.16%)       | 6/15 (40%)              | 0.300        |
| Change of PhGA                                | -0.55 (-0.80, 0.00)  | 0.10 (-0.70, 0.30)      | 0.064        |
| PhGA reduction ≥0.3                           | 11/18 (61.11%)       | 5/15 (33.33%)           | 0.166        |
| Clinical remission on therapy                 | 1/16 (6.25%)         | 2/14 (14.29%)           | 0.586        |
| Remission or LLDAS                            | 3/16 (18.75%)        | 4/14 (28.57%)           | 0.675        |
| Change of C3 (g/L)                            | 0.11 (-0.04, 0.40)   | 0.08 (-0.01, 0.49)      | 0.929        |
| Change of C3 (%)                              | 15.88 (-4.21, 36.43) | 19.94 (-1.68, 89.38)    | 0.733        |
| Change of C4 (g/L)                            | 0.00 (-0.04, 0.05)   | 0.02 (-0.00, 0.08)      | 0.263        |
| Change of C4 (%)                              | 0.00 (-13.79, 25.00) | 15.79 (-1.71, 141.38)   | 0.072        |
| Recovered hypocomplementemia                  | 14/18 (77.78%)       | 10/18 (55.56%)          | 0.289        |
| Normalized anti-dsDNA                         | 8/18 (44.44%)        | 8/24 (33.33%)           | 0.531        |
| Change of GC dose (mg/d)                      | 0.00 (-2.00, 0.00)   | -3.00 (-19.00, -1.00)   | 0.063        |
| Change of GC dose (%)                         | 0.00 (-25.00, 0.00)  | -41.67 (-79.29, -12.50) | <b>0.033</b> |
| No GC use                                     | 1/17 (5.88%)         | 0 (0%)                  | 1.000        |
| GC dose ≤7.5 mg/day prednisone                | 6/17 (35.29%)        | 12/14 (85.71%)          | <b>0.009</b> |
| Renal efficacy                                |                      |                         | 1.000        |
| Complete remission                            | 3/8 (37.5%)          | 2/6 (33.33%)            |              |
| Partial remission                             | 2/8 (25%)            | 1/6 (16.67%)            |              |
| No remission                                  | 3/8 (37.5%)          | 3/6 (50%)               |              |

|                 |                      |                    |       |
|-----------------|----------------------|--------------------|-------|
| Change of 24hUP | -0.86 (-3.55, -0.55) | -0.1 (-1.47, 0.52) | 0.201 |
| Hematuria       | 5/19 (26.3%)         | 2/15 (13.3%)       | 0.426 |

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