SUPPLEMENTARY MATERIALS

Real-world treatment utilization and economic implications of lupus nephritis disease activity in the United States

Maria Dall’Era, MD; Kenneth Kalunian, MD; Michael Eaddy, PharmD, PhD; Augustina Ogbonnaya, MPH; Eileen Farrelly, MPH; Eric Turowski, MBA; Vanessa Birardi, PharmD; Neil Solomons, MD; Simrat Randhawa, MD; Paola Mina-Osorio, MD, PhD

SUPPLEMENTARY FIGURE 1 Patient Flow Diagram
SUPPLEMENTARY TABLE 1 Inclusion Criteria and Patient Attrition
Supplemental Figure 1. Patient Flow Diagram

Patients with evidence of SLE between January 2007 and October 2019
N=101,972

Patients with evidence of LN
n=38,679 (37.9%)

Patients with evidence of LN between January 1, 2015–December 31, 2019
n=28,891 (28.3%)

Final sample size
n=21,251 (20.8%)

Patients who did not meet the study definition of LN
n=63,293

Patients who exited the database before January 2015
n=9,788

Aged <18 years at index OR
<2 months of follow-up OR
No medical or pharmacy data during follow-up OR
Patients unable to be deemed as incident or prevalent
n=7,640

LN = lupus nephritis; SLE = systemic lupus erythematosus.
## Supplementary Table 1. Inclusion Criteria and Patient Attrition

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>ICD-9 or ICD-10 code</th>
<th>Patients, n</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients had ≥1 inpatient diagnosis (non-diagnostic medical claim) or ≥2 outpatient diagnoses (non-diagnostic medical claim) for SLE at least 30 days apart</td>
<td>ICD-9: 710.0, ICD-10: M32</td>
<td>101,972</td>
</tr>
<tr>
<td>All patients met criteria for LN, as described in 1, 2, 3, 4, or 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. ≥2 outpatient diagnoses (non-diagnostic medical claim) for glomerular disease in SLE at least 30 days apart or ≥1 inpatient diagnosis (non-diagnostic medical claim) for glomerular disease in SLE</td>
<td>ICD-10: M32.14</td>
<td>2,357</td>
</tr>
<tr>
<td>2. ≥1 nephrologist visit during the study period after SLE diagnosis</td>
<td>-</td>
<td>2,937</td>
</tr>
<tr>
<td>3. ≥1 diagnosis (non-diagnostic medical claim) for acute or chronic renal conditions, including glomerulonephritis (including lupus glomerulonephritis), acute or chronic renal failure, nephritis, or nephrotic syndrome (including lupus nephrotic syndrome), renal failure, or proteinuria after SLE diagnosis</td>
<td>ICD-9: 580–586 and 791.0, ICD-10: N00–N08, N17, N18, N19, R80</td>
<td>6,611</td>
</tr>
<tr>
<td>4. Evidence of ESRDb after SLE diagnosis</td>
<td>ICD-9: 585.6, ICD-10: N18.6</td>
<td>140</td>
</tr>
<tr>
<td>5. Evidence of cyclophosphamide, cyclosporine, rituximab, or tacrolimus after SLE diagnosis</td>
<td>-</td>
<td>785</td>
</tr>
<tr>
<td>Patients who met multiple criteria in 2–5</td>
<td>-</td>
<td>8,421</td>
</tr>
<tr>
<td><strong>Final sample size</strong></td>
<td></td>
<td><strong>21,251</strong></td>
</tr>
</tbody>
</table>

*CCategories are not mutually exclusive, and patients could be included in ≥1 category.

*bPatients with ESRD diagnosis and use of phosphate binder, dialysis, or renal transplant.

ESRD = end-stage renal disease; ICD = International Classification of Diseases; LN = lupus nephritis; SLE = systemic lupus erythematosus.