Background and Aim

- Pneumonia is a serious illness with potentially long-lasting but poorly-characterized impact on health-related quality of life (HRQoL), yet few prospective studies have focused on pneumonia patients’ HRQoL.
- The Japanese Goto Epidemiology Study is a prospective, active, population-based surveillance study of adults with community onset pneumonia (COP), with assessment of Quality Adjusted Life Years (QALYs).
- This interim analysis estimates QALY scores and losses for the first 91 days post COP diagnosis.

Methods

- Our’s is a prospective cohort study among adult patients with chest X-ray or CT scan confirmed COP enrolled in the Goto Epidemiology Study since June 2017 who also consented to participate in the QALY assessment. The QALY assessment aims at enrolling 400 participants with one-year follow-up after COP diagnosis.
- HRQoL instruments include Japanese validated versions of EuroQol-5D-5L (EQ-5D-5L) health state classification (primary), EQ-5D visual analog scale, and SF-6D (secondary) instruments.
- HRQoL instruments administered at days 1, 8, 16, and 31 and 91. At day 1, a second administration of the instrument/s addressed the health status at day −30 (by recall). Interviews were administered by trained interviewers.
- Interim analysis included patients enrolled between June 1, 2017 and February 7, 2018 and reports QALYs for the first 91 days after COP.
- Participants served as their own controls by extrapolation of their recalled QALY scores for Day −30 and adjustment for natural declines in scores and death with age.

Results

- Ninety-one Day Quality of Life Post-Pneumonia Diagnosis in Adult Patients in Japan

- First prospective longitudinal study in Japan measuring EQ-5D-5L scores and QALY losses during the 91 days in adult patients with COP.
- Significant QALY loss of 0.029 QALYs was seen and EQ-5D-5L scores had yet to return to baseline among surviving patients.
- Three-month QALY scores and losses from COP comparable to the scores and losses reported by US adults during 3 months with heart failure, stroke, or renal failure.[1]
- Limitations: interim analysis; convenience sample of consecutive patients; participants were own controls based on the −30 day measurement (baseline).
- Current estimates can be used for burden of illness and the value of interventions preventing COP.
- Longer follow-up likely to show increasing QALY losses.

Discussion/Conclusions

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Table 1: Unadjusted QALYs

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>SE</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td>0.153</td>
<td>0.005</td>
<td>0.143</td>
<td>0.162</td>
<td></td>
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<tr>
<td>No Pneumonia</td>
<td>0.182</td>
<td>0.004</td>
<td>0.173</td>
<td>0.190</td>
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<tr>
<td>Difference</td>
<td>0.029</td>
<td>0.004</td>
<td>0.022</td>
<td>0.037</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Note. p-value of difference <0.001

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