A retrospective cross-sectional study of treatment patterns in small-cell lung cancer (SCLC) in Europe 2018–2021

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INTRODUCTION

- SCLC is an aggressive malignancy with a poor prognosis that represents ~15% of all lung cancer cases.
- Development of new effective treatments for SCLC has been limited until anti-PD-L1 therapies, including durvalumab, have demonstrated improved outcomes compared to platinum-based regimens in metastatic disease.
- Previous studies of treatment patterns in patients with SCLC in Europe described single-arm trials conducted prior to the approval of anti-PD-L1 therapies.
- Updated information on real-world treatment patterns in Europe is important to understand treatment utilisation.

RESULTS

- The primary objectives were to describe clinical characteristics, demographics and treatment patterns for patients with ES-SCLC in France, Germany, Spain, Italy and the UK.
- The study included adults ≥18 years of age who were diagnosed with ES-SCLC in Europe and the UK.

Baseline characteristics

- Overall, 1,543 patients with ES-SCLC were included in the analysis, with 804 in 1L, 404 in 2L and 335 in 3L or greater. Baseline demographics and characteristics are shown in Table 1.
- Specialist cancer hospitals treated the greatest number of patients (n=2,419, 41.5%), followed by general hospitals (n=1,142, 20.5%) and unknown sources (n=4, 0.1%). In 2021, platinum chemotherapy + durvalumab combination 1L use represented 31.8% of all 1L platinum + atezolizumab.

Patient outcomes

- Topotecan was the most common 2L treatment during 2018–2021, with its use decreasing slightly during this period (59.8%, 57.7%, 57.3%, 50.3% in each year, respectively; Figure 2, left panel).
- In 2021, platinum chemotherapy + durvalumab combination 1L use represented 31.8% of all 1L platinum + atezolizumab.

CONCLUSIONS

- Use of platinum-based chemotherapy + anti-PD-L1 inhibitor therapy as a 1L treatment of ES-SCLC in Europe has increased during the period from 2018–2021.
- Extent of uptake of platinum-based chemotherapy + anti-PD-L1 inhibitor therapy for 1L treatment varied between the countries.
- Overall greatest increase was in France, which may be related to an early access programme for durvalumab, and lowest in Spain, which may be related to a delay in reimbursement of atezolizumab.
- Topotecan continues to be the most common 2L treatment overall in EUS regardless of platinum sensitivity.

REFERENCES

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DISCLOSURES

- Karly S Louie is a former employee of and holds stocks in Amgen, and is an employee of Amgen (Europe) GmbH, Rotkreuz, Switzerland.
- Stephen Puntis and Karly S Louie are employed by and hold stocks in Amgen.
- The other authors report no conflicts of interest.

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Table 1. Characteristics of ES-SCLC patients (n=1,543)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>France</th>
<th>Germany</th>
<th>Italy</th>
<th>Spain</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>71.0</td>
<td>73.0</td>
<td>70.0</td>
<td>72.0</td>
<td>71.0</td>
</tr>
<tr>
<td>Sex, male</td>
<td>0.57</td>
<td>0.59</td>
<td>0.58</td>
<td>0.56</td>
<td>0.56</td>
</tr>
<tr>
<td>ECOG performance status</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Smoking status</td>
<td>0.92</td>
<td>0.92</td>
<td>0.92</td>
<td>0.92</td>
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</tr>
</tbody>
</table>
| Current* ECOG score, †Smoking status from 2018–2020; data on smoking status were not collected in 2021. ECOG, Eastern Cooperative Oncology Group; ES-SCLC, extensive stage small cell lung cancer.

Table 2. Top 3 2L ES-SCLC regimens by platinum status (EUS) (n=804) platinum chemotherapy + durvalumab or irinotecan as a percentage of all 1L treatment from 2016–2021

<table>
<thead>
<tr>
<th>Platinum status</th>
<th>France</th>
<th>Germany</th>
<th>Italy</th>
<th>Spain</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0.55</td>
<td>0.56</td>
<td>0.57</td>
<td>0.58</td>
<td>0.55</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>0.45</td>
<td>0.44</td>
<td>0.43</td>
<td>0.42</td>
<td>0.45</td>
</tr>
<tr>
<td>Resistant</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Figure 2. Extent of uptake of platinum-based chemotherapy + durvalumab (A) or atezolizumab (B) during the years 2018–2021 in France (black), Germany (green), Italy (blue), Spain (red), and the UK (purple). Platinum* + etoposide