EE305

Economic Burden in Adult Patients with Small Cell Lung Cancer (SCLC) Receiving Second-Line Therapy: A Systematic Literature Review (SLR)

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CONCLUSIONS

There is a substantial economic burden in patients with relapsed SCLC receiving second-line (2L) therapy, with outpatient visits as the major driver of cost and health-care resource use

Patients with relapsed SCLC receiving 2L therapy had a significant number of non-cancer practitioner visits

Only four studies assessed cost and/or health-care resource use in patients with 2L therapy for SCLC, using relatively outdated data. This indicates an evidence gap that warrants the need for further studies

INTRODUCTION

1. Lung cancer is **the 2nd most common cancer** in the US[1]
2. SCLC comprises about **16% of the lung cancer** cases[1]
3. SCLC is an **aggressive cancer** with rapid metastatic growth and **poor outcomes**[2]
4. SCLC is highly sensitive to first-line chemotherapy, however, most patients **experience relapse** with **resistant disease**[3,4]
5. Although most patients with SCLC experience relapse, **economic burden** among these patients **is not well documented**

SMALL CELL LUNG CANCER

OBJECTIVES AND METHODS

A SLR was conducted in patients with **SCLC** who have **progressed on platinum-based chemotherapy** and received **2L therapy**

Population	Adult patients (≥18 years) with SCLC who progressed after platinum-based treatment and received 2L therapy	Only studies with patients with 2L therapy, or those reporting subgroups of patients with 2L
Study design	• Cost/economic burden of illness studies • Cost analysis • Resource-use studies	Excluded • Reviews, editorials • Notes, comments • Letters
Search databases	• MEDLINE® • Embase® • Cochrane databases • Econlit • Conference abstracts	Search date • January 2011 to October 2021 • Last 2 years of congress review
Study selection	Preliminary selection by two independent reviewers Any discrepancies resolved by third reviewer	Full-text selection by two reviewers Any discrepancies resolved by third reviewer
Data collection	Date extraction by two independent reviewers Any discrepancies resolved by third reviewer	• Healthcare resource use • Cost parameters • Cost offsets

RESULTS

- Four studies met the review inclusion criteria (**Figure 1**)
- One US-based study using 2007–2013 SEER-Medicare data reported that patients (≥65 years) with SCLC incurred a mean per-patient-per-month (PPPM) cost of $8942 with a mean total cost of $42,636 per patient, and average 7.4 PPPM healthcare visits during 2L therapy[4]
- Outpatient visits were the major cost and health-care resource use driver[4,5,6] (**Figures 2** and **3**)
- The Canadian study using 2010–2018 medical records and claims data reported that non-cancer practitioner visits accounted for the largest proportion of outpatient visits, possibly associated with a high comorbidity rate[6, 7, 8] (**Figure 4**)
- One cost-saving analysis revealed that treatment-related adverse events and administration schedule can influence health care costs[9]

Figure 1. PRISMA diagram of included studies

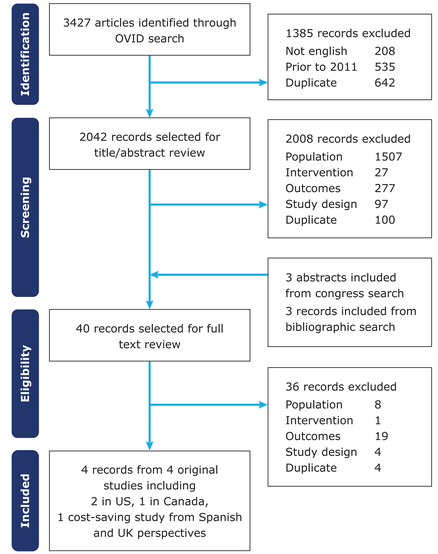


Figure 2. Disposition of total health care costs from SEER-Medicare data (adapted from Shao, et al. 2019[4])

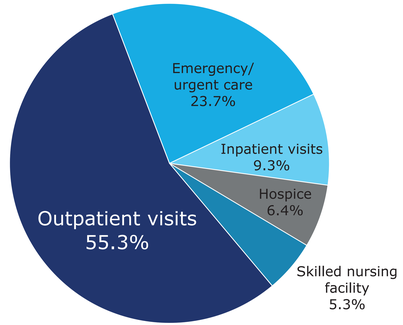


Figure 3. Disposition of health care visits from SEER-Medicare data (adapted from Shao, et al. 2019[4])

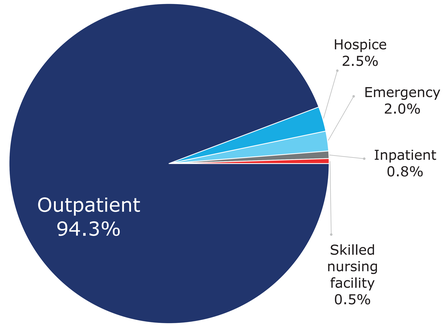
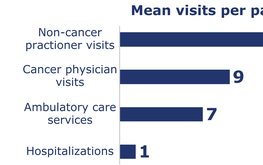


Figure 4. Average health care resource utilization per patient during first year from 2L therapy (adapted from O'Sullivan, et al. 2021[6])



For selection criteria, study summary and additional figures scan QR code

Disclosures:
Abhishek Nair and Xinke Zhang are employees of EMD Serono, Billerica, MA, USA.
Christina Kwon and Sharada Harricharan are employees of Cytel, Inc., Waltham, MA, USA, and have received funding for this project from EMD Serono.

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