

IMMUNOTHERAPY TIME-OF-DAY INFUSION, WHAT ABOUT SMALL-CELL LUNG CANCER?

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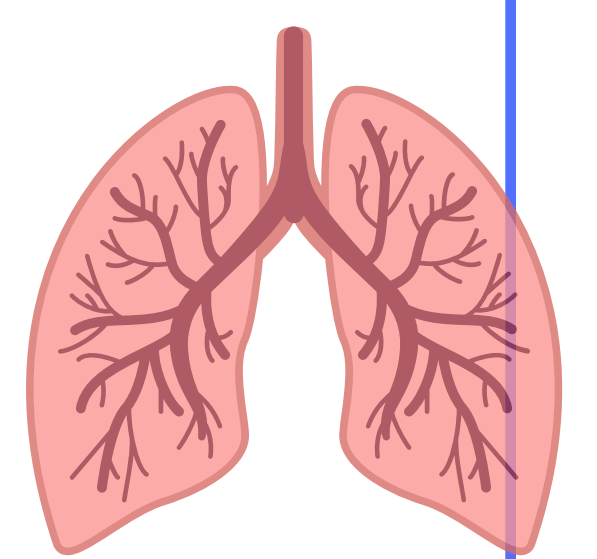
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BACKGROUND AND IMPORTANCE

Relationship between **circadian rhythm** and **anticancer immunotherapy** has been studied in several solid tumours. Timing of infusion may influence treatment **efficacy**. One of the latest cancers treated with immunotherapy has been extensive-stage small-cell lung cancer (**ES-SCLC**).

AIM AND OBJECTIVES

To assess whether the **timing of atezolizumab infusions** (early vs late) is associated with efficacy in ES-SCLC. The primary outcome was overall survival (**OS**). Secondary outcomes were progression free survival (**PFS**), response, and immuno-related adverse events (**IR-AEs**).

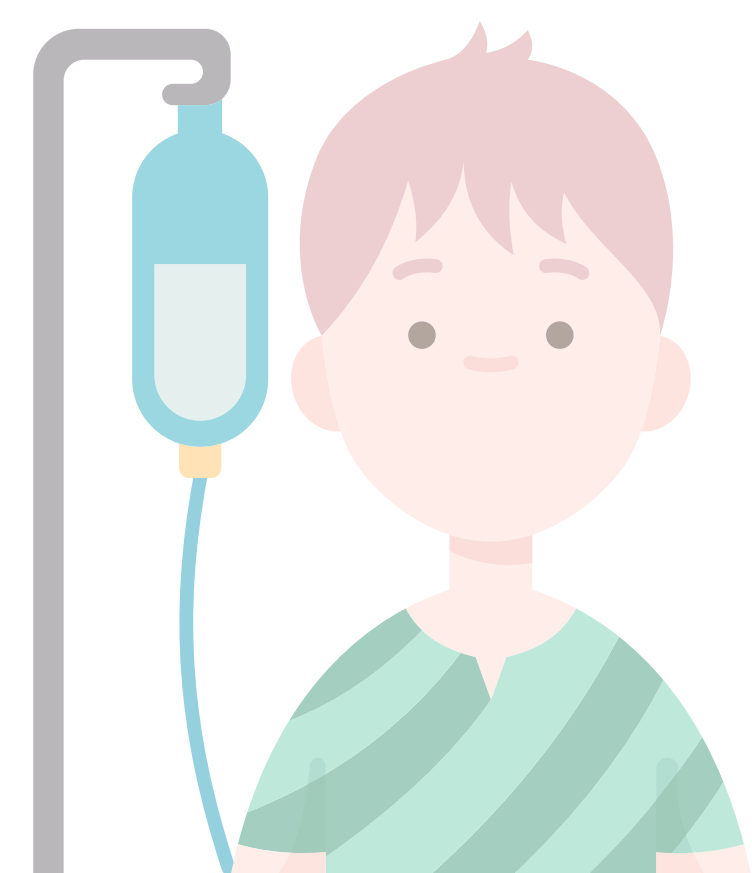


MATERIALS AND METHODS





Retrospective, observational, descriptive study in a tertiary hospital. We collected data from patient who received atezolizumab and were diagnosed with ES-SCLC between **2021 and 2024**. Data cutoff was in **July 2025**. Patient data were collected from electronic medical record (HCIS™). OS, PFS and response were determined by RECIST criteria; AE grade was determined using CTCAE v.5.0. Time-of-day infusion was divided **before 15:00h (early-infusion)** and **after 15:00h (late-infusion)**. Patients were classified into each group if they received more than 50% of infusions in this time-of-day.

RESULTS



POPULATION: 83 SCLC-ES patients (men 59.0%; PS0-1, 72.3%), aged 47-84 years.

	Early-Infusion 	Late-Infusion 	p
N (%)	40 (48.2)	43 (51.8)	
PS 0-1	32 (80.0)	28 (65.1)	
BRAIN/LIVER METASTASES	25 (62.5)	28 (65.1)	
MEDIAN PFS (95% CI) months	4.8 (3.3-6.2)	3.9 (2.9-4.9)	p= 0.056
MEDIAN OS (95% CI) months	7.8 (4.6-10.9)	6.7 (3.9-9.4)	p=0.842
PROGRESSION DISEASE (PD)	32 (80.0)	12 (27.9)	p= 0.082
IR-AE	10 (25.0)	3 (7.0)	p=0.003
IR-AE G3-4	6 (60.0)	1 (2.3)	

CONCLUSION

Early (before 15:00) atezolizumab infusions showed a numerical trend towards **improved efficacy** outcomes compared with late-infusions, but differences did not reach statistical significance. Furthermore, early-infusions were associated with a **higher frequency and severe IR-AEs**.

