



Inpatient Immune Checkpoint Inhibitor Administration in Lung Cancer: A Single-Center Descriptive Cohort

POSTER P1.279

IASLC 2026 World Conference on Lung Cancer
September 12-15, 2026 | Seoul, Republic of Korea

Gururaj J. Kolar, MD^{1*}; Amanda G. Pawlenty, PharmD, RPh, BCOP²; Carly E. Burbank, APRN, CNP, MSN³; Dan S. Childs, MD³; Konstantinos Leventakos, MD, PhD³

¹ Division of Hospital Internal Medicine; ² Department of Pharmacy; ³ Department of Oncology, Mayo Clinic, Rochester, Minnesota, USA. *Presenting/corresponding author: kolar.gururaj@mayo.edu

KEY FINDING: Among 27 hospitalized patients with lung cancer who received an inpatient immune checkpoint inhibitor, 40.7% had ICU utilization, 48.1% died within 30 days, and 55.6% died within 90 days of ICI administration.

OBJECTIVE

To characterize the clinical context, hospital course, and early outcomes of hospitalized patients with lung cancer who received an ICI during hospitalization, and to inform structured inpatient decision-making.

METHODS

Design: Single-center retrospective descriptive cohort, Mayo Clinic, Rochester, Minnesota.

Population: Adults with biopsy-confirmed NSCLC or SCLC who received at least one inpatient dose of pembrolizumab, atezolizumab, or durvalumab during an index hospitalization (admissions June 2018-December 2024).

Data source: Electronic medical record review of patient, tumor, treatment, hospital-course, mortality, and post-discharge variables.

Analysis: Counts and percentages or medians with IQR; no hypothesis testing.

Oversight: Mayo Clinic IRB 25-011046; consent and HIPAA authorization waived. No external funding.

COHORT AT A GLANCE

67 years

median age (IQR, 61-72)

55.6%

female sex (15/27)

92.6%

metastatic disease (25/27)

ECOG 1

median performance status (IQR, 1-2)

74.1%

Charlson Comorbidity Index >9

77.8%

first-ever inpatient ICI dose

TREATMENT CONTEXT

Cancer type NSCLC 66.7% | SCLC 33.3%

ICI agent pembrolizumab 66.7% | atezolizumab 29.6% | durvalumab 3.7%

Admission type urgent 55.6% | emergency 44.4%



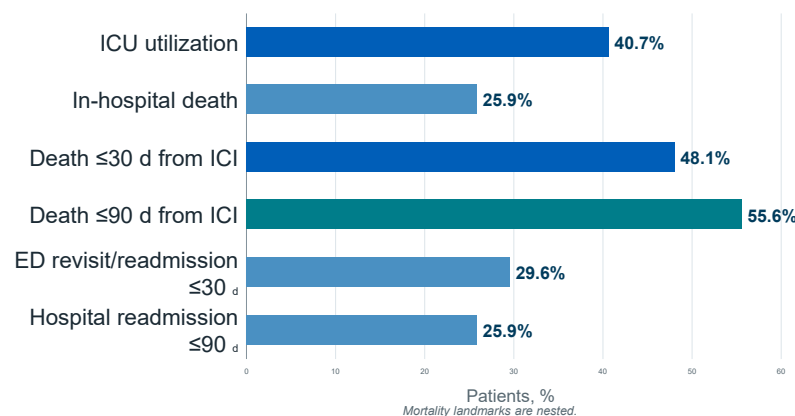
SCAN TO REQUEST

Manuscript, tables, and references

kolar.gururaj@mayo.edu

The QR code opens a pre-addressed email request.

HOSPITAL COURSE AND EARLY OUTCOMES



HOSPITAL COURSE

14.1 d

median hospital LOS

IQR 5.7-27.8

2.9 d

median ICU LOS

IQR 1.2-12.0; n=10

18.3 d

median time to death

IQR 10.3-331.5; n=24

AFTER DISCHARGE

40.0%

died within 90 days after discharge

(8/20)

40.0%

ED revisit/readmission ≤30 d

(8/20)

35.0%

hospital readmission ≤90 d

(7/20)

60.0%

continued ICI post-discharge

(12/20 evaluable)

Discharge disposition: home 55.6%; death 25.9%; skilled nursing facility 11.1%; hospice 7.4%.

Status at analysis: 24/27 (88.9%) had died.

INTERPRETIVE CONTEXT

This was a small descriptive cohort. No hypothesis testing or adjusted modeling was performed. Subgroup patterns should be interpreted as hypothesis-generating, not as evidence of treatment-effect differences.

DESCRIPTIVE SUBGROUP PATTERNS

no hypothesis testing

BY CANCER TYPE

Outcome	NSCLC (n=18)	SCLC (n=9)
Median LOS, d	17.8	8.5
ICU utilization	50.0%	22.2%
In-hospital death	33.3%	11.1%
Death ≤90 d from ICI	55.6%	55.6%
Post-discharge ICI continuation	58.3%	62.5%

BY ICI TREATMENT HISTORY

Outcome	First-ever dose (n=21)	Prior/non-first (n=6)
In-hospital death	33.3%	0.0%
Death ≤30 d from ICI	57.1%	16.7%
Death ≤90 d from ICI	57.1%	50.0%
Median time to death, d	16.7	55.5

Small, unequal subgroups (n=21 vs n=6); hypothesis-generating only.

BY ECOG PERFORMANCE STATUS

42.9%

died ≤90 d from ICI
ECOG 0-1 (6/14)

63.6%

died ≤90 d from ICI
ECOG ≥2 (7/11)

PROPOSED CLINICAL REVIEW BEFORE INPATIENT ICI

- 1 Is the admission driven by a reversible problem or by progressive cancer?
- 2 Is the patient clinically stable enough to survive to a plausible time of benefit?
- 3 Is there a strong treatment rationale, such as biomarker support, prior response, or a planned continuation strategy?
- 4 Is post-discharge treatment continuation feasible?
- 5 Have prognosis, alternatives, and goals of care been clearly discussed and aligned?

CONCLUSIONS

Inpatient ICI administration in this lung cancer cohort occurred in a high-risk care-delivery context, with prolonged hospitalization, frequent ICU use, and substantial early mortality. These findings support structured, prospective, multidisciplinary review before therapy is given and larger multicenter studies to identify patients most likely to benefit.

REFERENCES, OVERSIGHT, AND A DISCLOSURE

Patel AK, et al. JCO Oncol Pract. 2023;19(9):e4898. Ross F, et al. JCO Oncol Pract. 2025;21:1185-1173. Fennell BR, et al. J Clin Oncol. 2017;35:96-112. IRB 25-011046; no external funding. AI use disclosure: OpenAI ChatGPT (GPT-5.4 Pro) and Anthropic Claude assisted with drafting, editing, visual design, and formatting. The authors independently reviewed and verified all content and take full responsibility for its accuracy and integrity.