



2026 World Conference on Lung Cancer

SEPTEMBER 12 – 15, 2026 | SEOUL, REPUBLIC OF KOREA

ONE-YEAR HEALTH-RELATED QUALITY OF LIFE PREDICTS LONG-TERM OUTCOME AFTER RESECTION FOR STAGE I NSCLC: A LANDMARK ANALYSIS

Giovanni Leuzzi, MD

Division of Thoracic Surgery, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy

Disclosure

No relevant conflicts of interest to disclose.

The study received no specific funding.

Study Design and Landmark Cohort

CLINICAL QUESTION

Can HRQoL assessed 1 year after surgery for early-stage NSCLC identify patients at higher risk of long-term recurrence and death?

STUDY DESIGN

349 Stage I NSCLC R0 resection

232 alive and event-free at 1 year

EORTC Questionnaire QLQ-C30 and QLQ-LC13

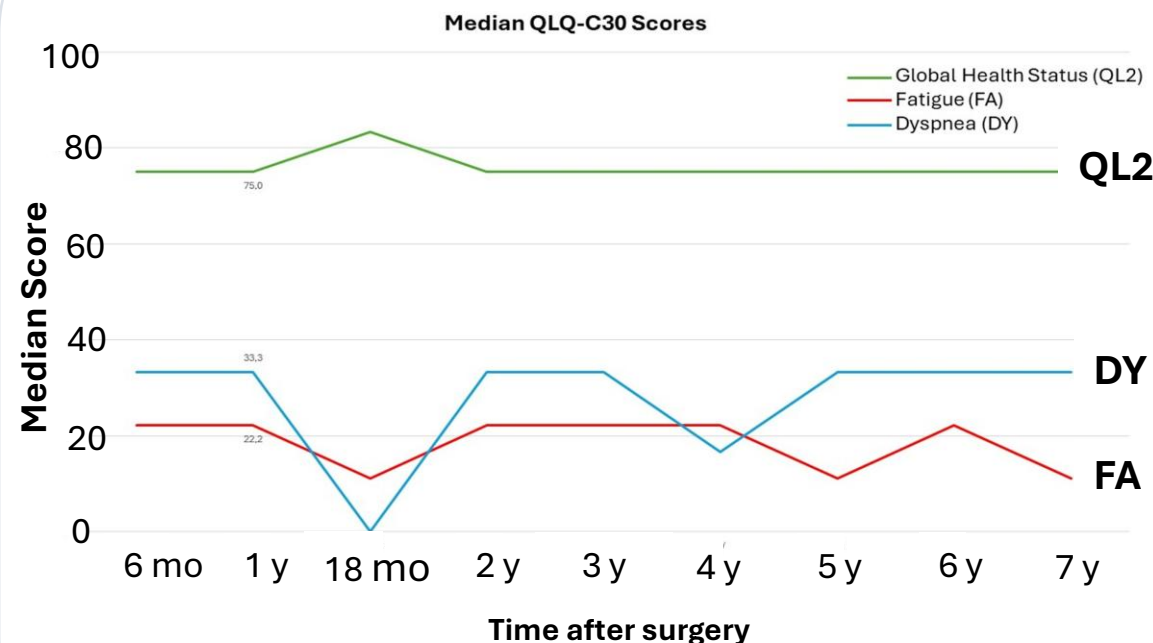
OS + RFS conditional endpoints

Multivariable Firth-penalized Cox models
Bootstrap validation: 1,000 replications

LANDMARK COHORT

Characteristics	Value
Patients	232
Mean age	67 years
Male / Female	193 (83.2%) / 39 (16.8%)
Smoke Never/Former/Active	37 (15.9%) / 115 (49.6%) / 79 (34.1%)
ADC / SCC	179 (77.2%) / 33 (14.2%)
Stage IA / IB	179 (77.2%) / 53 (22.8%)
Lobectomy-Bilobectomy / Segmentectomy-Wedge	188 (81.0%) / 44 (19.0%)
Deaths / Recurrences	15 (6.5%) / 35 (15.1%)
Median follow-up	6 years

HRQoL PROFILE



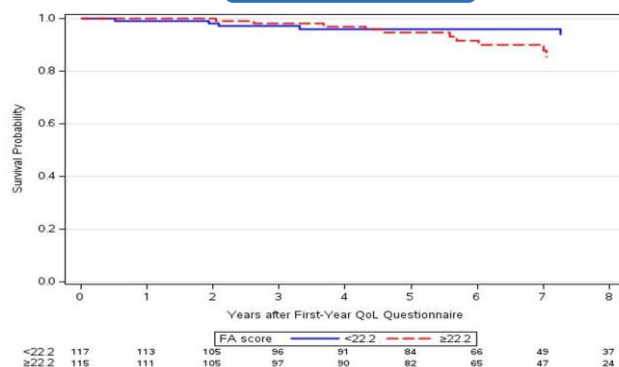
QL2: median 66.7 (66.7–83.3)
Fatigue at 1 year: 22.2 - Dyspnea at 1 year: 33.3

SCC was associated with **worse QL2** ($p=0.0439$) and **pain** ($p=0.0392$)

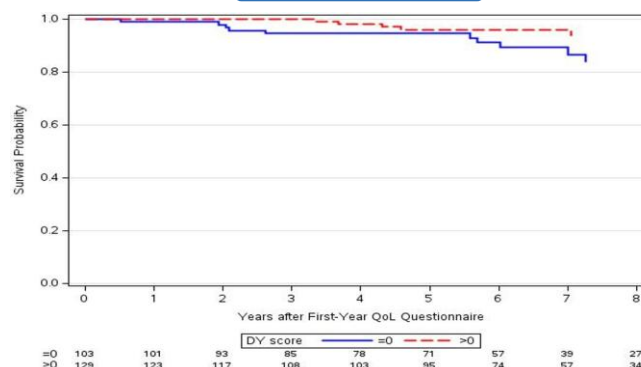
Main Results: Overall and Recurrence-Free Survival

KAPLAN-MEIER CURVES

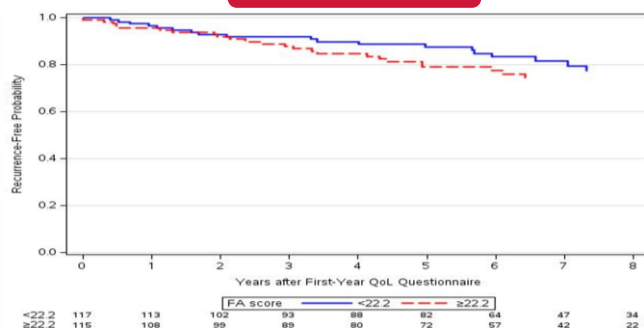
OS - Fatigue



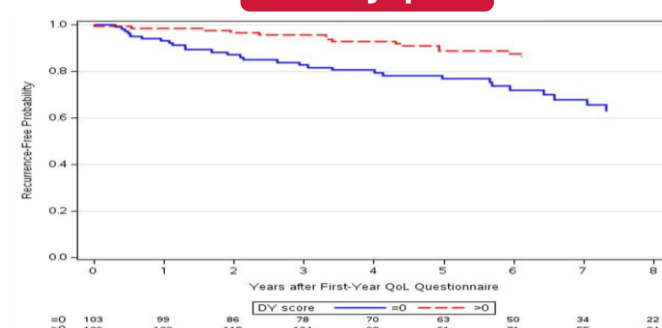
OS - Dyspnea



RFS - Fatigue



RFS - Dyspnea



OVERALL SURVIVAL*

Variable	HR (95% CI)
Age ≥65 y	4.48 (2.14–18.68)
FA ≥22.2	2.88 (1.38–7.31)
DY >0	0.27 (0.10–0.59)
C-index	0.73 (0.64–0.88)

RECURRENCE-FREE SURVIVAL*

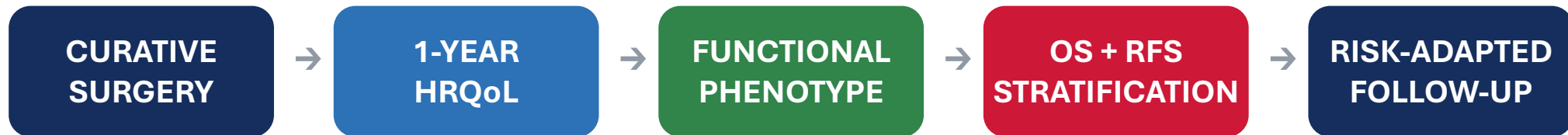
Variable	HR (95% CI)
Age ≥65 y	6.41 (3.75–15.91)
QL2 ≥67.7	2.30 (1.40–3.97)
FA ≥22.2	2.63 (1.65–4.66)
DY >0	0.32 (0.18–0.52)
C-index	0.78 (0.73–0.84)

*Adjusted for age, sex, smoking status, histology, and resection type; bootstrap 1,000 replications.

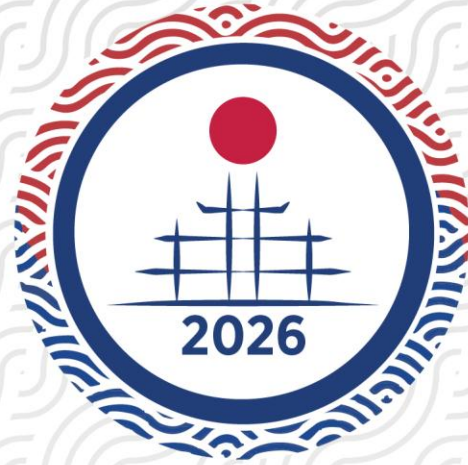
TAKE-HOME MESSAGE

One-year HRQoL independently predicts long-term outcomes after curative surgery in stage I NSCLC

- **HRQoL adds prognostic information** beyond conventional clinicopathologic variables.
- **Fatigue** and **Dyspnea** independently identify distinct long-term outcome trajectories.
- Routine PRO assessment may support patient-centered survivorship care.



HRQoL-driven surveillance could shift postoperative follow-up from tumor-centered schedules to **patient-centered risk-adapted care**



Thank You.