International Cancer Patient Coalition

STRENGTHENING LUNG CANCER CARE IN SERBIA

Advancing from Foundations to Precision and Equity

EXECUTIVE SUMMARY

Serbia has made measurable progress in cancer care through national health reforms, improved access to chemotherapy, and the growing availability of molecular diagnostics for lung cancer. Public health insurance covers standard treatments, and tertiary cancer centers provide EGFR, ALK, and PD-L1 testing in select urban areas. However, late-stage diagnosis, lack of low-dose CT (LDCT) screening, regional disparities in care access, and delayed reimbursement for novel targeted therapies remain major challenges.

As a **Maturity Level 3 – Intermediate** system, Serbia is well positioned to advance lung cancer care by scaling diagnostic capacity, accelerating access to precision treatments, and investing in early detection and palliative services.

INTRODUCTION

Lung cancer is the leading cause of cancer-related death in Serbia, with approximately 6,000 new cases reported annually. Smoking prevalence remains high, and many patients are diagnosed at Stage III or IV, limiting curative options. Serbia has taken important steps toward precision oncology, with EGFR, ALK, and PD-L1 testing becoming more available in university hospitals. National guidelines are generally aligned with ESMO, and immunotherapy agents like **nivolumab** and **pembrolizumab** are reimbursed for eligible patients.

Despite these advancements, patients in rural areas face delays in diagnosis and treatment. Access to second- and third-line therapies and comprehensive molecular profiling remains limited. Serbia's system is evolving—foundational elements are in place, but gaps in implementation, screening, and equity hinder full maturity.

CURRENT SITUATION

Cancer care in Serbia is delivered through a network of **Clinical Centers, Institute for Oncology and Radiology of Serbia (IORS)**, and regional hospitals. The **National Health Insurance Fund (RFZO)** covers standard diagnostic tests and many first-line therapies. However, access to newer drugs and comprehensive molecular testing is uneven and often subject to administrative delays.

Pathology infrastructure is concentrated in major cities like Belgrade, Novi Sad, and Niš. There is no nationwide LDCT screening program, and lung cancer awareness among the general public is limited. Clinical trials are conducted in select academic centers, but participation is low. Palliative care is available, though largely hospital-based

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Key Issues and Policy Recommendations

Pillar	Fact	Barrier	Policy Recommendations
Infrastructure	Serbia has tertiary cancer centers with molecular testing in urban areas...	...but regional hospitals lack advanced diagnostics and timely pathology services.	Create a national referral system and expand molecular testing capacity through regional pathology hubs.
Access to Treatment	First-line therapies including immunotherapy are reimbursed...	...but access to second-line and newer targeted agents is limited and often delayed.	Update reimbursement pathways to include newer agents (e.g., osimertinib, lorlatinib) with reduced administrative burden.
Research & Innovation	Some clinical trials are underway in top academic centers...	...but enrollment is low, and access is limited to capital regions.	Establish a national lung cancer clinical trials registry and incentivize hospital participation.
Awareness & Education	Public awareness of smoking risks is high...	...but knowledge of lung cancer symptoms and screening benefits is low.	Launch targeted awareness campaigns on persistent cough, weight loss, and early diagnosis importance.
Survival Rates	Survival for NSCLC has modestly improved with immunotherapy access...	...but outcomes are still poor due to late-stage diagnosis.	Focus on early-stage diagnosis through screening and risk-based referral systems in primary care.
Early Detection & Palliative Care	Early diagnosis is mostly incidental or symptom-driven...	...and LDCT screening is not yet implemented.	Pilot LDCT screening for high-risk populations (smokers aged 55–74) and train GPs in early detection.
Biomarker	EGFR, ALK, and PD-L1 testing is available in major centers...	...but re-testing at progression and access to rare biomarker testing (e.g., MET, RET) are limited.	Expand access to next-generation sequencing (NGS) and include re-testing as standard practice at relapse.
Clinical Guidelines	Serbia adopts ESMO-aligned national guidelines...	...but local adaptation and implementation vary by region.	Disseminate digital tools and standardized training to align practice across all hospitals.
Reimbursement	RFZO covers basic lung cancer therapies...	...but new therapies face long approval timelines and availability gaps.	Fast-track approval of EMA-authorized lung cancer drugs and establish early access schemes.
Screening	No population-level LDCT screening is available...	...despite high smoking rates and late-stage presentations.	Integrate LDCT screening into national NCD strategy and secure funding for regional pilot programs.

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CONCLUSION

Serbia has laid the groundwork for modern lung cancer care through public financing, increasing availability of immunotherapies, and molecular testing in tertiary centers. However, the system remains in the **developing stage**, with urgent needs in screening, rural access, biomarker standardization, and timely reimbursement. Strategic reforms and regional investments can accelerate Serbia's progress toward comprehensive, equitable, and personalized lung cancer care.

KEY POLICY MESSAGES

1. Lung cancer remains Serbia's top cancer killer, with most diagnoses occurring at late stages.
2. Biomarker testing and immunotherapy access are improving but remain centralized and unevenly distributed.
3. There is no LDCT screening or formal early detection strategy for high-risk populations.
4. Regional equity, national data systems, and faster drug approvals are essential for sustained improvement.

CALL TO ACTION

- **Launch LDCT screening pilots** in high-risk districts and link with primary care smoking c essation programs.
- **Expand molecular diagnostics capacity** beyond capital cities, with lab funding and regional QA systems.
- **Update reimbursement criteria** to include newer therapies and reduce delays in market access post-EMA approval.
- **Strengthen national clinical data collection** and integrate lung cancer indicators into the national cancer registry.
- **Train general practitioners and nurses** on lung cancer warning signs and referral protocols to reduce diagnostic delays.