



ADVANCING LUNG CANCER CARE IN THE NETHERLANDS

Sustaining Excellence and Addressing Equity in Precision Oncology

EXECUTIVE SUMMARY

Netherlands delivers one of the most advanced lung cancer care systems in the world, marked by universal health coverage, robust national screening pilots, advanced biomarker testing, and rapid access to innovative therapies. Molecular diagnostics, including EGFR, ALK, ROS1, and PD-L1, are widely implemented, and treatment guidelines align with global standards. With an efficient data infrastructure and high uptake of clinical trials, the Netherlands exemplifies maturity in precision lung cancer care.

However, challenges remain in real-time treatment access for the elderly, consistency in biomarker re-testing at progression, and long-term follow-up in underserved groups. As a **Leading-level system**, the Netherlands is well-positioned to lead Europe in equitable precision implementation and next-generation screening and survivorship strategies.

INTRODUCTION

Lung cancer remains the **second most common cancer** in the Netherlands, with more than **13,000 new cases annually**. The Dutch system has made remarkable strides in early detection, molecular diagnosis, and access to novel therapies. Through institutions like the **Netherlands Cancer Institute (NKI)**, **Dutch Lung Cancer Audit (DLCA)**, and national screening pilots, the country leads in both care quality and data integration. Key mutations including **EGFR, ALK, ROS1, BRAF, MET, RET, and PD-L1** are routinely tested, and targeted therapies and immunotherapies are reimbursed through universal insurance.

While survival rates have improved — especially in non-small cell lung cancer (NSCLC)—there is now a growing focus on fine-tuning precision care delivery, ensuring biomarker-driven approaches in older adults and rural regions, and integrating survivorship and palliative care pathways across all stages of the disease.

CURRENT FRAMEWORK/SITUATION

The Netherlands operates a single-payer model with broad access to cancer care services. Biomarker testing is embedded in the national diagnostic workflow, with rapid turnaround times and coverage for companion diagnostics. Screening through **low-dose CT (LDCT)** has been piloted and is being considered for broader implementation following strong evidence of mortality benefit. Clinical guidelines follow **ESMO and national protocols** with real-time updates based on EMA approvals. **The Dutch Lung Cancer Audit** enables near real-time tracking of outcomes and quality indicators, positioning the country as a data leader. Yet, some disparities persist, such as differences in treatment uptake between age groups and geographic regions, and underutilization of re-biopsy and biomarker re-testing upon disease progression.



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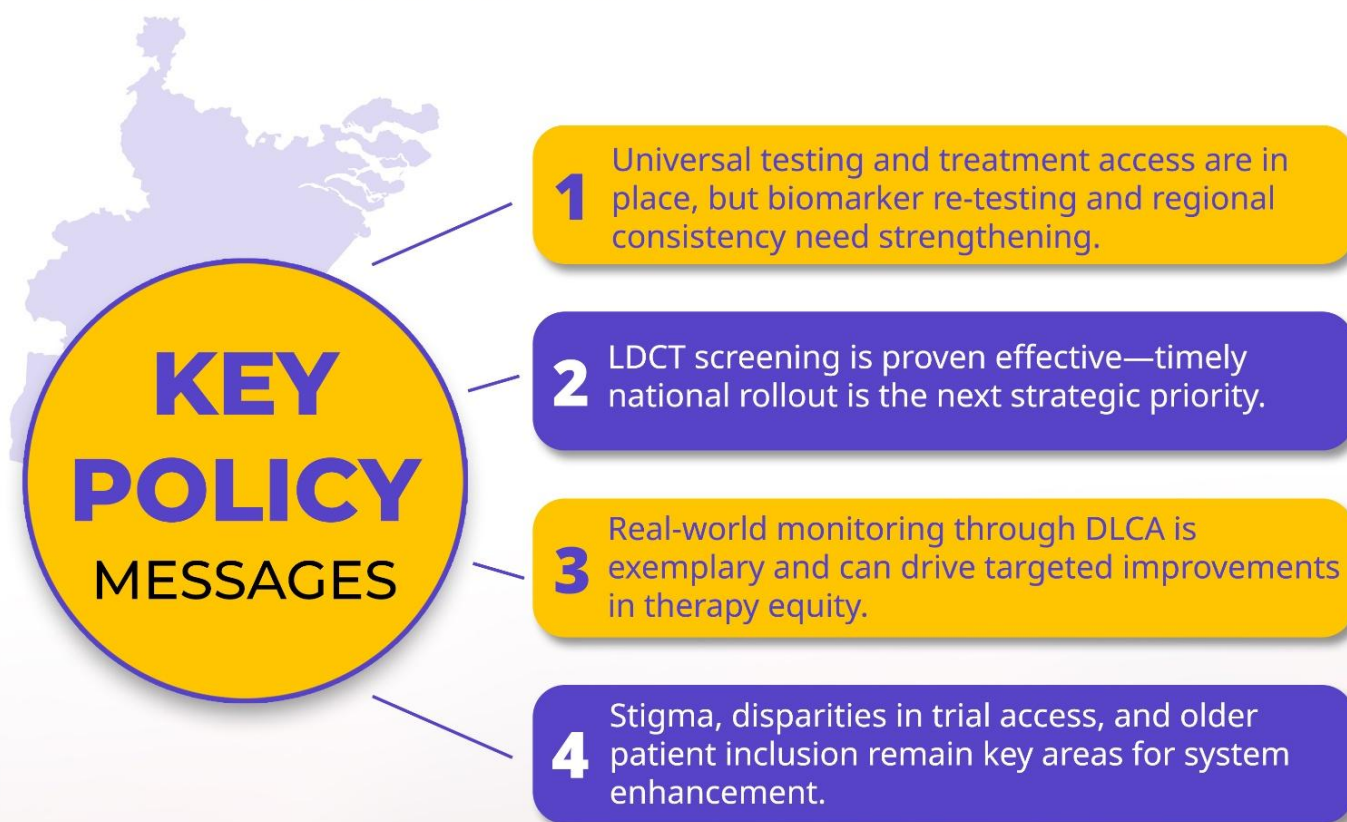
Key Issues and Policy Recommendations

Pillar	Fact	Barrier	Policy Recommendations
Infrastructure	The Netherlands has integrated oncology centers with advanced diagnostics & care pathways...	...but regional differences exist in access to next-generation sequencing and multidisciplinary teams.	Expand digital tumor boards and ensure uniform adoption of molecular diagnostics across all care centers.
Access to Treatment	Targeted therapies and immunotherapies are reimbursed and widely available...	...but access among elderly patients and in smaller hospitals may be delayed or inconsistent.	Monitor equity in therapy initiation across age groups and regions using DLCA data, and issue equity-based improvement plans.
Research & Innovation	The Netherlands is a hub for EU and pharma-led lung cancer trials...	...but trial awareness and access may be lower outside urban academic centers.	Develop a national clinical trial registry interface for patient-matching and rural hospital trial referrals.
Awareness & Education	Lung cancer awareness is high, especially among providers...	...but public stigma and late presentation persist in vulnerable populations.	Launch renewed public awareness campaigns focusing on early symptoms, LDCT benefits, and reducing stigma.
Survival Rates	Survival for NSCLC has steadily improved due to personalized therapy uptake...	...but small cell lung cancer outcomes remain poor.	Increase early detection research and pilot SCLC-targeted screening and risk stratification models.
Early Detection & Palliative Care	LDCT screening pilots have shown high detection efficiency...	...but national rollout has not yet occurred.	Accelerate national LDCT screening implementation with risk-based eligibility and robust quality assurance.
Biomarker	EGFR, ALK, ROS1, PD-L1 and more are routinely tested upfront...	...but repeat biomarker testing at progression is not consistently applied.	Mandate biomarker re-testing at relapse and invest in liquid biopsy availability to facilitate rapid precision adjustments.
Clinical Guidelines	Dutch guidelines mirror ESMO and incorporate real-world data...	...but adaptation at smaller hospitals may lag behind top-tier centers.	Disseminate real-time decision support tools integrated into electronic health records for guideline alignment.
Reimbursement	All EMA-approved lung cancer therapies are reimbursed through public insurance...	...but reimbursement processes for newer companion diagnostics can lag.	Fast-track HTA for companion diagnostics with high clinical utility, particularly for new targeted agents.
Screening	LDCT screening pilots demonstrate feasibility and acceptance...	...but national implementation is still pending.	Finalize cost-effectiveness review and integrate LDCT into the national prevention strategy for high-risk groups.



CONCLUSION

The Netherlands stands as a **global benchmark** for integrated, evidence-driven lung cancer care. It combines strong data systems, universal biomarker testing, and timely therapy access. The next step in its leadership journey involves addressing residual inequities—across geography, age, and hospital tier—and embedding re-testing, real-world monitoring, and survivorship planning into routine care. With policy coordination and patient-centered innovation, the Netherlands can remain at the forefront of lung cancer precision medicine.



CALL TO ACTION

- **Implement a national LDCT screening program**, with clear inclusion criteria and data integration.
- **Mandate re-biopsy and biomarker re-testing** at disease progression in both academic and non-academic centers.
- **Develop patient-facing tools** for trial navigation, particularly in underserved and rural areas.
- **Expand digital tumor board access** and clinical decision support in regional hospitals.
- **Monitor treatment equity** using DLCA data and publish stratified performance benchmarks to guide continuous improvement.