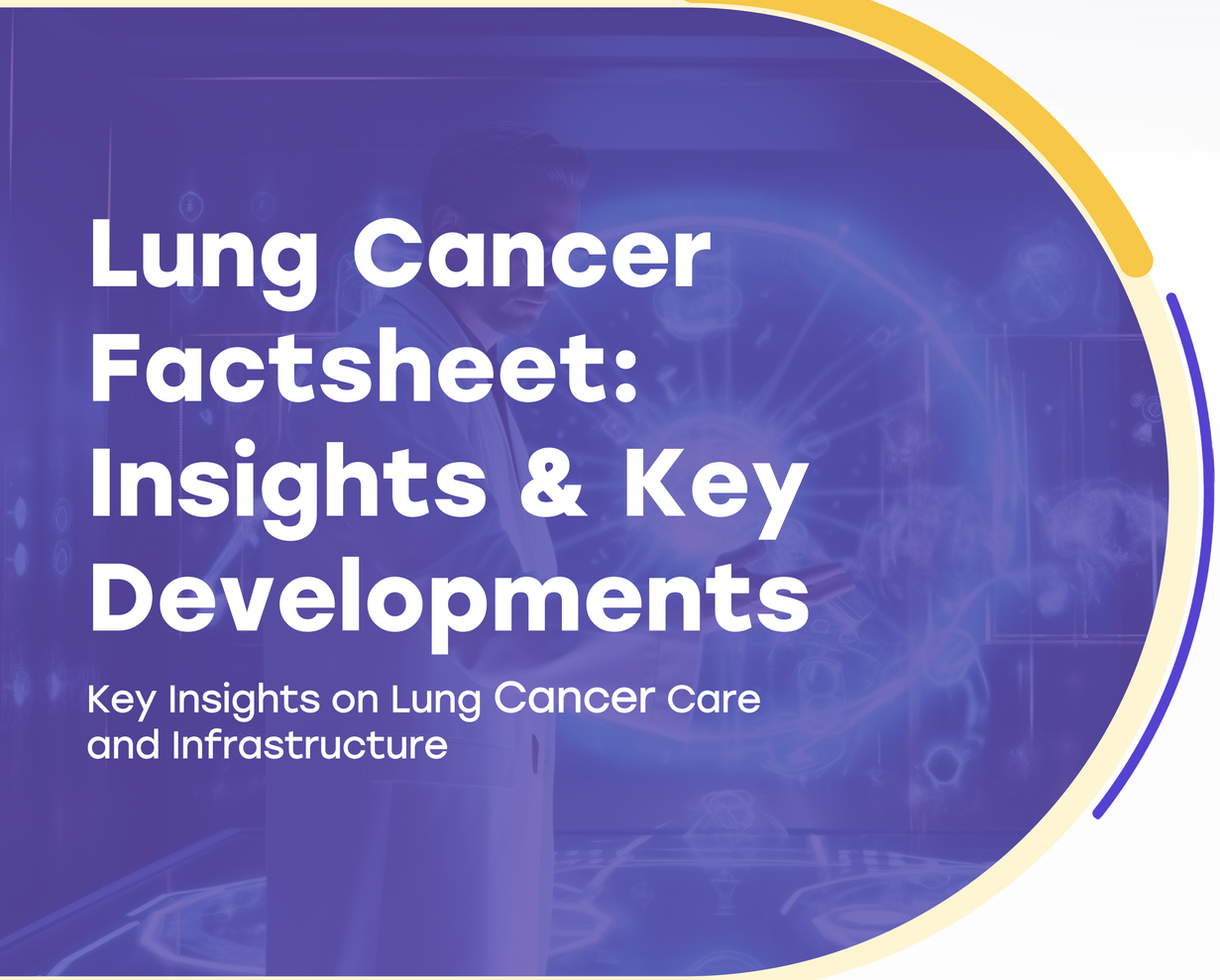
International Cancer Patient Coalition

Syria



Lung Cancer Factsheet: Insights & Key Developments

Key Insights on Lung Cancer Care and Infrastructure

Core Pillars:

1. Infrastructure
2. Treatment Access, Research Funding and Awareness Campaigns
3. Survival Rates, Early Detection and Palliative Care
4. Utilization of Biomarkers
5. Clinical Guidelines
6. Reimbursement
7. Lung Cancer Screening

Lung cancer remains one of the most prevalent cancers worldwide, affecting millions of individuals each year. Despite advancements in diagnostics, treatment, and awareness, disparities in access to care, molecular testing, and specialized centers persist.

This factsheet provides a comprehensive overview of key pillars shaping lung cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

- Incidence share: Accounts for approximately 9–10% of all new cancers; the second most common cause of cancer-related deaths in the country
- Incidence rate: Roughly 14.8 per 100,000 men (based on regional registry data) and 2.3 per 100,000 women; overall around 9.4% of all diagnosed cancers
- Total new cases (2020): About 1,976 new lung cancer cases
- Daily diagnoses: Approximately 5–6 new cases per day
- Deaths (2020): Approximately 1,821 deaths annually
- 5-year survival rate: Extremely low—only around 0.1%; 1-year survival ~13%, with 66–80% of cases diagnosed at advanced stage
- Most affected age group: Adults in their 60s (mean age ~60 years); predominately male smokers (~83%)
- Screening participation: No national screening program; most diagnoses occur late (Stage III/IV); disruption from conflict has severely limited access to early detection and treatment

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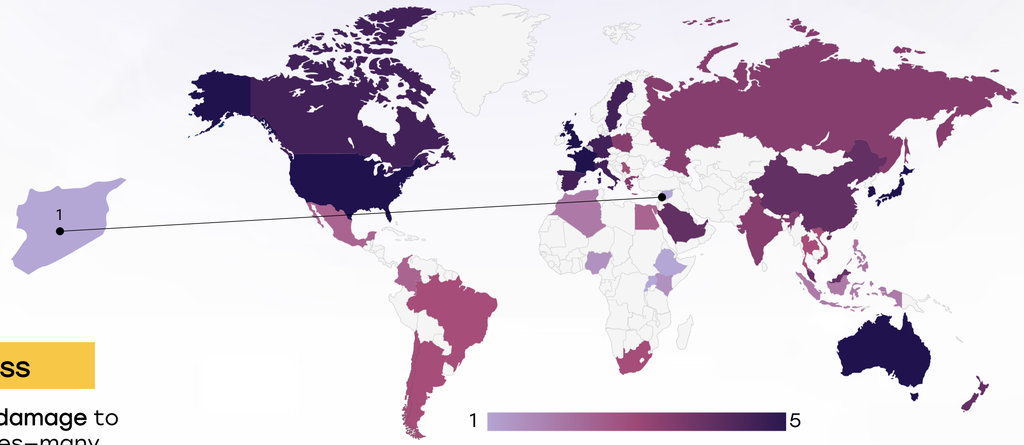
Infrastructure



Strengths

- Centralized cancer services still available in **major cities: Damascus (Al-Bairouni University Hospital), Aleppo,** and **Latakia.**
- Some radiotherapy services operational in **public tertiary hospitals**; basic imaging (X-ray, CT) accessible in urban areas.

Weakness

- **War-related damage** to health facilities—many oncology departments in secondary and district hospitals are non-functional.
- Critical shortages of modern diagnostic tools like **PET-CT, advanced bronchoscopy (EBUS)**, and thoracic surgery.
- Frequent **electricity outages and equipment breakdowns.**

S W O T

Opportunity

- Prioritize **rehabilitation of cancer units** through global aid and partnerships (WHO, NGOs).
- Expand **mobile diagnostic services** to reach displaced populations and high-risk zones.

Threats

- Infrastructure rebuilding is slow due to **ongoing sanctions, economic hardship**, and funding gaps.
- **Migration of health professionals** creates severe staffing shortages.

5. Advanced nationwide infrastructure, widespread availability in public and private sectors, integration with clinical practice.

4. Strong infrastructure in major hospitals and cancer centers, some regional disparities.

3. Moderate infrastructure, primarily in private settings or research institutions.

2. Limited infrastructure, available only in select centers or for high-cost private testing.

1. Minimal or no infrastructure, testing mostly unavailable or sent abroad.

Country	Specialized Centers	Genetic & Molecular Testing Infrastructure
South Africa	3	3
Kenya	2	2
Nigeria	2	2
Egypt	2	3
Morocco	2	2
Algeria	2	2
Ethiopia	1	1
India	3	4
Japan	4	4
South Korea	4	4
China	4	4
Thailand	3	3
Singapore	4	4
United Kingdom	4	4
Germany	5	4
France	4	4
Netherlands	5	4
Sweden	5	4
Italy	4	4
Spain	4	4
Poland	4	3
Mexico	2	3
Brazil	3	3
Argentina	3	3
Chile	3	3
Colombia	2	3
United States	5	5
Canada	5	4
Australia	4	4
New Zealand	4	4
Greece	4	3
Rwanda	1	1
Uganda	1	1
Serbia	3	3
Saudi Arabia	4	4
UAE	4	4
Syria	1	1
Indonesia	2	2
Vietnam	3	3
Philippines	2	2
Russia	4	3
Malaysia	4	4

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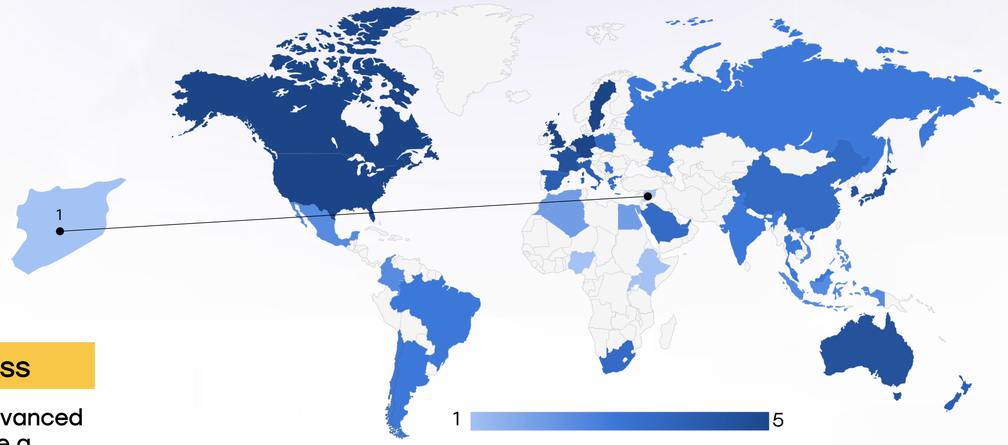
Treatment Access, Research Funding and Awareness Campaigns



Strengths

- Some public hospitals (e.g., Al-Bairouni Hospital) offer **free chemotherapy and radiotherapy.**
- **Community-led campaigns** supported by Syrian Cancer Society exist in urban zones.
- Oncology departments in **medical universities** provide basic training and services.

Weakness

- **Access to advanced treatments (e.g., immunotherapy, TKIs)** is severely limited or absent.
- **No robust national cancer registry** or government-led lung cancer campaigns.
- Awareness is low among the population, especially regarding **non-smoking risk factors** (e.g., pollution, secondhand smoke).

Opportunity

- Collaborate with regional cancer networks to gain access to **donated medications or clinical trials abroad.**
- Promote **community education** on early symptoms and tobacco risks using existing local NGO networks.

Threats

- Economic crisis forces patients to **forego or delay care.**
- Continuing stigma around cancer may reduce early help-seeking.

5. Strong healthcare infrastructure with comprehensive treatment access, high research funding, and nationwide awareness campaigns. Patients have access to advanced therapies, clinical trials, and widespread early detection programs.

4. Well-developed system with good treatment availability, strong research funding, and effective but regionally focused awareness campaigns. Some disparities may exist in rural areas or between public and private sectors.

3. Moderate development, with specialized treatments available in major hospitals, research funding concentrated on specific cancers, and occasional but limited awareness efforts. Healthcare access may be restricted by cost or geography.

2. Limited system where cancer treatment is available only in select urban centers, research funding is minimal or sporadic, and awareness campaigns are rare or underfunded. Patients often face long wait times or financial barriers.

1. Poor infrastructure with severe barriers to treatment, little to no research funding, and lack of structured awareness campaigns. Cancer care is largely inaccessible, with many patients relying on out-of-pocket expenses or external aid.

Country	Treatment Access	Research Funding	Awareness Campaigns
South Africa	3	3	4
Kenya	1	1	1
Nigeria	1	1	1
Egypt	2	2	2
Morocco	2	2	2
Algeria	2	2	2
Ethiopia	1	1	1
India	3	3	3
Japan	5	4	5
South Korea	5	4	5
China	4	3	4
Thailand	3	3	3
Singapore	5	5	5
United Kingdom	5	5	5
Germany	5	5	5
France	5	4	5
Netherlands	5	5	5
Sweden	5	5	5
Italy	5	4	4
Spain	5	4	4
Poland	4	3	4
Mexico	2	2	3
Brazil	3	3	3
Argentina	3	3	3
Chile	3	3	3
Colombia	2	2	3
United States	5	5	5
Canada	5	5	5
Australia	5	4	5
New Zealand	4	4	4
Greece	4	3	4
Rwanda	1	1	1
Uganda	1	1	1
Serbia	3	3	3
Saudi Arabia	4	3	4
UAE	4	3	4
Syria	1	1	1
Indonesia	3	2	3
Vietnam	3	2	3
Philippines	2	2	3
Russia	4	3	3
Malaysia	4	3	3

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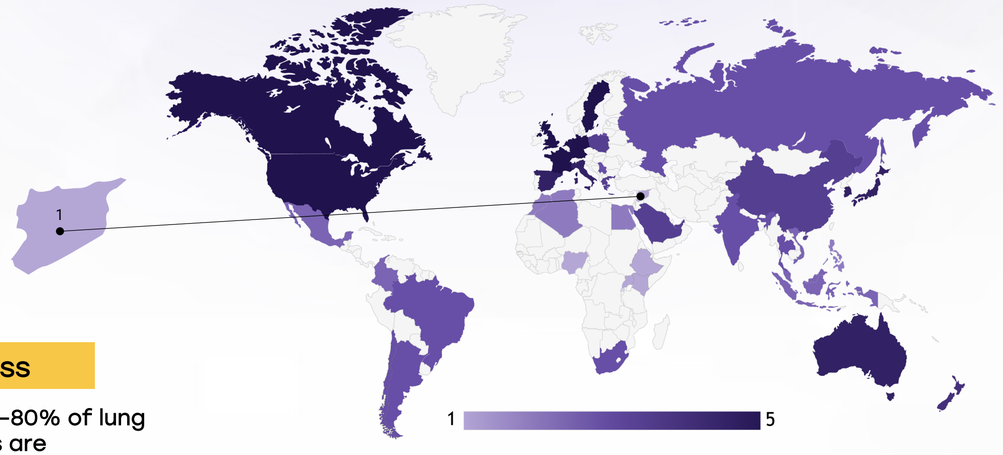
Survival Rates, Early Detection and Palliative Care



Strengths

- Tertiary centers in Damascus and Aleppo provide **chemotherapy, radiation, and pain management** for advanced cases.
- Some training in **palliative medicine** integrated into oncology residency programs.

Weakness

- **Estimated 75–80% of lung cancer cases are diagnosed at Stage III or IV.**
- Lack of **routine screening** or early detection mechanisms.
- Palliative care services **limited or unavailable outside large hospitals.**

Opportunity

- Train **primary care providers and nurses** in symptom-based triage and basic palliative care.
- Build home-based palliative networks in collaboration with civil society groups.

Threats

- Late diagnosis leads to poor survival (estimated 5-year survival <15%).
- Travel restrictions and conflict zones **further limit follow-up or continuity of care.**

5. High survival rates, strong early detection programs, and well-established palliative care services. Patients have access to timely diagnosis, advanced treatments, and comprehensive end-of-life care.

4. Good survival rates, effective early detection efforts, and accessible but regionally limited palliative care. Some disparities may exist in rural areas or for specific cancer types.

3. Moderate survival rates, early detection available but not widespread, and palliative care services mainly in urban centers. Some patients experience delays in diagnosis or limited end-of-life care.

2. Low survival rates, early detection efforts are inconsistent or underfunded, and palliative care is minimal or only available in select hospitals. Cancer patients face significant access barriers.

1. Very low survival rates, poor early detection infrastructure, and almost no palliative care services. Many patients are diagnosed late and lack proper support for pain management and end-of-life care.

Country	Survival Rates	Early Detection	Palliative Care
South Africa	3	3	3
Kenya	1	1	1
Nigeria	1	1	1
Egypt	2	2	2
Morocco	2	2	2
Algeria	2	2	2
Ethiopia	1	1	1
India	3	3	3
Japan	5	4	5
South Korea	5	4	5
China	3	3	4
Thailand	3	3	3
Singapore	5	5	5
United Kingdom	5	5	5
Germany	5	5	5
France	5	5	5
Netherlands	5	5	5
Sweden	5	5	5
Italy	5	4	5
Spain	5	4	5
Poland	3	3	4
Mexico	2	3	2
Brazil	3	3	3
Argentina	3	3	3
Chile	3	3	3
Colombia	2	3	2
United States	5	5	5
Canada	5	5	5
Australia	5	4	5
New Zealand	4	4	4
Greece	3	3	4
Rwanda	1	1	1
Uganda	1	1	1
Serbia	3	3	3
Saudi Arabia	4	3	4
UAE	4	3	4
Syria	1	1	1
Indonesia	3	2	3
Vietnam	3	2	3
Philippines	2	2	3
Russia	4	3	3
Malaysia	3	2	3

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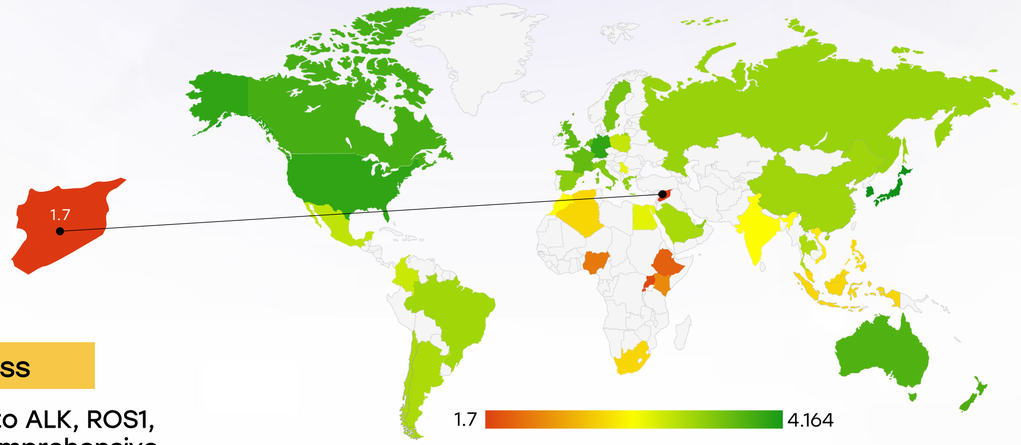
Utilization of Biomarkers



Strengths

- Some university hospitals in Damascus and Aleppo can perform **basic EGFR testing.**
- Local awareness among specialists of **targetable mutations** in adenocarcinoma cases.

Weakness

- **No access to ALK, ROS1, PD-L1, or comprehensive genomic panels** in public system.
- **Testing delays (weeks/months)** due to reagent shortages or need to send abroad.
- Testing costs often borne by patients.

S W O T

Opportunity

- Establish **donor-supported biomarker labs** for lung cancer and breast cancer.
- Introduce **regional referral mechanisms** for centralized molecular diagnostics.

Threats

- Continuous **supply chain disruptions** for test kits and reagents.
- Without testing, **patients miss the chance for targeted therapies**, worsening outcomes.

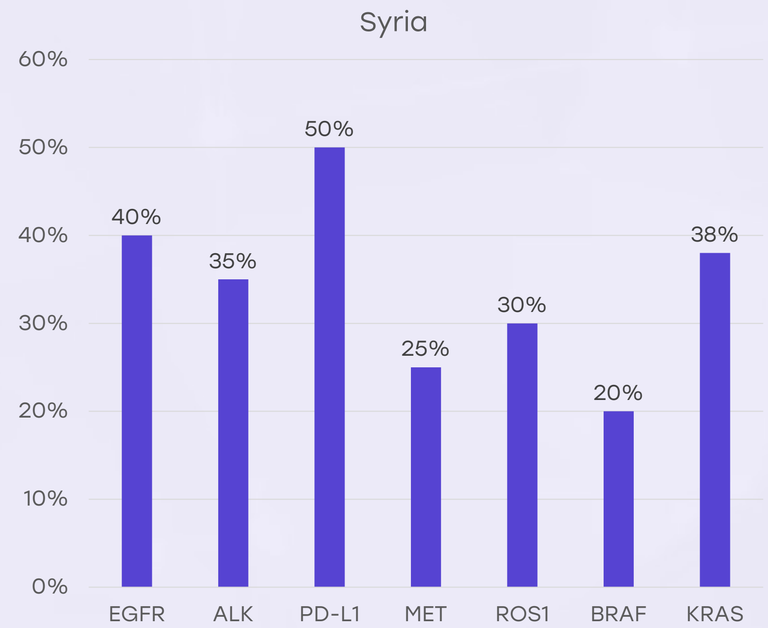
5. Biomarker testing is widely available and routinely performed as part of standard clinical practice. Strong integration into treatment decisions, with national coverage and reimbursement ensuring accessibility.

4. Biomarker testing is commonly used, but access may be limited in certain regions or patient groups. Some disparities exist in coverage or affordability, but it is still a crucial part of cancer diagnostics

3. Moderate utilization, often restricted to major hospitals or private healthcare settings. Some patients may not receive biomarker testing due to cost or limited availability in public healthcare systems.

2. Biomarker testing is available but underutilized, with significant barriers such as high costs, lack of awareness, or limited infrastructure. Many patients may not receive recommended biomarker assessments.

1. Biomarker testing is rarely performed, often due to lack of infrastructure, awareness, or financial barriers. Patients typically do not receive targeted therapies based on biomarker status.



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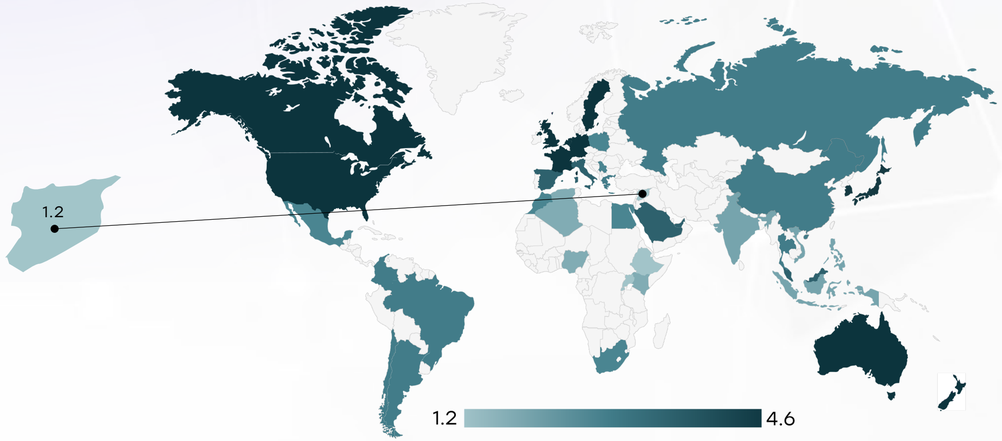
Clinical Guidelines



Strengths

- Some hospitals follow **translated NCCN-based guidelines** for lung cancer staging and management.
- Local oncologists trained before the conflict still adhere to global protocols.

Weakness

- Lack of **nationally endorsed, updated clinical guidelines.**
- Wide **variability in treatment practices** between regions and providers.

S W O T

Opportunity

- Develop **context-sensitive national lung cancer protocols** aligned with Syrian capacities.
- Offer **virtual CME programs** for oncologists, radiologists, and pulmonologists.

Threats

- Fragmented system and political challenges delay policy standardization.
- Low documentation and reporting weaken **treatment outcome tracking.**

	Very High	High	Medium	Low	Very Low
Clinical Guideline Implementation	✖	✖	✖	O	✖
Feasibility of Integration	✖	✖	✖	✖	O
Adoption of International Guidelines	✖	✖	✖	✖	O
Engagement with Updates	✖	✖	✖	✖	O
ESMO Guidelines Implementation	✖	✖	✖	✖	O

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Reimbursement

Strengths

- Some cancer drugs and radiation therapies **provided free of charge** in public hospitals.
- Cancer classified as a **priority condition** in Ministry of Health programs.

Weakness

- **Cost of imaging, biopsies, and unavailable drugs** must be paid out-of-pocket.
- **No health insurance system** to support private-sector access for most Syrians.

S W O T

Opportunity

- Build a **national cancer assistance program** or NGO-led reimbursement fund.
- Advocate for **international aid for access to high-cost drugs** (e.g., TKIs, immunotherapy).

Threats

- Increasing prices and drug shortages lead to **inequitable access.**
- Patients may abandon treatment due to financial strain.

A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or public-private partnerships. Patients face no direct financial burden.

A reimbursement framework is in place, but patients may still have out-of-pocket expenses such as co-pays, limited coverage, or financial caps on testing.

No formal reimbursement system exists, meaning patients must fully cover the cost of biomarker testing out-of-pocket.

Country	Reimbursement Framework	No-cost Access
United States	●	○
United Kingdom	●	●
Canada	●	●
Australia	●	●
Germany	●	●
France	●	●
Netherlands	●	●
Sweden	●	●
Italy	●	●
Spain	●	●
Poland	●	●
Japan	●	●
South Korea	●	●
China	●	●
India	○	○
Singapore	●	●
Thailand	●	●
South Africa	○	○
Kenya	○	○
Nigeria	○	○
Egypt	○	○
Morocco	○	○
Algeria	●	●
Ethiopia	○	○
Mexico	●	●
Brazil	●	●
Argentina	●	●
Chile	●	●
Colombia	●	●
New Zealand	●	●
Greece	●	●
Rwanda	○	○
Uganda	○	○
Serbia	●	●
Saudi Arabia	●	●
UAE	●	●
Syria	○	○
Indonesia	●	○
Vietnam	●	○
Philippines	○	○
Russia	●	●
Malaysia	●	●

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Lung Cancer Screening

Strengths

- Some physicians perform **opportunistic chest X-rays** in high-risk patients.
- Growing awareness in cities about **smoking-related cancer risks.**

Weakness

- **No organized or population-based lung cancer screening** (no LDCT programs).
- **Low public health outreach** to older smokers, especially in rural and conflict-affected areas.

Opportunity

- Introduce **risk-based screening pilots** in tertiary hospitals for smokers aged 55+.
- Train **general practitioners in early warning signs** and referral protocols.

Threats

- Cost and logistics of LDCT make national rollout difficult.
- Conflict zones may remain **entirely excluded** from any detection programs.

Country	Lung Cancer Screening
United States	Annual LDCT (50-80 years, high-risk smokers)
United Kingdom	LDCT for high-risk individuals (55-74 years)
Canada	LDCT for high-risk individuals (55-74 years)
Australia	No national program, high-risk groups advised LDCT
Germany	No national program, under evaluation
France	No national LDCT screening
Netherlands	Participating in European screening studies
Sweden	No national LDCT screening
Italy	Regional pilot LDCT screening
Spain	No national LDCT program
Poland	**No national program**
Japan	No national LDCT program
South Korea	LDCT for high-risk individuals (50-74 years)
China	No national LDCT program
India	No national LDCT program
Singapore	No national LDCT program
Saudi Arabia	No national LDCT program; some hospital-based opportunistic screening
UAE	No national LDCT program; early-stage pilot studies ongoing in select hospitals
Syria	No national LDCT program; screening not prioritized due to conflict
Malaysia	No program; high-risk CT pilots

Country	Lung Cancer Screening
Thailand	No national LDCT program
South Africa	No national LDCT program
Kenya	No national LDCT program
Nigeria	No national LDCT program
Egypt	No national LDCT program
Morocco	No national LDCT program
Algeria	No national LDCT program
Ethiopia	No national LDCT program
Mexico	No national LDCT program
Brazil	No national LDCT program
Argentina	No national LDCT program
Chile	No national LDCT program
Colombia	No national LDCT program
New Zealand	No national LDCT program
Greece	No national LDCT program
Rwanda	No national LDCT program
Uganda	No national LDCT program
Serbia	No national LDCT program
Indonesia	No national LDCT program; opportunistic screening in private sector
Vietnam	No national LDCT program; early pilot screening studies in Hanoi and Ho Chi Minh
Philippines	No national LDCT program; feasibility and awareness programs under discussion
Russia	No formal national LDCT program; regional pilot screening programs in large cities