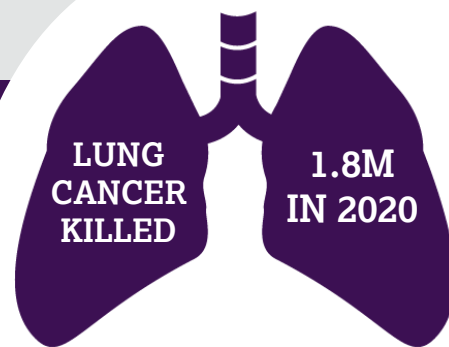


LUNG CANCER IN EUROPE

Lung cancer is the second most common form of cancer globally, claiming an estimated 1.8 million lives in 2020.¹

20% of the world's lung cancer cases are in Europe.^{1,2}

Over 1 in 5 of global lung cancer deaths occur in Europe, where it is the leading cause of cancer death.^{1,2}



Types of Lung Cancer

Non-small cell lung cancer (NSCLC) originates from the larger cells in the lungs, such as epithelial cells lining the lung airways or mucus-producing cells.³ The majority of lung cancers (~85%) are classified as **NSCLC**.⁴

Small cell lung cancer (SCLC) is less common and originates from small, hormone-releasing cells. SCLC is more aggressive and fast-growing compared to NSCLC.⁵

Staging in NSCLC

Early-Stage Disease (Stages I, II, IIIA)

Up to **30%** of NSCLC patients are diagnosed with early-stage (I–IIIA) disease.⁶ Early-stage lung cancer diagnoses are often only made when the cancer is found on imaging for an unrelated condition.^{7,8} Five-year recurrence rates are approximately 45% in Stage IB, 62% in Stage II, and 76% in Stage III.⁹

Advanced Disease (Stages IIIB, IIIC, IV)

Approximately **70%** of patients present with locally-advanced or metastatic NSCLC.⁶ For locally advanced, which means the cancer has spread into the tissues around the lungs, an estimated 35% of patients survive for five years or longer.¹⁰ For metastatic, which means the cancer has spread to distant parts of the body, around 7% of patients live for five years or longer.¹⁰

The Role of Biomarkers in NSCLC

NSCLC cases are often associated with point mutations and biomarkers.

Approximately **50%** of cases are associated with EGFR, KRAS, ALK, MET or ROS-1.^{*11}

Impact: A point mutation is a single base change within the gene.¹² The change is small **but can have a significant impact on the body** as they can serve as indicators of various types of cancer and many promote tumour growth.^{11,13}

Testing: Biomarker testing is critical to learning more about each patient's tumour type and can be used to help determine treatment options. Based on the test results, patients may be matched with targeted therapies aimed at specific biomarkers present in their genetic profile.¹⁴

What are Epidermal Growth Factor Receptor (EGFR) mutations?



EGFR is a protein that **helps cells to grow**. Mutated forms of the EGFR gene and protein have been found in some types of cancer, including NSCLC. These changes may cause cancer cells to grow uncontrollably and spread in the body.¹⁵

Approximately **10-15%** of NSCLC patients in Europe have EGFR mutations.¹⁶



*Epidermal Growth Factor Receptor (EGFR), Kirsten rat sarcoma (KRAS), Anaplastic lymphoma kinase (ALK), mesenchymal epithelial transition factor (MET), c-ros oncogene 1 (ROS1)

LUNG CANCER IN EUROPE

Lung Cancer in Europe by the Numbers

Austria



- Leading cause of cancer-related deaths, accounting for **over 4,000 cancer deaths** in 2020¹⁷
- Third most commonly diagnosed cancer, with approximately **5,200 new cases** in 2020¹⁷

Belgium



- Leading cause of cancer-related deaths, **killing over 6,800 people** in 2020¹⁸
- Second most commonly diagnosed cancer, with approximately **9,600 new cases** diagnosed in 2020¹⁸

Denmark



- Leading cause of cancer-related deaths, **killing over 3,900 people** in 2020¹⁹
- Second most commonly diagnosed cancer, with approximately **5,000 new cases** diagnosed in 2020¹⁹

Finland



- Leading cause of cancer-related deaths, **killing over 2,300 people** in 2020²⁰
- Third most commonly diagnosed cancer, with approximately **2,900 new cases** diagnosed in 2020²⁰

France



- Leading cause of cancer-related deaths, **killing over 37,000 people** in 2020²¹
- Third most common cancer diagnosed, with approximately **48,300 new cases** diagnosed in 2020²¹
- French men are **more than twice as likely** to be diagnosed as French women²¹

LUNG CANCER IN EUROPE

Lung Cancer in Europe by the Numbers

Germany



- Leading cause of cancer-related deaths, accounting for **over 50,200 deaths** in 2020²²
- Third most commonly diagnosed cancer, with approximately **64,800 new cases** in 2020²²

Italy



- Leading cause of cancer-related deaths, with **over 33,600 deaths** in 2020²³
- Second most commonly diagnosed cancer, with approximately **41,900 new cases** in 2020²³
- Accounted for almost **20% of cancer deaths** in Italy in 2020²³

Ireland



- Leading cause of cancer-related deaths, accounting for **over 2,200 deaths** in 2020²⁴
- Third most commonly diagnosed cancer, with approximately **3,200 new cases** in 2020²⁴

Israel



- Leading cause of cancer-related deaths, accounting for **over 2,100 deaths** in 2020²⁵
- Third most commonly diagnosed cancer, with more than **2,600 new cases** in 2020²⁵

The Netherlands



- Leading cause of cancer-related deaths, accounting for **over 11,100 deaths** in 2020²⁶
- Third most commonly diagnosed cancer, with approximately **13,500 new cases** in 2020²⁶
- Highest rate of mortality of any cancer, accounting for almost **one-quarter of cancer deaths** in the Netherlands in 2020²⁶

Norway



- Leading cause of cancer-related deaths, accounting for **over 2,400 deaths** in 2020²⁷
- Third most commonly diagnosed cancer, with approximately **3,300 new cases** in 2020²⁷

LUNG CANCER IN EUROPE

Lung Cancer in Europe by the Numbers

Poland



- Leading cause of cancer-related deaths, accounting for **over 27,400 deaths** in 2020²⁸
- Most commonly diagnosed cancer, with approximately **29,500 new cases** in 2020²⁸

Portugal



- Leading cause of cancer-related deaths, accounting for **over 4,700 deaths** in 2020²⁹
- Third most commonly diagnosed cancer, with approximately **5,400 new cases** in 2020²⁹
- **More than three times** as many men as women diagnosed in 2020²⁹

Spain



- Leading cause of cancer-related deaths, accounting for **over 22,900 deaths** in 2020³⁰
- Third most commonly diagnosed cancer, with approximately **29,100 new cases** in 2020³⁰

Sweden



- Leading cause of cancer-related deaths, accounting for **over 3,800 deaths** in 2020³¹
- Third most commonly diagnosed cancer, with approximately **4,500 new cases** in 2020³¹

Switzerland



- Leading cause of cancer-related deaths, accounting for **over 3,500 deaths** in 2020³²
- Third most commonly diagnosed cancer, with approximately **4,500 new cases** in 2020³²

United Kingdom



- Leading cause of cancer-related deaths, accounting for **over 36,500 deaths** in 2020³³
- Accounts for more than **20% of cancer deaths** in the UK in 2020³³
- Third most commonly diagnosed cancer, with approximately **51,900 new cases** in 2020 – which equates to **nearly 140 cases every day**³³

LUNG CANCER IN EUROPE

References

1. World Health Organization. Globocan Fact Sheet: All cancers. Available at <https://gco.iarc.fr/today/data/factsheets/cancers/39-All-cancers-fact-sheet.pdf>. Accessed May 2021.
2. World Health Organization- International Agency for Research on Cancer. Globocan Europe Fact Sheet 2020. Available at <http://gco.iarc.fr/today/data/factsheets/populations/908-europe-fact-sheets.pdf>. Accessed May 2021.
3. American Society of Clinical Oncology (ASCO). Lung Cancer –Non-Small Cell: Introduction. Available at <http://www.cancer.net/cancer-types/lung-cancer-non-small-cell/introduction>. Accessed May 2021.
4. LUNGeVity Foundation. Types of Lung Cancer. Available at <https://lungevity.org/for-patients-caregivers/lung-cancer-101/types-of-lung-cancer>. Accessed May 2021.
5. Lung Cancer Alliance. Types of Lung Cancer. Available at <https://go2foundation.org/what-is-lung-cancer/types-of-lung-cancer/>. Accessed May 2021.
6. Cagle P, *et al.* Lung Cancer Biomarkers: Present Status and Future Developments. *Archives Pathology Lab Med.* 2013;137:1191–1198.
7. Sethi S, *et al.* Incidental Nodule Management – Should There Be a Formal Process? *Journal of Thorac Onc.* 2016;8:S494-S497.
8. LUNGeVity Foundation. Screening and Early Detection. Available at <https://lungevity.org/for-patients-caregivers/lung-cancer-101/screening-early-detection#1>. Accessed May 2021.
9. Pignon JP, *et al.* Lung Adjuvant Cisplatin Evaluation: A Pooled Analysis by the LACE Collaborative Group. *J Clin Oncol.* 2008;26:3552–3559.
10. American Society of Clinical Oncology (ASCO). Lung Cancer - Non-Small Cell: Statistics. Available at <https://www.cancer.net/cancer-types/lung-cancer-non-small-cell/statistics>. Accessed May 2021.
11. Korpany G, *et al.* Biomarkers That Currently Affect Clinical Practice in Lung Cancer: EGFR, ALK, MET, ROS-1, and KRAS. *Front Oncol.* 2014;4:204.
12. National Human Genome Research Institute. Point Mutation. Available at <https://www.genome.gov/genetics-glossary/Point-Mutation>. Accessed May 2021.
13. Encyclopaedia Britannica. Point Mutation. Available at <https://www.britannica.com/science/point-mutation>. Accessed May 2021.
14. Awad M, *et al.* Durable Responses With PD-1 Inhibition in Lung and Kidney Cancer and the Ongoing Search for Predictive Biomarkers. *J Clin Oncol.* 2015;33(18):1993-1994.
15. National Cancer Institute. NCI Dictionary of Cancer Terms. Available at <https://www.cancer.gov/publications/dictionaries/cancer-terms/search/EGFR/?searchMode=Begins>. Accessed May 2021.
16. Szumera-Ciećkiewicz A, *et al.* EGFR Mutation Testing on Cytological and Histological Samples in Non-Small Cell Lung Cancer: a Polish, Single Institution Study and Systematic Review of European Incidence. *Int J Clin Exp Pathol.* 2013;6(12):2800-2812.
17. World Health Organization- International Agency for Research on Cancer. Globocan Austria Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/40-austria-fact-sheets.pdf>. Accessed May 2021.
18. World Health Organization- International Agency for Research on Cancer. Globocan Belgium Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/56-belgium-fact-sheets.pdf>. Accessed May 2021.
19. World Health Organization- International Agency for Research on Cancer. Globocan Denmark Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/208-denmark-fact-sheets.pdf>. Accessed May 2021.
20. World Health Organization- International Agency for Research on Cancer. Globocan Finland Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/246-finland-fact-sheets.pdf>. Accessed May 2021.
21. World Health Organization- International Agency for Research on Cancer. Globocan France Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/250-france-fact-sheets.pdf>. Accessed May 2021.
22. World Health Organization- International Agency for Research on Cancer. Globocan Germany Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/276-germany-fact-sheets.pdf>. Accessed May 2021.
23. World Health Organization- International Agency for Research on Cancer. Globocan Italy Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/380-italy-fact-sheets.pdf>. Accessed May 2021.
24. World Health Organization- International Agency for Research on Cancer. Globocan Ireland Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/372-ireland-fact-sheets.pdf>. Accessed May 2021.
25. World Health Organization- International Agency for Research on Cancer. Globocan Israel Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/376-israel-fact-sheets.pdf>. Accessed May 2021.
26. World Health Organization- International Agency for Research on Cancer. Globocan The Netherlands Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/528-the-netherlands-fact-sheets.pdf>. Accessed May 2021.
27. World Health Organization- International Agency for Research on Cancer. Globocan Norway Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/578-norway-fact-sheets.pdf>. Accessed May 2021.
28. World Health Organization- International Agency for Research on Cancer. Globocan Poland Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/616-poland-fact-sheets.pdf>. Accessed May 2021.
29. World Health Organization- International Agency for Research on Cancer. Globocan Portugal Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/620-portugal-fact-sheets.pdf>. Accessed May 2021.
30. World Health Organization- International Agency for Research on Cancer. Globocan Spain Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/724-spain-fact-sheets.pdf>. Accessed May 2021.
31. World Health Organization- International Agency for Research on Cancer. Globocan Sweden Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/752-sweden-fact-sheets.pdf>. Accessed May 2021.
32. World Health Organization- International Agency for Research on Cancer. Globocan Switzerland Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/756-switzerland-fact-sheets.pdf>. Accessed May 2021.
33. World Health Organization- International Agency for Research on Cancer. Globocan United Kingdom Fact Sheet 2020. Available at <https://gco.iarc.fr/today/data/factsheets/populations/826-united-kingdom-fact-sheets.pdf>. Accessed May 2021.