

Lung Cancer Factsheet

Lung cancer is a disease characterised by the uncontrolled growth of abnormal cells that usually line the air passages inside the lung. The abnormal cells stick together and form a clump, also known as a tumour that unless effectively treated, can be deadly.¹

There are two main types of lung cancer: non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC). Approximately 80% of people with lung cancer have non-small cell making it the most common group, whilst the remaining 20% have small cell.²

UK FACTS AND FIGURES

- Lung cancer is the UK's biggest cancer killer and the second most common cancer in the UK after breast cancer³
- Lung cancer currently accounts for 6% of all deaths and 22% of all deaths from cancer in the UK³
- Around 41,428 people were diagnosed with Lung cancer in 2009 (more than 113 people a day)³
- Lung cancer affects men and women, smokers and non-smokers. Lung cancer is the second most common cancer in men after prostate cancer in the UK and the third most common cancer in women after breast and bowel cancer³
- Compared to other major European countries, the UK has significantly worse lung cancer survival rates^{4,5}
- If detected in the early stages, survival rates are as high as over 80 % with surgical intervention⁶. However, most lung cancers are diagnosed at a stage where they are no longer amenable to curative treatment⁷
- There is a strong link between deprivation and the risk of developing lung cancer, as well as significant regional variation in cancer care throughout the UK⁸
- Key findings from the recently published 7th National Lung Cancer Audit Report (2011) for patients diagnosed with lung cancer or Mesothelioma also showed⁹:
 - 60% of lung cancer patients in the UK are over 70 years
 - Incidence rate in women is increasing, 42% in women vs. 58% in men
 - 58.4% of patients will receive any active treatment
 - 56% PS0/1 (i.e. fit for chemotherapy) receive chemotherapy

KEY ISSUES IN LUNG CANCER MANAGEMENT IN THE UK

The proportion of patients receiving active treatment in the UK is low compared with other major European countries.^{10,11} Several potential factors may be responsible for this and there are a number of key attitudes and beliefs that have the potential to delay seeking help until it is too late:

-
- Screening with chest x-ray and sputum cytology has not been shown to be effective in reducing lung cancer mortality¹²
 - Patients tend to present much later than people in other European countries, with more advanced disease, more comorbid illness and a much lower chance of having potentially curative surgery, owing to issues around awareness of the disease or patterns of early interaction with health services^{11,13}
 - Patients may be inclined to deny symptoms or delay seeking help
 - There is often self-blame for smoking though an increasing proportion of patients have never smoked
 - There is often the feeling that there is little that can be done, particularly if they are elderly
 - There is often fear of the unknown and what may happen to them
 - The influence of age varies from perceptions of relative fitness to willingness to undergo treatment
 - Though treatments have evolved, there are still often negative perceptions of these, compounded by the patients belief that this is self inflicted and that they do not deserve treatment
 - In the early stages of the disease, many people have vague or no symptoms. Patients may often present with symptoms from other areas rather than lung specific symptoms, leading to further delays in detection. Persistent cough along with blood in the phlegm and shortness of breath are common symptoms of lung cancer. Main symptoms of lung cancer include:
 - a cough that doesn't go away after two to three weeks
 - a long-standing cough that gets worse
 - persistent chest infections
 - coughing up blood
 - unexplained persistent breathlessness
 - unexplained persistent tiredness or lack of energy
 - unexplained persistent weight loss
 - persistent chest or shoulder pain

ABOUT NON-SMALL CELL LUNG CANCER (NSCLC)

- Approximately 80% of lung cancers are NSCLCs²
- There are four clinical stages of NSCLC, ranging from I (least advanced) through to IV (most advanced)
- The main types of NSCLC are²:
 - Adenocarcinoma – typically arises near the outer surface of the lung and varies in rate of growth and size
 - Large cell carcinoma – can appear in any part of the lung and tends to grow and spread more quickly
 - Squamous cell carcinoma – the commonest type of lung cancer in the UK and often forms in the larger, more central airways
- Increasingly, cancer 'type' diagnosis is made by taking a sample of tissue or cells and reviewing under a microscope, a process known as histological confirmation, or histology
- Within the UK, 76% of patients are diagnosed based on histology, though there is significant variation throughout the UK⁹

- Because different treatments for NSCLC work more effectively on some types of cancer, the benefits of histological confirmation or diagnosis are that treatments can be tailored to the patient

References:

1. The Roy Castle Lung Cancer Foundation. Understanding Lung Cancer. Available on <http://www.roycastle.org/lung-cancer/You-have-just-been-told-you-have-lung-cancer/Types+of+lung+cancer>. Accessed October 2012
2. The Roy Castle Lung Cancer Foundation. Types of Lung Cancer. Available on <http://www.roycastle.org/lung-cancer/Understanding+Lung+Cancer/Types+of+lung+cancer>. Accessed January 2012
3. Cancer Research UK. Cancer Stats, Key Facts on Lung Cancer and Smoking. Available on <http://info.cancerresearchuk.org/cancerstats/keyfacts/lung-cancer/>. Accessed October 2012
4. Holmberg L, Sandin F, Bray F, Richards M, Spicer J, Lambe M, Kint A, Peake M, Strand, T-E, Linklater K, Robinson D & Møller H. National comparisons of lung cancer survival in England, Norway and Sweden 2001-2004: differences occur early in follow-up. *Thorax*, 2010;65:436-441.
5. Abdel-Rahman M, Stockton D, Rachet B, Hakulinen T, Coleman MP. What if cancer survival in Britain were the same as in Europe: how many deaths are avoidable? *Br J Cancer* 2009; 101(Suppl. 2):S115–24.
6. Survival of Patients with Stage I Lung Cancer Detected on CT Screening. *The New England Journal of Medicine*. n engl j med 355;17 www.nejm.org October 26, 2006
7. Sant M et al. EURO CARE-3: survival of cancer patients diagnosed 1990–94—results and commentary. *Annals of Oncology* 14 (Supplement 5): v61–v118, 2003
8. Cancer and health inequalities: An introduction to current evidence. Cancer Research UK 2006. Available on http://www.cancerresearchuk.org/cancer-info/prod_consump/groups/cr_common/@nre/@pol/documents/generalcontent/crukmig_1000ast-3344.pdf
9. NHS National Lung Cancer Audit. 2011 Audit. Available on http://www.ic.nhs.uk/webfiles/Services/NCASP/audits%20and%20reports/NHS_IC_Lung_Cancer_AUDIT_2011_Interactive_PDF_V1.0.pdf
10. MA Richards, The size of the prize for earlier diagnosis of cancer in England. *British Journal of Cancer* (2009) 101(S2), S125 – S129
11. Imperatori A, Harrison RN, Leitch DM et al Lung Cancer in Teeside (UK) and Varese (Italy): a comparison of management and survival *Thorax*. 2006 March; 61(3): 232–239.
12. Smith JJ, Berg CD. Lung cancer screening: promise and pitfalls. *Semin Oncol Nurs*. 2008 February; 24(1): 9–15. doi: 10.1016/j.soncn.2007.11.007.
13. British Lung Foundation. Lost Lives – the UK’s Lung Cancer Epidemic. Available on <http://www.blf.org.uk/Page/Special-Reports>. Accessed October 2012