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### 351. Epidemiology and care research of lung cancer

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**P3128****KBP-2010-CPHG: Characteristics and management of 6,083 new cases of non-small-cell-lung-cancer (NSCLC)**

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**Background:** In 2000, the French College of General Hospital Respiratory Physicians (CPHG) performed a prospective epidemiological multicentre study (KBP-2000-CPHG) which described the features of 5,667 primary lung cancers. Over the last 10 years, lung cancer management changed: new drugs, diagnostic techniques and TNM classification. The CPHG thus promoted a similar study: KBP-2010-CPHG.

**Aims and objectives:** To describe the characteristics and management of new cases of primary lung cancer; to evaluate 1, 4 and 5-year patient survival rates; to compare results with those of KBP-2000-CPHG.

**Methods:** Data were collected using a standardised form for all patients  $\geq 18$  years with a primary lung cancer, histologically or cytologically diagnosed between 1 January and 31 December 2010 and managed in a general hospital. A steering committee checked exhaustively in each centre.

**Results:** 7,610 patients were enrolled in 119 centres. 6,083 patients (86.3%) had a NSCLC. The main characteristics of NSCLC patients were: mean age,  $65.5 \pm 11.4$  years; 24.4% female; 11.9% non-smokers, 40.5% ex-smokers, 47.6% current smokers; 69.8% performance status 0 and 1. The main characteristics of the tumour were: 53.5% of adenocarcinoma, 31.0% of squamous-cell carcinoma, and 12.9% of large cell carcinoma; 18.1% stage IA to IIB, 14.0% stage IIIA, 9.5% stage IIIB and 58.3% stage IV. First-line treatments were: curative surgery, 19.0%; radiotherapy alone, 18.7%; combined radio-chemotherapy, 26.1%; and chemotherapy, 61.8%.

**Conclusions:** In 10 years, characteristics of NSCLC patients changed with a significantly increase ( $p < .0001$ ) of women, non-smokers, adenocarcinoma histology and stage IV at diagnosis.

### P3129

#### Proportion of adenocarcinomas of the lung rise from 22 to 42% in a London hospital 2000-2009

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**Background:** The proportion of lung cancers that are adenocarcinomas (ACs) is reported to be increasing in Europe. In 2006-2008 the proportion of UK lung cancers typed as AC was 26%.<sup>1</sup> Incidence of lung cancer in females has recently stabilised in the UK.<sup>1</sup> Knowledge of local case mix is essential for service planning.  
**Methods:** King's College Hospital, London, UK, has a multiethnic, deprived population of 250 000. Since 1999, all lung cancers have been discussed at a multi disciplinary (MDT) meeting and recorded on a database. Data for histologically confirmed cases of primary lung cancer diagnosed over the period 2000-2009 were studied and stratified into 2-year epochs by date the patient was first seen. The Chi square for trend test was used to examine changes in proportions of cases in i) females versus males; ii) ACs and iii) SCCs versus all other tissue types.  
**Results:** See Table 1.

Table 1. Lung cancer cases 2000-9

Epoch	Count (% of total cases)			
	Lung Cancer	Female	Adenocarcinoma	Squamous Cell Carcinoma
2000-1	227	69 (30)	49 (22)	96 (43)
2002-3	222	79 (36)	59 (27)	91 (41)
2004-5	235	91 (39)	72 (31)	81 (34)
2006-7	264	100 (38)	90 (34)	90 (34)
2008-9	252	98 (39)	105 (42)	79 (31)
Total	1200	437	375	437
Chi square for trend*		3.7	25.4	8.46
P value		0.053	<0.001	0.004

\*1 degree of freedom.

**Conclusion:** The trend for increasing proportion of ACs (and decreasing SCCs) was highly significant; the proportion of ACs in our cohort since 2006 is greater than the latest UK figure and numbers of ACs do not appear to have stabilised.<sup>1</sup> The proportion of female cases is in line with UK data and is not significantly changing.

#### Reference:

[1] Lung Cancer. NICE clinical guideline 121. Issue date: April 2011. National Institute for Health and Clinical Excellence, UK.

### P3130

#### Lung cancer in Berlin – Significant changes in age structure, gender ratio and histologic subtypes from 2000 to 2008

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**Background:** The Tumorzentrum Berlin (TZB) analyses the clinical data of lung cancer pts. in Berlin in order to improve patient care by means of joint quality assurance.

**Aim:** To evaluate time shifts in age structure, gender ratio and the proportions of histologic subtypes in pts. with lung cancer from 2000 to 2008.

**Methods:** In this retrospective case study, the pooled data of the TZB of pts. with newly diagn. lung cancer during 2000 and 2008 were analyzed. Pts. were divided into three 3-year groups (G1: 2000-2, G2: 2003-5 and G3: 2006-8).

**Results:** The total cohort comprised 14,302 pts. (G1: 4,284 pts, G2: 5,049 pts and G3: 4,969 pts. The increase in pt. numbers in G2 and G3 is explained primarily by an absolute increase in pts. aged  $\geq 70$  yrs., but there was no trend for an increase of younger pts (Figure 1).

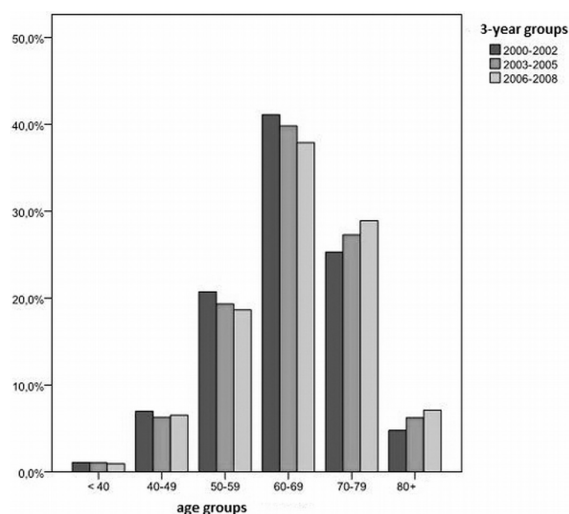


Figure 1

The proportion of pts. with adenocarcinomas has increased over time for all age groups (Figure 2).

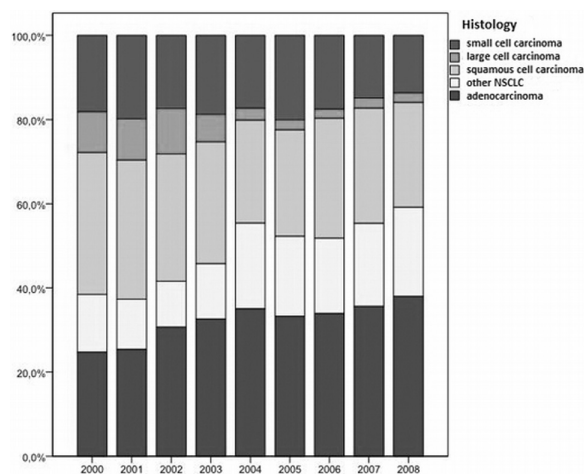


Figure 2

**Conclusions:** The data of the TZB documented significant epidemiologic changes in pts. with lung cancer over time. In contrast to other regions in the world,

there was no increase of younger pts. in spite of a growing proportion of pts. with adenocarcinoma.

### P3131

#### Features of lung cancer in young people: Report of 14 cases

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**Introduction:** Lung cancer is one of the most common cancers in all ages. Little is known about clinical factors associated with the development of lung cancer in young patients. That is why mistakes are often made in radiological diagnosis of lung cancer in young people.

**Method:** In this report were included 14 patients admitted in our institute between 2003 and 2012, 8 males/6 females with the mean age of 29 years. Eight patients were non-smokers, 6 patients were smokers (10-65 pack-years). The patients were initially diagnosed with different lung diseases: asthma (2), pneumonia (7), tuberculosis (5). All patients were evaluated with chest X-ray, CT-scan, bronchoscopy.

**Results:** Patients presented at the doctor for several symptoms: dyspnea, fatigue, cough in all cases, fever (2), wheezing (2). Ten patients had inflammatory syndrome. The radiological aspects were: lung tumor (11), multiple nodules (2), and atelectasis (1). All patients had negative exams for My. Tuberculosis. The mean delay of diagnosis was 3.5 months. Cancer was confirmed on histological examinations: bronchial biopsy (12), tumor removed during surgery (1), necropsy (1). The type of carcinoma was adenocarcinoma (6), epidermoid (7), macrocellular (1). Six patients died during initial hospitalization, 8 cases were operated and received postoperative chemotherapy.

**Conclusions:** Lung cancer is unfortunately not the first diagnosis taken into account in young people with respiratory problems. The young patient's condition deteriorates rapidly and the diagnosis of cancer is made when disease is already in an advanced stage. Diagnosis is often delayed and patients might lose the opportunity of curative treatment.

### P3132

#### A retrospective study of lung cancer in young women

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**Introduction:** Less advanced disease staging at presentation, better performance status and better survival figures have been noticed in younger ( $\leq 50$  years) lung cancer women W1 as compared to older ( $> 50$  years) patients with the disease W2. **Aim:** To compare clinico-pathological features of lung cancer in young and elderly women and to determine any existing difference between the two groups.

**Patients and methods:** It's a retrospective study, including 44 women admitted in our department with lung cancer.

**Results:** There were 15 young women with a mean age of 41 years (20-50 years) and 29 elderly patients with a mean age of 64 years (51-85 years). 26% of first group were current smoker.

26% of W1 had family history of lung cancer vs 3% of W2 ( $p=0.02$ ). Comorbidities were not found in any case of W1 and in 45% of W2 ( $p < 0.002$ ). Diagnosis delay was 3 months in W1 and 4.4 months in W2 ( $p=0.04$ ). 94% of younger women had favourable performance status (PS)  $\leq 1$ . They were more likely to have small cells carcinoma (20% vs 9%), without significant differences in adenocarcinoma rate (46% vs 43%). 20% of W1 had stage I disease at presentation vs 3% in W2 ( $p=0.05$ ). Younger had more frequently surgical treatment 33% vs 6% ( $p=0.04$ ). Mean survival time were better in W1 (3 years vs 1.4 years,  $p=0.03$ ).

**Conclusion:** Majority of these patients presented with early stage disease. 26% had positive family history suggesting a possible genetic factor. Favourable performance status resulted in higher resection rate and active treatment, which lead to better survival.

### P3133

#### Pathological profile of lung cancer in Tunisia

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**Introduction:** Primary lung cancer represents a major public health problem. Its incidence is increasing worldwide and between one in Tunisia.

**Aim:** The aim of this work is to study the pathological profile of lung cancer in our department.

**Methods:** A retrospective study on 200 patients treated between 2005 and 2010 for a primary lung cancer.

**Results:** The average age of our patients was 60 years and the sex ratio was 10. Hundred and seventy eight cases of diagnosed patients were smokers or former smokers. Only one woman was smoking and only 14 among the 181 men were no-smokers. The tobacco intoxication average was 48.9 PA. The non-small-cell lung cancer (NSCLC) has represented the majority of primary lung cancer in our study with 165 cases (82.5%) against 35 cases (17.5%) of small-cell lung cancer (SCLC). Only one woman presented a small-cell carcinoma. The study of

the distribution of histological types in the NSCLC showed a predominance of adenocarcinoma (47.5% of cases) followed by a lesser incidence of squamous cell carcinoma (28.5% of cases) and large cell carcinoma (3% of cases). The gender analysis has objectified the same frequency profile in women between adenocarcinoma and squamous cell carcinoma. (63% against 21% of adenocarcinoma of squamous cell carcinoma). Other rare histologic types that were found in our patients: 2 cases of sarcoma, a case of bronchioloalveolar carcinoma, one case of adenosquamous carcinoma and one case of pleomorphic carcinoma.

**Conclusion:** The histological distribution of primary lung cancer shows an increased frequency of adenocarcinoma being more frequent than squamous cell carcinoma (47.5% vs 28.5%) while the latter was clearly predominant in 1994 (42.8% versus 15, 3%).

### P3134

#### Gender difference in age, risk factors and histological characteristics of lung cancer patients presented to the respiratory unit of Teaching Hospital Kandy

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**Background:** In Sri Lanka lung cancer is rare among females with an incidence of 3 per 100000 population compared to males which is 12 per 100000.

**Objective:** To describe the gender differences in age, risk factors and histological characteristics of lung cancer patients.

**Methods:** The study was carried out in the Respiratory Unit of the Teaching Hospital Kandy from 30/4/2010 to 31/3/2011. Consecutive patients with histologically proven lung cancer were recruited. Age at presentation and risk factors were documented and males and females were compared using Chi square statistics and Fishers Exact test.  $p$  value  $< 0.05$  was taken as significant.

**Results:** There were 12 (19.3%) female and 50 (80.7%) male patients. Mean age of males was 61 (SD 8.8) and females was 57 (SD 13.7). Four (8.0%) males and 5 (41.6%) females were below the age of 50 [Chi-6.33,  $p=0.011$ ]. Forty one (82%) males and one female (8.3%) were active smokers [Chi = 110,  $p < 0.0001$ ]. Four males (8%) and 10 (83%) females were exposed to smoke given off from firewood during cooking [Chi = 113,  $p < 0.0001$ ]. Histologically only 4 (33%) females had squamous carcinoma but 32 (64%) males had squamous carcinoma [chi 19,  $p < 0.0001$ ]. Six (50.0%) females and 9 (18%) males had adenocarcinoma [Chi 22.2,  $p < 0.0001$ ]. Five males had small cell carcinoma while none of the females had [FET,  $p 0.0011$ ].

**Conclusions:** Female lung cancer patients were younger compared to males. Histological types and risk factors were different between 2 groups. Whether age and histological difference are related to possible risk factor difference needs further investigation.

### P3135

#### Experience with lung neuroendocrine tumors in three Portuguese hospitals

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**Introduction:** Lung neuroendocrine tumors (NET) are rare and heterogeneous, with wide range of aggressiveness.

**Aim:** Describe clinical and epidemiologic characteristics, stage, treatment and survival of patients with lung NET according to histological group -[typical carcinoid (TC), atypical carcinoid (AT), large cell neuroendocrine carcinoma (NEC)].

**Methods:** Retrospective longitudinal, multicenter study analyzing files of patients diagnosed with NET from 2005 to 2010. Small cell carcinoma was excluded. Comparisons among groups were done with  $\chi^2$ . Survival curves were generated using Kaplan-Meier method.

**Results:** 137 patients were included, mean age (SD) 59 ( $\pm 14$ ) years; 71 (52%) male; 82 (60%) non-smokers. Histological classification: 54 TC, 49 NEC and 34 AC. Table 1 (see p. 558s) describes patients' characteristics. Follow-up ranged from 1 to 78 months. Twenty seven patients (20%) died, 1 in TC, 2 in AC, 23 in NEC. The median overall survival (OS) calculated for NEC was 42 months, for other patients median OS has not yet been reached.

**Conclusion:** In our series few patients were asymptomatic, none had carcinoid syndrome and most had symptoms other than those due to endobronchial involvement, which was found in less than 50% pts. Most frequent histological pattern was TC. NEC was most aggressive, with more advanced stage and a higher mortality. Surgery was the most frequent treatment. Prognosis is generally good, although follow-up is still short.

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Table I- Characteristics by group of lung NET

	NET	TC	AC	NEC
<b>N</b>	137	54 (39%)	34 (25%)	49 (36%)
<b>Age</b>	59	55	59	63
<b>Gender</b>				
- Female	71 (52%)	20 (37%);	17 (50%)	15 (31%)
- Male	66 (48%)	34 (63%)	17 (50%)	34 (69%)*
<b>Clinical Presentation</b>				
- Asymptomatic	4 (3%)	1 (2%)	0	3 (6%)
- Endobronchial involvement	39 (27%)	19 (32%)	13 (37%)	7 (14%)
- Other	101 (70%)	39 (66%)	22 (63%)	39 (80%)
<b>Radiological Pattern</b>				
- Nodule	79 (58%)	43 (80%)	18 (53%)	18 (37%)*
- Mass	46 (34%)	6 (11%)	13 (38%)	27 (55%)
- Atelectasis	8 (6%)	5 (9%)	1 (3%)	2 (4%)
- Condensation	2 (2%)	0	2 (6%)	0
- Other	2 (2%)	0	0	2 (2%)
<b>Endobronchial Lesion</b>				
- Mass	50 (36%)	21 (39%)	16 (47%)	13 (27%)*
- Infiltration	12 (9%)	3 (5%)	6 (18%)	3 (6%)
- No	57 (41%)	27 (50%)	7 (20%)	23 (47%)
- Unknown	18 (13%)	3 (5%)	5 (15%)	10 (20%)
<b>Stage</b>				
- Ia	48 (35%)	33 (61%)	10 (29%)	5 (10%)*
- Ib	27 (20%)	13 (24%)	7 (20%)	7 (14%)
- Ila	13 (10%)	1 (2%)	6 (18%)	6 (12%)
- Iib	5 (4%)	2 (4%)	1 (3%)	2 (4%)
- Ilaa	15 (11%)	3 (5%)	5 (15%)	7 (14%)
- Ilib	4 (3%)	0	0	4 (8%)
- IV	25 (18%)	2 (4%)	5 (15%)	18 (37%)
<b>Treatment</b>				
- Surgery	83 (62%)	48 (90.6%)	23 (72%)	12 (25%)*
- Combined	22 (16.4%)	1 (1.9%)	5 (16%)	16 (32%)*
- Chemotherapy	16 (11.9%)	1 (1.9%)	3 (9%)	12 (25%)*
- Radiotherapy	3 (2.2%)	0 (0%)	1 (3%)	2 (4%)
- Others	10 (7.5%)	3 (5.6%)	0	7 (14%)

\*p≤ 0,05

Abstract P3135 – Table

## P3136

**Second primary lung cancer in clinical emergency hospital of Constanta – A prospective study**

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**Background:** More people are living with a diagnosis of cancer than ever before. One of the consequences of surviving cancer is the increased likelihood of being diagnosed with a second primary cancer.

**Aim:** To determine the frequency of secondary primary lung cancer (SPLC) in clinical practice.

**Material and method:** A total of 176 patients was diagnosed with lung cancer, between January 2001 and January 2011 in 1st Internal Medical Department of Clinical Emergency Hospital of Constanta; 22 patients (12.50%) were already diagnosed with other cancers. Positive diagnosis of SPLC included chest X-ray, spiral CT, bronchoscopy, EUS+FNA, CEUS.

**Results:** Most patients diagnosed with SPLC were initially diagnosed with Hodgkin's disease (n=4), head and neck cancer (n=5), bladder cancer (n=3). Gender distribution showed male predominance (n=16). Most patients (n=14) were heavy smokers (>25 Pack Years; P<0.0001). Most patients were symptomatic at diagnosis (n=17). All patients performed chest X-ray and CT (chest, abdomen, brain) for diagnosis and staging. Most histological types of CPPS were NSCLC (n=18; P<0.0001). All cases of SCLC were diagnosed in advanced stages (n=4). NSCLC cases showed a relatively equal distribution of early (n=8) and advanced stages (n=10).

**Conclusions:** The excess risk of developing a second malignancy among cancer survivors can be attributed to similar aetiologies, genetics and the effects of treatment. As the number of cancer survivors continues to grow, the importance of ongoing medical supervision and screening to detect second primary cancers at an earlier stage and thereby improve the effectiveness of treatment will remain critical.

## P3137

**The histological confirmation rate of lung cancer in the UK using the NLCA database**

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**Background:** The optimal histological confirmation rate (HCR) for lung cancer is unknown. However, in the UK, an arbitrary figure of 75% has been recommended by the National Lung Cancer Audit (NLCA) as a benchmark. The aim of this study was to quantify the effect of patient features on the likelihood of having a histological diagnosis of lung cancer.

**Methods:** Individuals with a diagnosis of lung cancer were selected from the NLCA database from between 01/01/2004 and 31/12/2010. Percentage and odd ratios with 95% confidence interval were calculated to assess the proportion of patients having histology.

**Results:** Our study included a total of 127,099 individuals with NSCLC. HCR for NSCLC in the NLCA was found to be 66.8%. This however was increasing from 62.2% in 2007 to 72.3% in 2010. The histology in patients aged <65, PS of 0/1 and Charlson Index (CI) of 0 was 89.5%, while 56.8% in patients with the same age and CI but PS of 4. This reduced to 30% in patients with age >75 years and CI of 0 and PS of 4. Increasing age and worsening PS were also associated with a reduced odds ratio, whilst stage and CI had little effect on the likelihood of having proven histology. Individuals from least affluent areas were 23% less likely (adj OR 0.77, 95% CI 0.74 to 0.81, p<0.001) to have histology than patients from most affluent areas.

**Conclusion:** HCR is crucial in determining the appropriate treatment plan for every patient, especially with the advent of targeted therapies. Our results also show that there is a difference in the histological rate in the sub groups of patients. Therefore achieving 75% HCR in the total population is unreasonable and it should focus on different attainable HCR in sub group of patients.

## P3138

**Organization and results of the EGFR mutation Spanish quality control program**

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There is a need for EGFR mutation performing in non-small cell carcinomas to select the best treatment. One of the most important problems is accuracy of results. The Spanish Society of Pathology has developed a quality control program. We present their structure and results.

The organizing laboratory selects four cases tested with two techniques to send them. To simulate bronchoscopic samples tissue microarray punchers are used to construct a paraffin block with five to six 1 mm samples. Four unstained slides are identified and sent. Each laboratory extracts DNA and perform the analysis with their own method. They have to stain one of the sections and to inform about histology and percentage of tumoral cells. A questionnaire with information about the method, number of analysis performed last year, and the text with all the information they include in clinical practice are analysed by the organizing laboratory. A general and a particular inform are sent to each participant.

In the third round 31 spanish centres (25 hospitals, two medicine schools and four private laboratories) sent the complete results. Three mutated (one L858R and two different Del19) and one wild-type adenocarcinomas were selected. No false positive results were reported. There were 11 non-informative and 13 false-negative cases among the 124 analysed. Most of the false-negative results were obtained in centres that used Sanger sequencing in the L858R case where the percentage of neoplastic cells was small.

There is a need to establish an organized quality control program for molecular testing in lung cancer patients. Pathology societies could be the organizers making routine laboratories perform these tests according to best practises.

## P3139

**Epidemiological data and correlation with bronchoscopic findings in first diagnosis of lung cancer in the last 3 years in a tertiary Greek hospital**

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**Introduction:** Lung cancer remains in Europe the second most frequent type of malignancy. In Greece, even though the incidence of lung cancer continues to grow, there is not enough epidemiological data. Our aim was to conduct a retrospective epidemiological study using the large pool of data from our Bronchoscopic Unit.

**Methods:** In a total of 235 patients, diagnosed with lung cancer by histological and/or cytological bronchoscopic findings (2009-2011), we conducted a correlation between demographic and medical data at the time of diagnosis with the type of lung cancer.

**Results:** The mean age of first diagnosis was between 60-70 years (33%) and the male to female ratio was 3.8:1. There was no significant difference between the three most common histological types (ADCL -24%, SqCLC-21%, SCLC-22%), and 1/4 of the patients were found to have distal locations at the time of diagnosis. The smoking history of the patients had the strongest correlation with all lung cancer types. The most common first symptom was persistent cough for ADCL (18%), haemoptysis for SqCLC (21%) and symptoms of advanced disease in SCLC (25%). In all types of cancer, the most common radiologic finding was lung nodule (60%), the main endobronchial finding was a mass causing obstruction of the bronchus (45%) and almost half of the patients (45%) had lymphnodes hyperplasia.

**Discussion:** In contrast with European data, the SCLC retains a high percentage between all histological types of lung cancer. Smoking is confirmed to have the strongest correlation with all lung cancer types. The mean age of first diagnosis is lower than expected from studies conducted in the US.



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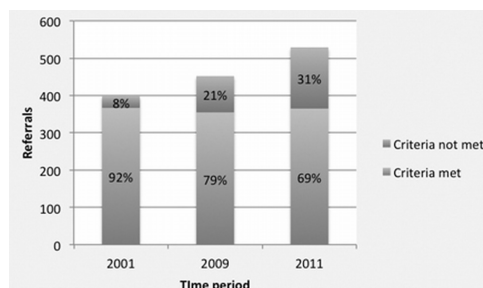
**P3140****Meeting the referral criteria to the rapid access lung cancer clinic: A 10-year audit**

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**Introduction:** Although targeting patients with agreed criteria (where the risk of cancer is high) under the "two week wait" rule to fast-track lung cancer clinics allows an efficient and timely diagnosis, the referral of other patients to such services will potentially waste valuable healthcare resources. To look at this further we studied the trends in referral to our dedicated rapid access lung cancer clinic since its inception in 2001.

**Method:** We audited referrals in 2001, 2009 and 2011, looking for their compliance with the nationally agreed referral criteria, and their subsequent placement and outcome.

**Results:** There was an increase in referrals that did not meet the agreed criteria with time.



Of those that did not meet the agreed criteria, in 2001: 10 were returned to the referrer, 18 redirected to a general chest clinic, and 3 were already under specialist care (2009: 15, 51, and 17; 2011: 44, 108, and 12 respectively). Subsequently 9 (3%) were diagnosed with lung cancer (8 at follow-up and only 1 on re-referral 18 months later with haemoptysis).

**Conclusion:** These results show that a significant and increasing proportion of referrals are made outside the agreed national criteria and may have been more appropriately referred elsewhere. We are seeking to educate our colleagues to ensure that these scarce and expensive healthcare resources are best used for this unfortunate patient population.

**P3141****Timely diagnosis and therapy for suspected lung cancer patients in a 2 day rapid outpatient diagnostic program with integrated FGD-PET and diagnostic CT**

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**Introduction:** Delays in the diagnosis of lung cancer are under debate and may affect outcome. The objectives of this study were to compare delays in a rapid outpatient diagnostic program (RODP) for suspected lung cancer patients with those described in literature and guideline recommendations, to investigate the effects of referral route and symptoms on delays, and to establish whether delays were related to disease stage and outcome.

**Methods:** We performed a retrospective chart study of all patients with suspected lung cancer, referred to the RODP of our tertiary care university clinic between 1999 and 2009. Patient characteristics, tumor stage and different delays were analyzed.

**Results:** Of 565 patients with available data, 290 were diagnosed with lung cancer, 48 with another type of malignancy, and 111 patients with a non-malignant lesion. In 112 patients no immediate definite diagnosis was obtained, and in 82 of these the proposed follow-up strategy confirmed a benign outcome. The median first line, patient, referral, diagnostic, curative and palliative therapeutic delays were 54, 19, 7, 2, 18 and 21.5 days, respectively. The RODP care was generally far more timely compared to literature and published guidelines, except for both referral and palliative therapeutic delay. No specific delay was significantly related to disease stage or survival.

**Conclusion:** An RODP results in a timely diagnosis well within guideline recommendations. Patient and first line delay account for most of total patient delay. Within the limitations of this retrospective study, we found no association with disease stage or survival.

**P3142****The use of surgical services in the management of suspected lung cancers**

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**Introduction:** The National Lung Cancer Audit Report 2011 identified an average surgical rate of 14% in England and Wales. This focuses on potentially curative surgery (with the exception of mesothelioma) and so does not encompass the full breadth of surgical intervention undergone by our patients. This study aimed to describe this spectrum for our patient population in a secondary care setting.

**Method:** The electronic patient record system was searched for all patients discussed at multidisciplinary meetings in 2010. Data was gathered from letters, operation notes and meeting minutes on the system.

**Results:** 1172 cases were discussed of which 212 (18%) had confirmed lung cancer. In these, 74 (37.7%) procedures were performed. 1.4% of patients had two procedures. 8.0% had a lobectomy, 4.7% a wedge resection or segmentectomy, 14.6% a VATS drainage of effusion, biopsy and/or pleurodesis (4.2% for mesothelioma) and 5.2% other procedures. For 2.4% there was no data.

After surgery, histology revealed NSCLC in 52.7%, mesothelioma in 13.5%, SCLC in 2.7%, carcinoid in 1.4% and no malignancy in 6.8%. In 5.4%, a differential diagnosis was given, and in 17.6% there was no data. From all discussed cases, 100 (8.5%) procedures were done. The average age was 70 years. Of the 26 procedures in patients without eventual lung cancer, the diagnosis prior to surgery was considered to be cancer in 69.2%, empyema in 19.2%, tuberculosis in 7.7% and lymphoma in 3.8%. Of these cases, histology showed metastatic disease with a non-lung primary in 23.1%.

**Conclusion:** In our patient population a surgical procedure is performed in 37.7% of patients with lung cancer. This is higher than the surgical rate of 16.9% according to the audit criteria.

**P3143****Lung cancer patients in TB hospital: Factors associated with diagnostic delay**

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The delay of diagnostics worsens prognosis of disease.

**The purpose:** To define factors, associated with a delay of lung cancer diagnostics.

**Materials and methods:** An analysis of waiting times for 31 patients with lung cancer was undertaken. Males 65%, villagers 61%, mean age 55±14 yrs. Clinical, radiological, laboratory data of all admitted patients were collected. The period from the disease manifestation up to making a hospital diagnosis was 106±68 days, patient delay - 25±30 days. 39% of patients were previously treated of an assumed pneumonia before hospitalization in TB hospital. All patients have been hospitalized with wrong diagnosis "pulmonary TB", a principal cause - misinterpretation of chest radiogram. 48% of patients up to making a hospital diagnosis received antituberculous treatment. 55% of patients - smokers.

**Results:** Factors associated with increase of diagnostic delay: acute disease beginning (OR 0,34, p=0,03), absence of hematological changes (OR 0,23, p=0,01), nonspecific microbial growth in sputum (OR 0,1, p=0,003). Factors, associated with decrease of a diagnostic delay - old age (OR 2,7, p=0,034), low body weight (OR 2,4, p=0,038), lost of appetite (OR 3,7, p=0,006), dyspnea (OR 3,4, p=0,002), leukocytosis (OR 2,5, p=0,03), ESR acceleration (OR 3,3, p=0,007), lymphopenia (OR 2,5, p=0,043), eosinophilia (OR 3,3, p=0,01), spherical opacity patterns on chest radiogram (OR 5,9, p=0,000), pleural exudates (OR 11,7, p=0,000), presence of atypical cells in sputum (OR 46, p=0,000), biopsy performed (OR 10,5, p=0,000).

**Conclusion:** The results would allow to optimize the diagnostic approaches to such a patients.

**P3144****Risk factors for early mortality in lung cancer**

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**Aim:** To analyze risk factors for mortality due to lung cancer before 1st and 3rd month after diagnosis.

**Methods:** Revision of all the patients with lung cancer diagnosis in 2 years. Analysis of: demographic variables, smoking status, histological subtype, staging, ECOG, blood analysis, treatments, cause of death. Univariate and multivariate analysis (Cox regression).

**Results:** 270 cases, characteristics shown in table 1. In table 2, multivariate analysis. AUC of 0,952 in the 1st month, 0,874 for the 3rd. Among 41 patients who died during the 1st month, 9 (22%) received palliative treatment (6 Radiotherapy [RT], 3 Chemotherapy [QT]). As death causes: infectious complications in 8 cases (3 QT), respiratory insufficiency 16 cases, rest: tumoral progression and general worsening.

**Conclusions:** High percentage of patients die before the 1st month (15%) and 3rd month (29%) after diagnosis. ECOG >2 points, the most impacting factor for early mortality. Other factors: IV TNM stage, low haemoglobin, adenocarcinoma or small-cell histological subtype (1st month mortality) and a high CA125 level

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Table 1.		FREQUENCY	PERCENTAGE
SEX	Male	222/270	82.2%
	Female	48/270	17.8%
SMOKING STATUS	NO	21/270	7.8%
	YES	121/270	44.8%
	EX	128/270	47.4%
ECOG status	0	22/270	8.1%
	1	163/270	60.4%
	2	70/270	25.9%
	3	13/270	4.8%
	4	2/270	0.7%
DIAGNOSTIC METHOD	Fibrobronchoscopy	150/270	55.6%
	Transperistal biopsy	52/270	19.3%
	EBUS	39/270	14.4%
	EUS	3/270	1.1%
	Mediastinoscopy	1/270	0.4%
	Thoracotomy	13/270	4.8%
HISTOLOGICAL SUBTYPE	Others	12/270	4.4%
	Squamous cell Ca.	108/270	40%
	Adenocarcinoma	84/270	31.1%
	Carcinoma	30/270	11.1%
	Non small-cell ca.	11/270	4.1%
	Small-cell ca.	34/270	12.6%
TNM STAGING	Others	3/270	1.1%
	Ia	11/270	4.1%
	Ib	17/270	6.3%
	IIa	5/270	1.9%
	IIb	12/270	4.4%
	IIIa	46/270	17%
	IIIb	48/270	17.8%
	IV	131/270	48.5%
TREATMENT	Palliative	55/270	20.4%
	Surgery	31/270	11.5%
	Surgery + Q/RT	13/270	4.8%
	Chemotherapy (QT)	49/270	18.1%
	Radiotherapy (RT)	44/270	16.3%
	Q/RT	78/270	28.9%
RADIOTHERAPY	No	144/270	53.3%
	Radical	65/270	24.1%
	Neoadjuvant	2/270	0.7%
	Adjuvant	2/270	0.7%
	Palliative	57/270	21.1%
CHEMOTHERAPY	No	131/270	48.3%
	Radical	59/270	21.8%
	Neoadjuvant	6/270	2.2%
	Adjuvant	7/270	2.6%
	Palliative	68/270	25.3%
1ST MONTH MORTALITY	YES	41/270	15.2%
	NO	229/270	84.8%
3RD MONTH MORTALITY	YES	78/270	28.9%
	NO	192/270	71.1%

Table 2. Multivariate analysis. Cox regression				
Variable	1st month mortality		3rd month mortality	
	RR(CI 95%)	p	RR(CI 95%)	p
Adenocarcinoma	12,8(2,9-56)	,001	—	NS
Small cell	20,0(3,2-126)	,001	—	NS
Haemoglobin (< 12 gr female) (< 14 gr male)	14,5(3,2-65,6)	,000	2,4(1,1-5,2)	,023
CA125 (>175)	—	NS	6,3(2,0-18,9)	,001
TNM stage IV	3,9(3,2-45,6)	,039	5,0(2,2-11,5)	,000
ECOG status 2-3-4	74(15,3-356,7)	,000	9,1(4,3-19,2)	,000

(3rd month mortality).Respiratory insufficiency and infectious complications, the most frequent death causes apart from tumoral progression.

#### P4890

##### Risk of lung cancer in current cigarette smokers: Case-control study results

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Lung cancer (LC) is the most common cancer in the world. Tobacco causes up to 90% of LC cases.

**Objective:** of the study was to determine the existence of the eventual causal associations among the cigarette smoking and development and distribution of the lung cancer.

**Methods:** The investigation was an analytical type of case-control study. It elaborated 185 patients diseased of LC, and the same number of persons without malignant disease (control group-CG). Risk analyses were done using unconditional logistic regression, which provides results in the form of crude odds ratio. The odds ratios and their 95% confidence intervals (CI) were computed.

**Results:** In the group of patients, there were 67% of current smokers (CS), 23.8% of ex-smokers (ES) and only 9.2% of never smokers (NS), compared to 40.5% of CS, 28.7% of ES and 30.8% of NS in the CG. CS had 5.54 (95% CI, 3.00-10.23), times as great risk to become ill from LC in relation to the NS. Half of the diseased smoked 20-40 cigarettes per day (c/day), while the greatest part of CG smoked 11-20 c/day (50.7%). CS who consumed <20 c/day had 3 times, and those who consumed >20 c/day, even 10.6 (95% CI, 5.24-21.42), times significantly greater risk to become ill, in relation to NS. CS, whose length of the smoking period was >40 y, had 3.94 (95% CI, 2.11-7.35), times greater risk to become ill compared to those who smoked <40 y. The risk to become ill was significantly greater in persons who smoked >20 y, >20 c/day, compared to those, who in the same period smoked <20 c/day (OR=3.78; 95% CI, 2.04-7.01).

**Conclusion:** Smoking cigarettes is the principal risk factor for causation of LC. Concerted control of smoking appears to be an urgent priority in lung cancer prevention.