Results Out of 907 patients with lung cancer, 183 (20%) did not have a histological diagnosis. Based on TNM staging, 10% had stage I, 5% stage II, 19% stage III and 50% stage IV disease. Co-morbidities were significant in this group—57% had severe COPD, 12% had IHD and 11% had had a previous CVA. Of the 183 patients identified, 49 (27%) had at least one attempt at obtaining histology that proved to be non-diagnostic, either bronchoscopy (46 pts) or other procedure (3 pts). 41 (22%) were actively treated—6 (15%) had radical treatment, 5 (12%) had palliative chemotherapy and 29 (70%) had palliative radiotherapy. Performance status (PS) and co-morbidities were the main factors affecting decision to obtain histology. As the Abstract P163 table 1 suggests, patients without histology tended to be older ($p<0.0008$) and a greater proportion had a PS of three or more.

Abstract P163 Table 1

Characteristic	Histology (N=724)	No histology (N=183)
Mean age (SD)	72 (11)	75 (10)
Men	52%	53%
1 yr mortality	60%	75%
PS of 3 or more	210 (29%)	115 (63%)
Stage 3–4	484 (67%)	126 (69%)

Conclusion These data suggest that patients who do not ultimately receive histological confirmation of a diagnosis of lung cancer are a heterogenous population. In most cases the factors that influenced the failure to obtain histology were poor performance status and co-morbidities. We conclude that the percentage of lung patients without histological confirmation of diagnosis may ultimately reflect the overall health of the local population rather than the specific quality of a lung cancer unit's clinical practice. As such we would advocate caution when interpreting differences in this parameter between units.

P164 EGFR MUTATION PREVALENCE IN PATIENTS WITH NON-SMALL CELL LUNG CANCER: AN AUDIT OF TESTING WITHIN THE NORTH OF ENGLAND CANCER NETWORK

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In July 2010, NICE published a technology appraisal relating to the use of a Tyrosine Kinase Inhibitor (TKI) as first line treatment for patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) in whom an epidermal growth factor receptor (EGFR) mutation was found. Subsequently, the North of England Cancer Network implemented region wide testing for EGFR mutations in all patients with a pathological confirmation of NSCLC. A retrospective audit was undertaken to assess the quality of EGFR mutation testing, and to obtain data regarding those patients who had tested positive in order to improve local policy.

Methods Lung cancer MDT lead clinicians from every NHS trust in the region were contacted and asked to provide information about every patient with a confirmed diagnosis of NSCLC for whom specimens had been sent for EFGR mutation testing between October 2010 and February 2011.

Results The 9 trusts identified 314 patients in whom specimens had been sent for EGFR mutation testing; 161 (51%) males; average age 69 years (34–91); 60% were WHO performance status 0–1; 95% were current or ex-smokers; 47% (149) had stage 4 disease. 60 (19%) were female with adenocarcinoma. In 22 (7%) patients an EGFR mutation was found, 16 (73%) were female, 17 (77%) were current or ex smokers, 73% had stage 4 disease. 13 were female with adenocarcinoma, therefore prevalence in this group was 22% (cf 7% for whole local population). 14 (64% of EGFR mutation positive patients, and 4% of all patients tested) were treated with a TKI as first line, (23% had best supportive care, 13% surgery). EGFR mutation testing failed in 29 (9%) patients. The total cost of testing for this period is over £47 000.

Conclusions Local prevalence of EGFR mutations in all patients with NSCLC is 7%, but 22% for female patients with a diagnosis of adenocarcinoma. Prior to this audit, specimens were sent for testing by the pathologist on confirmation of a diagnosis of NSCLC. Local policy has changed as a result of this audit. Specimens are now sent for testing after discussion at the MDM, at the point of referral to Oncology.

Abstract P164 Table 1 EGFR mutation positive patients

	Sex	Age	PS	Cell type	Histology/ cytology	Stage	1 therapy	Smoking status
1	Female	32	0	Adeno	Histology	T4N2M1b	TKI	Never
2	Female	57	0	Adeno	Histology	T3N0M1b	TKI	Current
3	Female	48	0	Adeno	Histology	T1aN3M1a	TKI	Current
4	Female	63	0	Adeno	Cytology	T3N2M0	TKI	Ex
5	Female	65	0	Adeno	Histology	T4N2M1b	TKI	Current
6	Female	62	1	Adeno	Histology	T3N3M1b	TKI	Ex
7	Female	66	1	Adeno	Histology	T2N0M0	Surgery	Current
8	Female	84	1	Adeno	Histology	T3N0M0	TKI	Never
9	Female	56	1	Adeno	Cytology	T2bN2M1a	TKI	Ex
10	Female	73	2	Adeno	Cytology	T2aNxM1b	TKI	Never
11	Female	64	2	Adeno	Histology	T2aN2M1b	TKI	Ex
12	Female	62	3	Adeno	Histology	T1N0M1b	Best supportive	Ex
13	Female	69	3	Adeno	Cytology	T3N3Mx	Best supportive	Ex
14	Female	40	1	Large cell	Cytology	T2aN2M1a	Surgery	Never
15	Female	62	1	Large cell	Cytology	T4N2M1a	Best supportive	Ex
16	Female	69	2	Large cell	Cytology	T2aN0M1a	Best supportive	Current
17	Male	55	0	Adeno	Histology	T2N3M1a	TKI	Current
18	Male	91	0	Adeno	Cytology	T2N0M0	Best supportive	Ex
19	Male	71	1	Adeno	Cytology	T4N2M1b	TKI	Never
20	Male	69	3	Adeno	Histology	T1bN2M1b	TKI	Ex
21	Male	77	1	Squamous	Histology	T4N3M1b	TKI	Ex
22	Male	57	1	Squamous	Histology	T2bN0M0	Surgery	Ex

Infections: from vaccination to treatments

P165 NON-TUBERCULOSIS MYCOBACTERIUM INFECTION IN CYSTIC FIBROSIS LUNG DISEASE; EFFECTS ON BACTERIAL COMMUNITY

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Background Species of Non-Tuberculosis Mycobacterium (NTM), mainly *Mycobacterium abscessus* (*M abscessus*) is of increasing concern in Cystic Fibrosis (CF). *M abscessus* are present in the CF lungs as part of the complex microbiological community. The mode of growth of *M abscessus* in vitro is in biofilms; this maybe a contributing factor for the resistance to antimicrobial agents. Lung infections with *M abscessus* is a major concern in CF patients, as it is difficult to treat them. It has been described that, fatal infections are likely to occur after lung transplantations; therefore pre-transplant colonisation with *M abscessus* has become a relative contraindication to lung transplantation. NTM are recognised pathogens in the CF airways, but associations with clinical outcomes still remains unclear.