patients, mostly by surgical interventions (n=6). 35 patients had previously had a failed diagnostic bronchoscopy. Of these patients, the addition of ENB allowed a diagnosis in 14 cases. 8 underwent an ENB directly upon assessment of the clinical data. The anatomical positioning of the lesion was without consequence for the diagnostic yield. The diagnostic yield increased significantly with the size of the lesion (<2 cm: 15%, 2–3 cm: 37%, >3 cm: 50%, p<0.001).

Conclusions ENB is a useful diagnostic method in the hands of a skilled interventional respiratory physician, particularly where conventional bronchoscopy has failed. Although the anatomical location does not affect the accuracy of the results, lesions over 2 cm in size are more likely to be amenable to this procedure. The overall diagnostic yield lies lower than those quoted in previous studies, so that selective use of this procedure should be considered.

P181 COMPLICATIONS FROM CT GUIDED LUNG BIOPSIES AND RISK FACTORS FOR PNEUMOTHORAX

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Introduction and Objectives CT guided lung biopsy is a proven diagnostic method for lung cancer. However, traditionally complication rates from this procedure have been high. The aim of our study was to assess current complication rates from this procedure and the determine what possible risk factors may account for these.

Methods A retrospective cohort of CT guided lung biopsy procedures done between August 2008 and November 2010 were analysed. Patient notes and electronic radiology records (Centricity PACS) were reviewed. Complications of haemorrhage, pneumothorax, and death were recorded and the sample adequacy of biopsy specimens for pathological examination was determined for each procedure. A univariate analysis was performed for determining the risk of post-biopsy pneumothorax and biopsy type (core or FNA), number of co-axial needle passes, needle pleural angle, lesion size, and lesion distance from pleura at point of biopsy, and lesion location (lung or mediastinal). Consequently, a multiple logistic regression analysis was performed on the most significantly correlated risk factors for pneumothorax from the univariate analysis.

Results Exactly 200 biopsy procedures done in 184 patients were included of which 64% were core biopsies (n=128). The mean age was 69 years (range 31–90 years) with with 79.5% of patients over 65 years old (n=151) and 59.5% of patients male (n=119). Haemorrhage occurred in 2.5% (n=5) and pneumothorax in 17% (n=34) with 5% (n=10) of procedures requiring intercostals chest drain insertion for pneumothorax. No deaths were recorded. A statistically significant higher risk was observed for core biopsy (OR 3.65, p=0.00, 95% CI 1.38 to 9.65) and lesion distance from pleura >2 cm (OR 4.13, p<0.001, 95% CI 1.88 to 9.08). A multivariate analysis showed that the risk was greatest when core biopsies were taken from lesions more than 2 cm from the pleura at point of biopsy (OR 9.14, p<0.001, 95 % CI 2.72 to 30.69). The sample adequacy rate was 95.5% (n=191).

Conclusions In this recent study all complication rates were found to be lower than that reported in the national survey which is the current standard for BTS guidelines on acceptable complication rates. However, a higher rate of intercostal drain insertion was observed. Lesion distance from pleura at point of biopsy >2 cm and core biopsies were the most significant risk factors for post-biopsy pneumothorax and operators should consider these prior to biopsy. Larger studies are needed to reasses current national complication rates and target complication rates may need to be specified by biopsy type.

Abstract P181 Table 1

	p Value	OR	95% CI for OR Lower	95% CI for OR Upper
Area = lung	0.472	1.391	0.566	3.421
Lesion distance from pleura ≥2	0.001	3.862	1.800	8.285
Lesion distance from pleura ≥4	0.014	3.653	1.302	10.254
Lesion size ≤2	0.755	0.848	0.301	2.388
Lesion size ≤3	0.368	1.420	0.662	3.047
More than 2 passes	0.356	1.458	0.655	3.246
Biopsy type = core	0.018	3.080	1.209	7.845
Needle pleural angle ≤45	0.757	0.849	0.302	2.392

Abstract P181 Table 2

	p Value	OR	95% CI for OR Lower	95% CI for OR Upper
Lesion distance from pleura ≥2	<0.001	4.129	1.877	9.082
Biopsy type = core	0.009	3.647	1.384	9.615

Abstract P181 Table 3

	p Value	OR	95% CI for OR Lower	95% CI for OR Upper
Lesion distance from pleura & biopsy type	<0.001			
Lesion distance <2 & type=FNA		Reference category		
Lesion distance <2 & type=core	0.524	1.478	0.444	4.922
Lesion distance ≥2 & type=FNA	0.941	0.935	0.159	5.495
Lesion distance ≥2 & type=core	<0.001	9.137	2.721	30.689

P182 UTILITY OF PET/CT REPORTING IN LUNG CANCER

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Introduction PET scans are useful in lung cancer by facilitating accurate staging to ensure that optimal treatment can be offered. Although the European Association of Nuclear Medicine (EANM) has produced reporting guidelines, the utility of the test depends upon the interpretation of the obtained images by the reporting radiologist. Since most UK PET services are provided by the independent sector (IS) remote from cancer units, we were interested to assess the value of PET/CT reporting in the MDT management of lung cancer.

Methods We looked at the quality of reports of all 97 PET/CT scans performed in our busy lung cancer unit between December 2010 and April 2011, measuring the reports (from 6 IS radiologists) against the EANM standards. In addition, we analysed the length of the report and documentation of PET staging.

Results FDG accumulation was documented in standard guideline format (mild, moderate or intense) in 39 cases (40%), all with SUVs noted, but in 37 cases (38%) FDG accumulation was described as significant, increased or highgrade (36 with SUVs). However, 21scans (22%) had no report of FDG accumulation but 20 (90%) still described SUVs. Corresponding CT findings were reported in 93 (96%), and a summary report was issued in 94 (97%), but 33 reports (34%) were >1 page in length. Seven scans showed benign disease and 8 had no excess FDG activity: of the remaining 82 with malignancy, only 39 (48%) were staged. Reasons for not staging included "inflammatory changes" (2), "uncertain findings" (18),