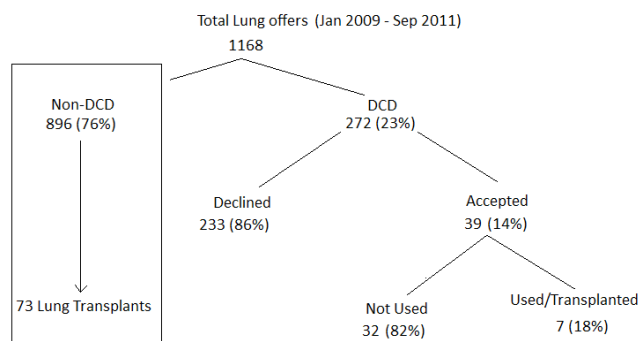


may lead to fewer cases of consent being withdrawn from family. A lower threshold for attending donors who might not meet criteria may also yield more organs.



Abstract P116 Figure 1 Flow diagram of all lung offers and outcomes

## Pleural disease

### P117 AMBULATORY AND INPATIENT PLEURAL SERVICE – THE WAY FORWARD

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Between January 2005 and March 2008, 12 deaths and 15 cases of severe harm relating to chest drain insertion were reported leading to NSPA alert. Live ultrasound-guidance for pleural interventions is now recommended (BTS Guidelines, 2010) and ultrasound marking (X-spot) is no longer acceptable.

At our DGH, a new pleural service has been established to provide a high quality, patient-centered and streamlined service for patients with pleural effusions, performing therapeutic and diagnostic procedures under live ultrasound guidance. It has been designed to improve patient safety, reduce length of stay and offer training opportunities to trainees. A respiratory consultant, trained to level two in thoracic ultrasound, established the pleural service in May 2011. A dedicated side room was equipped with an ultrasound machine and a trolley filled with the necessary equipment for pleural procedures. Pleural service protocol has been developed and approved by the Acute Medicine and the Respiratory departments. Referrals are accepted from inpatient wards, Emergency department and outpatient clinics. The "Inpatient Pleural Service" provides diagnostic/therapeutic pleural procedures 5 days a week within working hours, while a "Ambulatory Pleural Service" is designed to treat patients in an ambulatory setting within 72 hours of referral.

Between 01/05/2011 and 31/04/2012, 83 thoracic ultrasound scans were carried out and 72 ultrasound-guided interventions were performed (26 Seldinger chest drains, 2 PleurX catheters and 44 pleural aspirations). There were only 3 complications reported (2 small pneumothoraces, 1 vasovagal syncope). Patient feedback was excellent with patients particularly appreciating undergoing pleural procedures as a day case. Inpatient length of stay has reduced from 6 days (median) to 1 day (median).

The number of thoracic ultrasounds performed by radiology department decreased significantly from 123 to 84, despite an 11% increase in Emergency department attendances related to closure of a nearby hospital.

The collected data proves that the pleural service increased patient safety, reduced patient waiting times, reduced length of stay, helped avoid admissions, decreased radiology workload and made financial savings.

### P118 ABRAMS-NEEDLE PLEURAL BIOPSY REMAINS A USEFUL INVESTIGATION IN SUSPECTED PLEURAL TUBERCULOSIS

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Current British Thoracic Society guidelines suggest that Abrams needle biopsy is only useful in areas of high incidence of tuberculosis and suggest that thorascopic pleural biopsy or image guided cutting-needle biopsies may be preferable.[1] A recent study suggested that the low yield of culture of pleural fluid may have improved with advancing culture techniques, perhaps reducing any advantage of pleural biopsy.[2] We therefore sought to establish whether or not Abrams-needle pleural biopsies contribute to the diagnosis of pleural tuberculosis in an urban UK setting with an annual incidence of tuberculosis between 60 and 125/100,000.

**Methods** We reviewed all cases treated for pleural tuberculosis in two inner-city hospitals between 2006 and 2011. The yield of culture of pleural fluid was determined, and for those who underwent a pleural biopsy the yield from culture or typical histological changes was determined.

**Results** We identified 150 patients with pleural tuberculosis since 2006. In our series, a positive culture from pleural fluid was achieved in 45 of 148 where pleural fluid was sent without biopsy at the same procedure (30%; upper 95% confidence interval 39% using Wilson's procedure with continuity correction). 44 patients underwent a pleural biopsy, of which 28 had positive histology or culture (63%; 95% confidence interval 48%-76%). The difference in sensitivity of these tests was statistically significant ( $p = 0.0002$ ).

**Conclusion** The management of a unilateral pleural effusion where tuberculosis is a likely diagnosis poses a clinical dilemma. Empirical treatment for tuberculosis risks the mismanagement of drug-resistant disease or missing alternative diagnoses, and yet thorascopic pleural biopsy is an invasive procedure with significant potential complications. Our data suggest that the yield from culture of pleural fluid alone remains poor and there remains a place for the Abrams-needle biopsy in these circumstances.

1. Investigation of a unilateral pleural effusion in adults – British Thoracic Society Pleural Disease Guideline 2010 Clare Hooper, YC Gary Lee, Nick Maskell *Thorax*, Vol 65, Suppl 2.
2. Ruan SY *et al.* Revisiting tuberculous pleurisy: pleural fluid characteristics and diagnostic yield of mycobacterial culture in an endemic area. *Thorax*. 2012 Mar 21

### P119 PLEURAL SERVICE PROVISION AND TRAINING OPPORTUNITIES IN A DISTRICT GENERAL HOSPITAL IN NORTH EAST LINCOLNSHIRE

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**Introduction** BTS Pleural disease guidelines in 2010 strongly recommend thoracic ultrasound guidance for all pleural procedures for pleural fluid, and at least level 1 competency is required to safely perform independent thoracic ultrasound. In line with this, our Respiratory department developed a dedicated pleural service over a span of last 10 months. Here we report the pleural service at our hospital and training opportunities for senior and junior level trainees.

**Method** We retrospectively assessed all the scans done by the Respiratory Department since start of our pleural service in september 2011

**Results** The total number of ultrasound scans done, based on the radiological appearance of pleural effusion –154 patients x 2 sides=308. Males 100 (200 scans), and females 54 (108 scans). Age of the patient ranging from 30 to 94 with average age of 71 yrs.