in patients without evidence of trapped lung. However, talc pleurodesis is unsuccessful in 10%–40% of cases, with implications in relation to cost and morbidity.[1] Yet ambiguity exists regarding the factors affecting success in MPE talc pleurodesis.
Aim This study aims to investigate the predictive factors relating to successful talc pleurodesis in MPE and the impact of a positive outcome on patient mortality.
Methodology Retrospective analysis of patients admitted for management of MPE to the Belfast City Hospital between September 2015 – October 2016 was conducted. Demographic and clinical data relating to drain size, volume of fluid drained and grade of the doctor performing talc pleurodesis was collected. Survival at 18 months post procedure was reviewed through electronic patient records. A positive outcome was defined as successful pleurodesis with the lack of recurrence of pleural effusion.
Results Twenty-seven patients were identified (♂/♀: 40.8/59.2%; age 72.4+/-12.3 years). Two thirds (n=18) received pleurodesis with a 44.4% success rate (n=8). Pleurodesis was precluded in one third of patients (n=9) with displaced and blocked drains the predominant causative factor (n=4). In those receiving talc pleurodesis, drain size (12 F vs 18 F) was not a predictive factor of positive outcomes. Similarly, the grade of doctor performing talc pleurodesis did not affect efficacy. However, compared to 18 F drains, 12 F drains were associated with a significant complication rate precluding pleurodesis (p=0.02). Critically, achieving a successful outcome with talc pleurodesis was associated with improved 18 month mortality (p=0.004).
Conclusion Promoting the exclusive utilisation of 18 F drains in the management of MPE could potentially alleviate the propensity for intercostal drain failure to preclude talc pleurodesis, conceivably improving patients' short term mortality.

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P233 THORACIC ULTRASONOGRAPHY AS A PREDICTOR OF PLEURODESIS SUCCESS IN MALIGNANT PLEURAL EFFUSION

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Background Over 50 000 patients with malignant pleural effusion (MPE) are seen annually in the UK. The majority develop recurrent symptomatic disease requiring definitive treatment. MPE is most frequently managed with talc slurry pleurodesis via intercostal chest drain. This involves a lengthy inpatient stay and has a success rate of around 70%, with no means of predicting which patients will suffer pleurodesis failure. Thoracic ultrasound (TUS) is widely used by respiratory physicians, and data from animal and human studies suggest it can identify pleural adhesions (through the absence of normal lung sliding) in a range of conditions. By extension, TUS may allow clinicians to diagnose the presence or absence of adhesions post-pleurodesis in MPE, identifying patients suitable for discharge or needing further intervention.
Method We recruited 18 adult patients with MPE undergoing drainage and talc slurry pleurodesis to a prospective single-centre cohort study. Patients underwent standardised TUS assessment pre- and post-pleurodesis, evaluating pleural sliding and adhesions at nine points (three anterior, three lateral, three posterior) across the affected hemithorax. Lung sliding was graded as per Zhu *et al*.,[1] creating a total pleurodesis score out of 18. Pleurodesis failure was defined as radiological and symptomatic fluid recurrence in the same hemithorax requiring further intervention at any point up to 3 months post-pleurodesis. Patients also completed a questionnaire addressing satisfaction with TUS assessment.
Results 3/18 patients (16.7%) died before 1 month follow-up. Of 15 patients seen at one month, 11 (73.3%) had successful pleurodesis and 4 (26.7%) had failed. No patient had delayed pleurodesis failure between 1 and 3 month follow-up. There was a significant difference observed in the day 1 TUS pleurodesis score between patients who went on to have successful pleurodesis and those who failed during follow-up (table 1). TUS assessment was acceptable to patients, with none considering it either time-consuming or unwilling to have it again if needed.
Conclusion Our data suggest TUS assessment 24 hours post-pleurodesis for MPE predicts success or failure of this intervention, with significant implications for clinical care. A larger randomised study is now underway to further evaluate this hypothesis.

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Abstract P233 Table 1 Ultrasonographic pleurodesis score at day 0 (pre-pleurodesis) and day 1 (24 hours post-pleurodesis) in patients being treated for malignant pleural effusion

	Successful pleurodesis n=11/15 (73.3%) patients	Failed pleurodesis n=4/15 (26.7%) patients	*p* value unpaired *t*-test
Day 0 pleurodesis score (mean ±SD, total out of 18)	10.89±3.98	6.50±1.29	0.054
	Difference=4.39 (95% CI −0.09 to 8.86)		
Day 1 pleurodesis score (mean±SD, total out of 18)	13.45±2.63	6.75±2.94	0.002
	Difference=6.70 (95% CI 3.08 to 10.33)		
Change from day 0 to 1 (mean±SD)	2.57±3.98	0.25±3.59	0.326
	Difference=2.32 (95% CI −2.59 to 7.23)		

P234 PATIENT AND FLUID CHARACTERISTICS ASSOCIATED WITH NON-DRAINING MALIGNANT PLEURAL EFFUSION

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Introduction TIME3, a randomised controlled trial of intrapleural urokinase versus placebo for patients with non-draining malignant pleural effusion (MPE), demonstrated that these patients appear to be a distinct subgroup of patients with a poor prognosis (median survival 58 days). The aim of this study was to identify patient and fluid characteristics