Background The TIME2 Trial[1], a randomised clinical trial comparing indwelling pleural catheter (IPC) with talc pleurodesis for malignant pleural effusion, included a prospective economic analysis. Methods 106 patients at 7 UK medical centres were randomly assigned to IPC or talc pleurodesis following chest drain insertion and followed at biweekly, monthly and q3month intervals for one year or until death. Costs associated with the drain insertion, follow up drainage, and adverse events were captured during the trial. Costs for outpatient and inpatient visits, diagnostic imaging, nursing and doctor time were derived from the NHS reference costs and University of Kent’s Unit Costs of Health and Social Care 2011. Procedure supply costs were obtained from the manufacturer. The number of quality adjusted life years (QALYs) was determined by adjusting patient survival by the utility weight obtained from the EQ5D questionnaire at each follow up period. Cost effectiveness was calculated over the duration of the trial given that most patients died during the 1 year follow up (14% alive at 1 year). Confidence intervals were calculated using bootstrap analysis.

Results Average cost in the IPC group over the trial period was £3087(3504) versus £2892(2706) in the talc pleurodesis group with a mean cost difference of £195(95% CI -1072 to 1463). Average QALY in the IPC group was 0.354(0.29) and 0.328(0.3) in the talc group with a mean QALY difference between groups of 0.026 (95%CI -.08 to. 138). The cost per QALY gained for IPC as compared with talc pleurodesis was £7390 at 1 year. Bootstrap analysis revealed substantial uncertainty around this estimate.

Conclusions There is no significant difference in cost or QALYs between IPCs and talc pleurodesis. Although the predictions are subject to substantial uncertainty, the probability that IPCs may be more cost effective compared with talc pleurodesis is moderately high (60%) using a threshold of willingness to pay of £20,000/QALY.

REFERENCES

Abstract S79 Figure 1.