Results The model was calibrated with good visual fit. Annual definitive fibroscan is the optimal strategy choice. Sensitivity analysis shows this outcome to be robust. The cost-effective frontier holds strategies A and G with E dominated by extension. All other strategies are strictly dominated. It diagnoses 20% more cirrhosis than the current strategy, with 549 extra patients per 10000 accessing screening over a lifetime; consequently 76 additional HCCs are diagnosed. Lifetime cost is an additional £98.78 per patient compared to current strategy for an additional 1.72 unadjusted life years. Annual fibroscan surveillance of 132 patients diagnoses one additional HCC over a lifetime. The ICER for annual definitive fibroscan is £6557.06/QALY gained.

Conclusion Annual definitive fibroscan may be a cost-effective surveillance strategy to identify cirrhosis in patients with chronic HCV to allow access to HCC screening.

Disclosure of Interest None Declared

DEFINING CIRRHOSIS WITH FIBROSCAN FOR ENTRY TO HEPATOCELLULAR CARCINOMA SURVEILLANCE IN CHRONIC HEPATITIS C: A UK COST EFFECTIVENESS ANALYSIS

OC-081

Introduction Chronic hepatitis C (HCV) is a significant risk factor for cirrhosis and subsequently hepatocellular carcinoma (HCC). HCV patients with cirrhosis are screened for HCC every 6 months. Surveillance for progression to cirrhosis, and consequently access to HCC screening, is not standardised. Liver biopsy, the usual test to determine cirrhosis, carries a risk of significant morbidity. Ultrasound elastography (Fibroscan) is a non-invasive test for cirrhosis. This study assesses the cost effectiveness of annual surveillance for cirrhosis in chronic HCV and the effect of replacing biopsy with fibroscan to diagnose cirrhosis.

Methods A Markov decision analytic model simulated a hypothetical cohort of 10000 patients with chronic HCV initially without fibrosis over their lifetime. Cirrhosis surveillance strategies assessed were: (A) no surveillance; (B) current practise; (C) fibroscan in current practise with biopsy to confirm cirrhosis; (D) fibroscan completely replacing biopsy in current practise (definitive); (E) annual biopsy; (F) annual fibroscan with biopsy to confirm cirrhosis; (G) annual definitive fibroscan.

Results The model was calibrated with good visual fit. Annual definitive fibroscan is the optimal strategy choice. Sensitivity analysis shows this outcome to be robust. The cost-effective frontier holds strategies A and G with E dominated by extension. All other strategies are strictly dominated. It diagnoses 20% more cirrhosis than the current strategy, with 549 extra patients per 10000 accessing screening over a lifetime; consequently 76 additional HCCs are diagnosed. Lifetime cost is an additional £98.78 per patient compared to current strategy for an additional 1.72 unadjusted life years. Annual fibroscan surveillance of 132 patients diagnoses one additional HCC over a lifetime. The ICER for annual definitive fibroscan is £6557.06/QALY gained.

Conclusion Annual definitive fibroscan may be a cost-effective surveillance strategy to identify cirrhosis in patients with chronic HCV to allow access to HCC screening.

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