of community physicians management of HCV infection. Responses were obtained from six hepatologists, six intensivists and six oncologists from various centers in Brazil with experience of treating HCVI. RESULTS: The expected annual costs per each disease stage, not treated with antiviral medication, per patient were: R$1,069 for mild chronic hepatitis, R$1,277.00 for moderate chronic hepatitis, R$1,522.00 for compensated cirrhosis, R$15,932.00 for ascites, R$31,352.00 for refractory ascites, R$21,427.00 for varical hemorrhage, R$106,922.00 for hepatic encephalopathy, R$20,884.00 for hepatocellular carcinoma, R$136,900.00 for liver transplantation, R$10,540.00 liver transplantation after the first year and R$789.00 for remission. CONCLUSIONS: These cost data can be used to model disease burden in Brazil. The costs increase dramatically in the more advanced disease health states. Probably, slowing the progression to these disease states may be cost saving. One USD = 2.57 Brazilian Reais at the moment of the study.

GASTROESOPHAGEAL REFLUX DISEASE (GERD)—PREVALENCE, MANAGEMENT AND COST IN INTERNATIONAL COMPARISON

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OBJECTIVES: GERD is one of the most common gastrointestinal disorders. Knowledge on epidemiologic data, treatment guidelines and patterns and economic details is limited.

METHODS: Extensive desktop research was conducted for North America, Western and Eastern Europe and Australia using MEDLINE, EMBASE and Cochrane databases (1995–2004), telephone interviews, Internet searches (2000–2004). For structured search all MESH terms applying to GERD, epidemiologic data, treatment patterns, costs and related issues (22 in total) were used. RESULTS: Extensive review of obtained literature revealed 162 articles and other sources of information (websites, telephone contacts) for further evaluation. Prevalence of weekly GERD symptoms ranges from 4% (Canada) to 20% (USA). Population-based prevalence data are lacking for Austria, Germany and Eastern European countries. General recommendations for management of GERD consist of symptom-oriented measures with lifestyle changes and administration of antacids, Proton-Pump-Inhibitors (PPI) or H2-Receptor-Antagonists. Specific guidelines with recommendations on drug treatment exist in all countries except most of Eastern Europe. Treatment patterns widely follow guidelines with variations in drug dosage and administration period. Peer-reviewed literature revealed 20 cost-of-illness studies (16 USA, 1 Canada, 3 Western Europe, 0 Eastern Europe and Australia). In North America total direct cost (TDC) ranged from $360–$800/ya (Canada $700/ya), Western European cost-of-illness studies exist only for Sweden (TDC $930/ya) and Italy (TDC $300/ya). From third party payers’ perspective main cost drivers are medication (about 40%) and outpatient care (about 60%). CONCLUSIONS: Although prevalence of GERD is high, only few studies focus on its economic burden, most of them conducted in the USA. Treatment guidelines show comparatively uniform features in all investigated countries, especially concerning the recommendation of PPI usage. Treatment patterns show wide usage of PPI, except in Eastern Europe where treatment patterns arguably resemble those in Western Europe, probably with limitations due to the countries’ health care systems’ possibilities.

ARTIFICIAL LIVER SUPPORT SYSTEMS—A MEDICAL AND HEALTH ECONOMIC HTA-REPORT

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Artificial liver support systems (ALS) are a new therapeutic approach for patients with acute liver failure (ALF) or acute-on-chronic liver failure (ACLF). Using this technology patients should have a better chance for regaining their own liver function or for successful bridging to transplantation. Treatment costs in Germany are €10–15,000 per patient. OBJECTIVES: To determine and summarize the scientific evidence on medical efficacy and economic effectiveness of the use of ALS in patients with ALF or ACLF. METHODS: In an extensive systematic literature search in all relevant medical and economic data bases all published studies on ALS were identified and systematically described. All results concerning the treatment of ALF or ACLF were extracted and if possible synthesized to final recommendations. RESULTS: Three different artificial liver support systems could be identified. For Biologic-DT® neither of the identified studies reported medical or economic benefits. For Prometheus® no randomized controlled studies reporting medical or economic effects are available. For MARS (Molecular adsorbing recirculating system) for patients with ACLF a significant improvement of clinical parameter and 30d-survival could be demonstrated. First health economic studies with short time horizon report costs per QALY of €60,000 and conclude that prolonging the time horizon would improve cost-effectiveness. All studies show methodological limitations. CONCLUSION: The present scientific evidence according to published trials on ALS does not show any medical or economic benefit of the liver support systems BioLogic-DT® and Prometheus®. The limited evidence for the benefit of the system MARS gives hints that ACLF patients might clinically benefit and that cost-effectiveness is acceptable. Future randomized controlled studies with large sample size and health economic models to estimate long term benefits are necessary to confirm these results.

META-ANALYSIS OF MULTIPLE TREATMENT COMPARISONS REPORTED AT MULTIPLE FOLLOW-UP TIMES

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OBJECTIVES: The evidence base for cost-effectiveness analyses (CEA) often consists of a series of randomised controlled trials making pair-wise comparisons between several alternative treatments (A vs. B, A vs. C, B vs. D, etc). Furthermore, each trial may report results at one or more, different, follow-up times. In order to obtain unbiased estimates of treatment efficacy, and to produce an appropriate uncertainty analysis in the context of a CEA, any synthesis of the evidence must ensure that the uncertainty structure arising from the pattern of randomisation is correctly captured and propagated. METHODS: We studied a set of 41 randomised trials looking at the healing rates of six treatments for gastro-oesophageal reflux disease (GORD). Each trial reported the healing rate at one or more (average 1.8) follow-up times at 4, 6, 8, or 12 weeks. There are a possible 15 pair-wise comparisons between 6 treatments, but, overall, the dataset provides direct information on only 9 of these, 5 at 4 weeks, 4 at 6, 8 at 8 and 6 at 12. We developed a series of hierarchical models that “borrow strength” across the incomplete network of treatment comparisons and also across time points. RESULTS: We propose an approach that distinguishes between the model