

amount of 340 000 € could have been saved. **CONCLUSIONS:** Adherence to principles of good antibiotic policies leads to fundamental short and long term financial savings within the budget of a health insurance fund.

#### INFECTION - Patient-Reported Outcomes & Patient Preference Studies

##### PIN75

#### HEALTH-RELATED QUALITY OF LIFE OF CLOSTRIDIUM DIFFICILE INFECTION: A METHODOLOGICAL CONTRIBUTION TO DIRECT UTILITY ELICITATION BY TTO

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**OBJECTIVES:** Clostridium difficile infection (CDI) can lead to several complications from mild diarrhoea to toxic megacolon. The objectives of this study were to: 1) evaluate standard Time trade-off (TTO) and chain TTO techniques for eliciting utility of CDI-related chronic and temporary health states; 2) compare those values with those from Healthcare Professional (HCP) EQ-5D valuation; 3) evaluate methods of calculating utilities for health states worse than death (WTD). **METHODS:** Ten health state vignettes were developed from literature with input from HCPs. Participants from the UK public were interviewed: 50 for the pilot and 100 for the main study. Each participant provided sociodemographic information, ranking of health states by preference and responses to a Computer-Assisted Personal Interview TTO protocol for all states considered. HCPs provided EQ-5D data. Methods to apprehend the impact of extreme negative utilities were appraised: truncation and monotonic transformation. **RESULTS:** Temporary health state utilities ranged from (mean and () median from non transformed method; mean and median () from monotonically transformed method): -2.70/0.7; 0.39/0.6 for mild diarrhoea to -32.50/-1.1; -0.23/-0.5 for colectomy. Chronic health state ranged from: -2.37/0.5; 0.35/0.5 for chronic diarrhoea to -7.98/0; -0.13/0 for chronic renal failure. Population valuations were more severe for most health states when compared with HCP values. **CONCLUSIONS:** While transformation has an important impact on results, nowadays there is no reliable measure of utilities for CDI-health states. The proportion of participants judging health states as WTD was unexpectedly high; questioning the suitability of face-to-face TTO interview in this disease area. The monotonic transformation was convenient but lacks theoretical grounding. Other methods like Lead Time trade-off could add value to similar research.

##### PIN76

#### HEALTH RELATED QUALITY OF LIFE OF HIV INFECTED INTRAVENOUS DRUG USERS

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**OBJECTIVES:** To investigate health related quality of life (HRQoL) in non-engaging HIV infected intravenous drug users (IVDUs) over a one year time period. **METHODS:** This was a prospective observational cohort study of non-engaging adult HIV infected IVDUs registered for care at an inner city HIV unit (non-engagement defined as missing  $\geq 2$  HIV outpatient appointments over one year or not attending outpatients for  $\geq 6$  months). EQ-5D, SF-36, Hospital Anxiety Depression scale (HADS), clinical and substance misuse data were collected on a six monthly basis. Regression models were fitted to identify the statistical relationship between utility and HADS. The relationship between measures was assessed using Spearman's correlation for non-parametric data. **RESULTS:** Fifty-two patients were included (125 observations). Sixty two percent were male with a mean age of 37 yrs. The mean anxiety value was 10.9 (borderline anxiety), and mean Depression score was 9.3 (borderline depressed). The mean EQ5D utility score was 0.51(95% CI: 0.45 – 0.59) Fifteen patients (12%) had an EQ5D utility worse than death of whom 14 (93%) were anxious and 13 (86%) were depressed. The mean SF6D utility was 0.53 (95%CI: 0.51 – 0.55). Mean Physical component score (PCS) was 53.91, and mental component score (MCS) was 34.03. Role physical had the lowest mean score at 28.07, and was significantly correlated with anxiety (Spearman's correlation -0.318, significant at 0.01 level, 2 tailed), depression (Spearman's correlation -0.316, significant at 0.01 level, 2 tailed), virological suppression (Spearman's correlation -0.194 significant at 0.05 level, 2 tailed) and HIV viral load (Spearman's correlation -0.207, significant at 0.05 level, 2 tailed). **CONCLUSIONS:** HRQoL was severely reduced in this non-engaging HIV infected IVDU population. Whilst HCV co-infection and substance misuse did not affect the HRQoL, anxiety and depression had a significant impact upon it.

##### PIN77

#### ELICITATION OF HEALTH-RELATED QUALITY OF LIFE CONCEPTS ASSOCIATED WITH CYTOMEGALOVIRUS IN TRANSPLANT RECIPIENTS

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**OBJECTIVES:** Cytomegalovirus (CMV) is responsible directly or indirectly for an increase of mortality and morbidity in patients with solid organ transplantation (SOT) and hematopoietic stem cell transplantation (HSCT). Our aim was to identify HRQoL dimensions affected by CMV infections and management after HSCT or SOT. **METHODS:** A literature review on transplanted patients' HRQoL through the EMBASE database was performed. We also looked for issues raised by patients in specialized forums. Individual interviews were conducted with 4 clinical experts and 20 patients, divided equally into HSCT and SOT groups. Clinical practitioners

were asked to identify key concepts attributable to the CMV-disease (symptoms) or antiviral side effects versus transplantation-related. Patients were asked to cite important concepts and rate them. All patient responses were coded. Code frequency and bother ratings were used to identify salient patient experiences. **RESULTS:** Preliminary analysis suggests that it is difficult to isolate the effects of the CMV infection and the antiviral treatment due to other untolerated medications (e.g. immunosuppressive drugs) and/or the patient's underlying medical condition. Key reported symptoms include fever and (worsened) tiredness. Tiredness was often described as being related to physical activity limitation. Key areas impacted by CMV infection and CMV treatment included physical activity and mobility limitations, as well as mental fatigue and stress. Practitioner judgments helped classify the different concepts into one of 3 categories, CMV-disease symptom, treatment side effects, and psychological concerns. **CONCLUSIONS:** The CMV impact was found to be quite heterogeneous between patients as it seems to be dependent on type of transplantation, experience of symptomatic infection and tolerance of antidepressants. This qualitative study suggested that physical activity, mobility, mental fatigue, and stress are key QoL dimensions affected by CMV management, infections and treatments in transplanted patients.

##### PIN78

#### TREATMENT PREFERENCE ATTRIBUTES AMONG PRIMARY IMMUNODEFICIENCY PATIENTS AND CAREGIVERS RECEIVING IMMUNOGLOBULIN THERAPY

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Primary immunodeficiency (PI) constitutes a group of disorders involving a primary defect in the immune system often requiring lifelong Immunoglobulin (IG) therapy which can be administered intravenously (IGIV) or subcutaneously (IGSC). **OBJECTIVES:** To quantify patient and caregivers preferences for administration attributes of IG treatments. **METHODS:** Adult patients and caregivers of children with PI from 21 non-U.S. countries recruited via national member organisations completed a web-enabled, choice-format survey. The conjoint analysis quantified the preferences of attributes presented to the respondents. The preference weights for each sample were scaled between 0 and 10. The vertical distance between adjacent preference weights indicated the relative importance of moving from one level of an attribute to an adjacent level of that attribute. **RESULTS:** A total of 216 patients and 84 caregivers completed the survey. Patients and caregivers significantly preferred monthly to weekly, home setting to doctor's office/hospital/clinic, shorter duration, and fewer needle sticks of IG treatment ( $P < 0.05$ ). There was a difference in the ranking of these attributes between IGIV and IGSC users. IGIV users indicated frequency as the most important attribute followed by number of needle sticks, duration and home setting while IGSC users indicated home setting as the most important attribute followed by duration, self administration, number of needle sticks, and frequency. **CONCLUSIONS:** IG treatments that provide the comprehensive option of a monthly frequency, home setting, shorter duration, and fewer needle sticks may address the needs of both PI patients and caregivers, although ranking of these attributes may be different between the IGIV and IGSC users.

#### INFECTION - Health Care Use & Policy Studies

##### PIN79

#### HEPATITIS C VIRUS INFECTION INCREASES THE RISK OF ALZHEIMER'S DISEASES

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**OBJECTIVES:** Hepatitis C virus (HCV) infection may cause cognitive impairment, but no studies have focused specifically on cognitive impairment stemming from Alzheimer's disease. The purpose of this study was to investigate the potential increased risk for Alzheimer's disease in HCV-infected patients. **METHODS:** We conducted a population-based cohort study from the Taiwan National Health Insurance Research Database. From all potential participants aged fifty years or more, a total of 117,098 matched (1:1) pairs of HCV-infected patients and non-HCV-infected patients were included. Each subject was individually tracked from 1997 to 2009 to identify incident cases of Alzheimer's disease (onset in 1999 or later). Cox proportional hazard regressions were employed to calculate the hazard ratios (HRs) and 95% confidence intervals (CIs) for the association between HCV infection and Alzheimer's disease in the HCV-infected cohort. **RESULTS:** There were 830 cases of Alzheimer's disease reported in the HCV cohort during follow-up periods of 1,122,436.9 person-years, with incidence rates of 73.9 cases per 100,000 person-years (95% CI, 69.1-79.2). The multivariate-adjusted HR for Alzheimer's disease was 1.14 (95% CI, 1.02-1.26) for HCV-infected patients. The HR for HCV-infected patients in their sixties (1.18,  $p < 0.05$ ) was higher than for other subgroups. There were 5,243 HCV-infected patients (4.48%) who completed antiviral therapy. The HR of treated patients was 0.31 (95% CI 0.15-0.67) after adjusting for age, gender, income, urbanization and the presence of other medical diseases. **CONCLUSIONS:** HCV infection may increase the risk for Alzheimer's disease. HCV antiviral therapy could lower the risk of AD in HCV-infected patients.

##### PIN80

#### MULTIVARIATE COX ANALYSIS REGARDING TREATMENT SWITCH ON CHRONIC HEPATITIS B (CHB) DISEASE MANAGEMENT BASED ON A 2-YEAR PROSPECTIVE STUDY IN 5 EUROPEAN (EU) COUNTRIES

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