smokers aged 16 years old and an intervention costing GBP827 on which 27 percent of people quit, compared with no treatment. We produced results using the two models for comparable scenarios, and ran additional scenarios considering different assumptions.

RESULTS:

In the cohort model, the incremental cost-effectiveness ratio (ICER) for intervention versus no treatment was GBP4,000/quality-adjusted life year (QALY). In the DES, modelling mortality linked to smoker status produced an ICER of GBP1,000/QALY and modelling mortality linked to comorbidities produced an ICER of GBP6,000/QALY. In the DES with mortality linked to comorbidities, varying the relative risk of comorbidities with time since quitting gave an ICER of GBP3,000/QALY. Including relapse increased the ICER to GBP21,000/QALY.

CONCLUSIONS:

The ICER for the smoking cessation program changes when model assumptions are varied, although the choice of DES versus cohort model appears to make a relatively small difference. Inclusion of relapse substantially changes the ICER, demonstrating the importance of long-term effects in economic models.

REFERENCES:

1. Roberts M, Russell LB, Paltiel AD, et al. Conceptualizing a model: a Report of the ISPOR-SMDM modeling good research practices task force-2. *Value Health*. 2012:15:804-811.

2. Berg ML, Long Cheung K, Hiligsmann M, et al. Model-based economic evaluations in smoking cessation and their transferability to new contexts: a systematic review. *Addiction*. 2017;112(6):946-67.

3. Caro JJ. Discretely Integrated Condition Event (DICE) simulation for pharmacoeconomics. *Pharmacoeconomics*. 2016;34(7):665-72.

OP15 The Incremental Cost Of Delirium Following Aortic Valve Replacement

AUTHORS:

Seth Clancy, Brian Potter (brianjpotter@gmail.com), Phil Green

INTRODUCTION:

Postoperative delirium has been associated with poorer long term survival in Transcatheter aortic valve replacement (TAVR) and Surgival aortic valve replacement (SAVR) patients. However, its effect on hospitalization costs and length of stay in these populations has not been formally assessed.

METHODS:

Using the Medicare Provider Analysis and Review File, we retrospectively analyzed elderly (80 years of age and older) Medicare patients receiving TAVR and SAVR in the United States during the 2015 fiscal year. ICD-9-CM codes were used to identify postoperative delirium diagnoses. The incremental hospital resource consumption, measured as hospital cost and length of stay, was estimated for patients with postoperative delirium during their TAVR or SAVR index hospitalization. Multivariate regression models were used for the adjusted cost estimates controlling for patient demographics, comorbidities, and complications.

RESULTS:

A total of 21,088 claims were available for analysis (12,114 TAVR and 8,974 SAVR). The mean age of the TAVR group was older compared to the SAVR group (87 versus 84; $p < .001$) and TAVR patients presented with a higher comorbidity burden (Charlson Index score 3.0 versus 2.1; $p < .0001$). TAVR patients experiencing postoperative delirium during the index hospitalization was 1.6 percent compared to 3.6 percent of surgical patients ($p < .0001$). For the overall cohort, the regression adjusted incremental cost of postoperative delirium was (USD15,592; $p < .0001$). Patients experiencing delirium also had significantly longer

https://doi.org/10.1017/S0266462317001209 Published online by Cambridge University Press

hospital length of stay (4.16 days; $p < .0001$). When stratified by treatment approach, the adjusted incremental cost was USD13,862 for TAVR ($p < .0001$) and USD16,656 for SAVR ($p < .0001$).

CONCLUSIONS:

While infrequent, postoperative delirium significantly increased hospital cost and length of stay following transcatheter or surgical aortic valve replacement (AVR). Despite a significantly higher comorbidity burden, TAVR was associated with lower postoperative delirium rates compared to SAVR. Moreover, post-TAVR delirium may be associated with less resource consumption than post-SAVR delirium. Future studies should seek to determine whether general anesthesia avoidance in appropriately selected transfemoral TAVR patients can further decrease rates of delirium.

OP16 A Patient-centered Value Framework For Healthcare In Hemophilia

AUTHORS:

Brian O'Mahony (brian@haemophilia.ie), Gerard Dolan, Diane Nugent, Clifford Goodman

INTRODUCTION:

Hemophilia is a rare, inherited bleeding disorder affecting an estimated 400,000 people worldwide (1). Characterized by spontaneous bleeding and long-term, irreversible joint damage, persons with hemophilia are often limited in normal day-to-day activities, including work/school, and require comprehensive care at specialized treatment centers. With replacement therapies extending survival by decades and vastly improving quality of life (QoL), routine prophylaxis is considered the standard-of-care in developed countries. However, due to the cost of replacement factor, access to treatment remains a challenge, and increased scrutiny over funding has been augmented by growing demands on healthcare budgets (2). Thus, the hemophilia community shares a unified goal of objectively defining patient-centered value in hemophilia care.

METHODS:

Using a three-tiered outcomes hierarchy model initially described by Porter (3), an international, multidisciplinary panel of health economics outcomes researchers and hemophilia experts developed a value framework for decision makers to assess value of various healthcare interventions in hemophilia.

RESULTS:

The three tiers for assessing value are: (i) Health status achieved/retained; (ii) Process of recovery; and (iii) Sustainability of health. Tier one measures survival, quality of life (QoL), and hemophilia-specific outcomes of bleeding frequency, musculoskeletal complications, and severe bleeds, as well as function/activity (that is, lifestyle impairment). Tier two measures time to initial treatment or recovery and time missed at education/work, as well as disutility of care (that is, inhibitor development, pathogen transmission/infections, orthopedic intervention, and venous access). Tier three measures avoidance of bleeds, maintenance of productive lives, and long-term health, while capturing long-term consequences of insufficient therapy or age-related complications. Applicability of the framework can be demonstrated in areas of healthcare delivery, treatment regimen, and innovation for new therapies.

CONCLUSIONS:

This value framework represents an initial collaboration with stakeholders to define and organize an array of patient-centric outcomes of importance in hemophilia into a practical tool that can influence treatment and funding decisions in hemophilia care.

REFERENCES:

1. Mannucci PM, Franchini M. Present and future challanges in the treatment of haemophilia: a clinician's perspective. *Blood Transfus.* 2013;11(Suppl 4):s77-81.

2. O'Mahony B, Noone D, Prihodova L. Survey of coagulation factor concentrates tender and

https://doi.org/10.1017/S0266462317001209 Published online by Cambridge University Press