patient-reported outcome (PRO) instruments in clinical trials, as recommended in the FDA draft guidance for industry. A systematic review of PROs assures that the best available instrument is used to measure the preferred endpoint. As systematic reviews are scientific exercises, they require the same rigour as other aspects of research, yet current methods used to conduct systematic reviews remain variable, meaning that the quality and comparability of such reviews is not assured. Our aim was to explore the comprehensiveness, understandability, and adaptability of two widely used methodologies in conducting and modifying a standard search. METHODS: We compared the most common systematic review method (syntax search) and the Cochrane-collaboration recommended “Population-Intervention-Comparator-Outcome” (PICO) strategy. SCOPUS was searched using terms devised to answer the research question “which PROs have been used to date in islet cell transplantation?” The output resulting from each strategy was independently evaluated by two researchers and the methods critiqued. RESULTS: Both methods returned 6486 abstracts for review. Researchers were asked to identify ways in which to combine search terms to present a more manageable number for abstract screening. Both researchers agreed that PICO allowed for greater adaptability and targeted reviewing without compromising quality. Combining a priori search terms systematically according to [P and (I or C) and O], resulted in 359 abstracts. CONCLUSIONS: The quality of a review depends on the extent to which scientific review methods are used to minimise the risk of error and bias, but also the extent to which the search strategy is replicable and flexible. The PICO method is comparable to the standard syntax search, but offers the added benefits of being easy to implement, and sufficiently versatile to allow further targeting according to subtle changes in the research question as desired.

PMCS5

THE C-STATISTIC AND THE EFFICIENCY OF THE PROPENSITY SCORES MODEL: EVIDENCE FROM SIMULATED DATA
Kiri VA1, Feudjo-Tepie M2

OBJECTIVES: Confounding is a common source of bias in outcome studies involving observational non-randomized data. The propensity scores methodology has been suggested as a good analytical approach for handling this problem without any indication on whether a threshold exists on its predictive ability. We investigate the usefulness of the C-statistic in this regard using simulated data. METHODS: In each simulation, we generated 100 sets of 10,000 patients; each patient being assigned probabilities of being treated and of experiencing the outcome of interest. The process involved two logistic models, one that evaluated several discontinuous measurement patterns combined with imputation methods, to calculate simulated annual cost-effectiveness predictions were least accurate for the “Welte’s model prediction”. The predictions proved better on costs than the “all studies prediction”. The effectiveness predictions were least accurate for the “Welte’s model prediction”. Because of the small effectiveness difference no ICER predictions were calculated. DISCUSSION: Application of the model of Welte does influence cost and effects estimates when transferring economic data between countries. However, more cases should be subjected to the Welte transferability model before a final conclusion can be drawn.

PMCS7

DISCONTINUOUS COST MEASUREMENT: HOW TO FILL IN THE GAPS?
Heendriks MBC1, Evers SMAA2, Bleijlevens MHC2, van Haastregt JCM2, Crebolder HFM2, van Eijk JTM2
1University Hospital Maastricht, Maastricht, The Netherlands, 2Maastricht University, Maastricht, The Netherlands

OBJECTIVES: Economic evaluations are preferably performed from a societal perspective. This implies that participants report their health care utilization continuously during follow-up. Because this is a burden to participants, often resulting in missing values or withdrawal, researchers advocate collecting data discontinuously (i.e. in at least three months a year). This study aimed to compare costs of discontinuous measurement of health care utilization with those of continuous measurement, using several discontinuous measurement patterns and three imputation techniques: Individual Mean (IM), Last Observation Carried Forward (LOCF) and Next Observation Carried Backward (NOCB). METHODS: We used continuous health care utilization data from a trial with twelve months’ follow-up and simulated several discontinuous measurement patterns combined with different imputation methods, to calculate simulated annual