OBJECTIVES: To compare the estimates of Prevalence Ratio (PR) and Odds Ratios (OR) as effect measures in the analysis of cross sectional data for obese individuals suffering with chronic comorbid conditions. METHODS: Medical Expenditure Panel Survey data files from 2005-2007 was utilized for the analysis. Obese adults were defined as aged ≥ 20 years and having a BMI ≥ 30. Prevalence ratios were estimated from logistic regressions by dividing predicted prevalence estimates of comorbidities among obese individuals to the predicted prevalence of comorbidities in non-obese individuals after adjusting for socio-demographic factors. RESULTS: Confidence interval differences were similar to the confidence intervals around the prevalence ratios. Odds ratios were generated by using the ‘Survey Logistic’ syntax in SAS after adjusting for the same socio-demographic factors. RESULTS: Both odds ratios and prevalence ratios indicate that obese individuals have a higher burden of chronic conditions in the United States. Obese individuals had the greatest odds of having hypertension and osteoarthritis followed by coronary heart disease, diabetes and dyslipidemia. Prevalence ratios were highest for diabetes, followed by hypertension, osteoarthritis and dyslipidemia. Odds ratios were almost always greater than the prevalence ratios for all chronic conditions. CONCLUSIONS: The confidence intervals derived around odds ratios were also wider than the confidence intervals around the prevalence ratios. The relative importance of obesity upon different disease conditions differed depending on whether PR or OR were estimated. This study along with previous literature shows that odds ratios may be overestimating the true effect of a disease condition on the prevalence of a comorbid disease. Although it is easier to derive odds ratios, prevalence ratios may be more realistic estimates of the true public health burden. Thus prevalence ratios should ideally be used as effect measures instead of odds ratios especially for commonly occurring disease conditions.

PSY76
TREATMENT OF CRYOPYRIN-ASSOCIATED PERIODIC SYNDROMES (CAPS) KNOWLEDGE STUDY (TOCKS): NOVEL DATA COLLECTION, VIEWING AND DYNAMIC REPORTING MECHANISM
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OBJECTIVES: The objective of knowledge study (TOCKS) was to quantify the patient burden and to characterize patient symptomatology and acceptance of treatment with anakinra in Cryopyrin-associated Periodic Syndrome (CAPS), an orphan disease. Additionally, chart review and patient recall of symptoms, adverse events, and resource use were compared. The aforementioned objectives were completed through the use of a unique online approach to gathering data and dynamically displaying the results. This retrospective medical chart review and concurrent online patient survey, conducted in Centers of Excellence for CAPS in Europe, was accomplished by analyzing data entered via internet-based case report forms (CRFs). Data were entered into the CRFs by both study groups for two distinct collection periods—prior to and during the most recent 12 months of anakinra treatment. RESULTS: Four sites (50 patients total) participated in TOCKS. Prior to entering data, users viewed an online tutorial to help in completing the survey. No patients were lost to follow up and the data were successfully collected, analyzed, and reported using the online CRF and dynamically-generated data tables. This innovative online approach allowed users to enter de-identified data, in multiple sessions, even in the most remote destinations. One patient successfully completed their survey in the Amazon. In addition, a unique identifier was randomly generated that linked chart review with patient recall data online. Site investigators were able to link the dynamic tables and overtime, track themselves against the other, encrypted, sites. CONCLUSIONS: This novel internet technology allowed for efficient data collection from multiple sites and multiple sources within a short time frame. The unique identifier made it effort less to collect and compare the entries from the chart and from the patients for the same patient.

PSY77
COMPARISON OF OBESITY-ASSOCIATED COMORBIDITIES BETWEEN EMR AND CLAIMS DATABASES
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OBJECTIVES: To compare rates of obesity-associated comorbidities between the Gene Logic EMR and Thomson Reuters MedStat MarketScan commercial claims databases in patients with either a recorded BMI ≥ 25 (GE EMR) or ICD-9 code for overweight/obesity (MarketScan). METHODS: From the GE EMR, subjects aged 20-64 with at least one BMI value ≥ 25 and ≥ 2 y of EMR activity prior to BMI index date were included. From MarketScan, subjects ≥ 20 y (mostly ≥ 65 y), with a BMI ≥ 25 (ICD-9 codes; obesity, morbid obesity, obesity with hypertension or morbid obesity, obesity with diabetes) were included. Prevalence of claims activity after selected comorbidity was first recorded, were included. Selected comorbidities were identified by ICD-9 codes in both databases and stratified by BMI or overweight/obesity claims. RESULTS: In the GE EMR, 109,685 subjects ≥ 20 were observed, 68% were overweight or obese (BMI ≥ 30). Of these, 51% had BMI 25-29.9, 28% had BMI 30-34.9, and 22% had BMI ≥ 35. In the MarketScan database, 246,261 subjects (0.7%) had overweight, obesity, or morbid obesity claims. Of these, 4% were overweight, 66% were obese, and 30% were morbidly obese. The three most prevalent comorbid conditions in both databases, across all weight categories, were hypertension, hyperlipidemia, and chronic back pain, except diabetes replaced back pain in the morbid obesity group in MarketScan. For all comorbidities, prevalence was higher in MarketScan, except polycystic ovary syndrome prevalence was higher in GE EMR BMI ≥ 35 group compared to morbid obesity group in MarketScan.

CONCLUSIONS: Despite different methods (BMI vs. ICD-9 codes) for capturing obesity between two databases, prevalence rankings of comorbidities were similar. Obesity is therapeutically classified by BMI; however, most large claims databases capture obesity by ICD-9 codes. This may result in variation in weight group distribution and in the ranking of significance of obesity in MarketScan. Our findings highlight the need for further research in optimal sources for data in obese patients.

PSY78
ESTIMATING THE BMI-MORTALITY RELATION USING FRACTIONAL POLYNOMIALS
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OBJECTIVES: This study tests a flexible modeling approach, which endogenously estimates the non-linear and asymmetric functional form for body mass index (BMI), to examine the relationship between mortality and obesity measured as BMI ≥ 30. METHODS: This study used the National Health Interview Survey (NHIS), between 1997 and 2000. Respondents were linked to the National Death Index with mortality follow-up through 2005. We estimated the 5-year probability of death using the logistic regression model adjusting for BMI, age and sex. The multivariable fractional polynomials (MFP) procedure was employed to determine the best fitting functional form for BMI and compared to alternative functional forms using a chi-squared test. Expected years of life lost due to obesity were based on adjusted death probabilities and computed using standard life table functions. RESULTS: The best fitting adjustment model contains the powers -1 and -2 for BMI. A chi-squared test shows a statistically significant improvement of the model fit compared to other BMI functional polynomials. The estimated relationship between 5-year probability of death and BMI exhibits a J-shaped pattern for women and a U-shaped pattern for men. The BMI associated with minimum mortality is 27.53 for males and 27.43 for females. A 40-year-old female with a BMI of 40 has an estimated 5.82 fewer years of expected life lost compared to an analogous female with a BMI of 25. For a comparable change in BMI in a 40-year-old male, the expected years of life lost is 5.20. CONCLUSIONS: The BMI-mortality relation is flat around the minimum, but especially high mortality is associated with the morbidly obese. The MFP approach provides a robust alternative to estimating mortality by allowing the data to determine the best fitting model. The approach is also useful in estimating the relationship between the full spectrum of BMI values and other health outcomes.

PSY79
CONTENT VALIDITY OF THE MULTIPLE SCLEROSIS INTERNATIONAL QOL (MUSIQOL) QUESTIONNAIRE IN IRAQ, EGYPT, MOROCCO, SAUDI ARABIA AND TUNISIA
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OBJECTIVES: The MUSIQol questionnaire was co-developed in 15 countries to assess the quality of life of patients with Multiple Sclerosis. The objective of this study was to test the cultural relevance of the instrument in 4 Arabic countries (Egypt, Morocco, Saudi Arabia and Tunisia) and Iran, not involved in the initial development, to assess the conceptual equivalence of the translations with the UK original used as a basis for translation. METHODS: In each country, the translation process was conducted by a linguist expert, using either the standard forward/backward methodology or the adjusted process (adaptation from the Saudi Arabia version, including cognitive interviews with 6 patients). The basis for discussion was the concept list developed in collaboration with the author. RESULTS: Linguistic and cultural issues emerged during the translation process. First, the acronym “MS” used throughout the original version for “Multiple Sclerosis” was replaced by the full name in Arabic countries for clarity, but not in Iran where the patients preferred the abbreviation. Second, using euphemistic expressions for taboo concepts such as sex life proved necessary to ensure homogenous response across all languages without any negative connotation. Finally, leisure activities (e.g. shopping, going out to a movie, gardening) described in the original had to be adapted to the religious and social context in the target countries. CONCLUSIONS: The 5 language versions of the MusiQol were established following a proven standardized methodology, on the basis of a concept list worked out with the author, to allow international data pooling and mining whilst addressing the specific challenges of region to ensure the whole study supports the seamless of comparing continuous and diverse international feedback on wording during the linguistic validation process.

PSY80
PRIORITIZATION AND WEIGHTING OF PATIENT-RELEVANT ENDPOINTS (PRESS) AS PART OF THE IQWiG’S EFFICIENCY FRONTIER METHOD IN GERMANY
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OBJECTIVES: The IQWiG’s method provides a concept for the drawing of an efficiency limit and its extrapolation to the assessment of the cost-benefit relation. Here benefits are to be assessed in terms of a set of clinical endpoints. PRs might include different aspects of health status, health and health-related quality of life as well as other important factors identified as being patient-relevant. Efficiency frontiers cannot be drawn for all possible outcomes, it is important to determine which factors are most relevant to patients. IQWiG allows different efficiency frontiers. How can contradictory results be interpreted? The problem within the utility mea-