indicator of the influence of the UK in global RW research. METHODS: All 1455 abstracts presented at the ISPOR 14th Annual European Congress in Madrid, Spain in 2011 were reviewed in THE ISPOR OUTCOMES RESEARCH DIGEST, available via the ISPOR website. Posters were also reviewed where available. Those reporting RW studies were classified according to: therapeutic area, type of study, setting, source of data and methodology, country undertaken, country of authors and involvement of commercial sponsors. RESULTS: A total of 278 abstracts (19%) described RW studies. Data were derived from a database in 55.8%, health service/patient medical records in 24.8%, surveys/questionnaires in 15.8% and other sources in 3.6%. 12% were conducted in the UK, a further 8% included UK centres in an international study. 34% were conducted in the USA; 53% in another country (not UK) not USA – 38 countries, most commonly Spain 6%, Canada 5%, Germany 5%, France 5%, The Netherlands 3% and Italy 3% and 3% were international without a UK centre. In 21% of abstracts there was a UK author. CONCLUSIONS: RW studies presented in the ISPOR European Congress 2011 were most often conducted in the USA rather than international with the USA being the most prolific source. Of the rest, the UK was the source of RW data in twice as many studies as any other country, lending weight to the opinion that the UK provides an excellent environment for conducting RW studies.

PM17 INCREASING PHYSICAL ACTIVITY IN PATIENTS WITH CHRONIC DISEASE: WHAT IS THE LITERATURE TELLING US? Leidy NK1, Kinel M2, Ajagbe L1, Kim K1, Hamilton A2, Becker K2
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OBJECTIVES: It is widely recognized that regular exercise improves fitness, with increasing evidence that physical activity (PA; movement resulting in elevated energy expenditure beyond basal levels) can affect health, particularly in chronic disease. While pharmacologic therapy and exercise training have been shown to improve capacity, persistent increase in PA requires behavior change. This review examined studies testing the effectiveness of behavioral interventions to increase PA in adults with chronic disease. METHODS: Embase and PubMed searches of international inclusion in English, 1980-2009. Inclusion criteria: arthritis, COPD, diabetes, heart failure, obesity; exercise or PA endpoint; behavioral intervention described in sufficient detail to permit interpretation. RESULTS: A total of 392 abstracts screened; 169 articles retrieved; 36 reviewed. Most were randomized trials (n=30, 83%) with 2 intervention arms (n=29, 81%), medium to high quality (n=34, 94%). Subjects were recruited through clinical settings (n=28, 78%), with disease severity a primary eligibility criterion (n=23, 64%); 15% (42%) had sample sizes 40-100. Mean study duration = 9.6 months (range: 1-84). Exercise intervention: 30-50 minutes aerobic activity 3-5 times/week (n=22, 61%); 64% included walking. Instruction was individual (n=25, 69%), initially supervised (n=24, 67%) followed by unsupervised home exercise (n=15, 42%); Behavioral intervention: counseling (n=19, 53%) with personal contact follow-up (n=12, 33%). Control group: exercise without behavioral intervention (n=14, 39%) or usual care (n=15, 42%). Significant effects of the intervention were reported in 15 of 25 (60%) studies testing exercise capacity (6-minute walk, cycle or treadmill); 19 of 26 (73%) testing PA outcomes (pedometer, activity log, questionnaire), 11 of 22 (50%) measuring HRQoL, and 8 of 13 (62%) capturing behavioral endpoints. CONCLUSIONS: This review examined studies testing the range of designs, interventions, and outcome measures used in studies testing methods to improve PA in chronic disease. Results identify promising interventions, with implications for improving research methods and outcomes.

PRM5 TREATMENT OF RHEUMATOID ARTHRITIS – COMPARATIVE EFFECTIVENESS OF BIOLOGICS Schirrmeier-Röhe L1, Velevkus P1, Behmer O2, Kerkman L2
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OBJECTIVES: Guidelines for treatment of rheumatoid arthritis (RA) advise initial therapy with non-biological disease modifying antirheumatic drugs (DMARDs). In case patients do not respond adequately, treatment should be switched to biological DMARDs. Aim of this research is to compare results of public available systematic reviews (SRs) on comparative effectiveness (CE) and potential impact of differences in methodology. METHODS: We performed literature research for SR on CE of biologics for the treatment of RA. Search was limited to reviews published in 2009 or later. Methods of the reviews and results were extracted from the publications. Results are summarized in narrative way and differences in results are reflected focusing on methodological key issues. RESULTS: Eleven recent SRs were identified addressing the question of CE of biologics. Since there are no head-to-head comparisons available for all but one biologic, reviews had to use indirect comparisons to assess CE. Authors used the Simon-Bucher approach or Bayesian methods (mixed treatment comparisons). Clinical trial guidelines for RA give the advice to select the best evidence. Criteria defined according to Medical Dictionary for Health-Related Quality of Life (MDM-50) as primary parameter. Therefore, all trials assessed ACR20 (20% improvement), ACR50 and ACR70 and could be used for comparison. Further parameters were not assessed in a uniform manner (e.g. quality of life) or not assessed at all (e.g. disease activity score) and therefore could not be used for indirect comparison of treatments. CONCLUSIONS: Due to lack of head-to-head data for comparison of biologics, statistical methods for indirect comparison have to be used to answer the question of CE. These methods have restrictions and base on assumptions that might be heavily violated. Substances were tested over a time period of more than 10 years with effects on study population and variation in study designs. Nevertheless, the results seem to be fairly consistent.

PM99 USING PROPENSITY SCORE MATCHING TO ESTIMATE THE RESOURCE BURDEN OF HOSPITAL ACQUIRED CLOSTRIDIUM DIFFICILE INFECTION IN ENGLAND Wasserman M1, Cylus J2, Lati F1, Roberts G2

OBJECTIVES: Clostridium difficile infection (CDI) has been found to be associated with increased inpatient length of stay (LOS), however the causal direction is unclear. Many attempts to correct for potential endogeneity of sacrificing patients at the hospital level or by using instrumental variable regressions. We propose an alternative method using propensity score matching on a nationwide dataset to isolate the added effect of the disease using hospital level data. METHODS: Using the Hospital Episode Statistics (HES) dataset for England, a propensity score matching techniques were tested to estimate the causal effect of CDI on LOS of patients over 50 years old, who have been diagnosed with diabetes, chronic obstructive pulmonary disorder (COPD), heart failure, or/and chronic kidney disease. Methodological variations include radius matching, nearest neighbour matching with and without replacement, and kernel matching. RESULTS: Controlling for a number of covariates, nearest neighbour matching with replacement produces the least biased and most consistent estimates at 15.22 days longer LOS after contracting CDI, with a post-matching pseudo-R2-value of zero and a mean absolute standardized bias of 0.51% compared to 41.53% before matching. Radius matching produces less consistent results at 17.05 days, with a mean standardized bias of 2.93% after matching. Kernel matching does not adequately account for bias likely due to the largely unbalanced nature of the treatment versus control group. CONCLUSIONS: Propensity score matching serves as an alternative method to traditional regression approaches to estimate the causal effect of CDI on patient LOS. The results are consistent with those previously derived in the literature and demonstrate the heavy burden of CDI on the English National Health Service.

PM10 THE USE OF VA DATABASES FOR RETROSPECTIVE STUDIES IN ULCERATIVE COLITIS OUTCOMES RESEARCH Koleva YN1, Shi L2, Abbas A3, Khan N4
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OBJECTIVES: Veterans Administration Corporate Data Warehouse stores databases with standardized structure that could be used for automated data extraction, reviewer abstraction, and text mining to determine the association between health outcomes and disease-specific factors. This retrospective study provides assessment of VA administrative data used to examine the impact of pharmacological therapy on complications in ulcerative colitis (UC). METHODS: Previous studies investigating the effect of SASA on the risk for colorectal cancer (CRC) in UC patients have reported conflicting results. We obtained nationwide UC and CRC data from VA health care system for the period 2001-2011. Secondary relational databases were searched for clinical variables based on standardized criteria - ICD9 diagnosis, procedural and medication codes. Data extraction captured demographics, clinical information and pharmacy record for a cohort of 37,191 UC cases. We constructed a dataset of potential ulcerative colitis cases with CRC (n=1,087) defined as ICD9 codes 555.6 and 555.7, or ICD9 codes 153.1, 154.1 or 154.2, and random subsample of 100 non-SASA users with CRC was compared to 100 controls without CRC. RESULTS: Diagnosis of ICD9 code for CRC had PPV 79% and NPV 100% in the random sample. Within the 1087 potential CRC cases, only 500 (46%) were found to have chart of both conditions, when reviewing with kappa agreement between automated and manual abstraction 0.73 (95% CI: 0.70-0.76) for CRC and significantly lower for UC - 0.60 (95% CI: 0.57-0.63). The initial overall prevalence of CRC in the UC cohort was 2.8% and decreased to 1.34% after human text search verification. CONCLUSIONS: Automated extracts have great potential for diseases surveillance but manual review yields more reliable data. Pre-defined diagnostic algorithms based on a combination of methods as well as further technology development like natural language processing and longitudinal patient record will improve accuracy of retrospective databases.

PM11 REAL-WORLD DATA TO CALCULATE COST-EFFECTIVENESS OF MONOCLONAL ANTIBODIES: PROBLEMS AND SOLUTIONS van Roonheim EM, van der Linden N, van Gils C, Oppe M, Uyl-de Groot C
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OBJECTIVES: Real-world data is considered to be the gold standard by decision makers to inform on cost-effectiveness of new drugs. Unfortunately real-world data are often lacking in important parameters needed to inform on cost-effectiveness, and RCT data can be used to address this problem. Illustrated by two cases this poster will show that real-world data and real-world data combined can have a profound influence on the resulting ICER. METHODS: Two case studies in which real-world data on cetuximab for the indication of locally advanced head and neck cancer and panitumumab for the indication of chemotherapy refractory metastatic colorectal cancer was collected retrospectively from the pivotal RCT was used and corrected according to the results seen in the real-world data to better represent survival in daily practice. Using unadjusted RCT data resulted in a difference of approximately 5,000 euro/QALY in the