Conclusion: While the pharmacy cost was higher for abatacept compared to adalimumab driven by the rebate, due to its higher clinical efficacy, the CPR was consistently lower for SE+ RA patients treated with abatacept. The results may be useful for US healthcare decision makers in understanding how to optimize treatment for SE+ RA patient while minimizing costs in today's budget constrained environment.

Figure 1. Proportion of responders by treatment data from the Early AMPLE trial

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AB1165

MEDICATION ADHERENCE DATA IN A RANDOMIZED TRIAL: LARGE CHALLENGES TO COME FROM RAW DATA TO A WORKABLE AND RELIABLE DATASET

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Background: Medication adherence in the GLORIA trial, among elderly patients with rheumatoid arthritis, is measured with caps that register openings of the medication bottle. At each study visit, one or two medication bottles with cap (kits) are dispensed, each containing 90 capsules. Multiple steps are needed to come to a workable dataset to describe adherence.

Objectives: To describe the steps that are needed to come from raw data to a workable dataset to analyze adherence data that are recorded by electronic caps.

Methods: The medication bottle contains a cap with the ability to register cap openings. The raw dataset from the caps consist of an excel file with one opening

event per row, recorded as date and time. One cap yields approximately 90 rows. First, the kit numbers were matched to the corresponding patient numbers, that are recorded in another excel file. Instances where two kits were dispensed were recorded with two kit numbers in one cell and need to be copied to two cells with one kit number. Second, the VLOOKUP function was used to combine dates and kit numbers. One row now contains all openings from one kit. Then, the number of days between first opening and each next opening date was calculated. A range of 90 days was made to calculate how many times the bottle was opened on each day of the 90-days period. The results were color-coded to visualize instances of zero, one or ≥two openings on a day.

Results: The colored calendar matrix (Figure 1) can now be used to categorize adherence patterns.

Figure 1. Example of calendar matrix of four caps of one patient. Yellow=no opening, green=1 opening, blue=≥2 openings.

Conclusion: A monitoring cap seems a simple instrument to measure adherence. However, multiple steps and a lot of time are needed to come to a workable dataset for the study of adherence patterns.

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AB1166

DETERMINANTS OF REPOSITORY CORTICOTROPIN INJECTION TREATMENT INITIATION FOR PATIENTS WITH RHEUMATOID ARTHRITIS IN A LARGE CLAIMS DATABASE

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Background: The treatment goal in rheumatoid arthritis (RA) is sustained remission and prevention of RA flares [1]. While targeted biologics have improved disease outcomes, almost one-third of patients (pts) discontinue treatment by 1 year and 50% by 2 years, with lack of efficacy as the most common reason [2]. Repository corticotropin injection (RCI) is a naturally sourced complex mixture of adrenocorticotropic hormone analogues and other pituitary peptides and is an agonist for all 5 melanocortin receptors (MCRs). Activation of MCRs by RCI has been shown to have direct and indirect anti-inflammatory and immunomodulatory effects. RCI is indicated for adjunctive therapy for short-term administration in RA flares or uncontrolled disease [3].

Objectives: To characterize RA pts that initiate RCI therapy and identify predictors of RCI initiation, compared to biologic disease-modifying antirheumatic drugs (DMARDs).

Methods: This retrospective cohort study identified pts with ICD-9/10 diagnosis for RA over an 11-year period (2008-2018) in a large claims database (Truven MarketScan®). Adults with ≥1 claim for RCI (RCI cohort) or ≥1 RA-related biologic claim but no RCI (non-RCI cohort) were selected and characterized by demographics, disease severity (Claims-based Index for RA Severity, CIRAS), comorbidities (Charlson Comorbidity Index, CCI), treatment patterns, and healthcare resource utilization in the 12-month baseline (BL) period prior to their index date (i.e., the 1st RCI claim or last claim for biologic for non-RCI cohort). Predictors of RCI initiation were identified by multivariable logistic regression, controlling for demographics and BL characteristics.

Results: A total of 393 pts initiated RCI therapy while 188,062 initiated biologic treatment with no RCI claims. At BL, cohorts were similar with respect to mean age (~56 years), gender (76-79% female), and insurance type (79-80% commercial). Cohorts differed by region, plan type, and index year. Compared to non-RCI