lack of an RCT makes formal technology assessment vs. alternative treatment (e.g., best supportive care [BSC]) challenging. In such instances, naive indirect comparison based on historical controls is typically employed. We present a method for estimating outcomes for untreated patients when appropriate historical controls are not available, by identifying real-world responders in an uncontrolled trial. Methods: Ofatumumab was licensed for fludarabine- and alemtuzumab-refractory chronic lymphocytic leukemia (FA-Ref CLL) based on results of an uncontrolled trial (Hx-CD20-406). To evaluate the cost-effectiveness of ofatumumab vs. BSC from the UK National Health Service perspective, an indirect comparison of survival analysis model was developed. Progression free survival for BSC and overall survival (OS) for ofatumumab were estimated by fitting Weibull survival functions to failure time data for all FA-Ret patients in Hx-CD20-406. Following a literature search, no suitable historical control representing BSC could be identified; therefore hazard ratios for PFS and OS for BSC vs. ofatumumab were estimated by applying regression models to data for non-responders to all FA-Ret patients. Costs and utilities were taken from both published and unpublished sources. RESULTS: BSC patients (approximated by non-responders) were estimated to achieve 4.7 months PFS, 11.3 months OS, 0.50 QALYs, and expected lifetime costs of £43,828. CONCLUSIONS: The novel approach presented permits a practical alternative for estimating cost-effectiveness when neither an RCT nor appropriate historical control can be identified. Further research should be conducted using established data sets to validate the methodology, and to address potential limitations, e.g., unobserved differences between treatment groups, and potential benefits of treatment in patients classified as non-responders.

A NOVEL APPROACH TO MATCHING ADJUSTED INDIRECT COMPARISON ANALYSIS USING COMMON SAS 9.2 PROCEDURES
Melatigas E, Ciacon A, Sherman S, Berenson K, Stern L, Di Lorenzo G
Analytics International Inc, New York, NY, USA; University Federico II of Naples, Napoli, Italy

OBJECTIVES: While randomized control trials (RCT) are the gold standard for drug approval, there is often a lack of data directly comparing different treatment options. An indirect comparison of the treatment effects may serve as a proxy for a head-to-head RCT, however, naively comparing treatments using published trial data without adjusting for distribution differences in patient characteristics and prognostic factors can result in misleading conclusions. A novel matched-adjusted approach to indirectly compare absolute survival estimates (median overall survival (OS) or progression free survival (PFS)) for competitive treatment options is presented. METHODS: This proposed approach requires patient-level data for one of the treatments and summary data of patient characteristics and survival outcomes for the comparator of interest. Using this proposed method, the researcher would first decide on one or two matching variables that are prognostic for survival, and apply a program involving an extension of a common SAS 9.2 procedure, Proc Surveyselect, to select 1000 random repeated subsamples from the original population with the same distribution of matched variables. The analysis also requires programming statements using ODS and survival analysis procedures. The median OS or PFS estimates are computed for each bootstrapped sample and a 95% confidence interval (CI) is inferred around the mean of the sampled survival estimates. These absolute survival estimates, based on the stratified sample and a 95% confidence interval (CI), is estimated around the mean of all bootstrapped samples. RESULTS: Using this proposed method, the researchers would be able to estimate the hazard ratios for PFS and OS for BSC vs. ofatumumab were estimated by fitting regression models to data for non-responders to all FA-Ret patients. Costs and utilities were taken from both published and unpublished sources. RESULTS: BSC patients (approximated by non-responders) were estimated to achieve 4.7 months PFS, 11.3 months OS, 0.50 QALYs, and expected lifetime costs of £43,828. CONCLUSIONS: The novel approach presented permits a practical alternative for estimating cost-effectiveness when neither an RCT nor appropriate historical control can be identified. Further research should be conducted using established data sets to validate the methodology, and to address potential limitations, e.g., unobserved differences between treatment groups, and potential benefits of treatment in patients classified as non-responders.

CONCEPTUAL PAPERS & RESEARCH ON METHODS – Cost Methods

ASSESSING PRODUCTIVITY AND ACTIVITY IMPAIRMENT DUE TO ILLNESS IN POLAND
Wrona W, Hermannowski T, Jakubczyk M, Galicki D, Macoch T
Department of Pharmacoeconomics, Medical University of Warsaw, Warsaw, Poland

OBJECTIVES: The inclusion of loss productivity costs in pharmacoeconomic studies is still a subject of considerable debate. The aim of this study was to quantify the work impairment due to general health status in Poland with the Productivity and Activity Impairment: General Health (PAl-GHI) Questionnaire. METHODS: Data were obtained from a survey that incorporated the WPAI-GHI questionnaire and information on burden of care for a sick family member during computer-assisted personal interviews in a two-stage representative sample of the Polish general sample of people aged 15 years old or more. Results: In 2015 years, there were 19,000 respondents in total, gathered in two waves in January and May 2010. RESULTS: The total population comprised 795 subjects in paid jobs. Subjects reported 4.5% work time missed (absenteeism) during the past 7 days. Impairment while at work (presenteeism) amounted to 13.9% of total time. The overall work productivity loss (absenteeism plus presenteeism) equalled 15.2%. Impairment in performing daily activity was 15.6% in the past 7 days. Observed percentages were in general higher in subject from the first wave of study (January 2010) than from second wave (May 2010)—differences did not reach statistical significance. The general tendency of a higher absenteeism and a lower presenteeism among men than among women were observed. CONCLUSIONS: Productivity and Activity Impairment measured by WPAI-GHI in the Polish population are similar to those observed in other European countries and the U.S. Moderate differences between values estimated in January and May suggest limited impact of seasonal diseases such as influenza on productivity.

TARIFF LISTS FROM SPANISH AUTONOMOUS COMMUNITIES: AN ASSESSMENT OF ITS STRUCTURE, CONTENTS, AND TARIFF LEVELS

CONCLUSIONS: The economic impact of lost productivity due to premature mortality is a subject of considerable debate. The aim of this study was to quantify the work impairment due to general health status in Poland with the Productivity and Activity Impairment: General Health (PAl-GHI) Questionnaire. METHODS: Data were obtained from a survey that incorporated the WPAI-GHI questionnaire and information on burden of care for a sick family member during computer-assisted personal interviews in a two-stage representative sample of the Polish general sample of people aged 15 years old or more. Results: In 2015 years, there were 19,000 respondents in total, gathered in two waves in January and May 2010. RESULTS: The total population comprised 795 subjects in paid jobs. Subjects reported 4.5% work time missed (absenteeism) during the past 7 days. Impairment while at work (presenteeism) amounted to 13.9% of total time. The overall work productivity loss (absenteeism plus presenteeism) equalled 15.2%. Impairment in performing daily activity was 15.6% in the past 7 days. Observed percentages were in general higher in subject from the first wave of study (January 2010) than from second wave (May 2010)—differences did not reach statistical significance. The general tendency of a higher absenteeism and a lower presenteeism among men than among women were observed. CONCLUSIONS: Productivity and Activity Impairment measured by WPAI-GHI in the Polish population are similar to these observed in other European countries and the U.S. Moderate differences between values estimated in January and May suggest limited impact of seasonal diseases such as influenza on productivity.

TARIFF LISTS FROM SPANISH AUTONOMOUS COMMUNITIES: AN ASSESSMENT OF ITS STRUCTURE, CONTENTS, AND TARIFF LEVELS

CONCLUSIONS: The economic impact of lost productivity due to premature mortality is a subject of considerable debate. The aim of this study was to quantify the work impairment due to general health status in Poland with the Productivity and Activity Impairment: General Health (PAl-GHI) Questionnaire. METHODS: Data were obtained from a survey that incorporated the WPAI-GHI questionnaire and information on burden of care for a sick family member during computer-assisted personal interviews in a two-stage representative sample of the Polish general sample of people aged 15 years old or more. Results: In 2015 years, there were 19,000 respondents in total, gathered in two waves in January and May 2010. RESULTS: The total population comprised 795 subjects in paid jobs. Subjects reported 4.5% work time missed (absenteeism) during the past 7 days. Impairment while at work (presenteeism) amounted to 13.9% of total time. The overall work productivity loss (absenteeism plus presenteeism) equalled 15.2%. Impairment in performing daily activity was 15.6% in the past 7 days. Observed percentages were in general higher in subject from the first wave of study (January 2010) than from second wave (May 2010)—differences did not reach statistical significance. The general tendency of a higher absenteeism and a lower presenteeism among men than among women were observed. CONCLUSIONS: Productivity and Activity Impairment measured by WPAI-GHI in the Polish population are similar to these observed in other European countries and the U.S. Moderate differences between values estimated in January and May suggest limited impact of seasonal diseases such as influenza on productivity.