OBJECTIVES: To develop an economic evaluation to compare individually and vial-packaged test strips. Monte Carlo simulation modeling was developed using Excel to compare the costs of using individual vs. vial-packaged strips in a hospital setting. The decision tree described costs and consequences associated with two main parameters: risk of nosocomial infection due to the contamination of glycemia/hypoglycemia induced by the storage conditions of the strips. For each alternative (IP and VP), a simulated cohort of 1000 patients went through the tree accounting for costs and effects, and the results were expressed as hypoglycemic events, nosocomial infection events, use/waste of strips and ICER. Sources of parameters is wide and uncertainty is high. Due to the lack of information about certain parameters, a probabilistic results were depicted using a CE plane.

PM6D7 ECONOMIC EVALUATION OF FOUR SCHEMES FOR SCREENING AND DIAGNOSIS OF TYPE 2 DIABETES IN ADULTS IN COLOMBIA Quitan H1, Azche P2, Muñoz O3, Triana Romero PA4, Giròn D5, González-Restrepo C6, Rosselli M7, 1Pontificia Universidad Javeriana, Bogota, Colombia, 2Pontificia Universidade Javeriana, Bogotá, Colombia

OBJECTIVES: To compare the effectiveness and costs in the Colombian setting (and estimate the incremental cost-effectiveness ratio ICER) of the most commonly used schemes for screening and diagnosis of type 2 diabetes mellitus in local adult population. METHODS: We evaluated four possible schemes, all involved fasting blood glucose test plus oral glucose tolerance test and two without preceding screening with the FINDRISC scale; and, in a second step, using either the oral glucose tolerance, or glycosylated hemoglobin tests, for confirmation of diagnosis. We designed a decision tree model with sensitivity identified cases as the main effectiveness outcome, (estimated for Colombia from a global systematic literature review). Direct medical costs were estimated from the third party payer perspective (healthcare system), in Colombian pesos for 2014 ($1 = COP 2,660). Base cases, analyzed and validated by multidisciplinary expert group. Official cost databases and tariff manuals were then applied to estimate costs. Discount rates were applied. Univariate and probabilistic sensitivity analyses were performed. RESULTS: The schemes that used glycosylated hemoglobin test for confirmation dominated. For a cohort of 1,000 people, the strategy of FINDRISC plus fasting blood sugar test plus oral glucose tolerance test reported 969 correctly identified cases with a total cost of $7,306, while fasting blood sugar test plus oral glucose tolerance detected 963 at a cost of $10,880. Comparing these two schemes, the incremental cost-effectiveness ratio is $255. Sensitivity analyses did not significantly affect the results. CONCLUSIONS: This study suggests that the scheme FINDRISC plus fasting blood sugar test plus oral glucose tolerance test is the most appropriate strategy for screening and diagnosis of type 2 diabetes in Colombia.

PM6D8 A PCT-ALGORITHM TO GUIDE ANTIBIOTIC THERAPY IN PATIENTS HOSPITALIZED WITH COPD EXACERBATIONS LEADS TO NET COST SAVINGS BY REDUCING FREQUENCY AND DURATION OF ANTIBIOTIC USE AS COMPARED TO CURRENT PRACTICE Van der Maas M1, Steuten L2, 1Pusanse B V, Enschede, The Netherlands, 2Fred Hutchinson Cancer Research Center / University of Washington & Pusanse by, Seattle, WA, USA

OBJECTIVES: Antibiotics are often recommended as treatment for patients with COPD exacerbations. However, in many cases COPD exacerbations are not caused by a bacterial infection and antibiotics are prescribed unnecessarily. Procalcitonin (PCT) is a biomarker with good specificity to distinguish bacterial from non-bacterial inflammations. It can prevent unnecessary antibiotic prescriptions and reduce duration of antibiotic therapy. The goal of this study is to compare the health and economic consequences of using a PCT-algorithm compared to current practice in hospitalized patients with COPD exacerbations. METHODS: A decision tree was developed, comparing the expected costs and effects of the PCT-algorithm to current practice in the UK, Germany and the Netherlands. The time horizon of the model captures the length of hospital stay and a societal perspective was adopted. Model input data are based on a systematic literature research, country specific cost data sources and expert opinions. The primary health outcome was the duration of antibiotic use. The incremental cost savings and antibiotic days avoided were then estimated. The incremental cost per antibiotic day avoided. RESULTS: Using a PCT-algorithm is expected to be cost-saving and more effective when compared to current practice in all three countries. The PCT-algorithm is cost-effective in all three countries while reduction in antibiotic days drives the incremental effectiveness of the PCT-algorithm. CONCLUSIONS: A PCT-algorithm is a cost-effective way to guide the initiation and duration of antibiotic therapy when compared to current practice in COPD patients hospitalized with an exacerbation.

PM6D9 ECONOMIC ANALYSIS OF EPICUP, AN EPIGENETIC TEST TO PREDICT THE TISSUE OF ORIGIN IN CANCER OF UNKNOWN PRIMARY SITE, THE USA PAYORS PERSPECTIVE Gracia A1, Balafí C2, Kaskens L1, Chavennia S1, Matías-Guiu X1, Rubio-Rodríguez D1, Rubio-Terrés C3, Iglesias L5, Esteller M4, 1HEOR & MA Dpt Ferrer, Barcelona, Spain, 2Medical Oncology Dept, ICo, Badalona, Spain, 3Ferrer Advanced Biotherapeutics, Barcelona, Spain, 4Health Value, Madrid, Spain, 5Medical Oncology Dept, 12 de Octubre Hospital, Madrid, Spain, 6DIBELL, Barcelona, Spain

OBJECTIVES: To estimate the clinical and economic trade-offs involved in using the molecular assay EPICUP to aid in identifying the primary site in Cancer of Unknown Primary (CUP). METHODS: A decision-analytic model was developed to estimate the clinical and economic outcomes of incorporating the EPICUP assay compared with other molecular assays (CancerTYPE ID, Cancer Origin Test and ResponseDX: Tissue of Origin Test). The analysis was limited to 6 primary cancer sites: breast, colon, pancreas, lung (NSCLC and NSCLC-2), prostate and adrenocortical histological subtype. Results are presented as incremental cost-effectiveness ratio (ICER, cost per quality-adjusted life-years (QALY) gained) from the USA Health Payers perspective. Model inputs were based on a case-control study of EPICUP; published literature, Surveillance Epidemiology and End Results database and a clinical expert panel. RESULTS: Based on a price of USD3,500 for EPICUP and for a willingness to pay USD100,000, EPICUP is cost-effective vs. CancerTYPE ID, Cancer Origin Test and ResponseDX: Tissue of Origin Test in all tumors analyzed, ranging between 80% and 100% of the simulations. EPICUP increased the proportion of patients treated correctly, decreased the proportion of patients treated with an empiric approach, and increased the quality-adjusted overall survival. For a willingness to pay USD50,000 EPICUP is cost-effective in breast cancer, lung carcinosarcoma and prostate cancer, again ranging between 80% and 100% of the simulations. These findings were robust across deterministic and probabilistic sensitivity analyses. CONCLUSIONS: EPICUP is a candidate for diagnosing the primary tumor in CUP patients in a cost-effective approach in breast, colon, pancreas, lung (NSCLC), hepatocellular and prostate cancer in comparison with other alternatives available, while improving patient care.

PM7D0 ECONOMIC EVALUATION OF ORAL ANTICOAGULATION THERAPY (OAT) IN CHINA Huadong L1, Chen W2, Meng X3, 1Roche Diagnostics (Shanghai) Limited, Shanghai, China, 2Fudan University, Shanghai, China, 3Beijing Anzhen Hospital, Capital Medical University, Beijing, China

OBJECTIVE: to estimate the incremental cost, cost-effectiveness and cost-effectiveness of different oral anticoagulation therapies in China including warfarin plus International Normalized Ratio (INR) test in hospital labs (Lab test), warfarin plus patient self-test (PST) with point of care device, and novel anticoagulant (Dabigatran) along with monitoring (PST). METHODS: A Markov model was used for resource utilization assessment. Official cost databases and tariff manuals were then applied to estimate costs. Discount rates were applied. Univariate and probabilistic sensitivity analyses were performed. RESULTS: The warfarin plus patient self-test (PST) with point of care device dominated warfarin plus monitoring (PST) with a higher effectiveness and reduced cost. Sensitivity analysis demonstrated the results were not sensitive to main indicators, including utility in different health status, complication probability and disease management cost. CONCLUSIONS: Compared with OAT management in hospital laboratory, PST can generate more QALYs by avoiding the risk of hemorrhage and saving cost. The PST model is cost-effective, which turns to be the most cost effective among the 3 patterns and demonstrates promising future in OAT management.

PM7D1 ECONOMIC ANALYSIS OF EPICUP, AN EPIGENETIC TEST TO PREDICT THE TISSUE OF ORIGIN IN CANCER OF UNKNOWN PRIMARY SITE, FROM THE SPANISH NHS PERSPECTIVE Gracia A1, Balafí C2, Kaskens L1, Chavennia S1, Matías-Guiu X1, Rubio-Rodríguez D1, Rubio-Terrés C3, Iglesias L5, Esteller M4, 1HEOR & MA Dpt Ferrer, Barcelona, Spain, 2Medical Oncology Dept, ICo, Badalona, Spain, 3Ferrer Advanced Biotherapeutics, Barcelona, Spain, 4Health Value, Madrid, Spain, 5Medical Oncology Dept, 12 de Octubre Hospital, Madrid, Spain, 6DIBELL, Barcelona, Spain

OBJECTIVES: To estimate the clinical and economic trade-offs involved in using the molecular assay EPICUP to aid in identifying the primary site in Cancer of Unknown Primary (CUP). METHODS: A decision-analytic model was developed to estimate the clinical and economic outcomes of incorporating the EPICUP assay compared with other molecular assays (CancerTYPE ID, Cancer Origin Test and ResponseDX: Tissue of Origin Test). The analysis was limited to 6 primary cancer sites: breast, colon, pancreas, lung (NSCLC and NSCLC-2), prostate and adrenocortical histological subtype. Results are presented as incremental cost-effectiveness ratio (ICER, cost per quality-adjusted life-years (QALY) gained) from the Spanish NHS perspective. Model inputs were based on a case-control study of EPICUP; published literature, Surveillance Epidemiology and End Results database and a clinical expert panel. RESULTS: Based on a price of USD3,500 for EPICUP and for a willingness to pay USD100,000, EPICUP is cost-effective vs. CancerTYPE ID, Cancer Origin Test and ResponseDX: Tissue of Origin Test in all tumors analyzed, ranging between 80% and 100% of the simulations. EPICUP increased the proportion of patients treated correctly, decreased the proportion of patients treated with an empiric approach, and increased the quality-adjusted overall survival. For a willingness to pay USD50,000 EPICUP is cost-effective in breast cancer, lung carcinosarcoma and prostate cancer, again ranging between 80% and 100% of the simulations. These findings were robust across deterministic and probabilistic sensitivity analyses. CONCLUSIONS: EPICUP is a candidate for diagnosing the primary tumor in CUP patients in a cost-effective approach in breast, colon, pancreas, lung (NSCLC), hepatocellular and prostate cancer in comparison with other alternatives available, while improving patient care.