OBJECTIVES: Pharmacogenetic (PG) algorithms of warfarin dosing have been proposed to improve patient management and anticoagulation control. Despite several randomized clinical trials, the clinical benefit was not consistently shown. The objective of this study was to estimate the opportunity cost of introduction of warfarin PG testing into health system using an expected value of perfect information (EVPPI) approach. METHODS: A previously developed cost-effectiveness model was extended to simulate the PG-algorithm-based warfarin dosing versus standard treatment. Differences in anticoagulation control, in terms of percentage of time in therapeutic range (TTR), were used to estimate thromboembolic and haemorrhagic events. The outcomes were valued in quality-adjusted life-years (QALY) and 2014 cost. Uncertainty in the model parameters was assessed using probabilistic sensitivity analysis and EVPPI was estimated at a threshold of 25,000 EUR/QALY gained. RESULTS: In the base case, where price of PG test was set at 40 EUR, the CER of our PG-guided treatment was 8.346/1.31 EUR/QALY compared to the standard treatment. When uncertainty about clinical efficacy was examined, ICER ranged from approximately 1,000 EUR/QALY to dominated strategy. Another important factor was the price of PG test. In the base case, using PG algorithm had highest expected net-benefit with opportunity loss surrounding uncertainty about clinical efficacy of 2.9 EUR per treated patient. Conversely, increasing the cost of PG test by 3 times, to 120 EUR, resulted in the highest total net-benefit for the model. Conclusions: PG testing instead of standard therapy would result in opportunity loss of 47.2 EUR per treated patient, while for standard treatment was 0.82 EUR. CONCLUSIONS: The price of PG test is an important factor about decision of warfarin PG introduction into health system or investment into additional clinical trials. The smaller cost of PG test means lower opportunity cost, consequently future research should not have important impact on economic aspect of decision.

PCV62 DATA FRAMEWORK TO IMPROVE RELATIONSHIP IN DRUGS THERAPIES BETWEEN GPS AND HOSPITAL PATHWAYS
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OBJECTIVES: Pharmacogenetic (PG) test in patients with chronic diseases is fundamental. Therefore, the general practitioner (GP) is responsible for introducing PG testing into their practice. However, in the Italian context, there is no systematic way of implementing PG test in the care pathway. The objective of this study was to assess the implementation of PG test in the care pathway by GPs and to identify important factors that influence the use of PG test.

METHODS: A cross-sectional study was conducted between 2015 and 2016, involving 1,237 GPs across Italy. The study used a postal survey to collect data on the prescription of PG test and the factors influencing its use. The survey included questions on demographic characteristics of GPs, the use of PG test, and beliefs and intentions about the implementation of PG test.

RESULTS: The survey response rate was 71.2%. The majority of GPs (63.7%) had not used PG test in their practice. The main reasons for not using PG test were lack of knowledge (36.8%), lack of reimbursement (32.5%), and lack of time (27.3%). The most common indications for which PG test was used were hypertension (80.3%), diabetes (77.9%), and heart disease (71.6%). GPs who used PG test in their practice had higher beliefs in the effectiveness of PG test and were more likely to recommend it to their patients. The factors influencing the use of PG test were GPs' knowledge, beliefs, and practice environment.

CONCLUSIONS: The implementation of PG test in the care pathway between GPS and hospital pathways is limited in Italy. GPs' knowledge, beliefs, and practice environment are important factors that influence the use of PG test. Further efforts are needed to improve GPs' knowledge and beliefs about PG test and to create a more favorable environment for its implementation.