

Evaluation of cost-effectiveness of personalized pharmacotherapy

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The increased benefit for the patient combined with lower treatment costs is the ambition of personalized medicine. Theoretically, personalized medicine can save costs on ineffective or less effective drugs. On the other hand, additional costs are incurred for diagnostic tests and alternative personalized therapies. Cost-effectiveness must be assessed comprehensively, i.e. taking into account the range of impacts of possible directions of treatment development in individuals. Cost-effectiveness analysis is a comparison of costs and benefits of the studied strategies with full inclusion of all costs and comprehensively perceived health benefits for the patient, preferably at the level of the overall quality of life of the patient. In this context, the most advanced tool is the use of the QALY parameter and modelling approaches in the long term. Cost-utility analysis is an established and objective procedure for evaluating innovations not only in the field of personalized treatment, where high costs can be expected, but also a significant benefit for the patient. It uses QALY as a measure of the therapeutic effect. Today, its implementation is often a condition when assessing the reimbursement of expensive innovative drugs. In personalized medicine, it is then also necessary to properly target the indication restrictions in order to maximize the effect of each individual administration.