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Health Technology Assessment Models Utilized in the Chronic Care Management

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Abstract. High prevalence chronic illnesses consume a substantial part of the healthcare budget. We present a cost-effectiveness comparison of the current standard treatment of type 2 diabetes mellitus patients in the Czech Republic with the PCMH (Patient-Centered Medical Home) concept applied in the USA. A randomized sample of 100 probands was chosen out of 1825 Prague diabetological outpatient facility patients. The real-world costs of treatment were calculated for this sample; simultaneously, the costs of the PCMH concept were modelled for the same sample of patients. Then, the outcomes of both technologies (concepts) were figured out using value engineering and multicriteria decision making methods (Saaty's matrix and TOPSIS method). Although more expensive, the PCMH concept shows much higher outcome values, which reflects in a significantly higher cost-effectiveness. Preventive, focused and complex care similar to the PCMH concept can be beneficial due to decreasing complications and enhancing patient's quality of life.