Elevated blood pressure (BP) is a common chronic condition. Hypertension is a significant risk factor for cardiovascular diseases (CVD) and mortality. In addition, its consequences are a significant burden to society due to hospital admissions, use of anti-hypertensive drugs, sickness leaves, and disability pensions.

**OBJECTIVE:** To estimate the cost-effectiveness of systematic health counselling in the treatment of hypertension in primary health care.

**METHODS:** A cost-effectiveness analysis was performed alongside an open clinical trial, where 698 subjects aged 25–74 years with systolic BP (SBP) 140–179 mmHg and/or diastolic BP (DBP) 90–109 mmHg or antihypertensive drug treatment were randomised to intervention and usual care groups. The intervention was provided by trained public health nurses, who gave lifestyle counselling targeting weight reduction, restriction in salt, alcohol and saturated fat consumption, and increasing leisure time physical activity. Short-term effects in the BP levels were extrapolated to 10-year fatal CVD events by using the SCORE risk function. Incremental cost-effectiveness (ICER) was determined as cost per 1 mmHg reduction in SBP and DBP levels, and cost per life-years saved (LYS). Uncertainty was handled using a parametric Bayesian framework.

**RESULTS:** The absolute change in the BP levels was significantly greater in the intervention group among patients without antihypertensive drug treatment compared to similar patients in the usual care group (–2.4 mmHg in SBP and –2.0 mmHg in DBP). The difference in the BP reduction in patients with antihypertensive drug treatment was not significant between groups. For the patients not receiving antihypertensive drugs ICERs were €60 per 1 mmHg reduction in SBP and €72 per 1 mmHg reduction in DBP, and €98,000 per LYS. CONCLUSIONS: The lifestyle counselling in the primary care setting is a moderately cost-effective method to treat patients to the treatment goals at least for patients without previous antihypertensive drug treatment.