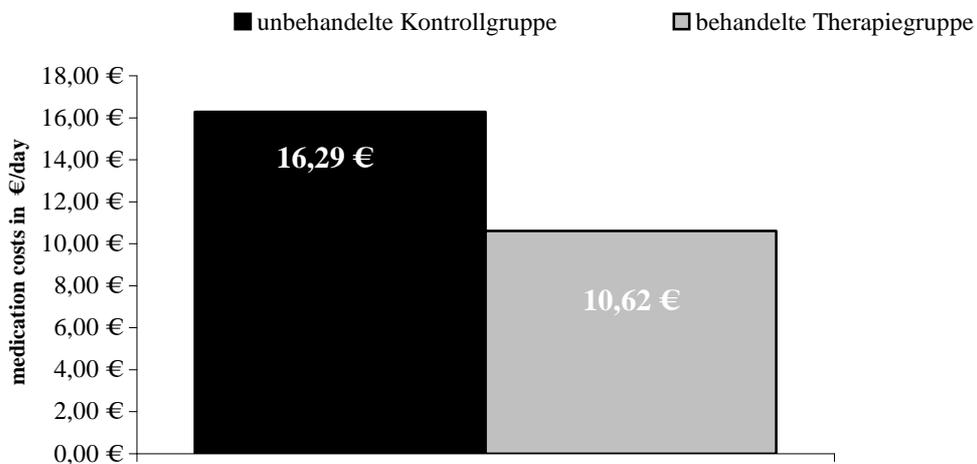


The potential savings of implant therapy in Parkinson's disease – retrospective study (2006)



medium daily medication savings/patient	5,67 € *
medium annual medication savings/patient	2.041,20 €
* this is the mean difference after bootstrapping (20 replications)	
relevant at a significance level of less than 0.01	
control group size	78
therapy group size	136

**Figure 1: Results of the retrospective investigation (Unbehandelte Kontrollgruppe – non-treated control group
Behandelte Therapiegruppe – treated therapy group)**

The implant therapy, developed by Dr. med. Ulrich Werth, Magdeburg brain researcher and specialist for neurology and psychiatry, does not only improve the condition of patients suffering from Parkinson's disease, but rather offers a further approach for cost savings in the German health care system.

In patients with otherwise similar characteristics like age at disease onset, body weight, duration of medication, age, gender and comorbidity, the calculated mean difference of 5.67 Euro/day and patient is at a significance level of less than 0.01. This mean difference in favour of the group that was treated with the implant therapy can be assumed as a lower limit for three reasons. First, the considerations included only those kinds of medicine that serve as treatment in Parkinson's disease, i.e. medicine taken to treat the side effects of the Parkinson medicine was not included in the investigation. Secondly, the medication was only adapted in patients that agreed in the after-treatment. Thirdly, all medications, which were considered in the investigation, included the lowest possible price per mg-active substance. All together, these facts represent significant potential savings for the German health care system in the field of drug expenses, which amounted – according to the Federal Office for Statistics - .to

about 37.54 billion Euro in 2003. At the same time, the expenses increased at an average of 2.36 % p.a. from 2001 – 2003 (geometric mean). As a result, the annual growth in drug expenses is 0.66 % higher than the total expenses for health in the same reference period.

In this regard, it must be underlined that the implant therapy does not claim to cure Parkinson's disease. However, it can considerably improve the quality of life of the effected patients. Only in few exceptional cases, the Parkinson's medication could be ceased **completely**. The worst result achieved with the implant therapy was the case that the medication dose taken so far needed not to be increased or the increase in the dose was lower than in non-treated patients for the relevant period. Usually the increase in the dose is cross-linked with the duration of the medication, i.e. the longer a patient takes the medicine the higher will be the required dose. In the investigated control group, the correlation between duration and costs of medication per Euro/day was slightly beyond 30%, whereas in the therapy group just under 18%.