

Policy Brief

Health Technology Assessment in India (HTAI)
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What is Parkinson's?

Parkinson's disease (PD) is a chronic degenerative disorder of central nervous system that mainly affects motor system



Is Deep Brain Stimulation cost-effective than best medical therapy?
- for PD patients who are clinically suitable for DBS therapy



Annual standardised rates (1990-2016)
30% Increase in Age-Std prevalence
56% increase in death








Estimated Prevalence (2019)
Prevalence 7,71,000
45,300 deaths



Economic Burden
6.8-41.7% of per capita GNI
Growing Public health challenge

Deep brain stimulation (DBS)

-  Improves patient Quality of Life, symptoms & functionality*
-  Reduction of dopaminergic medications *
-  Requires multiple visits for programming
-  Expensive - 6 to 26 lakhs rupees in India
-  Available only in Tier 1 cities in India.

What we did? →

Systematic review of cost utility studies on DBS for PD from different countries to provide a possible insight into the direction of the cost-effectiveness of DBS therapy for PD.

DBS is **cost-effective** than Medical treatment, mainly in **high-income countries**

← What have we found?

Limitations

1. Heterogeneity among the reported studies in terms of study perspective, costs considered, threshold utilized, and stages of PD progression leads to variability in the cost-effectiveness of DBS reported.
2. There is a lack of studies from low-income countries and low-middle-income countries (LMICs) regarding cost-effectiveness of DBS for PD

Summary



Evidence Synthesis is based on published cost-utility analyses that compared between DBS and Best Medical Therapy in **high-income countries**



DBS's potential impact on AB PM-JAY may be limited due to **high costs** & it is currently limited reach, **mainly in Tier 1 cities**.



DBS is an **expensive** treatment with currently limited **scalability** options and resource constraints in Indian context

Recommendation

- ✓ Explore the integration of PD treatment within primary care settings
- ✓ Establish a financial framework and decision-making mechanism to enhance the utilization, availability, accessibility, affordability, and equitable distribution of DBS services
- ✓ To Conduct cost-effectiveness analysis of DBS for different PD patient subgroups and various DBS targets within the Indian context` if implementation is feasible