National Neurosurgery Quality and Outcomes Database

The National Neurosurgery Quality and Outcomes Database (N²QOD) serves as a continuous national clinical registry for neurosurgical procedures and practice patterns.

Purpose

Its primary purpose is to track quality of surgical care for the most common neurosurgical procedures, as well as provide practice groups and hospitals with an immediate infrastructure for analyzing and reporting the quality of their neurosurgical care.

The primary goals of the N²QOD are to:

Establish risk-adjusted national benchmarks for both the cost and quality of common neurosurgical procedures

Allow practice groups and hospitals to analyze their individual morbidity and clinical outcomes in real-time

Generate both quality and efficiency of neurosurgical procedures

Demonstrate the comparative effectiveness of neurosurgical procedures

Facilitate essential multi-center trials and other cooperative clinical studies

The NPA chose the Vanderbilt Institute of Medicine and Public Health (VIMPH) to manage the collection and analysis of standardized data across neurological practices. The VIMPH is a national recognized leader in the field of health services research and quality improvement. The NPA has also adopted the popular and versatile REDCap™ (Research Electronic Data Capture) platform which will provide comprehensive data services for the N²QOD project.

The database is the first national risk-adjusted quality and outcomes database for organized neurosurgery, and though only having been in existence for a little more than two years, it is showing great promise in validating procedures as well as helping predict and explain possible outcomes of surgeries to help educate patients. The quality and outcomes database is in constant development so as to include as many conditions as practical. The database started with the lumbar spine module, and has since grown to include the cervical spine.

A vascular and spinal deformity module will also be available to participating sites.

The NQOD is now positioned to determine the combined contribution of patient variables to specific clinical and patient-reported outcomes. These analyses will ultimately facilitate shared decision making and encourage efficient allocation of health care resources, thus significantly advancing the value paradigm in spine care.Level of Evidence: 3 [1].

[1]
Asher AL, Speroff T, Dittus RS, Parker SL, Davies JM, Selden N, Nian H, Glassman S, Mummaneni P, Shaffrey C, Watridge C, Cheng JS, McGirt MJ. The National Neurosurgery Quality and Outcomes Database (N2QOD): A Collaborative North American Outcomes Registry to Advance Value-Based Spine Care. Spine (Phila Pa 1976). 2014 Oct 15;39(22S Suppl 1):S106-S116. PubMed PMID: 25299254.