Quality of care

Quality assurance is a continuous cycle of evaluating clinical care. To achieve this, the quality assurance committee should: assess or evaluate the quality of care using a variety of data sources to identify problems or shortcomings in the delivery of care and make recommendations to overcome these deficiencies.

There are many definitions of quality of care, but the Institute of Medicine (IOM) has proposed one that captures well the features of many other definitions and that has received wide acceptance (Institute of Medicine, 2001; Lohr & Committee to Design a Strategy for Quality Review and Assurance in Medicare, 1990): “The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.” As compelling as that definition is, it does not provide much guidance to a researcher interested in developing a measure or set of measures. A subsequent IOM report specified seven aims of a high quality medical care system that are more specific (Institute of Medicine, 2001): Safe – avoiding injuries to patients from the care that is supposed to help them.

Effective.

Patient-centered care

Timely – reducing waits and sometimes harmful delays for both those who receive and those who give care.

Efficient

Equitable – providing care that does not vary in quality because of personal characteristics, such as gender, ethnicity, geographic location, and socioeconomic status.

Quality of care measurement was a late addition to managed care. As a small specialty, neurosurgery quality of care metrics have a low priority for Medicare and other healthcare payers. Frequency of complications of glioma surgery derived from a large administrative database can be used as a quality measure, but the results may be inaccurate and inadequate. Prospective voluntary outcome registries offer a better alternative [1)].

Patient safety indicators (PSIs) and hospital-acquired conditions (HACs) are metrics for quality of care and are linked to reimbursement. The prevalence of PSIs/HACs may impact access to health care for certain conditions.

The Agency for Healthcare Research and Quality patient safety indicators (PSIs) and Centers for Medicare and Medicaid Services hospital-acquired conditions (HACs) are publicly reported metrics that illustrate the overall quality of care provided at an institution.

Although the world is experiencing a deficit in the neurosurgical workforce, the number of neurosurgeons in Germany has increased within the last two decades.

The aim of the study of Ringel et al. was to assess the neurosurgical workforce in Germany, compare

it to European countries, and assess structures in neurosurgical departments in Germany.

Data regarding the number of neurosurgeons in Germany as well as the number of departments, beds, cases, and neurosurgical procedures were gathered. A survey among German neurosurgical departments was performed to assess the structure of neurosurgical care. Furthermore, another survey among European countries was performed to acquire information regarding the number of surgeons and the regulation of training.

From 2000 to 2019, the number of board-certified neurosurgeons in Germany increased by 151% from 973 to 2,446. During the same period, the German population increased by only 1% from 82.26 million to 83.17 million. Thus, the number of neurosurgeons per 100,000 inhabitants increased from 1.18 to 2.94. The increase of neurosurgeons is not paralleled by an increase in departments or an increase in neurosurgical procedures within the active neurosurgical departments. In comparison to the participating European countries, where the number of neurosurgeons per 100,000 inhabitants ranged from 0.45 to 2.94, with Germany shows the highest number.

German institutions of medical administration urgently need to consider regulation of neurosurgical specialist training to prevent a further uncontrolled increase in neurosurgeons in a manner that is not adapted to the needs of neurosurgical care for the German population. Actions might include a regulation of entry to the training and of the number of training sites. Furthermore, an integration of non-physician assistant health care professionals and delegation of non-surgical workload from neurosurgeons is necessary. A further increase in neurosurgeons would be associated with a decrease in the surgical caseload per surgeons during training and after board certification, which might compromise the quality of neurosurgical care [2)].

Nurse-to-Patient Ratio

Nurse-to-Patient Ratio.

Michigan Spine Surgery Improvement Collaborative

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1)
Bean JR. Neurosurgical Quality Metrics: Seeking the Right Question. World Neurosurg. 2015 Jun 10. pii: S1878-8750(15)00711-1. doi: 10.1016/j.wneu.2015.06.004. [Epub ahead of print] PubMed PMID: 26072459.
2)
Ringel F, Stoffel M, Krieg SM, Schöller K, Gerlach R, Conzen M, Schuss P, Kreutzer J; and; Beck J; Ressort 1 of the Neurosurgical Academy (NCA) of the German Society of Neurosurgery (DGNC) the Berufsverband Deutscher Neurochirurgen (BDNC). Structure of Neurosurgical Care in Germany in Comparison to Countries Organized in the European Association of Neurosurgical Societies: A Need to Reorganize Neurosurgical Training and Care in Germany. J Neurol Surg A Cent Eur Neurosurg. 2023 Jul;84(4):305-315. doi: 10.1055/a-1982-3976. Epub 2022 Nov 18. PMID: 36400110; PMCID: PMC10226811.