In Reply: Functional Outcomes and Health-Related Quality of Life Following Glioma Surgery

To the Editor:

The complementary information and suggestions on the utility of health-related quality of life (HRQoL) and specifically on the use of HRQoL outcomes in value-based health-care assessments following glioma surgery are valuable additions. We thank the author for this contribution.[1,2]

HRQoL defined as a multidimensional construct by Wilson and Cleary entails measurement of many of the domains potentially at risk in glioma surgery, including symptoms, biological and physiological factors, and functional status. As indicated, instruments can be generic, cancer-specific, or brain tumor-specific. Nevertheless, a mere summary of a patient's overall health status in itself may not capture the burden in specific domains. In case 1 or a few domains are more severely affected, reasonable functioning in other domains may dilute a summary of health status. Hence, important consequences of surgical treatment could remain underreported, if only generic instruments are selected for a minimum essential consensus set.

We fully agree that concerns about overlap in questionnaires should guide a careful selection of patient- and clinician-reported outcome measures to avoid response burden. This selection should ideally be integrated with outcome measures for other interventions in patients with diffuse glioma, such as radiotherapy, chemotherapy, antiepileptic drugs, and corticosteroids, and be aligned with clinical trial assessment.

From a pragmatic perspective, measures to evaluate glioma surgery can be selected from several angles: prioritization by patients, by neuro-oncological clinicians, including neurosurgeons, by domains amenable to interventions to reduce symptoms or consequences, or by a ranking of incidence and severity of affected domains.

Valid and reliable measurement of functional outcome, able to detect meaningful changes, feasible in clinical practice, and generally accepted by the neurosurgical community, is an important starting point to better report, understand, and improve outcome for patients following glioma surgery. We invite this author to participate in the process toward standardization of functional outcome.

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2. De Witt Hamer PC, Klein M, Hervey-Jumper SL, Wefel JS, Berger MS. Functional outcomes and health-related quality of life following glioma surgery. *Neurosurgery*. 2021;88(4):720-732.

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