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# RANO 2.0 criteria: concepts applicable to the neuroradiologist's clinical practice

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## Abstract

**Purpose of review:** The Response Assessment in Neuro-Oncology (RANO) 2.0 criteria aim at improving the standardization and reliability of treatment response assessment in clinical trials studying central nervous system (CNS) gliomas. This review presents the evidence supporting RANO 2.0 updates and discusses which concepts can be applicable to the clinical practice, particularly in the clinical radiographic reads.

**Recent findings:** Updates in RANO 2.0 were supported by recent retrospective analyses of multicenter data from recent clinical trials. As proposed in RANO 2.0, in tumors receiving radiation therapy, the post-RT MRI scan should be used as a reference baseline for the following scans, as opposed to the pre-RT scan, and radiographic findings suggesting progression within three months after radiation therapy completion should be verified with confirmatory scans. Volumetric assessments should be considered, when available, especially for low-grade gliomas, and the evaluation of nonenhancing disease should have a marginal role in glioblastoma. However, the radiographic reads in the clinical setting also benefit from aspects that lie outside RANO 2.0 criteria, such as qualitative evaluations, patient-specific clinical considerations, and advanced imaging.

**Summary:** While RANO 2.0 criteria are meant for the standardization of the response assessment in clinical trials, some concepts have the potential to improve patients' management in the clinical practice.

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