

ABSTRACT

Curr Opin Neurol. 2022 Oct 4. doi: 10.1097/WCO.0000000000001109. Online ahead of print.

The 2021 WHO classification of central nervous system tumors: what neurologists need to know.

Jamshidi P(1), Brat DJ.

Author information:

(1)Department of Pathology, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA.

PURPOSE OF REVIEW: The recently published WHO Classification of Tumours, Central Nervous System Tumours, Fifth Edition (WHO CNS-5) introduces substantial clinically relevant changes based on improved understanding of the molecular underpinnings of brain tumor types as biological entities. This review highlights pertinent changes for practicing neurologists.

RECENT FINDINGS: Diffuse gliomas are now divided into adult and pediatric types. Adult types are greatly simplified, being classified into three groups based on IDH and 1p/19q status, with molecular grading criteria now included. Pediatric types are divided into low-grade or high-grade and further classified based on molecular features corresponding to clinical behavior. While still recognizing previous morphological subtypes, meningioma is now a single tumor type, with greatly advanced correlations between molecular alterations, locations, morphologic subtypes, and grades. For the first time, ependymomas are classified based on integration of anatomical location, histopathology, and molecular alterations. Importantly, WHO CNS-5 includes a number of new tumor types that have similar clinicopathologic features and are grouped together by their distinctive molecular characteristics.

SUMMARY: The classification of CNS tumors according to objective, reproducible molecular genetic alterations, provides greater opportunity for neurologists to offer individualized treatment options, enroll homogenous patient populations into clinical trials, and ultimately discover novel therapeutics.

Copyright © 2022 Wolters Kluwer Health, Inc. All rights reserved.

DOI: 10.1097/WCO.0000000000001109

PMID: 36226717