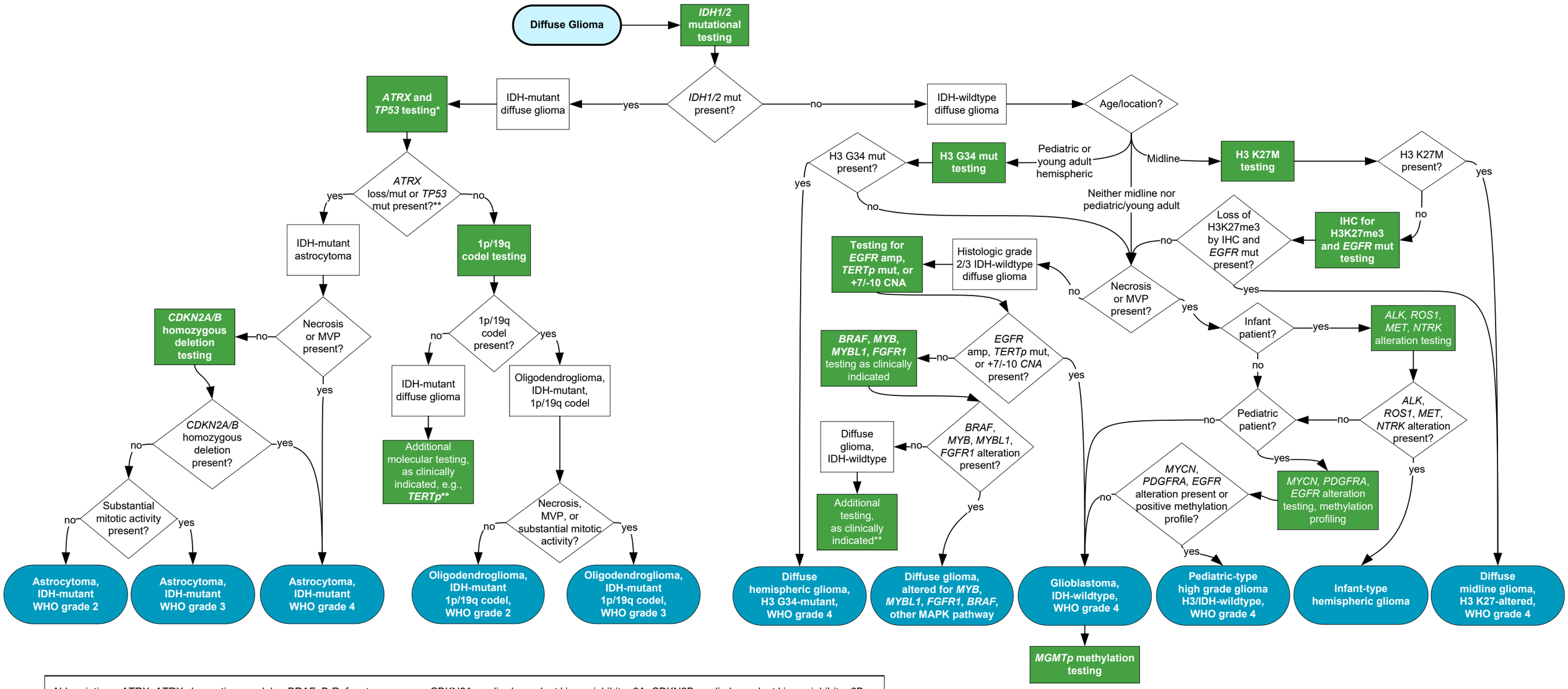
COLLEGE of AMERICAN PATHOLOGISTS
Laboratory Quality Solutions

Molecular Biomarker Testing for the Diagnosis of Diffuse Gliomas: Algorithm



Abbreviations: ATRX, ATRX chromatin remodeler; BRAF, B-Raf proto-oncogene; CDKN2A, cyclin-dependent kinase inhibitor 2A; CDKN2B, cyclindependent kinase inhibitor 2B; DGs, diffuse gliomas; EGFR, epidermal growth factor; FGFR1, fibroblast growth factor receptor 1; GBM, glioblastoma; H3, histone 3; IDH, isocitrate dehydrogenase; MGMT, O-6-methylguanine-DNA methlytransferase; MYB, MYB proto-oncogene; MYBL1, MYB-like; TERT, telomerase reverse transcriptase; TP53, tumor protein p53; WT, wild-type; Microvascular proliferation (MVP); Amplification (Amp); Mutation (mut); copy number alteration (CNA); MGMT promoter (MGMTp); Codeletion (Codel); TERT Promoter (TERTp)

Blue indicates WHO defined entities; Green indicates recommended tests; Italic indicates good practice statements
*Some institutions/laboratories may prefer to perform 1p/19q codeletion as the initial step for IDH-mutant gliomas. See recommendations 2-4 in the guideline manuscript.
**Additional molecular biomarker testing and DNA methylation profiling maybe helpful in establishing a diagnosis for challenging cases

Brat DJ, Aldape K, Bridge JA, et al. Molecular biomarker testing for the diagnosis of diffuse gliomas: Guideline from the College of American Pathologists in collaboration with the American Association of Neuropathologists, Association of Molecular Pathology, and Society for Neuro-Oncology. Arch Pathol Lab Med. Published online February 17, 2022. doi:10.5858/arpa.2021-0295-CP