Qualitätssicherungs-
Initiative Pathologie GmbH

Proficiency test for assessing the *IDH1/IDH2* mutational status in gliomas (Neuropathology)

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This first European-wide interlaboratory testing launched by QuIP aims at assessing the *IDH1/IDH2* mutational status in gliomas as specified in the revised 4th edition of the WHO Classification of Tumours of the Central Nervous System. The test is of special interest to neuropathologists or to general pathologists signing out neurooncological cases. Since the 2016 classification update, the *IDH* mutational status is a mandatory part of the diagnosis of diffusely infiltrating gliomas, e.g. "Glioblastoma, *IDH* wildtype (WHO grade IV)". Frequently, testing is initially performed with a mutation specific antibody against the most common mutational variant (IDH1-R132H). In patients younger than 55 years rare mutational variants of *IDH1* and *IDH2* (not detected by the antibody) occur in higher frequency. Thus, a sole immunohistochemistry in these patients (in case it is negative) might not be sufficient to fully assess the *IDH* mutational status and has to be complemented by *IDH1/IDH2* sequencing.

Manual

Material

Ten tissue samples from diffusely infiltrating gliomas have to be evaluated. For each tissue sample 4 unstained slides on Poly-L-lysin coated glass slides are provided (1 for H&E, 3 for immunohistochemistry and/or DNA-extraction and sequencing). In case the samples do not arrive properly at your institution, please notify QuIP immediately. Patient age is additionally supplied to guide the diagnostic procedure.

Testing

IDH1/2 mutational status in the tumor tissues has to be assessed according to WHO 2016 diagnostic criteria (see above). Evaluation will be merely qualitative. The following evaluation categories are possible.

A) *IDH1* or *IDH2* mutation = „positive"
B) no mutation = „negative"
C) „not assessable "

Additional data will be interrogated as e.g. the exact type of the mutation, testing methods applied, antibodies/molecular testing platforms used, etc. These will have to be entered in a drop down menu. The interlaboratory testing will have to be completed within **10 regular working** days.

Deadline

Results from your testing have to be entered in the online portal www.quip.eu **between May 23rd and June 7th, 2019**.

Submission of your results and Return of slices/data

Your results have to be submitted online only. Please log into your personal account at www.quip.eu. You will there find the online questionnaire between May 23rd and June 7th, 2019. Paper submissions and submissions by fax or email will not be accepted.

Please send the stained slices (if applicable) to QuIP Head office, Reinhardtstr. 1, 10117 Berlin, Germany. Raw data from sequencing must be sent per email to ringversuche@quip.eu.

Evaluation

Each correct answer (positive resp. negative) will be scored with 2 points. Use of the designation "not assessable" will be scored with 1 point and can only be used once. For a successful participation 18 points have to be reached.

Certificate

In case 18 points or more are reached the participant will receive a certificate that will state „successful participation". Participants reaching less than 18 points will get a proof of participation.