

Lay Summary

BRAIN UK Ref: 16/015

The development of a molecular methodology for improved detection of Isocitrate Dehydrogenase mutations in diffuse gliomas.

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Changes in our DNA are often found in cancer. In the hospital laboratory we can set up tests to look for these changes, to help diagnose and treat cancer. In a brain cancer called glioma, we need to find some better tests to help with getting the diagnosis right. We want to try a new method called 'digital PCR' that should help us give a more accurate way of looking for a mutation in the gene IDH1, which is very common in this cancer. We will compare the method with the way the test is done now, looking at cells down a microscope, to see if we can get a better test. We also want to add in some 'DNA sequencing' to try and pick up rarer IDH mutations that can be found in glioma; currently our hospital can't offer this extra service. These extra tests will mean we can help the doctors to make a more accurate diagnosis of the disease. This should in turn make sure the patients get the most appropriate treatment.