

## MRI MISMATCH REPAIR TESTING PATHWAY

The reporting Histopathologist identifies a patient fulfilling criteria for group 1 or is requested to refer by MDT based on individual factors. Referring Histopathologist The reporting Histopathologist will select representative tissue blocks containing tumour tissue and normal large bowel epithelium. This will be sent along with a representative H&E stained section for each block and a copy of the report to the IHC laboratory at MRI. The tissue blocks and slides will be booked into the MRI laboratory database and tested for MLH1, **MRI IHC Laboratory** PMS2, MSH2 and MSH6 protein loss by immunohistochemical analysis. Samples demonstrating Samples demonstrating no Samples demonstrating MLH1 isolated PMS2 loss or protein loss. loss (+/- PMS2 loss). MSH2/MSH6 loss. Sent to the regional Sent to regional genetics degenetics department for MLH1 partment for MSI testing and further genetics promoter methylation and BRAF St Mary's Genetics Laboratory mutation status. referral. MLH1 No MLH1 promoter promoter methylation or methylation & BRAF no BRAF Mutation. Mutation No referral to Referral to Genetics for further testing. Genetics. A report for the MMR IHC results will be produced and sent to the referring Histopathologist. A separate report will be issued by St Mary's Genetics department for any genetic testing that has been carried out. The original blocks and slides will be returned to the referring laboratory. The referring laboratory will be invoiced £135 per case for the IHC testing. Any genetic testing will be invoiced for separately by St Mary's Genetics department.