

Guidelines for the prioritisation of laboratory genomics services during the COVID-19 pandemic:

On 26th March 2020, NHS England and NHS Improvement wrote to all NHS Genomic Medicine services in response to COVID-19 to provide advice on the prioritisation of work to ensure the continued delivery of urgent and essential genomic testing and to enable the release of genomic laboratory capacity to support COVID-19 testing, where needed.

Until further notice, services should be directed to those groups of patients with urgent needs. This will include:

- pregnant women undergoing prenatal diagnosis;
- patients needing urgent advice on carrier testing relating to pregnancy, examples include cystic fibrosis, thalassaemia;
- those with abnormal fetal scans; critically ill neonates and children requiring assessment and those for whom the rapid PICU/NICU Whole Exome Sequencing (WES) is appropriate;
- conditions where rapid genetic testing may alter clinical treatment or decision making; and
- patients requiring urgent testing, for example BRCA testing, to inform chemotherapy options

Table 1. Prioritisation of genomic testing during COVID-19 pandemic.

Key to RAG rating			
Green	Continue		
Amber	Partial stop		
Red	Only continue if there is laboratory resource available over and above that required to support COVID-19 testing		
Cancer somatic genomic services	RAG rating for pandemic	Rationale for RAG	Further details
All clinically appropriate testing to inform diagnosis	Green	Urgent cancer service	
All clinically appropriate testing to inform therapy choice and patient management	Green	Urgent cancer service	
Urgent minimum residual disease monitoring e.g. acute leukaemias	Green	Urgent cancer service	
Other minimum residual disease monitoring e.g. non urgent chronic myeloid leukaemia	Amber	Cancer service	When clinically safe to do so, consider reducing frequency of testing or extending turnaround times
Chimerism testing for stem cell transplant monitoring	Amber	Cancer service	
Testing for myeloproliferative neoplasms	Amber	Cancer service	When clinically safe to do so, consider extending turnaround times

Rare disease genomic services	RAG rating for pandemic	Rationale for RAG	Further details
All prenatal diagnosis	Green	Urgent diagnostic service	
Urgent carrier testing relating to pregnancy; e.g. cystic fibrosis, thalassaemia etc.	Green	Urgent diagnostic service	
Testing to inform urgent management, transplantation or therapy e.g. neonatal diabetes and congenital hyperinsulinism testing, BRCA testing to inform	Green	Urgent diagnostic service	
Rapid exome sequencing for NICU/PICU	Green	Urgent diagnostic service	
Genomic testing to support New Born Screening Programme e.g. cystic fibrosis, MCADD	Green	Urgent diagnostic service	
All other rare disease testing	Red	Diagnostic service	Any samples received should be processed and stored appropriately for testing at a later date.

We will continue to process and test all samples received for urgent testing (Green and amber in the above table). Please do not send non-urgent samples to the laboratory until further notice. Any non-urgent samples received will be processed (DNA/RNA extraction or cell culture) and stored.

Clinicians must notify the lab when sending a sample from a known or suspected COVID-19 patient; such samples should be clearly labelled with a 'Danger of Infection' or 'High Infection Risk' sticker. Failure to do so will put the laboratory staff at increased risk.

We have taken the decision to only accept buccal or saliva samples in exceptional circumstances until further notice (i.e. where there is an urgent clinical need and an alternative sample is not possible). In these circumstances please contact the laboratory prior to sending the sample oxford.molecularhaem@nhs.net

We would like to take this opportunity to thank our service users for their patience and continued support during this challenging time.