



## External Quality Assurance Schemes

For

## Clinical Healthcare Laboratories

Helping to ensure clinical laboratory test results are accurate, reliable and comparable wherever they are produced

Services are organized by multiple centres at National Health Services, Public Health England, Universities as well teaching hospitals from United Kingdom

## GENETRICS – SERVICE LIST

2023/2024

### GENETRICS

World-wide moves towards improved quality control, unified standards of practice and formal accreditation will mean that only those clinical laboratories with an effective Quality Assurance (QA) programme are likely to be successful in an increasingly competitive market. The object of QA is to ensure that the right result is provided on the right specimen at the right time, and interpreted according to the right reference data. This process requires a combination of Internal Quality Control (IQC) of the everyday analytical process and participation in External Quality Assessment (EQA) programmes, where overall accuracy and comparability of results between centres may be determined.

The services cover qualitative and interpretative investigations in reproductive science, cellular pathology, clinical chemistry, genetics, haematology, immunology and microbiology. Each is directed by experts in their field, with support and advice from Steering Committees.

Specimens are distributed at a regular frequency, and aim to cover the range likely to be encountered in clinical practice. Participants receive independent, objective and impartial reports on their performance, enabling them to identify weakness and take appropriate action.

The primary aim of National External Quality Assurance Schemes is educational. Participants with persistent problems are offered advice and assistance from the scheme Organizer /Director and/or the relevant National Quality Assurance Advisory Panel. Schemes have close links with the professions, ensuring that their services are determined by clinical need.

Participation is on a voluntary, confidential basis and is open to all public and private sector clinical laboratories, as well as pharmaceutical and veterinary laboratories. Manufacturers of diagnostic instruments and reagents also benefit from participation, both in the development phase of new products and during monitoring of those already on the market.

Registration is usually for a minimum of one year with subscriptions payable in advance.

External Quality Assurance schemes ensures that schemes conform to high standards of professionalism, impartiality, clinical relevance and strict financial accountability across all disciplines and specialties, so that all concerned with the quality of laboratory investigations may have confidence in the service provided.

## **Contents**

### ***Cellular Pathology***

Tissue Diagnostics  
Specialist Techniques  
Muscle Histochemistry  
Diagnostic Cytopathology  
Mohs Procedure  
Direct Immunofluorescence  
Tissue Diagnostics (H&E Only)  
Renal Biopsy Pathology  
Neuropathology  
Bone Marrow Trephine  
Transmission Electron Microscopy  
Diagnostic Cytopathology Cell Block  
Frozen Section (Specialist Techniques add on)  
Mega Block (Specialist Techniques add on)  
Additional asset (Tissue Diagnostics scheme)

### ***Clinical Chemistry***

Birmingham Quality  
Cardiac Markers  
Edinburgh Peptide Hormones  
Guildford Peptide Hormones  
Trace Elements

### ***Haematology***

Blood coagulation  
Blood transfusion Laboratory Practice  
Feto Maternal haemorrhage  
General Haematology  
Leucocyte Immunophenotyping  
Vitamin K

### ***Immunology***

Histocompatibility & Immunogenetics  
Immunology, Imunochemistry & allergy

### ***Medical Microbiology***

Microbiology  
Parasitology

### ***Other Specialities***

Clinical Cytogenetics  
Clinical molecular Genetics  
Reproductive Science  
Special Chemistry

## Cellular Pathology

### UK National Breast Pathology Interpretive External

Breast Histopathology Diagnostic Interpretation

#### Cellular Pathology Technique

Services available :

Specialist Techniques

- Frozen Section (G) (1 extra slide per Run)
- Mega Block (G) (1 extra slide per Run)

Neuropathology

- Frozen Section (N) (1 extra slide per Run)
- Mega Block (N) (1 extra slide per Run)

Renal Pathology

Muscle Histochemistry

Diagnostic Cytopathology

Bone Marrow Trepine

Transmission Electron Microscopy (TEM)

Mohs' Procedure

Direct Immunofluorescence (DIF)

Tissue Diagnostics Scheme H & E Only

#### Head & Neck pathology

#### Immunocytochemistry & In-Situ Hybridisation

Services available :

**Immunocytochemistry**

<b>Alk IHC- No specific association</b>
General Pathology
Lymphoid Pathology
Neuropathology
Cytopathology
Mis-Match Repair Proteins (MLH1, MSH2, MSH6 and PMS2)
<b>Breast cancer</b>
Oestrogen Receptor (ER)
Oestrogen and Progesterone Receptor (ER and PgR)
HER2 protein over-expression by immunohistochemistry
HER2 protein LOW over-expression by immunohistochemistry
HER2 gene amplification by in-situ hybridisation - Technical and Interpretive
PD-L1 protein over-expression in Triple Negative Breast Cancer (TNBC) (Pilot)
Ki-67 (Pilot)
<b>Non-small cell lung cancer (NSCLC)</b>
ALK protein over-expression by immunocytochemistry
PD-L1 protein over-expression (Pilot)
ROS1 protein over-expression by immunocytochemistry (Pilot)
ALK gene translocation by in-situ hybridisation (Pilot)
ROS1 gene translocation by in-situ hybridisation (Pilot)
Both ALK and ROS1 gene translocation by in-situ hybridisation (Pilot)
<b>Gastrointestinal tract cancers</b>
CD117 and associated GIST markers
HER2 protein over-expression in gastric cancer
<b>Head and neck squamous cell carcinoma (HNSCC)</b>
p16 protein over-expression (Pilot)
High-Risk Human Papilloma Virus (HPV) protein or RNA expression (Pilot)
Both p16 and High-Risk HPV (Pilot)

## *Clinical Chemistry*

### **Cardiac Markers**

Services available :

BNP

Cardiac Troponin I

Cardiac Troponin I

CKMB

Myoglobin

NT- ProBNP

## Clinical Chemistry

Services available :

Acute and Chronic Kidney Disease

Angiotensin Converting Enzyme

Antibiotic Assays

Antifungal Panel

Birmingham Quality Chemistry POCT

Birmingham Quality POCT Suite

Clinical Chemistry

Erythropoietin

Faecal Haemoglobin

Faecal Markers

Faecal Pancreatic Elastase

Fluids

Fructosamine

Glycated Haemoglobins

Haematinics

Holotranscobalamin

Immunosuppressants

Interpretative Comments [C]

Intrinsic Factor Antibodies

Lipid Investigations

Newborn Screening

Paediatric Bilirubin

Pre & Post Analytical Quality Monitoring Service

Quantitative Amino Acids

Serum Indices (HIL)

Specific Proteins

Steroid Hormones

Sweat Testing

Total Bile Acids

Thyroglobulin

Thyroid Hormones

Tox and TDM

Urinary Catecholamines & Metabolites

Urine Chemistries

Urine Dipsticks

Vitamin Assays

Vitamin D

Vitamin K

## Guildford Peptide Hormones

Services available :

C-Peptide

Gastrin

Insulin

Insulin - like Growth Factor Binding Protein - 3

Insulin - like Growth Factor-1

## Peptide Hormones

Services available :

### Maternal serum Screening

Down's Syndrome Scheme [1<sup>st</sup> and /or 2<sup>nd</sup> trimester; pilot scheme for dried blood spots (1<sup>st</sup> trimester only)]

Neural Tube Defects (NTD)

### Peptide I

FSH , LH, AMH, Prolactin and Growth Hormone

### Peptide II

PTH , ACTH and Calcitonin

### Pregnancy Testing

Urinary hCG (qualitative and quantitative)

### Tumour Markers

AFP,CEA and hCG

## Trace Elements

Services available :

Aluminum in Water/ Dialysis Fluid
Copper and Iron in Solid Matrices e.g. Liver
Lead, Cadmium, Manganese, Arsenic, magnesium, mercury, Zinc, Selenium, Thallium, Chromium and Cobalt in Blood.
Mercury , Cadmium, Copper, Iron , Zinc , Chromium , Cobalt, Arsenic, Lead, Manganese, Nickel, Thallium , magnesium and selenium in Urine
Zinc, Copper, Aluminium,Selenium ,Chromium and Cobalt in Serum

## Blood Coagulation

Services available :

Blood Coagulation

### Level 1- Screening Tests programme

Quick's one stage method (Prothrombin time) (6)

Capillary reagent method (6)

Prothombin time (PT) for diagnosis (4)

Activated partial thromboplastin time (APTT) (6)

Thrombin time (2)

Heparin Dosage Assessment (2)

Heparin assay (2)

Fibrinogen assay (Clauss) (4)

D-Dimer (4)

### Level 2- Assays programme Level 2

Factor II assay (2)

Factor V assay (2)

Factor VII assay (2)

Factor VIII assay: C assay (4)

Factor IX assay (2)

Factor X assay (2)



Factor XI assay (2)
Factor XII assay (2)
VWF antigen (2)
VWF: RiCof activity (2)
VWF: (Collagen Binding) (2) no additional sample sent
Antithrombin Antigen assay (4)
Antithrombin Activity assay (4)
Protein C Antigen assay (4)
Protein C Activity assay (4)
Protein S Total Antigen assay (4)
Protein S Free Antigen assay (4)
Protein S Activity assay (4)
Plasminogen assay (4)
APC resistance assay (4)
<b>Other laboratory programmes</b> (Surveys p.a)
Lupus Anticoagulant Screening Programme (2)
DOAC - Dabigatran Assay (4)
DOAC - Rivaroxaban Assay (4)
DOAC - Apixaban Assays (4)
DOAC - Edoxaban Assay (4)
ADAMTS13 Assay Programme (2)
FXIII Assay programme (2)
FVIII inhibitor assays (2)
FVIII inhibitor assays (2)
HIT (2)
<b>New Programmes</b>
FVIII treatment monitoring (2)
FIX treatment monitoring (2)

Emicizumab assays (2)
<b>Point of Care INR Programme</b>
CoaguChek, XS, XS Plus, XS Pro, XS Pro II, (4)
-Stat, Xprecia Stride (4)
<b>Point of Care D-Dimer Programme (4)</b>
<b>Point of Care ACT Programme</b>
Hemochron ACT+, Hemochron ACT-LR, Gem-PCL (3)*
<b>Point of Care Rotem Programme (3)</b>
<b>Point of Care TEG Programme (3)</b>
<b>Homocysteine Assay Programme</b>
Registration plus homocysteine assay
<b>Factor V Leiden/Molecular Genetics of Thrombophilia</b>
Registration plus FVL and/or P20210A (3)
<b>Genetics of Heritable Bleeding and Thrombotic disorders</b>
Registration plus Haemophilia Molecular Genetics (2 plus 2 paperbased exercises)
<b>Blood Transfusion Laboratory Practice</b>
Services available :
Pre-Transfusion Testing (PTT)
Full Participation (4 'R' & 6 'E' Exercises)
Half Participation (4 'R' Exercises)
ABO Titration (Pilot)
DAT
Red Cell Genotyping
Antenatal Titration Pilot
Extended Red Cell Phenotyping

## Feto Maternal Haemorrhage

Services available :

Screening

Quantification

## Haematology

Services available :

**Full Blood Count**

**Hb only option**

**Automated Differential Leucocyte Count**

**Reticulocyte Count**

**Plasma Viscosity**

**Blood Component Quality Monitoring**

**ESR (ES module)**

**ESR (ESX module for Alifax instruments)**

**Infectious Mononucleosis**

**Abnormal Haemoglobins Hb A2/F & S**

Sickle screen only

Full participation

Newborn liquid capillary blood option

Full Participation & Newborn Liquid capillary blood option

**Newborn Sickle Screening**

**DNA Diagnostics for Haemoglobinopathies**

Alpha and Beta Mutations

Alpha or Beta Mutations Only

**Red Cell Enzymes (G6PD)**

**Blood Films for Morphology, Manual Differential and Parasites**

**Cytochemistry**

### Digital Morphology for CPD

Group registrations (per person)

Individual registration (per person)

## Leucocyte Immunophenotyping

Services available :

### Flow Cytometry Programmes

CD34+Stem Cell Enumeration

Immune Monitoring

Leukaemia Diagnostic Interpretation (part 2)

Leukaemia Immunophenotyping (part 1)

Low level Leucocyte Enumeration

Minimal Residual Disease in Acute Lymphoblastic Leukaemia (pilot)

Paroxysmal Nocturnal Haemoglobinuria

Paroxysmal Nocturnal Haemoglobinuria high resolution (pilot)

Cerebrospinal Fluid (CSF) Immunophenotyping (Pilot - Not Accredited)

Haematological Malignancy Bone Marrow Aspirate Assessment (Pilot - Not Accredited)

Measurable Residual Disease for Plasma Cell Myeloma by Flow Cytometry (Pilot -Not Accredited)

Competency Assessment and Instrument Validation Panel for Immune Monitoring

### Molecular Programmes

BCR-ABL+AML Translocations Identification.

BCR – ABL Kinase Domain Mutation Status (Pilot)

BCR-ABL Quantitation

BRAF V600E for Hairy Cell Leukaemia (pilot0)

FLT3 Mutation Status

IG/TCR Clonality Status (Accredited)

JAK2 p.Val617Phe (V617F) Mutation Status (Accredited)

KIT p.Asp816Val (D816V) Mutation Status for Mast Cell Disease (Accredited)

NPM1 Mutation Status (Accredited)
Paediatric Acute Leukaemia Translocations (Accredited)
Post-Stem Cell Transplant Chimerism Monitoring (Accredited)
BCR::ABL1 Minor Quantification (Pilot - Not Accredited)*
Lymphoid Gene Panels (Pilot - Not Accredited)
Lymphoplasmacytic Lymphoma/Waldenström Macroglobulinaemia (Pilot - Not Accredited)
Myeloid Gene Panels (Pilot - Not Accredited)*
Myeloproliferative Neoplasms Diagnostic Testing (Pilot - Not Accredited)
Measurable Residual Disease for AML by Molecular Methods (Pilot - Not Accredited)
Measurable Residual Disease for Lymphoid Neoplasms by Molecular Methods (Pilot - Not Accredited)

## Vitamin K

Services available :

Vitamin K1 at endogenous concentrations in human serum

NutriChek- Vitamin K:Vitamin K1 in foods-milk powder collaboration run with Global Proficiency

Mk-4 at endogenous concentrations in human serum

Mk-7 at endogenous concentrations in human serum

Vitamin K1 2,3-epoxide at endogenous concentrations in human serum

## Immunology

### Histocompatibility & Immunogenetics

Services available :

ABO Grouping by DNA – Based Methods

Crossmatching by Flow Cytometry

Cytotoxic Crossmatching

DNA HLA Typing at 1<sup>st</sup> Field Resolution

DNA HLA Typing to 2 <sup>nd</sup> Field Resolution
Educational Scheme
HFE Typing
HLA Antibody Specify Analysis
HLA-B27 Testing
HLA-B*57:01 Typing for Drug Hypersensitivity
HLA & Disease Typing for HLA-DR/DQ/DP only
HLA Phenotyping
Interpretative : HFE Genotype and Hereditary and Haemochromatosis

## Immunology, Immunochemistry & Allergy

Services available :

### Autoimmunity

Citrullinated Proteins
Rheumatoid Factor
Thyroid Peroxidase Antibody
Thyroid Stimulating Hormone Receptor Ab
Liver Disease Antibodies
Anaemia Related Antibodies
Nuclear Antibodies (ANA/DNA/ENA)
Nuclear Antibodies (ANA/DNA)
Phospholipid Antibodies
ANCA/GBM Antibodies
Acetylcholine Receptor Antibody
Paraneoplastic antibodies
Bullous Dermatitis Antibodies
Coeliac Disease Antibodies
Interferon Gamma Release Assay Quantiferon ( inc. iEQA)†

Interferon Gamma Release Assay TSPOT ( inc. iEQA)†
Diabetic Markers
Ganglioside Antibodies
Myositis Associated Antibodies
Phospholipase A2 Receptor Antibodies
Myelin Associated Glycoprotein
N-methyl-D-aspartate receptor antibodies *
SARS CoV-2/COVID-19 Antibodies
<b>Allergy and Immunochemistry</b>
Fungal Antibodies
Avian Antibodies
IgG Subclasses
Tetanus Antibodies
H. Influenzae Antibodies
Pneumococcal Antibodies
Total Serum IgE
Allergen Specific IgE
Allergen Component Testing
Tryptase
<b>Immunochemistry</b>
B2 Microglobulin
C1 Inhibitor and Functional Complement
C-Reactive Protein
Procalcitonin
CRP Ultrasensitive Assays
CSF Oligoclonal Bands
CSF Proteins and Biochemistry
CSF Haem Pigments

Alpha 1 Antitrypsin and Phenotype Identification
CSF Beta 2 Transferrin
Alkaline Phosphatase Isoenzymes
Interleukin-6
<b>Oncology</b>
Monoclonal Protein Identification
Total PSA
Ultrasensitive PSA
Ovarian Markers (CA125)
Gut Markers (CA199)
Breast Markers (CA153)
Lung Markers (NSE)
Chromogranin A
<b>POCT</b>
Point of Care CRP Testing
<b>DIGITAL</b>
Digital ANA (image based)
Cryoprotein (image based)

## *Medical Microbiology*

Antibiotic Assays
Services available :
Amikacin
Flucytosine
Gentamicin
Hydroxyl - Itraconazole
Itraconazole



Posaconazole
Teicoplanin
Tobramycin
Vancomycin
Voriconazole

## Microbiology

Services available :

### Bacteriology

AAFB microscopy
Antimicrobial susceptibility
Clostridium difficile
Community medicine
Faecal pathogens
General bacteriology incl. Antimicrobial Susceptibility
General bacteriology (identification)
Genital pathogens
MRSA screening
Mycobacterium culture
Superficial Infections
Syphilis serology
Urinary antigens – Legionella and Pneumococcal

### Molecular

CMV DNA quantification
EBV DNA quantification
HBV DNA quantification
Hepatitis C RNA Detection
HIV-1 RNA quantification

Molecular detection of <i>Chlamydia trachomatis</i> & <i>N. gonorrhoeae</i>
Molecular detection of HEV RNA
Molecular detection of HPV
Molecular detection of mycobacteria
Molecular detection of respiratory viruses
Molecular detection of viruses in CSF
Molecular detection of SARS-CoV-2
<b>Mycology</b>
Mycology culture
Antifungal susceptibility
Cryptococcal antigen detection
Fungal biomarkers
<b>Virology</b>
Anti-HBs detection
Blood borne viruses- includes screening for HBsAg, HIV Ag/Ab and HCVAg/Ab
Blood Donor screen- includes screening for HBsAg, anti-HBc, HIV Ag/Ab, HCV Ag/Ab, anti-HTLV I/II and Treponemal antibodies
Diagnostic serology – Exanthem screen
Diagnostic serology –Hepatitis screen
Hepatitis B serology
Hepatitis C serology
Hepatitis E serology- (IgM and IgG)
HIV Point of Care
HIV serology
Immunity screen- Detection of IgG antibodies to HAV, CMV and VZV
Lyme serology
Measles and mumps IgG serology
Parvovirus B19 and Rubella serology

Respiratory rapid: RSV
Rubella IgG serology
Virus gastroenteritis- Suitable for nucleic acid and antigen detection methods

## Parasitology

Services available :

Blood parasitology
Faecal parasitology
Malaria rapid
Molecular detection of faecal parasites
Molecular detection of Malaria
Parasite serology
Toxoplasma serology - Includes Toxoplasma IgM, IgG and avidity
Carbapenamase-Producing Organisms
<b>Parasitology Teaching Programmes</b>
<ul style="list-style-type: none"> <li>• Blood programme</li> <li>• Faecal programme</li> </ul>

## Other Specialities

### Clinical Cytogenetics

Services available :

Acute Lymphoplastic Leukaemia - ALL
Adult Molecular Neuropathology – 1P/19
Amniotic fluid
Bloods
Chorionic Villus - CVS
FISH Rapid Aneuploidy
Mature B&T cell Neoplasms (G-banded)

Mature B&T cell Neoplasms (FISH only)
Microarray – acquired - Pilot
Microarray – prenatal- pilot
Microarray - postnatal*
MRA
Myeloid leukaemia- CML/AML/MDS
Myeloma – Pilot
PGD Blastomere (FISH)
PGD Blastomere/Trophectoderm (Array) - Pilot
PGD Polar Body (Array) – Pilot
PGD Sperm FISH – Pilot
Products of Conception (G-banded)
Products of Conception (Array/MLPA/ PCR) – Pilot
Sarcoma- pilot
Tumour

## Clinical Molecular Genetics

### Services available :

BRCA1 & BRCA1 Gene Screening
Cardiomyopathies
Cystic fibrosis
Duchenne & Becker Muscular Dystrophies
Fabry Disease
Familial breast & ovarian cancer (BRCA1 & BRCA2)
Familial hypercholesterolaemia (FH)
Fragile X syndrome
Friedreich ataxia

Huntington disease
Long QT syndrome
Lynch syndrome
Maternal cell contamination & sexing (MCC & sexing)
Medium chain acyl-CoA dehydrogenase deficiency (MCADD)
Mitochondrial diseases
Molecular Analysis in Colorectal cancer
Services available :
Molecular Analysis in Colorectal cancer Non-Small Cell Lung Cancer
Molecular Analysis in Melanoma
Molecular Analysis of Gastrointestinal stromal tumours
Molecular Rapid Aneuploid
Molecular Testing for Cystic fibrosis (CF) on Blood Spots.
Molecular Testing for MCADD c.985A>G mutation on Blood Spots.
Molecular Testing for MCADD Extended mutation screening on Blood Spots
Non- invasive Prenatal Diagnosis.
Next Generation Sequencing
Pathogenicity of sequence variants pilot
<i>POLG</i>
Prader-Willi and Angelman syndromes
Preimplantation Genetic Diagnosis for Monogenic Disorders.
Preimplantation Genetic Diagnosis using Microarrays
Rett Syndrome
Spinal Muscular Atrophy
Spinocerebellar ataxias
Von Hippel-Lindau syndrome

## Reproductive Science

Services available :

Andrology : Semen Analysis (Semen Motility , Concentration Morphology

Embryology : Embryo Morphology

## Special Chemistry

Services available :

Acylcarnitines in serum

Cystine in white blood cells

Lysosomal enzymes in fibroblasts

Neurotransmitters in csf

Pterins in urine

Purines and pyrimidines in urine

Quantitative amino acids in serum

Quantitative organic acids in urine

Special assays in serum

Special assays in urine

Acylcarnitines in dried blood spots (2 centres)

Congenital disorders of glycosylation in plasma/serum

Diagnostic proficiency testing in urine (5 centres)

Qualitative organic acids in urine (2 centres)

Urine mucopolysaccharides

Uk neqas for specific proteins

Drug uk neqas for tox and tdm

Uk neqas for lipid investigations

Uk neqas for lead & cadmium in blood

Uk neqas for paediatric bilirubin

Uk neqas for glycated haemoglobins

Uk neqas for urine chemistries
Uk neqas for newborn screening
Uk neqas for cholinesterase
Uk neqas for quantitative amino acids
Uk neqas for gfr estimations [egfr]
Uk neqas for thyroglobulin
Uk neqas for vitamin assays
Cat uk neqas for urinary catecholamines
Uoa uk neqas urinary orotic acid
Swt uk neqas for sweat testing
Uk neqas for colorectal cancer screening
Uk neqas for interpretative comments
Ifab uk neqas intrinsic factor antibodies
Epo uk neqas erythropoietin

## *ASHI Proficiency Testing Program*

<b>HLA TYPING</b>
Serological and/or Molecular Typing
HT-B27 Detection
Supplemental Specimen Volume
Serological and/or Molecular Typing from a 2nd group
Supplemental Specimen Volume from a 2nd group
<b>ENGRAFTMENT MONITORING</b>
<b>HLA ANTIBODY SCREENING/CROSSMATCHING</b>
HLA Antibody Screening/Identification and/or Crossmatching
HLA Antibody Screening/Identification w/out Crossmatching
Supplemental Serum Volume
Supplemental Whole Blood Volume

<b>Viral Code</b>	<b>Description</b>
HIVRNA17	HIV-1 (RNA)
HBVDNA17	Hepatitis B virus
HCVRNA17	Hepatitis C virus
HIVDNA17	HIV-1 (DNA)
B19DNA17	B19 virus
HCVGT17	HCV Genotyping
HBVGT17	HBV Genotyping
VZVDNA17	Varicella-Zoster virus
EVRNA17	Enterovirus
PeVRNA17	Parechovirus
HSVDNA17	Herpes simplex virus 1& 2
WNVRNA17	West Nile virus
DENVRNA17	Dengue virus
CHIKV17	Chikungunya virus
CMVDBS17	Cytomegalovirus Dried Blood Spots
JCDNA17	JC virus
BKDNA17	BK virus
HHV6DNA17	Human Herpes virus 6
CMVDNA17	Human Cytomegalovirus
CMVWB17	Cytomegalovirus Whole Blood
EBVDNA17	Epstein-Barr virus
EBVWB17	Epstein-Barr virus Whole Blood
CMVDR17	CMV Drug Resistance
ADVDNA17	Adenovirus
HPVDNA17	Human Papillomavirus
INFRNA17	Influenza A & B virus
MPV17	Human Metapneumovirus
RSV17	Respiratory Syncytial virus
PINFRNA17	Parainfluenza virus
CVRNA17	Coronavirus
MERS17	MERS Coronavirus
RVRNA17	Rhinovirus
NVRNA17	Norovirus
HBVDR17	HBV Drug Resistance
HCVDR17	HCV Drug Resistance
MM17	Measles / Mumps
HIVDR17	HIV-1 Drug Resistance
HIVDRint17	HIV-1 Drug Resistance (Integrase)
HAVRNA17	Hepatitis A virus
HEVRNA17	Hepatitis E virus



HDV17	Hepatitis D virus
INFHT17	Influenza Haemagglutinin Typing
Bacterial	
Code	Description
CTDNA17	Chlamydia trachomatis
NgDNA17	Neisseria gonorrhoeae
CTNg17	Chlamydia trachomatis and Neisseria gonorrhoeae
LPDNA17	Legionella pneumophila
MRSADNA17	Methicillin Resistant Staphylococcus aureus
MRSATP17	Methicillin Resistant Staphylococcus aureus Typing (epidemiology and outbreak studies)
MTBDNA17	Mycobacterium tuberculosis
CDDNA17	Clostridium difficile
BPDNA17	Bordetella pertussis
CPS17	Chlamydia psittaci
CP17	Chlamydomydia pneumoniae
MP17	Mycoplasma pneumoniae
SASPA17	Staphylococcus aureus spa
BbDNA17	Borrelia burgdorferi spp. (Lyme Disease)
MYCO17	Mycoplasma spp. (cell contamination)
SYPH17	Syphilis
Fungal	
Code	Description
ASPDNA17	Aspergillus spp.
CANDNA17	Candida spp.
PCPDNA17	Pneumocystis jirovecii pneumonia
Parasitic	
Code	Description
TGDNA17	Toxoplasma gondii
Serology	
Code	Description
BBVSERO17	Blood borne virus serology
VHSERO17	Viral hepatitis serology
ISSERO17	Immune status serology
EQA Pilot Studies	
Code	Description
EVTP17	Enterovirus Typing
HSVDR17	Herpes Simplex virus drug resistance
ZIKA17	Zika Virus
RESPI17	Respiratory I
RESPII17	Respiratory II
ESBL17	Extended Spectrum $\beta$ -lactamase and Carbapenemase

VRE17	Vancomycin Resistant Enterococci
DERMA17	Dermatophytosis
H.PYLORI17	Helicobacter pylori
MALDIBAC17	MALDI-TOF Bacterial
STI_I17	Sexually Transmitted Infections I
STI_II17	Sexually Transmitted Infections II
E.COLI17	Diarrheagenic Escherichia coli
B16SrRNA17	Bacterial 16S Ribosomal RNA
GastroV17	Viral Gastroenteritis
GastroB17	Bacterial Gastroenteritis
GastroP17	Parasitic Gastroenteritis
RESPIII17	Respiratory III
TRANS17	Transplantation (Viral)
BSEPSIS17	Bacterial Sepsis
CNSI17	CNSI (Viral)
CNSII17	CNSII (Non-viral)
IC17	Immunocompromised
NEO17	Neonatal / New-born infections
GBS17	Group B Streptococcus

### Point of Care Testing (POCT) EQA Services

POCT Gases  
 POCT Co-oximetry  
 POCT HbA1c  
 POCT Urine ACR  
 POCT INR  
 POCT Urinalysis  
 POCT Urine Pregnancy  
 POCT Urine ACR  
 POCT Glucose & Ketones  
 POCT Lipid & Glucose  
 POCT Haemoglobin  
 POCT BNP  
 POCT Plasma Cardiac Marker  
 POCT HIV  
 POCT Creatinine  
 POCT CRP  
 POCT D-Dimer  
 POCT Respiratory Virus

### CALIBRATION VERIFICATION/LINEARITY

Control LQ Homocysteine

6 x 2mL

Control LQ hs-CRP	6 x 2mL
Control FD BNP	6 x 1mL
Control FD Cardiac Markers	6 x 2mL
Control FD Assayed Chemistry, Level 1	10 x 5mL
Control FD Assayed Chemistry, Level 2	10 x 5mL
Control LQ Spinal Fluid	6 x 3mL
Control FD Glycohemoglobin A1C	6 x 0.5mL
Control LQ Ammonia/Ethanol	6 x 3mL
Control FD Immunoassay	6 x 3mL
Control DROP LQ Urine Dipstick	10 x 5mL
Control DROP LQ Urine Dipstick	4 x 25mL
Control LQ Glycohemoglobin A1C	8 x 0.5mL
Control FD Urine Chemistry, Level 1	10 x 3mL
Control FD Urine Chemistry, Level 2	10 x 3mL
Control FD TDM	6 x 5mL
Control FD Tumor Markers	6 x 2mL
Control FD Procalcitonin	6 x 2mL
Control FD D-Dimer	6 x 1mL
Control LQ RF/CRP	6 x 2mL
Control LQ Serum Protein	6 x 2mL
Control LQ Vitamin D	6 x 2mL
Control DROP LQ Blood Glucose	8 x 1mL
Control FD HE4, HER2 Tumor Markers	6 x 1mL
Control LQ Vitamin D for Roche Systems	6 x 2mL
Control LQ Galectin-3	6 x 2mL
Linearity FD General Chemistry	10 x 5mL*
Linearity LQ Protein	5 x 2mL
Linearity FD Glycohemoglobin A1C	5 x 0.5mL
Linearity LQ Homocysteine	5 x 1mL
Linearity LQ hs-CRP	5 x 1mL
Linearity FD TDM	5 x 5mL
Linearity FD BNP (Low)	5 x 1mL
Linearity FD Lipids	5 x 2mL
Linearity FD Cardiac Markers	5 x 1mL
Linearity LQ Ammonia/Ethanol	5 x 2mL
Linearity FD BNP (High)	5 x 1mL
Linearity FD Immunoassay	10 x 5mL
Linearity FD D-Dimer	5 x 1mL
Linearity FD Tumor Markers	5 x 1mL
Linearity LQ RF/CRP	5 x 1mL
Linearity LQ ASO	5 x 1mL
Linearity LQ Microalbumin/Microprotein	5 x 2mL
Linearity FD Urine/Fluids Chemistry	10 x 3mL
Linearity LQ ISE	5 x 5mL
Cal Ver LQ Blood Gas	15 x 2mL
Linearity LQ Beta Hydroxybutyric Acid	5 x 1mL

Linearity LQ Vitamin D	5 x 2mL
Linearity FD UIBC	5 x 1mL
Linearity DROP LQ Blood Glucose	5 x 1mL
Linearity FD BNP (Extended)	5 x 1mL
Linearity FD HE4, HER2 Tumor Markers	5 x 1mL
Linearity LQ Galectin-3	5 x 1mL
Linearity LQ Homocysteine Siemens Centaur	5 x 1mL
Linearity FD TDM Siemens Centaur	5 x 5mL
Linearity FD BNP Siemens Centaur	5 x 1mL
Linearity FD Cardiac Markers Siemens Centaur	5 x 1mL
Linearity FD Tumor Markers Siemens Centaur	10 x 1mL
Linearity FD Thyroid Siemens Centaur	10 x 3mL
Linearity FD Fertility Siemens Centaur	5 x 3mL
Linearity FD Immunoassay Linearity Set-Anemia (Siemens Centaur)	5 x 3mL
Linearity FD General Chemistry Beckman AU	10 x 5mL*
Linearity FD Thyroid for Abbott Architect	10 x 2mL
Linearity FD Immunoassay for Abbott Architect	5 x 5mL
Linearity FD Procalcitonin Abbott Architect	5 x 1mL
Linearity FD Procalcitonin – bioMerieux Vidas and miniVidas	5 x 1mL
Method Val FD Procalcitonin bioMerieux Vidas and miniVidas	25 x 1mL
Linearity FD D-Dimer biomerieux VIDAS and miniVIDAS	5 x 1mL
Cal Ver T-Uptake Tosoh AIA	5 x 1mL
Linearity FD General Chemistry for Roche Systems	10 x 5mL*
Linearity LQ Ammonia/Ethanol for Roche Systems	5 x 2mL
Linearity FD Lipids for Roche Systems	5 x 2mL
Linearity FD D-Dimer PATHFAST Immunoanalyzer	5 x 1mL
Linearity LQ Vitamin D Roche	5 x 2mL
Linearity FD Bilirubin for Roche Systems	5 x 1mL
Linearity FD Cardiac RAMP	5 x 1mL
Linearity FD BNP RAMP	5 x 1mL
Linearity FD Cardiac Siemens Stratus	5 x 1mL
Linearity FD BNP Siemens Stratus	5 x 1mL
Linearity FD D-Dimer Siemens Stratus	5 x 1mL
Linearity FD Procalcitonin for Roche Systems	5 x 1mL
Linearity DROP LQ TIBC for Ortho Vitros	5 x 2mL

