



# Clinical Proficiency Testing Schemes

2021

[lgcstandards.com/AXIO](https://lgcstandards.com/AXIO)



**LGC AXIO Proficiency Testing operates a wide range of clinical schemes and programmes, so whatever your quality needs, AXIO will deliver the confidence in your results that you are looking for.**

## Contents

3. Driving Quality Together
4. Key features of LGC AXIO Clinical Proficiency Testing Schemes
5. The Proficiency Testing Process
6. PORTAL
8. Introducing the Clinical Laboratory Scheme (CLS)

### **Clinical Laboratory Scheme (CLS)**

9. Chemistry

19. Haematology
21. Immunology / Serology
23. Microbiology – Bacteriology
25. Microbiology – Mycobacteriology
25. Microbiology – Mycology
26. Microbiology – Parasitology
26. Microbiology – Virology
27. Microbiology – Molecular Multiplex

### **Other Schemes**

13. Toxicology - General (**TOX**)
14. Toxicology – Drugs of Abuse (**DAU, DOF**)
15. Therapeutic Drug Monitoring (**TDM**)
18. Immunosuppressants (**IPT**)
19. Anti-Hypertensive Drug Screen (**TDM**)



# Driving Quality Together

**For 40 years LGC has been leading the direction of proficiency testing (PT), bringing our technical expertise and influence to drive the future of quality assurance.**

LGC AXIO Proficiency Testing schemes are used by thousands of laboratories in more than 160 countries, who submit millions of data points via our secure online data reporting platform, PORTAL, which we turn into accessible, reliable intelligence you can act upon.

Laboratory proficiency relies on having a dedicated and trusted collaborator providing a PT solution that puts laboratories central, is designed around their needs and evolves to meet them.

Whether you are seeking accreditation to international standards such as ISO/IEC 17025 or ISO 15189, or certification to sector specific standards, or simply looking for consistency in delivering a quality product, you can have confidence in your continuous improvement with AXIO, the globally trusted, expert partner in proficiency testing.

- **Fulfill accreditation requirements**
- **Demonstrate competency to customers and regulatory bodies**
- **Compare results with laboratories around the world**
- **Manage risk through early warning of potential problems**
- **Verify methods and instrumentation**
- **Educate and train staff**



# Key Features of LGC AXIO Clinical Proficiency Testing Schemes

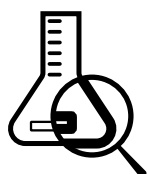
**Great results are born out of confidence and by working with AXIO you can have the assurance that your decision making is informed, reliable and effective.**



## Accreditations

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LGC AXIO Proficiency Testing schemes cover an extensive set of clinical programmes, the majority of which are accredited to the requirements of ISO/IEC 17043. The accreditation body for each programme is detailed in the programme listing contained in this brochure. Those programmes accredited by the American Association for Laboratory Accreditation (A2LA) are managed from Traverse City, USA. Those programmes managed by the United Kingdom Accreditation Service (UKAS) are managed from Bury, UK. You will be able to see both scopes of accreditation on our website for details.



## Extensive Schemes

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The AXIO range of clinical proficiency testing schemes covers a wide range of tests performed in the clinical laboratory, with 137 programmes spanning Chemistry, Toxicology, Therapeutic Drug Monitoring, Immunosuppressants, Anti-Hypertensive Drug Screen, Haematology, Immunology, Serology and Microbiology disciplines. We are continually developing new programmes to address the latest and evolving needs of global health care.



## Easily Track Performance

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Track performance 24/7 using LGC's bespoke PORTAL reporting system. Laboratories can quickly and easily view their performance for their most recent test materials or previous rounds. Graphs include histograms for all results or by method, box and whisker plots by method, and trend data for your individual laboratory.



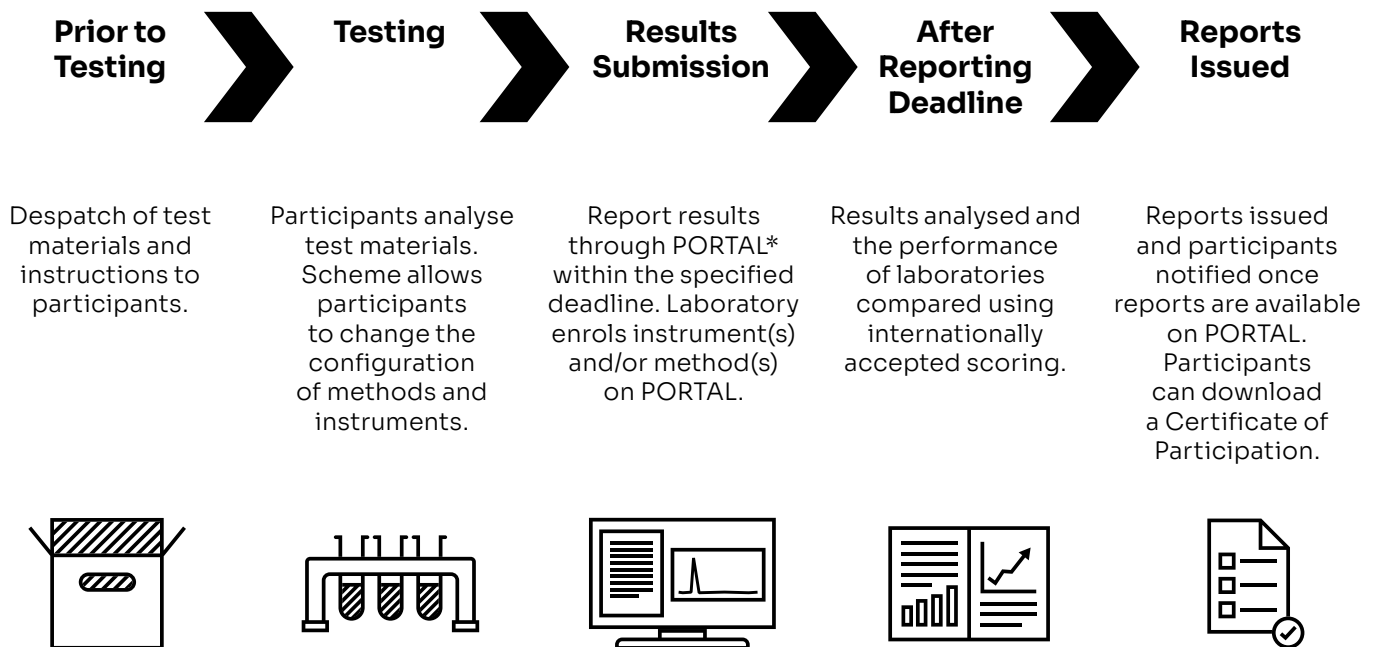
## Large Number of Participants

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LGC AXIO Proficiency Testing schemes benefit from large peer groups, with data from thousands of laboratories across the full spectrum of instrument platforms and methods. Participants can have confidence in the reliable assessment of their laboratory's performance.

**Our world class experts provide a comprehensive service ensuring a reporting process focused on speed, ease and efficiency and which delivers excellent value.**

### The Proficiency Testing Process



\*(portal.lgcstandards.com)

# PORTAL

FAST. SIMPLE. INTERACTIVE.

PORTAL sits at the core of the LGC Proficiency Testing process. PORTAL is your gateway to improving laboratory performance: an online hub for results submissions, report downloads, data export and trend analysis — anytime, anywhere.



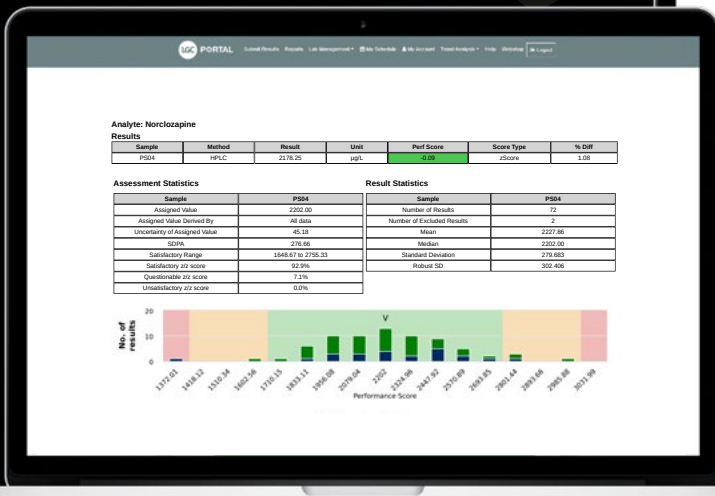
Full control of all of your LGC Proficiency Testing data 24 hours a day.

[portal.lgcstandards.com](http://portal.lgcstandards.com)

PORTAL includes an interactive PT report, enhanced trend analysis charts, a PT event calendar, responsive user interface and more.

Z-Score Trending by Round and Concentration

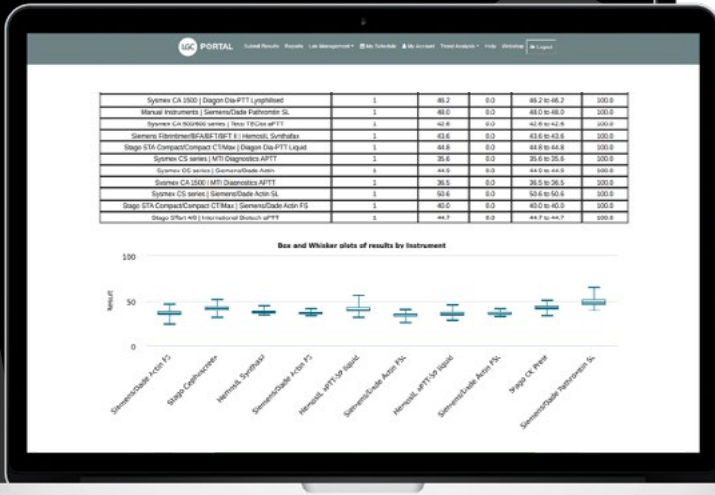
Sample Performance and Histogram



Overall Performance Summary

Box and Whisker Plots Summary by Method

The figure shows a summary table of results for various therapeutic drug monitoring schemes. The table is organized into sections for different drug classes: Anti-epileptic drugs, Newer Anti-epileptic drug mixtures, and Newer Anti-epileptic drug mixtures 2. Each section contains a table with columns for Sample, Method, Result, Unit, Perf Score, Assigned Value, Uncertainty, SD/A, No. of results, Mean, Revised SD, and %.



# Introducing the Clinical Laboratory Scheme (CLS)

LGC AXIO Proficiency Testing operates a wide range of clinical schemes and programmes, and our commitment to continuous improvement means that in 2021 we are able to significantly increase our support for clinical laboratories.

The AXIO Clinical Laboratory Scheme (CLS) has been expanded to include a full range of programmes for laboratories performing analysis of patient samples. These new ISO/IEC 17043 accredited programmes will assist laboratory professionals in monitoring performance and will provide an independent assessment of measurement quality. The CLS scheme will also provide valuable information to participants on current technical issues and methodologies relating to clinical laboratory science.

Test materials mimic clinical specimens across laboratory disciplines; including Chemistry, Toxicology, Therapeutic Drug Monitoring, Immunosuppressants, Anti-Hypertensive Drug

Screen, Haematology, Immunology, Serology and Microbiology. With a wide array of programmes covering all areas of the clinical laboratory, the CLS scheme supports laboratories' crucial role in helping healthcare providers diagnose and treat patients. The operation of our CLS scheme is supported by an Advisory Group.

The expanded CLS scheme complements the existing range of LGC AXIO clinical proficiency testing schemes including Toxicology (TOX), Therapeutic Drug Monitoring (TDM), Immunosuppressants (IPT), Drugs of Abuse in Oral Fluid (DOF) and Drugs of Abuse in Urine (DAU).

On the following pages you will discover our full range of clinical programmes organised by analytical discipline, enabling you to identify the programmes and samples you need from across our range of clinical proficiency testing schemes.



# Chemistry

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
ALM	Alcohol/Ammonia	Serum	A2LA	Acetone (Ketones) Ammonia Ethanol	Monthly / Quantitative	3 x 4 x 2ml vials
BLG	Blood Gas	Aqueous	A2LA	pCO <sub>2</sub> pH pO <sub>2</sub> Bicarbonate (tCO <sub>2</sub> ) Calcium, ionised Chloride Creatinine Glucose Lactate Magnesium, ionised Potassium Sodium Urea	Monthly / Quantitative	2 x 6 x 3ml ampoules
BLX	Blood Oximetry	Lyophilised Haemolysate	A2LA	Carboxyhaemoglobin Haematocrit, calculated Haemoglobin, total Methaemoglobin Oxyhaemoglobin	Monthly / Quantitative	3 x 4 x 2ml ampoules
CAR	Cardiac Markers	Lyophilised Serum	A2LA	BNP CK-MB, activity CK-MB, mass Creatine Kinase (CK), total D-dimer Homocysteine Myoglobin NT pro-BNP Troponin I Troponin T	Monthly / Quantitative & Qualitative	2 x 6 x 2ml vials
CHM	Chemistry / Immunoassay  Enrolment Levels: 1-20 analytes 21-30 analytes 31+ analytes	Lyophilised Serum	A2LA	<b>Chemistry analytes:</b> ACE Acid Phosphatase, total Albumin Alkaline Phosphatase ALT Amylase, pancreatic Amylase, total AST Bicarbonate Bile Acid Bilirubin, direct Bilirubin, indirect Bilirubin, total Calcium, ionised Calcium, total	Monthly / Quantitative	2 x 6 x 5ml vials

# Chemistry

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
CHM cont.	Chemistry / Immunoassay  Enrolment Levels: 1-20 analytes 21-30 analytes 31+ analytes	Lyophilised Serum	A2LA	<b>Chemistry analytes:</b> Chloride Cholesterol, HDL Cholesterol, LDL Cholesterol, total Cholinesterase Copper Creatine Kinase (CK) Creatinine D-3-Hydroxybutyrate Fructosamine GGT GLDH Glucose HBDH Iron Lactate LDH Lipase Magnesium NEFA Osmolality Phosphate Potassium Protein, total Sodium T Uptake T3, free T4, free Thyroxine (T4) TIBC Triglycerides Triiodothyronine (T3) TSH UIBC Urate Urea Zinc  <b>TDM analytes:</b> Amikacin Carbamazepine Digoxin Gentamicin Lithium Paracetamol Phenobarbital Phenytoin Salicylic Acid Theophylline Tobramycin Valproate Vancomycin	Monthly / Quantitative	2 x 6 x 5ml vials

# Chemistry

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
CHM cont.	Chemistry / Immunoassay  Enrolment Levels: 1-20 analytes 21-30 analytes 31+ analytes	Lyophilised Serum	A2LA	<b>Immunoassay analytes:</b> 11-Deoxycortisol 17-OH-Progesterone Aldosterone Alpha-fetoprotein (AFP) Androstenedione CEA Cortisol DHEA Sulfate DHEA, unconjugated Ferritin Folate FSH Growth Hormone hCG LH Oestradiol Oestriol, free (UE3) Oestriol, total PAP Prealbumin Progesterone Prolactin PSA, total SHBG TBG Testosterone, free Testosterone, total TIBC Transferrin Vitamin B12	Monthly / Quantitative	2 x 6 x 5ml vials
GLH	Glycosylated Haemoglobin	Lyophilised Haemolysed Human Blood	A2LA	Glycosylated haemoglobin (as HbA1c)	Monthly / Quantitative	2 x 6 x 0.2ml vials
IAS	Immunoassay - Special	Lyophilised Serum	A2LA	1-25-(OH) <sub>2</sub> Vitamin D 25-OH Vitamin D ACTH Calcitonin C-peptide Gastrin IGF-1 Insulin Osteocalcin Parathyroid Hormone (PTH) Procalcitonin Renin Activity Renin (Direct Concentration)	Monthly / Quantitative	3 x 4 x 2ml vials
NB	Neonatal Bilirubin	Serum	A2LA	Bilirubin, direct Bilirubin, total	Monthly / Quantitative	3 x 4 x 1ml vials

# Chemistry

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
SFC	Spinal Fluid Chemistry	Simulated CSF	A2LA	Albumin Chloride Glucose IgG Lactate LDH Potassium Sodium Total Protein	Monthly / Quantitative	2 x 6 x 2ml vials
TMS	Tumour Markers	Lyophilised Serum	A2LA	Beta 2 Microglobulin CA-125 CA 15-3 CA 19-9 CA 27.29 NSE PSA, free Thyroglobulin	Monthly / Quantitative	2 x 6 x 2ml vials
UC	Urine Chemistry	Urine	A2LA	ACR Albumin Amylase Calcium Chloride Creatinine Glucose Magnesium Microalbumin Osmolality Phosphate Potassium Sodium Total Nitrogen Total Protein Urate Urea	Monthly / Quantitative	3 x 4 x 10ml vials

## Toxicology - General

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
URN	Urine Toxicology	Urine	UKAS	Ethanol	Monthly / Quantitative	12 x 1 x 1.7ml vial
ZMIX	Z-Drug Mix	Lyophilised Serum	n/a	Zolpidem Zaleplon Zopiclone	4 per year / Quantitative	4 x 2 x 4ml vial
BLD	Blood Toxicology	Whole Blood	UKAS	Paracetamol Carboxyhaemoglobin Ethanol Salicylic Acid	Monthly / Quantitative	12 x 1 x 1.7ml vial
BNZ	Benzodiazepine Mix 1	Lyophilised Serum	UKAS	Diazepam Nordazepam Temazepam Oxazepam Nitrazepam	4 per year / Quantitative	4 x 2 x 4ml vials
BNZB	Benzodiazepine Mix 2	Lyophilised Serum	UKAS	Alprazolam Bromazepam Clonazepam Lorazepam Midazolam	4 per year / Quantitative	4 x 2 x 4ml vials
CAS	Toxicology Case Studies	Serum and Urine	UKAS	Analytes specified by case scenario included with 1 serum and 1 urine sample in each round.	4 per year / Qualitative, Quantitative, Interpretive	4 x 2 samples: 1 x 7ml vial, 1 x 20ml vial
GHB	Gammahydroxybutyrate	Lyophilised Urine	UKAS	Gammahydroxybutyrate	2 per year / Quantitative	2 x 3 x 2ml vials
QT	Whole Blood Quantitative Toxicology	Whole Blood	UKAS	4-5 drugs per sample as determined by Advisory Group for the upcoming programme year.	4 per year / Quantitative	4 x 2 x 10ml vials
SM	Serum Toxicology	Serum	UKAS	Ethanol Paracetamol Salicylic Acid	Monthly / Quantitative	12 x 3 x 1.7ml vials
TAK	Toxic Alcohols in Blood	Whole Blood	UKAS	Ethanol Methanol Isopropylalcohol (IPA) Acetone Ethylene Glycol	2 per year / Quantitative	2 x 1 x 1.7ml vial
TAS	Toxic Alcohols in Serum	Serum	UKAS	Ethanol Methanol Isopropylalcohol (IPA) Acetone Ethylene Glycol	2 per year / Quantitative	2 x 1 x 1.7ml vial

## Toxicology - Drugs of Abuse

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
DAU	Drugs of Abuse in Urine	Lyophilised Urine	UKAS	Amfetamines & stimulants Cannabinoids Cocaine & metabolites GHB Benzodiazepines Opiates Non-opiate analgesics Ethyl glucuronide Other drugs of interest may be included	4 per year / Qualitative, Quantitative	4 x 3 x 15ml vials
DOF	Drugs of Abuse in Oral Fluid	Oral Fluid	UKAS	Amfetamines & stimulants Cannabinoids Cocaine & metabolites Benzodiazepines Opiates Non-opiate analgesics Other drugs of interest may be included	4 per year / Qualitative, Quantitative	4 x 3 x 1.7ml vials

# Therapeutic Drug Monitoring

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
TD1	Therapeutic Drug Mixture	Lyophilised Serum	UKAS	Carbamazepine CBZ-epoxide Clonazepam Lamotrigine Phenytoin Ethosuximide Phenobarbitone Primidone Valproate Caffeine Digoxin Lithium Theophylline Methotrexate TD-Amikacin TD-Gentamicin TD-Tobramycin TD-Vancomycin Salicylate and Paracetamol (acetaminophen)	Monthly / Quantitative	4 x 9 x 5ml vials
AE1	Anti-Epileptic Drugs Mixture 1	Lyophilised Serum	UKAS	OH-oxcarbazepine Gabapentin Tiagabine Levetiracetam Pregabalin	Monthly / Quantitative	4 x 3 x 4ml vials
AE2	Anti-Epileptic Drugs Mixture 2	Lyophilised Serum	UKAS	Topiramate Vigabatrin Felbamate Zonisamide Rufinamide Lacosamide	Monthly / Quantitative	4 x 3 x 4ml vials
AE4	Anti-Epileptic Drugs 4	Lyophilised Serum	n/a	Perampanel	Monthly / Quantitative	4 x 3 x 2ml vials
AE5	Anti-Epileptic Drugs 5	Lyophilised Serum	n/a	Brivaracetam	Monthly / Quantitative	4 x 3 x 2ml vials
AM1	Analgesic Mixture	Lyophilised Serum	n/a	Ibuprofen Diclofenac Tramadol	4 per year / Quantitative	4 x 2 x 5ml vials
AT01	Antibiotic Drugs 1	Serum	UKAS	Gentamicin Vancomycin	Monthly / Quantitative	12 x 1 x 1ml vial
AT02	Antibiotic Drugs 2	Serum	UKAS	Tobramycin	Monthly / Quantitative	12 x 1 x 1ml vial
AT03	Antibiotic Drugs 3	Serum	UKAS	Amikacin	Monthly / Quantitative	12 x 1 x 1ml vial
AT07	Antibiotic Drugs 7	Serum	UKAS	Teicoplanin	Monthly / Quantitative	12 x 1 x 1ml vial

# Therapeutic Drug Monitoring

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
AT08	Antibiotic Drugs 8	Serum	n/a	Linezolid Piperacillin Tazobactam Meropenem	Monthly / Quantitative	12 x 1 x 1.7ml vial
AF01	Antifungal Drugs	Serum	n/a	Posaconazole Voriconazole Itraconazole OH-Itraconazole Fluconazole Isavuconazole	Monthly / Quantitative	12 x 1 x 1.7ml vial
CN1	Clobazam and Norclobazam	Lyophilised Serum	UKAS	Clobazam Norclobazam	Monthly / Quantitative	4 x 6 x 2ml vials
CRD	Cardiac Mixture	Lyophilised Serum	UKAS	Amiodarone Desethylamiodarone Flecainide	Monthly / Quantitative	4 x 3 x 2ml vials
NC01	Nicotine and Cotinine in Urine	Lyophilised Urine	n/a	Nicotine Cotinine	4 per year / Quantitative	4 x 2 x 5ml vials
PS01	Psychoactive Drugs 1	Lyophilised Serum	UKAS	Amitriptyline Nortriptyline	Monthly / Quantitative	4 x 3 x 5ml vials
PS02	Psychoactive Drugs 2	Lyophilised Serum	UKAS	Imipramine Desipramine	Monthly / Quantitative	4 x 3 x 5ml vials
PS03	Psychoactive Drugs 3	Lyophilised Serum	UKAS	Clomipramine Norclomipramine	Monthly / Quantitative	4 x 3 x 5ml vials
PS04	Psychoactive Drugs 4	Lyophilised Serum	UKAS	Clozapine Norclozapine	Monthly / Quantitative	4 x 3 x 5ml vials
PS05	Psychoactive Drugs 5	Lyophilised Serum	UKAS	Doxepin Nordoxepin	4 per year / Quantitative	4 x 1 x 5ml vial
PS06	Psychoactive Drugs 6	Lyophilised Serum	UKAS	Fluoxetine Norfluoxetine	4 per year / Quantitative	4 x 1 x 5ml vial
PS07	Psychoactive Drugs 7	Lyophilised Serum	UKAS	Fluphenazine	4 per year / Quantitative	4 x 1 x 5ml vial
PS08	Psychoactive Drugs 8	Lyophilised Serum	UKAS	Sertraline Norsertaline	4 per year / Quantitative	4 x 1 x 5ml vial
PS09	Psychoactive Drugs 9	Lyophilised Serum	UKAS	Trimipramine Nortrimipramine	4 per year / Quantitative	4 x 1 x 5ml vial
PS10	Psychoactive Drugs 10	Lyophilised Serum	UKAS	Risperidone HO-risperidone	4 per year / Quantitative	4 x 1 x 5ml vial
PS11	Psychoactive Drugs 11	Lyophilised Serum	UKAS	Mirtazapine Normirtazapine	4 per year / Quantitative	4 x 1 x 5ml vial
PS12	Psychoactive Drugs 12	Lyophilised Serum	UKAS	Maprotiline Normaprotiline	4 per year / Quantitative	4 x 1 x 5ml vial



# Therapeutic Drug Monitoring

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
PS13	Psychoactive Drugs 13	Lyophilised Serum	UKAS	Thioridazine	4 per year / Quantitative	4 x 1 x 5ml vial
PS14	Psychoactive Drugs 14	Lyophilised Serum	UKAS	Haloperidol	4 per year / Quantitative	4 x 1 x 5ml vial
PS15	Psychoactive Drugs 15	Lyophilised Serum	UKAS	Olanzapine	4 per year / Quantitative	4 x 1 x 5ml vial
PS16	Psychoactive Drugs 16	Lyophilised Serum	UKAS	Perphenazine	4 per year / Quantitative	4 x 1 x 5ml vial
PS17	Psychoactive Drugs 17	Lyophilised Serum	UKAS	Quetiapine	4 per year / Quantitative	4 x 1 x 5ml vial
PS18	Psychoactive Drugs 18	Lyophilised Serum	UKAS	Citalopram Norcitalopram	4 per year / Quantitative	4 x 1 x 5ml vial
PS19	Psychoactive Drugs 19	Lyophilised Serum	UKAS	Dothiepin Northiaden	4 per year / Quantitative	4 x 1 x 5ml vial
PS20	Psychoactive Drugs 20	Lyophilised Serum	UKAS	Venlafaxine Norvenlafaxine	4 per year / Quantitative	4 x 1 x 5ml vial
PS21	Psychoactive Drugs 21	Lyophilised Serum	UKAS	Paroxetine	4 per year / Quantitative	4 x 1 x 5ml vial
PS22	Psychoactive Drugs 22	Lyophilised Serum	UKAS	Fluvoxamine	4 per year / Quantitative	4 x 1 x 5ml vial
PS23	Psychoactive Drugs 23	Lyophilised Serum	UKAS	Zuclopenthixol	4 per year / Quantitative	4 x 1 x 5ml vial
PS24	Psychoactive Drugs 24	Lyophilised Serum	UKAS	Amisulpride	4 per year / Quantitative	4 x 1 x 5ml vial
PS25	Psychoactive Drugs 25	Lyophilised Serum	UKAS	Aripiprazole Dehydroaripiprazole	4 per year / Quantitative	4 x 1 x 5ml vial
PS26	Psychoactive Drugs 26	Lyophilised Serum	UKAS	Ziprasidone	4 per year / Quantitative	4 x 1 x 5ml vial
PS27	Psychoactive Drugs 27	Lyophilised Serum	UKAS	Duloxetine	4 per year / Quantitative	4 x 1 x 5ml vial
PS28	Psychoactive Drugs 28	Lyophilised Serum	UKAS	Escitalopram	4 per year / Quantitative	4 x 1 x 5ml vial
PS29	Psychoactive Drugs 29	Lyophilised Serum	UKAS	Trazodone	4 per year / Quantitative	4 x 1 x 5ml vial
PS30	Psychoactive Drugs 30	Lyophilised Serum	UKAS	Sulpiride	4 per year / Quantitative	4 x 1 x 5ml vial
PS31	Psychoactive Drugs 31	Lyophilised Serum	n/a	Chlorpromazine Norchlorpromazine	4 per year / Quantitative	4 x 1 x 5ml vial
PS32	Psychoactive Drugs 32	Lyophilised Serum	n/a	Mianserin	4 per year / Quantitative	4 x 1 x 5ml vial

## Therapeutic Drug Monitoring

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
PS33	Psychoactive Drugs 33	Lyophilised Serum	n/a	Brexpiprazole	4 per year / Quantitative	4 x 1 x 5ml vial
PS34	Psychoactive Drugs 34	Lyophilised Serum	n/a	Lurasidone	4 per year / Quantitative	4 x 1 x 5ml vial
PS35	Psychoactive Drugs 35	Lyophilised Serum	n/a	Sertindole	4 per year / Quantitative	4 x 1 x 5ml vial
PS36	Psychoactive Drugs 36	Lyophilised Serum	n/a	lloperidone	4 per year / Quantitative	4 x 1 x 5ml vial
PST1	Psychostimulants	Lyophilised Serum	n/a	Atomoxetine Methylphenidate Ritalinic acid	4 per year / Quantitative	4 x 2 x 5ml vials
SA01	Substance Related Disorders 1	Lyophilised Serum	UKAS	Buprenorphine Norbuprenorphine	Monthly / Quantitative	4 x 6 x 2ml vials
SA02	Substance Related Disorders 2	Lyophilised Serum	UKAS	Methadone EDDP	Monthly / Quantitative	4 x 6 x 2ml vials

## Immunosuppressants

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
CIC/ TAC	Ciclosporin and Tacrolimus	Whole Blood	UKAS	Ciclosporin Tacrolimus	Monthly / Quantitative	12 x 3 x 1ml vials
EVE	Everolimus	Whole Blood	UKAS	Everolimus	Bimonthly / Quantitative	6 x 3 x 1ml vials
MPA	Mycophenolic Acid	Plasma	UKAS	Mycophenolic Acid	Bimonthly / Quantitative	6 x 2 x 1ml vials
SIR	Sirolimus	Whole Blood	UKAS	Sirolimus	Monthly / Quantitative	12 x 3 x 1ml vials

## Anti-Hypertensive Drug Screen

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
AH01	Anti-hypertensive Drug Screen	Urine	n/a	Range of antihypertensive drugs	4 per year / Quantitative	4 x 2 x 5ml vials

## Haematology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
ABI	Advanced Blood Cell ID	Virtual Slide Image	A2LA	Blood Cell Identification	3 per year / Qualitative	Supplied online; 1 x image x 7 cells per round
BID	Blood Cell ID and Differential	Virtual Slide Images	A2LA	Blood Cell Identification Neutrophils, band Neutrophils, segmented Lymphocytes Monocytes Basophils Eosinophils Lymphs, reactive Immature Cells Nucleated RBCs Platelet Estimate Unclassified Cells	3 per year / Qualitative, Quantitative	Supplied online; 3 x images x 10 cells per round
BHM	Basic Haematology	Whole Blood	A2LA	Haemoglobin Haematocrit MCH MCHC MCV MPV Platelets Plateletcrit RBC RDW CV RDW SD WBC	Monthly / Quantitative	4 x 3 x 2ml vials

# Haematology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
COA	Coagulation Enrolment levels: 1-5 analytes 6-17 analytes	Lyophilised Plasma	A2LA	APTT Fibrinogen INR Prothrombin Time Antithrombin III Activity Factor II Activity Factor V Activity Factor VII Activity Factor VIII Activity Factor IX Activity Factor X Activity Factor XI Activity Factor XII Activity Plasminogen Activity Protein C Activity Protein S Activity Thrombin Time	Monthly / Quantitative	2 x 6 x 1ml vials
HMX	5 Part Diff CBCX	Whole Blood	A2LA	Haemoglobin Haematocrit MCH MCHC MCV MPV Platelets RBC RDW WBC Neutrophils Lymphocytes Monocytes Eosinophils Basophils Neutrophils, absolute Lymphocytes, absolute Monocytes, absolute Eosinophils, absolute Basophils, absolute Immature Granulocytes Immature Granulocytes, absolute Nucleated RBCs	Monthly in 2nd & 4th quarters / Quantitative	2 x 3 x 2ml vials
MP	Microscopy Package	Virtual Slide Images	A2LA	Fecal WBC Fern Test Nasal Smear Pinworm Prep Sperm Urine Sediment Vaginal Wet Prep Wet Prep-KOH	3 per year / Qualitative	Supplied online; x 9 images per round
SR	Sedimentation Rate	Whole Blood	A2LA	Sedimentation Rate	Monthly / Quantitative	4 x 3 x 5ml vials

## Haematology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
UA	Urinalysis and HCG	Urine	A2LA	Bilirubin Bilirubin, confirmatory Blood/Haemoglobin Creatinine Glucose hCG Ketones Leukocyte Esterase Nitrite pH Protein Protein, confirmatory Reducing Substance Specific Gravity Urobilinogen	3 per year / Qualitative	3 x 2 x 10ml vials

## Immunology / Serology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
HEP	Hepatitis Serology	Plasma	A2LA	Anti-HAV, total Anti-HAV, IgG Anti-HAV, IgM Anti-HBc, total Anti-HBc, IgM Anti-HBs Anti-HCV HBsAg	Monthly / Qualitative	2 x 6 x 2ml vials
HIV	HIV Serology	Serum	A2LA	Anti-HIV-1/2 HIV-1 p24 Antigen	Monthly / Qualitative	2 x 6 x 1ml vials

# Immunology / Serology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
HS	High Sensitivity CRP	Serum	A2LA	C-Reactive Protein, hs	Monthly / Quantitative	3 x 4 x 0.5ml vials
IM	Infectious Mononucleosis	Serum	A2LA	Infectious Mononucleosis	Monthly / Qualitative	3 x 4 x 0.65ml vials
IPR	Immunoproteins / C3 and C4	Lyophilised Serum	A2LA	Alpha1-acid-glycoprotein Alpha1-antitrypsin (AAT) Alpha2-macroglobulin Anti-Streptolysin O Antithrombin III Ceruloplasmin Complement C3 Complement C4 C-Reactive Protein Haptoglobin IgA IgE, total IgG IgM Kappa Light Chain, free Kappa Light Chain, total Lambda Light Chain, free Lambda Light Chain, total Retinol Binding Protein Rheumatoid Factor	Monthly / Quantitative, Qualitative	2 x 6 x 3ml vials
RUB	Rubella	Serum	A2LA	Rubella Antibody, IgG Rubella Antibody, IgM	Monthly / Quantitative, Qualitative	3 x 4 x 1ml vials
SAR	SARS-COV-2 Serology	Plasma	n/a	SARS-CoV-2 Antibody, total SARS-CoV-2 Antibody, IgA SARS-CoV-2 Antibody, IgG SARS-CoV-2 Antibody, IgM	3 per year / Qualitative	3 x 2 x 0.75ml vials
SYP	Syphilis Serology	Serum	A2LA	Syphilis screen Syphilis, confirmatory Syphilis titer	Monthly / Qualitative	3 x 4 x 1ml vials
TA	Thyroid Antibodies	Serum	A2LA	Anti-TG Anti-TPO	Monthly / Quantitative	3 x 4 x 2ml vials

## Microbiology - Bacteriology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
BAC-BASIC	Basic Bacteriology Package	Lyophilised Swabs and/or Pellets	A2LA	<b>Cultures:</b> Blood culture Throat culture Urine colony count Urine culture  <b>Susceptibility Testing:</b> Blood culture Urine culture	3 per year / Qualitative	3 x 3 samples: 1 swab, 2 vials, 1 x 12ml diluent, and 1 x 99mL diluent
BAC-COMP	Comprehensive Bacteriology	Lyophilised Swabs and/or Pellets	A2LA	<b>Includes all the above BAC-BASIC analytes and also:</b>  <b>Cultures:</b> CSF culture Ear/Eye culture Group B Strep culture N. gonorrhoeae culture Sputum culture Stool culture Wound culture  <b>Susceptibility Testing:</b> CSF culture Sputum culture Wound culture	6 per year / Qualitative	6 x 4 samples: 2-3 swabs, 1-2 vials, 1 x 12ml diluent, and 1 x 99mL diluent
BTP	Bordetella pertussis / paraptussis-molecular	Liquid	A2LA	Bordetella pertussis Bordetella parapertussis	3 per year / Qualitative	3 x 2 x 1ml vials
CDF	C. difficile Toxin / Antigen	Liquid	A2LA	C. difficile Toxin C. difficile Antigen	3 per year / Qualitative	3 x 3 x 1ml vials
CGC	C. trachomatis and N. gonorrhoeae - molecular	Liquid	A2LA	Chlamydia trachomatis Neisseria gonorrhoeae	3 per year / Qualitative	3 x 5 x 1ml vials
CRO	Carbapenem-Resistant Organisms	Lyophilised Swabs	A2LA	IMP KPC NDM OXA-48 VIM	3 per year / Qualitative	3 x 2 swabs
GBS	Group B Strep - molecular	Lyophilised Swabs	A2LA	Group B Streptococcus	3 per year / Qualitative	3 x 5 swabs

## Microbiology - Bacteriology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
GSV	Gram Stain - Vaginitis	Virtual Slide Images	A2LA	Bacterial vaginosis Nugent Score	3 per year / Qualitative	Supplied online; 2 images per round
LG	Legionella pneumophila Antigen	Liquid	A2LA	Legionella pneumophila Antigen	3 per year / Qualitative	3 x 2 x 0.5ml vials
MPG	Mycoplasma genitalium - molecular	Liquid	A2LA	Mycoplasma genitalium	3 per year / Qualitative	3 x 2 x 1ml vials
MPM	Mycoplasma pneumoniae - molecular	Liquid	A2LA	Mycoplasma pneumoniae	3 per year / Qualitative	3 x 2 x 1ml vials
MRM	MRSA/MSSA - molecular	Lyophilised Swabs	A2LA	MRSA Staphylococcus aureus	3 per year / Qualitative	3 x 2 swabs
MRS	Methicillin-Resistant Staph aureus Culture	Lyophilised Swabs	A2LA	Methicillin-Resistant Staphylococcus aureus	3 per year / Qualitative	3 x 2 swabs
SPN	Streptococcus pneumoniae Antigen	Liquid	A2LA	Streptococcus pneumonia Antigen	3 per year / Qualitative	3 x 2 x 0.5ml vials
SPY	Streptococcus Pharyngeal - molecular	Lyophilised Swabs	A2LA	Group A Streptococcus Group C/G Streptococcus	3 per year / Qualitative	3 x 5 swabs
VGS	Gram Stain - Direct Smear	Virtual Slide Images	A2LA	Gram Stain Interpretation Leukocytes Stain Quality Sputum Specimen Quality	3 per year / Qualitative	Supplied online; 2 images per round
VRE	Vancomycin-Resistant Enterococcus Culture	Lyophilised Swabs	A2LA	Vancomycin-Resistant Enterococcus	3 per year / Qualitative	3 x 2 swabs
VRM	Vancomycin-Resistant Enterococcus - molecular	Lyophilised Swabs	A2LA	Vancomycin-Resistant Enterococcus	3 per year / Qualitative	3 x 2 swabs



## Microbiology - Mycobacteriology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
AFB	Acid Fast Smears	Glass Slides	A2LA	Acid Fast Bacilli Smear	3 per year / Qualitative	3 x 3 glass slides
MTB	Mycobacteriology Culture	Lyophilised loops and/or liquid	A2LA	Mycobacteriology culture	3 per year / Qualitative	3 x 3 samples: loops and / or 5ml vials
MTM	Mycobacterium tuberculosis - molecular	Liquid	A2LA	Mycobacterium tuberculosis complex Rifampin resistance	3 per year / Qualitative	3 x 2 x 1ml vials

## Microbiology - Mycology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
MY	Mycology Culture	Lyophilised Swabs	A2LA	Mycology culture	3 per year / Qualitative	3 x 5 swabs

## Microbiology - Parasitology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
BPS	Blood Parasites	Glass Slides and Virtual Slide Images	A2LA	Blood parasite ID	3 per year / Qualitative	3 x 5 samples: 3 glass slides, 2 images supplied online
CRG	Giardia & Cryptosporidium Antigens	Liquid	A2LA	Cryptosporidium Antigen Giardia Antigen	3 per year / Qualitative	3 x 3 x 1ml vials
TCH	Trichomonas vaginalis	Liquid	A2LA	Trichomonas vaginalis	3 per year / Qualitative	3 x 3 x 2ml vials

## Microbiology - Virology

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
ATG	SARS-CoV-2 (Antigen)	Lyophilised Swabs	n/a	SARS-CoV-2 (Antigen)	6 per year / Qualitative	6 x 3 swabs
COV	SARS-CoV-2 - molecular	Liquid	UKAS	SARS-CoV-2	6 per year / Qualitative	6 x 2 x 1.5ml vials
HPV	Human Papillomavirus - molecular	Liquid	A2LA	Human papillomavirus HPV genotyping	3 per year / Qualitative	3 x 5 x 1ml vials
NOR	Norovirus - molecular	Liquid	A2LA	Norovirus GI Norovirus GII	3 per year / Qualitative	3 x 2 x 1ml vials
ROT	Rotavirus	Liquid	A2LA	Rotavirus	3 per year / Qualitative	3 x 3 x 1ml vials
VIR	Respiratory Virology	Liquid	A2LA	Adenovirus Influenza A Influenza B Influenza A or B Respiratory Syncytial Virus	3 per year / Qualitative	3 x 4 x 1ml vials

# Microbiology - Molecular Multiplex

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
BCP	Blood Pathogen Panel (multiplex)	Liquid	A2LA	<p><b>Bacteria:</b>                      Acinetobacter sp.                      Acinetobacter baumannii                      Acinetobacter ACB complex                      Bacillus cereus group                      Bacillus subtilis group                      Citrobacter sp.                      Corynebacterium sp.                      Cronobacter sakazakii                      Cutibacterium acnes                      Enterobacterales                      Enterobacter sp.                      Enterobacter cloacae complex                      Enterococcus sp.                      Enterococcus faecalis                      Enterococcus faecium                      Escherichia coli                      Fusobacterium nucleatum                      Fusobacterium necrophorum                      Haemophilus influenzae                      Klebsiella oxytoca                      Klebsiella pneumoniae                      Lactobacillus sp.                      Listeria sp.                      Listeria monocytogenes                      Micrococcus sp.                      Morganella morganii                      Neisseria meningitidis                      Proteus sp.                      Pseudomonas aeruginosa                      Salmonella sp.                      Serratia marcescens                      Staphylococcus sp.                      Staphylococcus aureus                      Staphylococcus epidermidis                      Staphylococcus lugdunensis                      Stenotrophomonas maltophilia                      Streptococcus sp.                      Streptococcus agalactiae                      Streptococcus anginosus group                      Streptococcus pneumoniae                      Streptococcus pyogenes</p> <p><b>Fungi:</b>                      Candida albicans                      Candida auris                      Candida dubliniensis                      Candida famata                      Candida glabrata                      Candida guilliermondii                      Candida kefyr                      Candida krusei                      Candida lusitanae                      Candida parapsilosis                      Candida tropicalis                      Cryptococcus gattii                      Cryptococcus neoformans                      Crypto. neoformans/gattii                      Fusarium                      Rhodotorula</p>	3 per year / Qualitative	3 x 5 x 1ml vials

# Microbiology - Molecular Multiplex

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
BCP cont.	Blood Pathogen Panel (multiplex)	Liquid	A2LA	<b>Resistance Genes:</b> CTX-M IMP KPC mcr-1 mecA mecA/C mecA/C & MREJ NDM OXA OXA-48-like vanA vanB vanA/B VIM	3 per year / Qualitative	3 x 5 x 1ml vials
GIP	Gastrointestinal Panel (multiplex)	Liquid	A2LA	<b>Bacteria:</b> C. difficile toxin A/B Campylobacter sp. Enteroaggregative E. coli Enteropathogenic E. coli Enterotoxigenic E. coli lt/st E. coli O157 Plesiomonas shigelloides Salmonella sp. Shigella sp. Shigella / EIEC Shiga Toxin 1 Shiga Toxin 2 STEC stx1/stx2 Vibrio sp. Vibrio cholerae Yersinia enterocolitica  <b>Parasites:</b> Cryptosporidium sp. Cyclospora cayetanensis Entamoeba histolytica Giardia lamblia  <b>Viruses:</b> Adenovirus F 40/41 Astrovirus Norovirus GI/GII Rotavirus A Sapovirus	3 per year / Qualitative	3 x 5 x 1ml vials

## Microbiology - Molecular Multiplex

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
MEP	Meningitis Panel (multiplex)	Liquid	A2LA	<p><b>Bacteria:</b> Escherichia coli K1 Haemophilus influenzae Listeria monocytogenes Neisseria meningitidis Streptococcus agalactiae Streptococcus pneumoniae</p> <p><b>Bacteria:</b> Crypto. neoformans/gatti</p> <p><b>Viruses:</b> Cytomegalovirus Enterovirus Herpes simplex virus 1 Herpes simplex virus 2 Human herpes virus 6 Human parechovirus Varicella zoster virus</p>	3 per year / Qualitative	3 x 5 x 1ml vials
PNE	Pneumonia Panel (multiplex)	Liquid	A2LA	<p><b>Bacteria:</b> Acinetobacter (ACB) complex Chlamydia pneumoniae E. cloacae complex Escherichia coli Haemophilus influenzae Klebsiella aerogenes Klebsiella oxytoca Klebsiella pneumoniae group Legionella pneumophila Moraxella catarrhalis Mycoplasma pneumoniae Proteus sp. Pseudomonas aeruginosa Serratia marcescens Staphylococcus aureus Streptococcus agalactiae Streptococcus pneumoniae Streptococcus pyogenes</p> <p><b>Viruses:</b> Adenovirus Coronavirus Human Metapneumovirus Human Rhinov./Enterovirus Influenza A Influenza B Parainfluenza virus Respiratory Syncytial Virus</p> <p><b>Resistance Genes:</b> CTX-M IMP KPC mecA/C &amp; MREJ NDM OXA-48 VIM</p>	3 per year /	3 x 5 x 0.5ml vials

## Microbiology - Molecular Multiplex

Test Material				Technical Details		
Code	Name	Matrix	Accreditation	Analytes	Frequency / Result Type	Shipments per year / quantity / volume / format
RSP	Respiratory Panel (multiplex)	Liquid	A2LA	<p><b>Bacteria:</b>                      Bordetella holmesii                      Bordetella pertussis                      Bordetella parapertussis / bronchiseptica                      Chlamydophila pneumoniae                      Legionella pneumophila                      Mycoplasma pneumoniae</p> <p><b>Viruses:</b>                      Adenovirus                      Coronavirus                      Coronavirus 229E                      Coronavirus HKU1                      Coronavirus NL63                      Coronavirus OC43                      Human Metapneumovirus                      Human Rhinov./Enterov.                      Influenza A                      Influenza A H1                      Influenza A H3                      Influenza A / H1-2009                      Influenza B                      Parainfluenza 1                      Parainfluenza 2                      Parainfluenza 3                      Parainfluenza 4                      Respiratory Syncytial Virus                      RSV A                      RSV B                      Rhinovirus                      SARS-CoV-2</p>	3 per year / Qualitative	3 x 5 x 1ml vials

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