Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

8197

Accredited to ISO 15189:2022

UK Health Security Agency, an executive agency of the Department of Health and Social Care

Issue No: 021 **Issue date:** 03 July 2026

Bacteriology Reference Department
61 Colindale Avenue
London
NW9 5EQ

Contact: Anna Garrido
Tel: +44 (0)208 3276155
E-Mail: anna.garrido@ukhsa.gov.uk
Website: https://www.gov.uk/government/organisations/uk-health-security-agency

Testing performed by the Organisation at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address	**Local contact**		
Bacteriology Reference Department **61 Colindale Avenue** **London** **NW9 5EQ**	**As above**	Respiratory and Vaccine Preventable Bacteria Reference Unit	RVPBRU
		Gastrointestinal Bacteria Reference Unit	GBRU
		Sexually Transmitted Infections Reference Laboratory	STIRL
		Antimicrobial Resistance and Healthcare Associated Infections Reference Unit	AMRHAI-ARMS
			AMRHAI-SSRS
			AMRHAI-OppPath
			AMRHAI-BIDS

8197
Accredited to
ISO 15189:2022

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

UK Health Security Agency, an executive agency of the Department of Health and Social Care

Issue No: 021 **Issue date:** 03 July 2026

Testing performed by the Organisation at the locations specified

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	*Streptococcus pneumoniae* confirmation of identification and capsular typing	**DNA extraction**: Nucleic acid extraction using Qiagen QIAsymphony BRD0017 - Nucleic acid extraction using the Qiagen Qiasymphony BRD0430 - Laboratory methods for Streptococcus pneumoniae using Whole Genome Sequence analysis Whole Genome Sequencing (WGS) performed by UKHSA Colindale Sequencing Laboratory (8727) Data analysis performed by UKHSA Bioinformatics UKAS: 10742: Automated analysis, in-house bioinformatics pipeline hosted on UKHSA informatics infrastructure and MLST type designations referenced from PubMLST international database **Serotyping**: Slide agglutination commercial serotyping antisera (SSI Diagnostica) BRD0095 - Serotyping of Streptococcus pneumoniae using slide agglutination	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Confirmation of identification and toxigenicity testing of potentially toxigenic *Corynebacteria spp*	**DNA extraction**: In-house manual boil prep method **Multiplex PCR**: Rotor-Gene Q real-time thermal cycler, Qiagen Multiplex PCR mastermix. BRD0121 - Detection of toxin gene bearing and non-toxin gene bearing *C. diphtheriae, C. ulcerans* and *C. pseudotuberculosis* using a Real-Time PCR assay **Confirmation of ID and toxin expression** **Culture & Biochemical** Commercial: biochemical profiling, In-house modified Elek test BRD0076 - Identification of Potentially Toxigenic Corynebacteria and Toxigenicity Testing	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Confirmation of identification and typing of *Legionella*	**Culture:** Selective Media BRD0072 - Processing of Culture (isolates) Specimens for Legionella **Real-Time PCR**: DNA extraction (in-house manual), Rotor-Gene Q real-time thermal cycler Sequence-based typing: Block-based PCR, VeritiThermal cycler, ThermoFisher E-gel, Gel Doc Sanger sequencing carried out by UKHSA Central Sequencing Laboratory(8727) Data analysis carried out by UKHSA Bioinformatics (10742): Bioinformatics and BioNumerics BRD0089 - Sequence-based typing (SBT) of Legionella pneumophila	RVPBRU
Clinical samples (e.g. swabs, urine, Tissue samples)	Detection of LGV genovars of Chlamydia trachomatis	BRD0350 Sample reception and **DNA extraction** using QiaSymphony extractor. BRD0533 **Real-time PCR** for the detection of LGV genovars of Chlamydia trachomatis from clinical specimens on the **QuantStudio platform**	STIRL

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Residual specimen from unprocessed NAAT swab, dry swab, urine or extracted DNA	Molecular detection of Treponema pallidum	**Nucleic acid extraction:** using the Qiagen QIAsymphony DSP Virus/Pathogen Midi kit and the Qiagen QIAsymphony BRD0350-Sample reception and DNA extraction procedures in STIRL BRD0017 - Nucleic Acid Extraction using the Qiagen QIAsymphony **Real-time PCR and Sanger Sequencing** using QIAsymphony and QuantStudio 5 BRD0531- Real-Time PCR Assay for The Detection of *Treponema pallidum* In Clinical Specimens on the Quantstudio Platform	STIRL
Pre-isolated Culture	*Bordetella pertussis* and *parapertussis* identification and serotyping of *B pertussis*	**Culture**: Selective media **Phenotypic characterisation and serotyping methods**: commercial reagents (NIBSC, Becton Dickinson) BRD0094 - Identification of *B. pertussis* and *B. parapertussis* by Phenotypic Characterisation and Fimbrial Serotyping of *B. pertussis* isolates	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	*Haemophilus* species identification and capsular typing of *H. influenzae*	**Culture:** Selective media **Phenotypic characterisation and serotyping** using commercial reagents (Mast, Pro-lab) MALDI-TOF or 16S sequencing provided by AMRHAI if required. BRD0099 - Procedures for processing and ID of *H. influenzae* isolates and β-Lactamase Production, BRD0100 - Serotyping of *H. influenzae*	RVPBRU
Pre-isolated Culture	*Haemophilus* species identification and capsular typing of *H. influenzae (cont'd)*	**DNA extraction**: commercial reagents (Instagene resin, BioRad), heat blocks BRD0197 - DNA extraction from bacteria using the InstaGene matrix (Bio-Rad) **Block-based PCR** using Veriti Thermal Cycler, Invitrogen PCR Mastermix, Invitrogen E-gel, Syngene Gel Doc System. BRD0103 - Confirmation and Identification of *H. Influenzae* Species and Serotype by PCR	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Serum	Serum antibodies for diphtheria toxin	**Tissue culture** (Vero Cell Toxin Neutralisation Assay) BRD0054 - Vero Cell Assay for the Determination of Diphtheria Antitoxin in Serum Samples	RVPBRU
Serum	Serum Antibodies for Tetanus toxoid	**Enzyme Immunoassay** VaccZyme™ Anti-Tetanus Toxoid IgG, incubator, EIA plate washer, plate reader BRD0057 - EIA for anti-tetanus Antibody in Human Sera	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Serum, oral fluid	Anti-pertussis toxin IgG	**Enzyme Immunoassay:** **Automated serum assay**: DS2 robotic analyser and commercial reagents (Clin-Tech Ltd) BRD0119 - In-House ELISA for *B. pertussis* Toxin (PT) IgG Antibody in Human Sera Using 'DRY STRIPS' Using the DYNEX DS2 Robotic System **Manual serum or oral fluid assay**: Incubator, EIA plate washer, plate reader BRD0116 - ELISA (Mk3) to Detect Anti-pertussis Toxin IgG Antibody in Oral Fluid Using "Dry Strips" BRD0120 - EIA For *B. pertussis* Toxin (Pt) IgG Antibody In Human Sera Using 'Dry Strips' – Manual Method	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Urine	Confirmatory testing for *L.pneumophila* urinary antigen	**Enzyme Immunoassay** Commercial kits Binax EIA, EIA plate washer, EIA plate reader BRD0067 - Binax EIA Legionella Urinary Antigen Kit	RVPBRU
Respiratory specimens (Sputa, Bronchoalveolar lavage, Nasopharyngeal aspirate, Cerebrospinal fluid, blood, wound aspirate, synovial fluid, lung tissue)	*Mycoplasma/Ureaplasma* detection and identification	**Culture:** Commercial media (Mycoplasma Experience), microscope **DNA extraction:** KingFisher DUO extractor, Qiagen Rotor Gene Q thermal cycler BRD0492 - Operation of ThermoFisher Scientific KingFisher DUO Prime (KDP) **Real-Time PCR and Sequencing:** BRD0342 – Detection of Mycoplasma hominis, Ureaplasma parvum and U. urealyticum by Real Time PCR using the Rotor-Gene Q BRD0365 - qPCR for the detection of Mycoplasma pneumoniae and GFP Amplification Control BRD0115 - PCR and Sequence Detection of Known Macrolide Resistance Markers in Mycoplasma pneumoniae Sanger sequencing carried out by Colindale Sequencing Laboratory (8727), UKHSA. Data analysis: Bioinformatics and BioNumerics	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Respiratory specimens (Sputa, Bronchoalveolar lavage, Nasopharyngeal aspirate)	*L. pneumophila* and species detection, identification and genotyping	**Culture**: Commercial selective media BRD0065 - Processing of clinical specimens for Legionella **DNA extraction & PCR**: KingFisher DUO extractor, Qiagen Rotor Gene Q Thermal Cycler BRD0492 - Operation of ThermoFisher Scientific KingFisher DUO Prime (KDP) BRD0086 - *Legionella pneumophila* 3plex qPCR (Rotor-Gene Q) BRD0104 - Detection of Legionella Species DNA By Real Time PCR Using the Rotor-Gene Q **Sequence-based typing**: DNA extraction (in-house manual), Block-based PCR, VeritiThermal cycler, Invitrogen E-gel, Gel Doc) Sanger sequencing carried out by Colindale Sequencing Laboratory (8727), UKHSA. Data analysis: Bioinformatics and BioNumerics. BRD0088 - Nested Sequence-based typing (SBT) of *Legionella pneumophila*	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Respiratory specimens e.g. Sputum, BAL, NPA, lung, pericardial/pleural fluid, throat swabs and tracheal aspirate	Detection of *C. pneumoniae* and *C. psittaci/abortus* DNA	**DNA extraction:** BRD0492 - Operation of ThermoFisher Scientific KingFisher DUO Prime (KDP) **Real-Time PCR: In-house PCR assay** KingFisher DUO extractor, Qiagen Rotor Gene Q thermal cycler BRD0235 – Use of Rotor-Gene BRD0491 – Detection of Chlamydophila pneumoniae and Chlamydophila psittaci/abortus by RT-PCR using the Rotor-Gene	RVPBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture and specimens (faeces, tissue and environmental)	Identification of *C. botulinum*	**Culture**: BRD0042 - Isolation and Detection of *C. botulinum* and *C. tetani* from Clinical Specimens, Pure Cultures, Food, Water and Environment Samples and Animal Feed **DNA extraction** BRD0264 - Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent. BRD0408 - Extraction of Clostridial DNA from broths using InstaGene matrix **Real-time PCR:** using Applied Biosystems 7500 fast real time, QuantStudio Real-time PCR BRD0297 - Detection of *C. botulinum* and *C. tetani* neurotoxin genes by Real-time PCR	GBRU
Serum, faeces, blood	Preparation of extracts for bioassay for detection of C.botulinum neurotoxin by associated laboratory for public health purposes'	**Preparation of extracts for Bioassay** BRD0321 - The preparation of extracts from clinical and food samples for the detection of *Clostridium botulinum* neurotoxin	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture, Tissue, wound swabs	Isolation and identification of *C. tetani*	**Culture:** BRD0042-Isolation and Detection of *C. botulinum* and *C. tetani* from Clinical Specimens, Pure Cultures, Food, Water and Environment Samples and Animal Feed **DNA extraction** Manual/Commercial BRD0264 - Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent BRD0408 - Extraction of Clostridial DNA from broths using InstaGene matrix **Real-time PCR** using Applied Biosystems 7500 fast real time, QuantStudio Real-time PCR BRD0297 - Detection of *C. botulinum* and *C. tetani* neurotoxin genes by Real-time PCR	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Identification of C*. perfringens*	**Culture:** BRD0391 - Plating out and processing incoming cultures of Bacillus sp, *Clostridium perfringens*, Listeria sp. and, Campylobacter sp. **DNA extraction-Manual** BRD0408 - Extraction of Clostridial DNA from broths using InstaGene matrix BRD0264-Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent **Real-time PCR** using Applied Biosystems 7500 fast; QuantStudio BRD0281 - Real-time PCR identification of Clostridium perfringens and detection of C. perfringens enterotoxin and major lethal toxins genes fAFLP typing (Preparation and Analysis) performed by Colindale Sequencing Laboratory (8727), UKHSA using Applied Biosystems 7500 fast; QuantStudio **Inhouse data analysis**: using BioNumerics and Peakscanner	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Identification of C*. perfringens (cont'd.)*	BRD0236 - Fluorescent amplified fragment length polymorphism (FAFLP) analysis of *C. perfringens* and *B. cereus* BRD0498 - Bioinformatic analysis of Fluorescent amplified fragment length polymorphism for *B. cereus* and *C. perfringens*	GBRU
Pre-isolated Culture	Listeria Identification and typing	**Culture:** BRD0391 - Plating out and processing incoming cultures of Bacillus sp, *Clostridium perfringens*, Listeria sp. and Campylobacter sp **DNA Extraction** Nucleic acid extraction using Qiagen QIAsymphony. BRD0230 - Extraction of DNA from Gram-positive bacteria and Gram-negative Enterobacteriaceae and submission for Whole Genome Sequencing (WGS) Whole Genome Sequencing (WGS) performed by Colindale Sequencing Laboratory (8727), UKHSA.	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Data derived from above provided by UKAS: 10742	Listeria Identification and typing (cont'd.)	Data analysis:automated analysis using in-house bioinformatics pipeline managed by UKAS: 10742, hosted on UKHSA informatics infrastructure and MLST type designations referenced from PubMLST international database **Identification and Typing and Interpretation for Confirmation, Surveillance and Outbreak Detection** BRD0474 - Identification and typing of Listeria by WGS	GBRU
Pre-isolated Culture	Identification of *Bacillus spp* except *B. anthracis*	**Culture:** BRD0391 - Plating out and processing incoming cultures of Bacillus sp, *Clostridium perfringens*, Listeria sp. and Campylobacter sp. **DNA extraction** - Manual BRD0264-Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent **Real-time PCR:** using Applied Biosystems 7500 fast; QuantStudio BRD0260 - Detection of Bacillus emetic toxin gene by Real Time Polymerase Chain Reaction	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Identification of *Bacillus spp* except *B. anthracis (cont'd.)*	**MALDI-TOF MS:** BRD0294 - Preparation of extracts and target plate for the identification of Bacillus species by MALDI TOF analysis fAFLP typing performed by Colindale Sequencing Laboratory, (8727), UKHSA. Inhouse data analysis: using BioNumerics and Peakscanner BRD0236 - Fluorescent amplified fragment length polymorphism (FAFLP) analysis of C. perfringens and B. cereus BRD0498 - Bioinformatic analysis of Fluorescent amplified fragment length polymorphism for *B. cereus* and *C. perfringens*	GBRU
Faeces	Detection of C. perfringens enterotoxin	**ELISA:** using Thermo Scientific Multiskan FC plate reader BRD0254 - Extraction and detection of *Clostridium perfringens* enterotoxin from faecal specimens by TECHLAB ELISA kit using Thermo Scientific Multiskan FC plate reader	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	*Campylobacter* identification and typing and antimicrobial resistance screening	**Culture:** BRD0391 - Plating out and processing incoming cultures of Bacillus sp, *Clostridium perfringens*, Listeria sp. and Campylobacter sp BRD0263 - Phenotypic Antimicrobial Susceptibility Testing in Enterobacteriaceae *Helicobacter pylori*, *Campylobacter jejuni* and *Campylobacter coli* **DNA Extraction:** using Qiagen QIAsymphony BRD0230 - Extraction of DNA from Gram-positive bacteria and Gram-negative Enterobacteriaceae, and submission for Whole Genome Sequencing Whole Genome Sequencing (WGS) performed by Colindale Sequencing Laboratory (8727), UKHSA. **Data analysis**: automated analysis, in-house bioinformatics pipeline managed by UKAS: 10742 hosted on iUKHSA informatics infrastructure and MLST type designations referenced from PubMLST international database	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Data derived from above provided by UKAS: 10742	Campylobacter identification and typing and antimicrobial resistance screening (cont'd)	**WGS:** performed by UKHSA Central Sequencing Laboratory **Identification and Typing and Interpretation for Confirmation, Surveillance and Outbreak Detection** BRD0473 - Identification and typing of Campylobacter by WGS	GBRU
Pre-isolated Cultures, gastric biopsies	Isolation and identification of *Helicobacter spp* and Antibiotic Susceptibility testing	**Culture and E test** BRD0262 - *Helicobacter* gastric biopsy and culture processing BRD0263 - Phenotypic Antimicrobial Susceptibility Testing in Enterobacteriaceae *Helicobacter pylori*	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Cultures	*E. coli*, Shigella, Yersinia, Vibrio Identification and typing	**DNA Extraction** using Qiagen QIAsymphony BRD0444-Identification of Escherichia, Shigella, Yersinia and Vibrio BRD0401-Routine processing and typing of HG3 *E. coli*, *Shigella* and *Salmonella* isolates BRD0230 - Extraction of DNA from Gram-positive bacteria and Gram-negative Enterobacteriaceae, and submission for Whole Genome Sequencing Whole Genome Sequencing (WGS): performed by Colindale Sequencing Laboratory (8727), UKHSA. **Data analysis**: automated analysis, in-house bioinformatics pipeline managed by UKAS: 10742 hosted on UKHSA informatics infrastructure and MLST type designations referenced from PubMLST international database	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Data derived from above provided by UKAS: 10742	*E. coli*, Shigella, Yersinia, Vibrio Identification and typing (cont'd.)	**Identification and Typing and Interpretation for Confirmation, Surveillance and Outbreak Detection** BRD0475 - Identification and typing of E. coli and Shigella by whole genome sequencing BRD0476 - Identification and typing of Vibrio and Yersinia by whole genome sequencing	GBRU
Faeces and pre-isolated cultures	Shigatoxin-producing *E coli* typing	**Real-Time PCR** Rotagene BRD0411- GBRU PCR Procedures BRD0040 - Isolation of Presumptive STEC from Faeces	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Salmonella identification and typing	**DNA Extraction** using Qiagen QIAsymphony BRD0289 - Processing of routine Salmonella cultures for DNA extraction and WGS, Identification, serotyping and PCR BRD0230 - Extraction of DNA from Gram-positive bacteria and Gram-negative Enterobacteriaceae and submission for Whole Genome Sequencing Whole Genome Sequencing (WGS) performed by Colindale Sequencing Laboratory (8727), UKHSA. **Data analysis**: automated analysis, in-house bioinformatics pipeline managed by UKAS: 10742 hosted on UKHSA informatics infrastructure and MLST type designations referenced from PubMLST international database	GBRU

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Salmonella identification and typing (cont'd.)	**Identification and Typing and Interpretation for Confirmation, Surveillance and Outbreak Detection** BRD0440 – Identification and typing of Salmonella by whole genome sequencing. BRD0289 – Processing of routine Salmonella cultures for DNA extraction and WGS, Identification, serotyping and PCR.	GBRU
Residual specimen from unprocessed NAAT swab, dry swab, urine or extracted DNA	Molecular detection of the adhesion MgPa and gap genes and determination of mutations associated with macrolide and fluoroquinolone resistance in Mycoplasma genitalium	**Nucleic acid extraction:** using the Qiagen QIAsymphony DSP Virus/Pathogen Midi kit and the Qiagen QIAsymphony BRD0350-Sample reception and DNA extraction procedures in STIRL BRD0017 - Nucleic acid extraction using the Qiagen QIAsymphony **Real-time PCR and Sanger sequencing** using QIAsymphony and QuantStudio 5 BRD0507 **Multiplex real-time PCR** assay for the detection of Mycoplasma genitalium in clinical specimens on Quantstudio 5	STIRL

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Residual specimen from unprocessed NAAT swab, dry swab, urine or extracted DNA	Molecular detection of the adhesion MgPa and gap genes and determination of mutations associated with macrolide and fluoroquinolone resistance in Mycoplasma genitalium (cont'd.)	BRD0518 **Real-time PCR and Sequence Detection** of Macrolide and Fluoroquinolone Resistance Mutations in Mycoplasma genitalium	STIRL
Pre-isolated Culture, residual specimen from unprocessed NAAT swab, dry swab urine or extracted DNA	Confirmation, identification and susceptibility testing of *Neisseria gonorrhoeae*	BRD0251- Processing of Specimens Received into STIRL for the Identification and/or Susceptibility Testing of *Neisseria gonorrhoeae* **Gram stain/microscopy & Oxidase** Using a light microscope BRD0247 - Determination of Cytochrome Oxidase Activity BRD0053 - Gram's Stain BRD0255 - Use of the Light Microscope **Mass spectrometry** Using the Bruker Sirius MALDI-TOF BRD0300 - Sample Preparation for Profiling on MALDI Biotyper and Target Plate Cleaning BRD0301 - Use of MALDI Biotyper and Data Analysis	STIRL

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture, residual specimen from unprocessed NAATswab, dry swab urine or extracted DNA	Confirmation, identification and susceptibility testing of *Neisseria gonorrhoeae (cont'd.)*	**Biochemical**: API-NH BRD0249 - Using the API NH Kit for the Identification of Putative *Neisseria gonorrhoeae* **Antibiotic susceptibility testing**: Commercial Using Etest BRD0283-Determination of MICs by Etest method	STIRL
Pre-isolated Culture	Confirmation, identification and susceptibility testing of *Neisseria gonorrhoeae*	**Real-time PCR** Using QuantStudio 5 BRD0536 Sample Preparation and Molecular Detection of Neisseria gonorrhoeae Specific DNA Directly from Lysates using the GeneProof RT-PCR assay	STIRL

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
NAAT swab, dry swab, urine, culture lysate or extracted DNA from isolate	Molecular detection ceftriaxone resistance in Neisseria gonorrhoeae	**Nucleic acid extraction**: Commercial Extraction using the Qiagen QIAsymphony DSP Virus/Pathogen Midi kit and the Qiagen QIAsymphony BRD0350-Sample Reception and DNA Extraction Procedures in STIRL BRD0017 - Nucleic Acid Extraction using the Qiagen QIAsymphony **Real-time PCR** using QIAsymphony (for NAAT samples, dry swab, urine only) and QuantStudio 5 BRD0521 Sample Preparation and Molecular Detection of Ceftriaxone Resistance in *Neisseria gonorrhoeae*	STIRL

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Antibiotic susceptibility testing for therapeutic guidance		
	Staphylococci; *Streptococci*; *Enterococci*; Enterobacterales, , except those causing enteric infections; Acinetobacter spp.; *Pseudomonas aeruginosa* and other pseudomonads of medical importance; Non-fermentative Gram-negative and other non-Enterobacterales species; Coryneform spp.; HACEK *Bacillus* and related spp Uncommon and/or difficult to grow / test / interpret / treat species with the exception of obligate anaerobes	**Antibiotic susceptibility testing** BRD0469 - Cefiderocol disk diffusion testing BRD0418 – modified Carbapenem Inactivation Method (mCIM) for the detection of carbapenemase activity in Gram-negative bacteria BRD0180 - Determination of MICs by the Antibiotic Gradient Method BRD00495 - Determination of MIC of Gram-negative bacteria using manual broth microdilution (Micronaut, broth microdilution) BRD00514 - Determination of MIC of Gram-positive bacteria using broth microdilution (Sensititre, broth microdilution) BRD00509 - Determination of fosfomycin MIC using the Liofilchem AD fosfomycin test kit (agar dilution) (Liofilchem fosfomycin agar dilution 0.25 – 256 mg/L)	AMRHAI-ARMS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	MIC testing of organisms For GRASP, *Neisseria gonorrhoeae*	**Antibiotic susceptibility testing**: **Agar Dilution** Using multipoint inoculator, Image Analyser and Sorcerer Mic Software BRD0231 - Preparing antimicrobial solutions and agar plates for determining MIC of *Neisseria gonorrhoeae* BRD0238 - Determination of MIC of *Neisseria gonorrhoeae* BRD0334 - Use of nitrocefin reagent to test for beta-lactamase production in *N. gonorrhoeae* BRD0402 -The retrieval, cultivation, identification and archiving of Neisseria gonorrhoeae for GRASP	STIRL
Pre-isolated Culture	- Detection of Class A, B and D carbapenemases - Detection of plasmid-mediated colistin resistance determinants	BRD0443 - Use of the **AusDiagnostics** assay for the detection of carbapenemase and transferable colistin resistance genes (**multiplex tandem PCR and nested multiplex RT-PCR**)	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	- Detection of Class A, B and D carbapenemases - Detection of plasmid-mediated colistin resistance determinants - Characterisation of resistance to oxazolidinones	BRD0390 - Multiplex Real-Time PCR assay for the characterisation of linezolid resistance mechanisms (**RT-PCR using RotorGene**)	AMRHAI ARMS
Pre-isolated Culture	Coagulase negative Staphylococci identification	**Mass spectrometry:** Using the Bruker Sirius MALDI-TOF BRD0148 - Identification of isolates of Staphylococci to species level BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning BRD0301 - Use of MALDI Biotyper and data analysis	AMRHAI SSRS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Streptococcal typing Lancefield Groups A, B, C, G	**DNA extraction** **Block-based PCR:** Veriti Thermal cycler, Invitrogen E-gel, Gel Doc Sanger sequencing carried out by Colindale Sequencing Laboratory (8727), UKHSA Data analysis: BioNumerics – emm Types Designated and Curated by CDC (only for Group C and G) BRD0080-Laboratory Typing Methods for Group A,C and G Streptococci BRD0081 - Laboratory Typing Methods for Group B Streptococci Microtitre Plate Method BRD0107 - Sequencing of Streptococcus Group A, C and G **Agglutination:** Antisera for GBS BRD0093 - Use of PROLEX™ Streptococcal Grouping Latex Kit	AMRHAI-SSRS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Streptococcal identification	**Biochemical assay** API kits and reagents and In-house Assay BRD0096 - Identification of Streptococci and related genera-primary testing BRD0097 - Identification of Streptococci and related genera-additional tests BRD0093 - Use of PROLEX™ Streptococcal Grouping Latex Kit	AMRHAI-SSRS
Pre-isolated Culture	*Staphylococcus aureus* (toxin gene detection) in non enteric and enteric disease	**Nucleic acid extraction:** using Qiagen QIAamp DSP DNA Mini Kit and the QIAsymphony automated nucleic acid platform BRD0293 - Pre-lysis of bacterial isolates cultured on solid media for DNA extraction via QIAsymphony BRD0017 - Nucleic acid extraction using the Qiagen QIAsymphony Whole Genome Sequencing performed by Colindale Sequencing Laboratory (8727), UKHSA.	AMRHAI-SSRS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Data derived from above provided by UKAS: 10742	*Staphylococcus aureus* (toxin gene detection) in non enteric and enteric disease (cont'd.)	**Data analysis**: In-house automated analysis using bioinformatics pipeline managed by UKAS: 10742, hosted on UKHSA informatics infrastructure & MLST type designations referenced from PubMLST international database BRD0398 - Workflow for Whole Genome Sequencing BRDW0854 Submission of new allele sequences and new STs to PubMLST S. aureus database BRDW0951 - SaGE User Manual	AMRHAI-SSRS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd) Opportunistic Pathogens	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	*Burkholderia pseudomallei* identification	**DNA Extraction**: Manual **Block-based PCR**: PCR Max, Bio-Rad Analysis: QIAxcel, E-gel BRD0161 - PCR Identification of *Burkholderia pseudomallei*	AMRHAI-OppPath

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd) Opportunistic Pathogens	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Cystic Fibrosis Pathogens identification	**DNA Extraction**: Manual **PCR and Sequencing:** Using the Bio-Rad T100 Thermal Cycler/Applied Biosystems Veriti 96 well thermal cycler/ PCR Max Sanger Sequencing: performed by Colindale Sequencing Laboratory (8727), UKHSA Analysis: QIAxcel, e-gel, BioNumerics BRD0160 - PCR identification of Cystic Fibrosis Pathogens **Mass spectrometry** Using the Bruker Sirius MALDI-TOF BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning BRD0301 - Use of MALDI Biotyper and data analysis	AMRHAI-OppPath

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd) Opportunistic Pathogens	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture	Characterisation for Typing of Klebsiellaby an associated laboratory for public health purposes.	**Characterisation** **DNA Extraction**: Manual **PCR**: Applied Biosystems Veriti 96 well thermal cycler Analysis: QIAxcel, Agarose gel electrophoresis BRD0353 - PCR Characterisation of Klebsiella isolates **Typing** Variable Number Tandem Repeat Analysis **DNA Extraction**: Manual **PCR**: PCR Max/Bio-Rad T100 Thermal Cycler, **Fragment Analysis**: Agarose gel electrophoresis and Fragment Analysis (Performed by Colindale Sequencing Laboratory (8727), UKHSA. Comparison on BioNumerics BRD0252 – Multiple locus VNTR analysis of *Klebseilla pneumoniae*	AMRHAI-OppPath

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre isolated culture	E. coli typing (HG2 only; Healthcare associated)	**DNA Extraction**: using the Qiagen QIAsymphony DSP mini kit BRD0519 - Pre- Treatment of Opportunistic Pathogen Bacteria Prior to DNA Extraction on the Qiagen QIAsymphony BRD0017 - Nucleic acid extraction using the Qiagen Qiasymphony Whole Genome Sequencing (WGS) performed by Colindale Sequencing Laboratory (8727), UKHSA. **Inhouse Data analysis**: automated analysis, in-house bioinformatics pipeline managed by UKAS: 10742, hosted on UKHSA informatics infrastructure and MLST type designations referenced from PubMLST international database GastroDataWarehouse, BioNumerics database BRD0486- Whole Genome Sequencing of *Escherichia coli* using the GBRU Laboratory Procedures and pipeline: preparation of isolates and analysis of results	AMRHAI-OppPath

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre isolated culture	Typing of *Pseudomonas aeruginosa*	**DNA Extraction**: Manual **PCR**: Bio-Rad T100 thermocycler Fragment Analysis Performed by Colindale Sequencing Laboratory (8727), UKHSA. **Inhouse Data Analysis:** BioNumerics, QIAExcel BRD0166 –VNTR analysis for typing of *Pseudomonas aeruginosa*	AMRHAI-OppPath
Pre isolate culture	Typing of *Mycobacterium abscessus c*omplex	**DNA Extraction**: Manual **PCR: PCR Max** Fragment Analysis performed by Colindale Sequencing Laboratory (8727), UKHSA. **Inhouse Data Analysis:** BioNumerics, QIAExcel BRD0218 – VNTR analysis for typing of the *Mycobacterium abscessus* complex	AMRHAI-OppPath

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Pre-isolated Culture, broth, swabs, DNA extracts	Identification of unknown/atypical bacteria	**Mass spectrometry** using the Bruker Sirius MALDI-TOF BRD0253 - Algorithm for Identification of Unknowns in AMRHAI BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning BRD0301 - Use of MALDI Biotyper and data analysis **DNA Extraction:** using ABI PrepMan reagent BRD0417-Extraction of Nucleic Acid from Bacteria at CL3 **PCR: I**n-house partial 16S rRNA gene PCR using ABI 9700, Biomek NXP robot Sanger Sequencing: performed by Colindale Sequencing Laboratory (8727), UKHSA. BRD0421 - 16S rRNA Identification by Sequencing **Inhouse Data Analysis**: BioNumerics/ NCBI BLAST/Pathogenomix RipSeq BRD0419 – Analysing / Blasting sequence data and reporting	AMRHAI-BIDS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUE/FLUIDS - specified Pre-isolated cultures of microorganisms unless stated (cont'd)	Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)	Documented in-house procedures with manufacturer's instructions	
Tissue, pus, liquid, blood culture fluid or FFPE samples	Detection and identification of bacteria from normally sterile sites	**DNA Extraction**: using Qiagen Blood & Tissue kit BRD0455-Extraction of Bacterial DNA From Clinical Samples at CL3 using the QIAgen blood and tissue kit **PCR** partial 16S rRNA Gene Real-Time PCR & Sequencing using the LightCycler 480, Biomek NXP Robot Sanger Sequencing: performed by Colindale Sequencing Laboratory (8727), UKHSA. BRD0416 - Real-Time PCR Amplification Of 16S rDNA and Identification By Sequencing **Inhouse Data Analysis**: BioNumerics/ NCBI blast/Pathogenomix RipSeq BRD0419 - Analysing / Blasting sequence data and reporting	AMRHAI-BIDS
END			