


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>UKAS MEDICAL</p> <p>8197</p> <p>Accredited to ISO 15189:2012</p>	<p>UK Health Security Agency, an executive agency of the Department of Health and Social Care</p> <p>Issue No: 012 Issue date: 24 May 2022</p>	
	<p>Bacteriology Reference Department 61 Colindale Avenue London NW9 5EQ</p>	<p>Contact: Anna Garrido Tel: +44 (0)208 3276155 E-Mail: anna.garrido@phe.gov.uk Website: www.gov.uk/phe</p>
<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u></p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u></p> <p>Streptococcal typing Lancefield Groups A, B, C, G</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions</u></p> <p>Typing-PCR and Agglutination In-house assay</p> <p>DNA extraction: manual in-house, thermal cyclers Block-based PCR: Veriti Thermal cyclers, Invitrogen E-gel, Gel Doc Sequencing: carried out by PHE Central Sequencing Laboratory (CSL) Data analysis: BioNumerics – emm types designated and curated by CDC</p> <p>Agglutination: commercial Antisera for GBS</p> <p>BRD0080-Laboratory typing methods for Group A Streptococci BRD0081 - Laboratory Typing Methods for Group B Streptococci BRD0107 - Sequencing of Streptococcus Group A, C and G</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p> <p>Sequence Data derived from Whole Genome Sequencing</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Streptococcus pneumoniae confirmation of identification and capsular typing</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Whole Genome Sequencing (WGS) In-house assay</p> <p>WGS: performed by PHE Central Sequencing Laboratory</p> <p>DNA extraction: QIASymphony with Qiagen QIAamp DSP DNA Mini Kit</p> <p>Data analysis following WGS: automated analysis, in-house bioinformatics pipeline hosted on PHE informatics infrastructure and MLST type designations referenced from PubMLST international database</p> <p>BRD0017 - Nucleic acid extraction using the Qiagen Qiasymphony</p> <p>BRD0430 - Laboratory methods for <i>Streptococcus pneumoniae</i> using Whole Genome Sequence analysis</p> <p>Serotyping: Slide agglutination commercial serotyping antisera (SSI Diagnostica)</p> <p>BRD0095 - Laboratory typing methods for <i>Streptococcus</i> <i>pneumoniae</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Streptococcal identification</p> <p>Confirmation of identification and toxigenicity testing of potentially toxigenic <i>Corynebacteria spp</i></p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Biochemical assay Commercial: biochemical profiling API kits and reagents and In-house Assay</p> <p>BRD0096 - Identification of Streptococci and related genera- primary testing BRD0097 - Identification of Streptococci and related genera- additional testing BRD0093 - Use of PROLEX™ Streptococcal Grouping Latex Kit</p> <p>Real-time PCR In-house assay</p> <p>DNA extraction: In-house manual boil prep method</p> <p>Multiplex PCR: Rotor-Gene Q real-time thermal cycler, Qiagen Multiplex PCR mastermix.</p> <p>BRD0121 - Detection of toxin gene bearing and non-toxin gene bearing <i>C. diphtheriae</i>, <i>C. ulcerans</i> and <i>C. pseudotuberculosis</i> using a Real-Time PCR assay</p> <p>Confirmation of ID and toxin expression Culture & Biochemical Commercial: biochemical profiling API kit, In-house modified Elek test</p> <p>BRD0076 - Identification of Potentially Toxigenic <i>Corynebacteria</i> and toxigenicity testing</p>



8197
Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Confirmation of identification and typing of <i>Legionella</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Culture and Real-time PCR In-house assay</p> <p>Culture: selective media (Oxoid) BRD0072 - Processing of culture (isolates) specimens for Legionella</p> <p>PCR: DNA extraction (in-house manual), Microbiological safety cabinet class 1, Rotor-Gene Q real-time thermal cyclers</p> <p>Sequence-based typing: Block-based PCR, Veriti Thermal cyclers, Invitrogen E-gel, Gel Doc Sequencing carried out by CSL, PHE</p> <p>Data analysis: Bioinformatics and BioNumerics</p> <p>BRD0089 - Sequence-based typing (SBT) of Legionella pneumophila</p>
<p>Pre-isolated Culture</p>	<p><i>Bordetella pertussis</i> and <i>parapertussis</i> identification and serotyping of <i>B. pertussis</i></p>	<p>Phenotypic characterisation and serotyping</p> <p>In-house assay</p> <p>Culture: selective media Phenotypic methods: commercial reagents (NIBSC, Becton Dickinson)</p> <p>BRD0094 - Identification of <i>B. pertussis</i> and <i>B. parapertussis</i> by phenotypic characterisation and fimbrial serotyping of <i>B. pertussis</i> isolates</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p><i>Haemophilus</i> species identification and capsular typing of <i>H. influenzae</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Phenotypic characterisation and serotyping In-house assays</p> <p>Phenotypic methods: Culture on selective media and commercial reagents (Rapid ID NH-system, Mast, Pro-lab, MALDI-TOF or 16S sequencing provided by AMRHAL if required)</p> <p>BRD0099 - Procedures for processing and ID of <i>H. influenzae</i> isolates and a-lactamase production, BRD0100 - Serotyping of <i>H. influenzae</i> BRD0101 - Identification of <i>Haemophilus</i> spp. and <i>Haemophilus</i> - like organism using the Rapid ID NH System</p> <p>PCR for confirmation of <i>H. influenzae</i> species ID and capsule type</p> <p>DNA extraction: commercial reagents (Instagene resin, BIORAD), heat blocks</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture (cont'd)</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p><i>Haemophilus</i> species identification and capsular typing of <i>H. influenzae</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>PCR amplification and visualisation: block-based PCR, Veriti thermal cycler, Invitrogen PCR mastermix, Invitrogen E-gel, Syngene Gel Doc system.</p> <p>BRD0197 - DNA extraction from bacteria using the InstaGene matrix (Bio-Rad)</p> <p>BRD0103 - Confirmation and Identification of <i>H. Influenzae</i> species and serotype by PCR</p>
<p>Serum</p>	<p>Serum antibodies for diphtheria toxin</p>	<p>Tissue culture (Vero Cell Toxin Neutralisation Assay) In-house assay</p> <p>BRD0054 - Vero cell assay for the determination of Diphtheria antitoxin in serum samples</p>
<p>Serum</p>	<p>Serum Antibodies for Tetanus toxoid</p>	<p>Enzyme Immunoassay Manual & Commercial kit VaccZyme™ Anti-Tetanus Toxoid IgG, incubator, EIA plate washer, plate reader</p> <p>BRD0057 - EIA for anti-tetanus antibody in human sera</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Serum, oral fluid</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Anti-pertussis toxin IgG</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Enzyme Immunoassay In-house assays</p> <p>Automated serum assay: DS2 robotic analyser, in-house assay using in-house and commercial reagents (Clin-Tech Ltd)</p> <p>BRD0119 - In-House ELISA for <i>B. pertussis</i> Toxin (PT) IgG antibody in human sera using 'DRY STRIPS' using the DYNEX DS2 Robotic System</p> <p>Manual serum or oral fluid assay: In-house assay Incubator, EIA plate washer, plate reader</p> <p>BRD0116 - ELISA (Mk3) to detect anti-pertussis toxin IgG antibody in oral fluid using "dry strips" BRD0120 - EIA For <i>B. pertussis</i> Toxin (Pt) IgG Antibody In Human Sera Using 'Dry Strips' – Manual Method</p>
<p>Serum</p>	<p>Confirmation and typing (serovars) of <i>Leptospira</i> spp infection</p>	<p>Microscopic Agglutination Test (MAT) In-house assay Commercial media and reagents (Academic Medical Centre)</p> <p>BRD0167 - Microscopic Agglutination test (MAT)</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Urine</p> <p>Respiratory specimens (Sputa, Bronchoalveolar lavage, Nasopharyngeal aspirate, Cerebrospinal fluid, blood, wound aspirate, synovial fluid, lung tissue)</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Confirmatory testing for <i>L.pneumophila</i> urinary antigen</p> <p><i>Mycoplasma/Ureaplasma</i> detection and identification</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Enzyme Immunoassay Manual & Commercial kits Bartels and Binax EIA kits, EIA plate washer, EIA plate reader</p> <p>BRD0067 - BARTELS and Binax EIA Legionella urinary antigen kit</p> <p>Real-time PCR and culture In-house assays</p> <p>DNA extraction: Roche MagNA Pure automated extractor, Qiagen Rotor Gene Q thermal cyclers</p> <p>Culture: commercial media (Mycoplasma Experience), microscope</p> <p>BRD0110 - Processing of clinical specimens for Mycoplasmas and Ureaplasmas and handling of referred isolates</p> <p>BRD0342 - Detection of <i>M. hominis</i>, <i>U. urealyticum</i> by RT-PCR using the Rotor-Gene Q</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Respiratory specimens (Sputa, Bronchoalveolar lavage, Nasopharyngeal aspirate)</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p><i>L. pneumophila</i> and species detection, identification and genotyping</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Culture, Real-time PCR, and Sequencing In-house assays</p> <p>Culture: commercial selective media (Oxoid)</p> <p>BRD0065 - Processing of clinical specimens for Legionella</p> <p>DNA extraction & PCR: Roche MagNA Pure automated extractor, Qiagen Rotor Gene Q thermal cycler</p> <p>BRD0086 - <i>Legionella pneumophila</i> 3plex qPCR (Rotor-Gene Q)</p> <p>BRD0104 - Detection Of Legionella Species DNA By Real Time PCR Using The Rotor-Gene Q</p> <p>Sequence-based typing: DNA extraction (in-house manual), Block-based PCR, Veriti Thermal cycler, Invitrogen E-gel, Gel Doc) Sequencing carried out by PHE CSL</p> <p>Data analysis: Bioinformatics and BioNumerics.</p> <p>BRD0088 - Nested Sequence- based typing (SBT) of <i>Legionella</i> <i>pneumophila</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Respiratory specimens (Sputa, Bronchoalveolar lavage, Nasopharyngeal aspirate, Cerebrospinal fluid, blood, wound aspirate, synovial fluid)</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Confirmation of <i>Bordetella pertussis</i> detection</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Real-time PCR In-house assay</p> <p>DNA extraction: Roche MagNA Pure automated extractor</p> <p>PCR: Roche Light Cycler 2.0, Roche Lightcycler PCR mastermix</p> <p>BRD0084 - Operation of Roche MagNA Pure Compact Nucleic Acid Extractor Machine BRD0098 - Detection of <i>B. pertussis</i> DNA in respiratory specimens using the Roche Lightcycler 2.0</p>
<p>Respiratory specimens (Sputa, Bronchoalveolar lavage, Nasopharyngeal aspirate, Cerebrospinal fluid, blood, wound aspirate, synovial fluid, urine)</p>	<p>Leptospira species by MLST</p>	<p>Direct MLST Sequencing In-house assay</p> <p>DNA extraction: Roche MagNA Pure automated extractor, Block-based PCR: Veriti Thermal cycler, Invitrogen E-gel, Gel Doc Sequencing carried out by PHE CSL</p> <p>Data analysis: BioNumerics database</p> <p>BRD0084 - Operation of Roche MagNA Pure Compact Nucleic Acid Extractor Machine BRD0405 - Leptospira – direct MLST on clinical specimens and positive cultures</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture and specimens (faeces, tissue and environmental)</p> <p>Serum, faeces, blood</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Identification of <i>C. botulinum</i></p> <p>Detection of C botulinum neurotoxin</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Culture & Real-time PCR In-house assay using Applied Biosystems 7500 fast real time, QuantStudio and VIIA7</p> <p>BRD0042 - Isolation and Detection of <i>C. botulinum</i> and <i>C. tetani</i> from Clinical Specimens, Pure Cultures, Food, Water and Environment Samples and Animal Feed</p> <p>DNA extraction Manual/Commercial</p> <p>BRD0264 - Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent. BRD0408 - Extraction of Clostridial DNA from broths using InstaGene matrix</p> <p>Real-time PCR BRD0297 - Detection of <i>C. botulinum</i> and <i>C. tetani</i> neurotoxin genes by Real-time PCR</p> <p>Preparation of extracts for Bioassay BRD0321 - The preparation of extracts from clinical and food samples for the detection of <i>Clostridium botulinum</i> neurotoxin</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture, Tissue, wound swabs</p> <p>Blood, serum</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Isolation and identification of <i>C. tetani</i></p> <p>Detection of <i>C. tetani</i> neurotoxin</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Culture & Real-time PCR In-house assay using Applied Biosystems 7500 fast real time, QuantStudio and VIIA7</p> <p>BRD0042-Isolation and Detection of <i>C. botulinum</i> and <i>C. tetani</i> from Clinical Specimens, Pure Cultures, Food, Water and Environment Samples and Animal Feed</p> <p>DNA extraction Manual/Commercial BRD0264 - Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent BRD0408 - Extraction of Clostridial DNA from broths using InstaGene matrix</p> <p>Real-time PCR BRD0297 - Detection of <i>C. botulinum</i> and <i>C. tetani</i> neurotoxin genes by Real-time PCR</p> <p>Bioassay BRD0348 -The processing of blood/serum for the detection of <i>C. tetani</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Identification of <i>C. perfringens</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Culture & Real-time PCR & fAFLP typing (preparation and analysis) In-house using Applied Biosystems 7500 fast; QuantStudio and VIIA7</p> <p>BRD0391 - Plating out and processing incoming cultures of Bacillus sp, <i>Clostridium perfringens</i>, Listeria sp. and, Campylobacter sp.</p> <p>DNA extraction-Manual (commercial kit) BRD0408 - Extraction of Clostridial DNA from broths using InstaGene matrix BRD0264-Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent</p> <p>Real-time PCR BRD0281 - Real-time identification and detection of <i>Clostridium perfringens</i> by use of a FAST 5' exonuclease TaqMan assay</p> <p>fAFLP typing (Preparation and Analysis) Performed by CSL, PHE</p> <p>Data analysis: using BioNumerics and Peakscanner</p> <p>BRD0236 - Fluorescent amplified fragment length polymorphism (FAFLP) analysis of <i>C. perfringens</i> and <i>B. cereus</i></p> <p>BRD0498 - Bioinformatic analysis of Fluorescent amplified fragment length polymorphism for <i>B. cereus</i> and <i>C. perfringens</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Identification of <i>Bacillus spp</i> except <i>B. anthracis</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Culture, Real-time PCR, fAFLP typing & MALDI TOF analysis</p> <p>BRD0391 - Plating out and processing incoming cultures of <i>Bacillus sp</i>, <i>Clostridium perfringens</i>, <i>Listeria sp.</i> and <i>Campylobacter sp.</i></p> <p>DNA extraction Manual/Commercial assay</p> <p>BRD0264-Rapid DNA Extraction from Bacterial Colonies using MicroLYSIS reagent</p> <p>Real-time PCR In-house assay using Applied Biosystems 7500 fast; QuantStudio and VIIA7</p> <p>BRD0260 - Detection of <i>Bacillus emetic</i> toxin gene by Real Time Polymerase Chain Reaction</p> <p>MALDI-TOF analysis Commercial MALDI TOF-MS</p> <p>BRD0294 - Preparation of extracts and target plate for the identification of <i>Bacillus</i> species by MALDI TOF analysis</p>



8197
Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated (cont'd)</u></p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control (cont'd)</u></p>	<p><u>Documented in-house procedures with manufacturer's instructions – (cont'd)</u></p>
<p>Pre-isolated Culture (cont'd)</p>	<p>Identification of <i>Bacillus spp</i> except <i>B. anthracis</i></p>	<p>fAFLP typing: Performed by CSL, PHE</p> <p>Data analysis: using BioNumerics and Peakscanner</p> <p>BRD0236 - Fluorescent amplified fragment length polymorphism (FAFLP) analysis of <i>C. perfringens</i> and <i>B. cereus</i></p>
<p>Faeces</p>	<p>Detection of <i>C. perfringens</i> enterotoxin</p>	<p>ELISA Manual & Commercial using Thermo Scientific Multiskan FC plate reader</p> <p>BRD0254 - Extraction and detection of <i>Clostridium perfringens</i> enterotoxin from faecal specimens by TECHLAB ELISA kit using Thermo Scientific Multiskan FC plate reader</p>
<p>Pre-isolated Culture</p>	<p><i>Campylobacter</i> identification and typing and antimicrobial resistance screening</p>	<p>Whole Genome Sequencing In-house assay</p> <p>WGS: performed by PHE Central Sequencing Laboratory</p> <p>DNA Extraction Nucleic acid extraction using Qiagen QIAasympyony</p> <p>BRD0391 - Plating out and processing incoming cultures of <i>Bacillus sp</i>, <i>Clostridium perfringens</i>, <i>Listeria sp.</i> and <i>Campylobacter sp</i></p> <p>BRD0230 - Extraction of DNA from Gram-positive bacteria and Gram-negative Enterobacteriaceae, and submission for Whole Genome Sequencing</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Sequence data derived from Whole Genome Sequencing</p> <p>Pre-isolated Culture</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p><i>Campylobacter</i> identification and typing and antimicrobial resistance screening (cont'd)</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Data analysis following WGS: automated analysis, in-house bioinformatics pipeline hosted on PHE informatics infrastructure and MLST type designations referenced from PubMLST international database</p> <p>WGS: performed by PHE Central Sequencing Laboratory</p> <p>Identification and Typing and Interpretation for Confirmation, Surveillance and Outbreak Detection</p> <p>BRD0473 - Identification and typing of <i>Campylobacter</i> by WGS</p> <p>Real-time PCR In-house assay Using ABI Prism 7500 Fast sequence detector Taqman, ViiA7, Quantstudio</p> <p>BRD0330-DNA extraction and detection of <i>Campylobacter jejuni</i> and <i>Campylobacter coli</i> using real-time PCR</p> <p>Etest-Commercial Assay BRD0263 - Phenotypic Antimicrobial Susceptibility Testing in Enterobacteriaceae <i>Helicobacter pylori</i>, <i>Campylobacter jejuni</i> and <i>Campylobacter coli</i></p> <p>BRD0332-Antimicrobial-resistance Screening for <i>Campylobacter</i>s using MIC plate concentration method</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Cultures, gastric biopsies</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Isolation and identification of <i>Helicobacter spp</i> and Antibiotic Susceptibility testng</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Culture and Etest Commercial Assay</p> <p>BRD0262 - <i>Helicobacter</i> gastric biopsy and culture processing BRD0263 - Phenotypic Antimicrobial Susceptibility Testing in Enterobacteriaceae <i>Helicobacter pylori</i>, <i>Campylobacter jejuni</i> and <i>Campylobacter coli</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Faeces and pre-isolated cultures</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Shigatoxin-producing <i>E coli</i> typing</p> <p>Shigatoxin-producing <i>E. coli</i> typing</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p><i>E. Coli</i> PCR In-house assay Rotagene</p> <p>BRD0411- GBRU PCR Procedures BRD0040 - Isolation of Presumptive STEC from Faeces</p> <p>Phage typing In-house assay</p> <p>BRD0401- Routine processing and typing of HG3 <i>E. coli</i>, <i>Shigella</i> and <i>Salmonella</i> isolates</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Salmonella identification and typing (cont'd)</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Real-time PCR In-house assay ABI Prism 7500 Fast sequence detector Taqman, ViiA7, Quantstudio</p> <p>BRD0289 – Processing of routine Salmonella cultures for DNA extraction and WGS, Identification, serotyping and PCR.</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Antimicrobial resistance testing for Salmonella, Shigella, E.coli, Vibrio and Yersinia</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Antimicrobial Sensitivity Testing In-house assay</p> <p>Agar Dilution In-house assay</p> <p>BRD0044 - Drug resistance typing (R-Typing) Gastrointestinal Bacterial Reference Unit and antibiotic plate preparation in SRS and GIRS.</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Residual specimen from unprocessed NAAT swab, dry swab, urine or extracted DNA</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Molecular detection of the adhesion MgPa and gap genes and determination of mutations associated with macrolide and fluoroquinolone resistance in <i>Mycoplasma genitalium</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Real-time PCR and Sequencing BRD0350-Sample reception and DNA extraction procedures in AMRSTI</p> <p>Nucleic acid extraction: Commercial Extraction using the Qiagen QIAasympyony DSP Virus/Pathogen Mini kit and the Qiagen QIAasympyony</p> <p>BRD0017 - Nucleic acid extraction using the Qiagen QIAasympyony</p> <p>Amplification and analysis: In house assay RT-Polymerase Chain Reaction PCR using the Qiagen Rotor-Gene</p> <p>BRD0407 - Multiplex real-time PCR assay for the detection of <i>Mycoplasma genitalium</i> in clinical specimens</p> <p>BRD0235 - Use of Rotor-Gene Amplification, sequencing and analysis: Method; In house PCR/Sequencing; in house PCR using the Veriti thermocycler, gel electrophoresis using E-Gels, Syngene gel doc and Sanger sequencing;</p> <p>BRD0435 - PCR and sequence detection of macrolide and fluoroquinolone resistance mutations in <i>Mycoplasma genitalium</i></p> <p>BRD0091-Agarose electrophoresis of nucleic acids using pre-cast gels containing ethidium bromide BRD0090-Imaging DNA gels using the Syngene Ingenius LHR2 gel doc system</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Confirmation, identification and susceptibility testing of <i>Neisseria gonorrhoeae</i></p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Phenotypic BRD0251- Processing of specimens received into AMRSTI for the identification and/or susceptibility testing of <i>Neisseria gonorrhoeae</i></p> <p>Gram stain/microscopy & Oxidase In-house/commercial assay</p> <p>Using a light microscope</p> <p>BRD0247 - Determination of Cytochrome Oxidase Activity BRD0053 - Gram's Stain BRD0255 - Use of the Light Microscope</p> <p>Mass spectrometry Commercial Using the Bruker Microflex MALDI- TOF Mass spectrometry</p> <p>BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning BRD0301 - Use of MALDI Biotyper and data analysis</p> <p>Biochemical: Commercial: API-NH</p> <p>BRD0249 - Using the API NH Kit for the Identification of Putative <i>Neisseria gonorrhoeae</i></p> <p>Antibiotic susceptibility testing: Commercial Using Etest</p> <p>BRD0283-Determination of MICs by Etest method</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Confirmation, identification and susceptibility testing of <i>Neisseria</i> <i>gonorrhoeae</i> (cont'd)</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Real-time PCR In-house assay Qiagen, Rotor-Gene</p> <p>BRD0208 - Multiplex porA/opa Real-time PCR Assay for the Detection of <i>Neisseria gonorrhoeae</i> Specific DNA Directly from Lysates BRD0235 - Use of Rotor-Gene</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p> <p>Antibiotic susceptibility testing for therapeutic guidance <i>S. aureus</i>; Coagulase-negative <i>staphylococci</i>; <i>S. pneumoniae</i>; Group A, B, C, G β-haemolytic <i>Streptococci</i>; α-haemolytic and non-haemolytic other <i>Streptococci</i> and related genera; <i>Enterococci</i>; Enterobacteriales, including members of the genera <i>Enterobacter</i>, <i>Escherichia</i>, <i>Citrobacter</i>, <i>Serratia</i>, <i>Proteus</i>, <i>Providencia</i>, <i>Klebsiella</i>, <i>Morganella</i>. etc, except enterics; <i>Acinetobacter</i> spp.; <i>Pseudomonas aeruginosa</i> and other pseudomonads of medical importance; Non-fermentative Gram-negative rods such as <i>Stenotrophomonas</i>, <i>Burkholderia</i>, <i>Chryseobacteria</i> and <i>Elizabethkingia</i>; <i>Pandoraea</i>, <i>Ralstonia</i>, <i>Aeromonas</i> and other non-Enterobacteriaceae species; <i>Corynebacterium jeikeium</i> and other 'coryneform' spp.; <i>Haemophilus</i> and <i>HACEK</i> spp. and <i>Moraxella catarrhalis</i>; <i>Bacillus</i> and related spp., <i>Listeria</i>, <i>Pasteurella</i>, <i>Lactobacillus</i>, <i>Pediococcus</i>, <i>Leuconostoc</i> and other Gram-positive rods; Uncommon and/or difficult to grow / test / interpret / treat species - <i>Nocardia</i>, <i>Gordoniae</i> and Actinomycetes, dysgonic fermenters</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Antibiotic susceptibility testing BRD0204 - Preliminary work and use of MOLIS prior to MIC Testing BRD0250 - Receipt of Specimens by the Antibiotic Sensitivity Testing laboratory</p> <p>Agar dilution In-house assay Using multipoint inoculator, Image Analyser and Sorcerer Mic Software</p> <p>BRD0164 - Determination of Minimum Inhibitory Concentrations (MIC) of Antibiotics BRD0181 - Use of Image Analyser and Sorcerer Mic Software BRD0163 - Preparation of Media for Antibiotic Susceptibility Testing</p> <p>Disc diffusion In-house assay</p> <p>BRD0469 - Cefiderocol disk diffusion testing</p> <p>BRD0418 -Carbapenem inactivation method</p> <p>Gradient strips Commercial</p> <p>BRD0180 - Determination of MICs by the Antibiotic Gradient Method</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>MIC testing of organisms For GRASP, <i>Neisseria gonorrhoeae</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Antibiotic susceptibility testing: Agar Dilution In-house assay Using multipoint inoculator, Image Analyser and Sorcerer Mic Software</p> <p>BRD0231 - Preparing antimicrobial solutions and agar plates for determining MIC of <i>Neisseria gonorrhoeae</i></p> <p>BRD0238 - Determination of MIC of <i>Neisseria gonorrhoeae</i></p> <p>BRD0334 - Use of nitrocefin reagent to test for beta-lactamase production in <i>N. gonorrhoeae</i></p> <p>BRD0402 -The retrieval, cultivation, identification and archiving of <i>Neisseria gonorrhoeae</i> for GRASP</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <ul style="list-style-type: none"> - Detection of Class A, B and D carbapenemases - Detection of plasmid-mediated colistin resistance determinants - Characterisation of the resistance to oxazolidinones 	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>PCR & Sequencing</p> <p>PCR In-house assay block-based PCR and RT-PCR using conventional thermocyclers and the RotorGene, cyclers respectively; RT-PCR transilluminator</p> <p>Sequencing: Performed by PHE Central Sequencing Laboratory</p> <p>Analysis: BioNumerics</p> <p>BRD0228 - PCR for the detection of the antibiotic resistance and other genes</p> <p>BRD0176 - Agarose gel electrophoresis</p> <p>BRD0390 - Multiplex Real-Time PCR assay for the characterisation of linezolid Resistance mechanisms</p> <p>BRD0317 - Preparation of PCR amplification products for nucleotide sequencing</p> <p>Commercial Using the AusDiagnostic platform – Multiplexed tandem PCR (multiplex PCR and nexted multiplex RT-PCR)</p> <p>BRD0443 - Use of the AusDiagnostics assay for the detection of carbapenemase and transferable colistin resistance genes</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Coagulase negative Staphylococci identification</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Mass spectrometry</p> <p>Commercial/in-house Using the Bruker Microflex MALDI-TOF mass spectrometry</p> <p>BRD0148 - Identification of isolates of Staphylococci to species level</p> <p>BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning</p> <p>BRD0301 - Use of MALDI Biotyper and data analysis</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Molecular virulence detection by targeted gene location PVL (PCR)</p> <p><i>S. aureus</i> molecular resistance, virulence detection (toxin genes), typing and cluster analysis (using MLST and SNP based clustering) (WGS)</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Polymerase Chain Reaction and Whole Genome Sequencing (WGS) In-house assay</p> <p>WGS: performed by PHE Central Sequencing Laboratory</p> <p>PCR In- house assay Using the Applied Biosystems 7500 Fast Real-Time Polymerase Chain Reaction System</p> <p>BRD0361 - PVL and mec real time Polymerase Chain Reaction</p> <p>Nucleic acid extraction: Commercial Genomic DNA extraction using Qiagen QIAamp DSP DNA Mini Kit and the QIASymphony automated nucleic acid platform</p> <p>BRD0293 - Pre-lysis of bacterial isolates cultured on solid media</p> <p>BRD0017 - Nucleic acid extraction using the Qiagen QIASymphony</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of</u> <u>microorganisms unless stated</u> (cont'd)</p> <p>Sequence Data derived from Whole Genome Sequencing</p>	<p><u>Identification, typing and</u> <u>susceptibility testing of</u> <u>microorganisms for the purpose of</u> <u>clinical diagnosis, epidemiology and</u> <u>infection control</u> (cont'd)</p>	<p><u>Documented in-house procedures</u> <u>with manufacturer's instructions –</u> (cont'd)</p> <p>Data analysis following WGS: In-house automated analysis using bioinformatics pipeline hosted on PHE informatics infrastructure & MLST type designations referenced from PubMLST international database</p> <p>BRD0398 - Workflow for Whole Genome Sequencing</p> <p>BRDW0854 - Submission of new allele sequences and new STs to PubMLST S. aureus database</p> <p>BRDW0951 - SaGE User Manual</p> <p>BRDW1502- Staphylococcus data warehouse interface (User Manual)</p>
<p>Pre-isolated Culture</p>	<p><i>Staphylococcus aureus</i> (toxin gene detection) in non enteric and enteric disease</p>	<p>Whole Genome Sequencing In-house assay</p> <p>WGS: performed by PHE Central Sequencing Laboratory</p> <p>Nucleic acid extraction: Commercial Genomic DNA extraction using Qiagen QIAamp DSP DNA Mini Kit and the QIASymphony automated nucleic acid platform</p> <p>BRD0293 - Pre-lysis of bacterial isolates cultured on solid media BRD0017 - Nucleic acid extraction using the Qiagen QIASymphony</p>



8197
Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p><u>Opportunistic Pathogens</u></p> <p>Acinetobacter - characterisation</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Block Based Multiplex PCR In-house Assay</p> <p>Extraction: Manual PCR: Applied Biosystems Veriti 96 well thermal cycler Sequencing: Performed by CSL, PHE Analysis: on BioNumerics</p> <p>Variable Number Tandem Repeat analysis</p> <p>PCR: Bio-Rad T100 Thermal Cycler Fragment analysis: Performed by CSL</p> <p>BRD0009 - PCR Characterisation of Acinetobacter Isolates</p>
<p>Pre-isolated Culture</p>	<p><i>Burkholderia pseudomallei</i> identification</p>	<p>Block based PCR In-house assay</p> <p>DNA Extraction: Manual PCR: PCR Max Analysis: QIAxcel, E-gel</p> <p>BRD0161 - PCR Identification of <i>Burkholderia pseudomallei</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Cystic Fibrosis Pathogens identification</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>PCR & Sequencing In-house assay</p> <p>DNA Extraction: Manual PCR: Using the Bio-Rad T100 Thermal Cycler/Applied Biosystems Veriti 96 well thermal cycler/ PCR Max Analysis: QIAxcel, e-gel BRD0160 - PCR identification of Cystic Fibrosis Pathogens</p> <p>Mass spectrometry Commercial Using the Bruker Microflex MALDI-TOF Mass spectrometry</p> <p>BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning</p> <p>BRD0301 - Use of MALDI Biotyper and data analysis</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Characterisation and Typing of Klebsiella</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Characterisation Polymerase chain Reaction In-house Assay</p> <p>DNA Extraction: Manual PCR: Applied Biosystems Veriti 96 well thermal cyclers Analysis: Qiaxcel, Agarose gel electrophoresis</p> <p>BRD0353 - PCR Characterisation of Klebsiella isolates</p> <p>Typing Variable Number Tandem Repeat Analysis In-house assay</p> <p>DNA Extraction: Manual PCR: PCR Max/BioRad T100 Thermal Cycler, Analysis: Agarose gel electrophoresis and Fragment Analysis (Performed by CSL, PHE), Comparison on BioNumerics</p> <p>BRD0252 – Multiple locus VNTR analysis of <i>Klebsiella pneumoniae</i></p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre isolated culture</p> <p>Sequence Data derived from Whole Genome Sequencing</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>E. coli typing (HG2 only; Healthcare associated)</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Whole Genome Sequencing In-house assay</p> <p>(Sample received and results reported by AMRHAI)</p> <p>DNA Extraction: Performed by GBRU WGS: performed by PHE Central Sequencing Laboratory</p> <p>DNA Extraction Nucleic acid extraction using Qiagen QIASymphony</p> <p>BRD0230 - Extraction of DNA from Gram-positive bacteria and Gram-negative Enterobacteriaceae, and submission for Whole Genome Sequencing (WGS)</p> <p>Data analysis following WGS: automated analysis, in-house bioinformatics pipeline hosted on PHE informatics infrastructure and MLST type designations referenced from PubMLST international database</p> <p>GastroDataWarehouse, BioNumerics database</p> <p>BRD0486- Whole genome sequencing of <i>Escherichia coli</i> using the GBRU laboratory procedures and pipeline: preparation of isolates and analysis of results</p> <p>BRD0476 - Identification and typing of <i>Vibrio</i> and <i>Yersinia</i> by whole genome sequencing</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre isolated culture</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Typing of <i>Pseudomonas aeruginosa</i></p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Variable Number Tandem Repeat Analysis In-house</p> <p>DNA Extraction: Manual PCR: Max/BioRad T100 hermocycler, QIAxcel</p> <p>BRD0166 –VNTR analysis for typing of <i>Pseudomonas aeruginosa</i></p>
<p>Pre isolate culture</p>	<p>Typing of <i>Mycobacterium abscessus</i> complex</p>	<p>Variable Number Tandem Repeat Analysis In-house assay</p> <p>DNA Extraction: Manual PCR: PCR Max/BioRad T100 Thermal Cycler, Analysis: Fragment Analysis Performed (performed by PHE CSL) BioNumerics, QIAExcel</p> <p>BRD0218 – VNTR analysis for typing of the <i>Mycobacterium abscessus</i> complex</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture, broth, swabs, DNA extracts</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Identification of unknown/atypical bacteria</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Identification by MALDI TOF mass spectrometry, phenotypic testing & partial 16S rRNA gene PCR & sequencing</p> <p>Identification BRD0253 - Algorithm for Identification of Unknowns in AMRHAI</p> <p>Mass spectrometry <u>Commercial</u> using the Bruker Microflex LT/SH MALDI-TOF Mass spectrometer</p> <p>BRD0300 - Sample preparation for profiling on MALDI Biotyper and target plate cleaning</p> <p>Analysis: <u>Commercial</u> MALDI Biotyper software</p> <p>BRD0301 - Use of MALDI Biotyper and data analysis</p> <p>16S sequencing based ID Extraction: <u>Commercial</u> using ABI PrepMan reagent BRD0417-Extraction Of Nucleic Acid From Bacteria At CL3</p> <p>PCR & Sequencing In-house partial 16S rRNA gene PCR using ABI 9700, Biomek NXP robot</p> <p>BRD0421 - 16S rRNA Identification By Sequencing</p>



8197

Accredited to
ISO 15189:2012

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: 012 Issue date: 24 May 2022

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p><u>Human tissue/fluids - specified</u> <u>Pre-isolated cultures of microorganisms unless stated</u> (cont'd)</p> <p>Pre-isolated Culture, broth, swabs, DNA extracts</p> <p>Tissue, pus, liquid, blood culture fluid or FFPE samples</p>	<p><u>Identification, typing and susceptibility testing of microorganisms for the purpose of clinical diagnosis, epidemiology and infection control</u> (cont'd)</p> <p>Identification of unknown/atypical bacteria (cont'd)</p> <p>Detection and identification of bacteria from normally sterile sites</p>	<p><u>Documented in-house procedures with manufacturer's instructions –</u> (cont'd)</p> <p>Analysis: BioNumerics/ NCBI BLAST/ leBIBI^{QBPP}/Pathogenomix RipSeq</p> <p>BRD0419 – Analysing / Blasting sequence data and reporting</p> <p>16S rRNA sequencing based detection & ID Extraction: <u>Commercial</u> using Qiagen Blood & Tissue kit</p> <p>BRD0455-Extraction of Bacterial DNA From Clinical Samples At CL3 using the QIAgen blood and tissue kit</p> <p>PCR & Sequencing <u>In-house</u> partial 16S rRNA gene real-time PCR & sequencing using the LightCycler 480, Biomek NXP robot</p> <p>BRD0416 - Real-Time PCR Amplification Of 16S rDNA and Identification By Sequencing</p> <p>Analysis: BioNumerics/ NCBI blast/ leBIBI^{QBPP}/Pathogenomix RipSeq</p> <p>BRD0419 - Analysing / Blasting sequence data and reporting</p>
END		