NRL EQAS

Science Architect

External Quality Assessment Schemes

Catalogue

2025

NRL Science of Quality

In Partnership with

oneworld ACCURACY®

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POINT-OF-CARE MOLECULAR EQAS

SPECIALISED EQAS

NRL-About Us

NRL, a World Health Organization (WHO) Collaborating Centre, is a Melbourne based scientific organisation. Our mission is to promote the quality of tests and testing for infectious diseases globally.

Accreditations

NRL is accredited for compliance with ISO/IEC 17043 as a proficiency testing provider
Accreditation Number 14253

NRL is certified to ISO 9001, Quality Management Systems
Certification number FS 60505

NRL EQAS Offering

NRL EQAS are distributed to testing facilities in over 50 countries, enabling monitoring and peer comparison for a range of test kits and instrumentation. Our programs incorporate genuine and diverse samples, and are intended to assess the integrity of the entire testing process.

Blood Screening EQAS

Unique ISO 17043 accredited programs tailored specifically for blood and tissue screening and plasma fractionation laboratories testing for infectious diseases, including relevant molecular or serology analytes.

Comprehensive Serology EQAS

Cost-effective multimarker syndromic serology programs, which meet the majority of serology testing needs for infectious diseases. Suitable for use in sophisticated laboratory setting as well as rapid serology testing environment.

Comprehensive Molecular EQAS

Viral load programs that use HIV, HBV and HCV stocks calibrated against the WHO International Standard. Also, cost-effective multimarker syndromic molecular programs, designed for use in multiplex testing. Suitable for use in sophisticated high-throughput testing as well as Point-of-Care molecular testing.

Point-of-Care Molecular EQAS

Designed for near-patient and Point-of-Care molecular tests often utilised by low/middle income countries, remote and regional communities, and primary care testing sites.

Specialised EQAS

Serology and molecular testing programs for specific or rare analytes, supporting the needs of specialised and surveillance laboratory services.

NRL
Science of Quality

NRL EQAS
Science Architect

With a focus on Quality and Science, NRL's EQAS offer:

1 SYNDROMIC PANELS

Doctors rarely request individual analytes. Patient samples are tested for a range of analytes associated with a clinical syndrome.

2 MULTI ANALYTE PROGRAMS

NRL's 3 clinical serology programs cover over **28 different analytes.** NRL offers comprehensive multimarker molecular programs which are suitable for multiplex, single analyte and POC assays.

3 EASY MANAGEMENT

NRL EQAS Test Event dates are now streamlined, such that all programs now share the same Test Event dates, assisting laboratories to effectively schedule the testing, result submission and review of EQAS reports

4 COST EFFECTIVE

Syndromic panels are more than **30% cheaper** compared with single analyte programs.

5 INFORMATICS

NRL EQAS has personalised comments, graphical results and an international peer group, driven by **OASYS.**

6 SCIENTIFIC EXCELLENCE

NRL endeavours to provide **true clinical samples** as EQAS samples. The results evaluation are based on known reference results, while peer group performance is also taken into consideration.

What EQAS programs are offered at NRL?

- Blood Screening EQAS
- Comprehensive Serology EQAS
- Comprehensive Molecular EQAS
- Point-of-Care (PoC) Molecular EQAS
- Specialised EQAS

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eqas@nrlquality.org.au

What's New in 2025? NEW

New Ordering Process

NRL is committed to continuous improvement and ease of customer experience. As such, we are introducing a new online portal in 2025. This portal will provide a more interactive experience and will facilitate easier access to pricing, ordering processes and faster service.

Introduction of New EQA Programs

- **Vector-Borne Infectious Diseases (VECT435)** is a comprehensive EQAS for laboratories that perform molecular surveillance testing of emerging infectious diseases and laboratories that perform molecular testing of vector-borne infectious diseases, including Dengue virus, Zika virus, Chikungunya virus, Japanese Encephalitis virus, West Nile virus, Murray Valley Encephalitis virus and Ross River virus, *etc.*

- **Mpox Molecular (MPOX423)** is a specialised EQAS for laboratories that perform molecular surveillance testing of Mpox virus.

- **Melioidosis Serology (MLIO423)** is a specialised EQAS for laboratories that perform serological surveillance testing of the bacteria *Burkholderia pseudomallei* that causes Melioidosis.

Introduction of New Analytes

- **HIV-2 RNA** detection is introduced in multimarker Blood Screening Molecular (NATA4310) and HIV Molecular (HIVL435) programs.

- ***Treponema pallidum* DNA** detection is introduced in Viral Exanthems Molecular (RASH435) program.

Improved Evaluation Criteria of Viral Load Results

NRL EQAS are continuing to improve the criteria of viral load results assessment. One of the improvements introduced in 2024-2025 is to evaluate the viral load values in small peer groups. Following initial trials in 2024, NRL EQAS has decided to officially implement the updated evaluation criteria in 2025. When the number of viral load results received from a peer group is less than five (n<5), the results will be evaluated according to the improved evaluation criteria when possible.

Any questions? Get in contact with us.

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eqas@nrlquality.org.au

System Overview

Getting started

As previously mentioned, a new ordering process will be implemented via the **NRL Webstore** starting in 2025. This update is part of our ongoing efforts to enhance your experience and streamline our services. Please keep an eye out for more details as we approach the launch date. We'll be sharing updates and important information to help you prepare for this transition. If you have any questions or need more information, don't hesitate to reach out to us at **eqas@nrlquality.org.au**

How does NRL support quality of testing for EQAS participants?

Test Event Cycle

1 Receive Samples

2 Test Samples & Submit Results

3 Receive Assessment

Annual Certificates of Participation will be provided listing all subscribed programs.

Shipment Notice
Reminder for shipments arriving soon.

Test Event Reminder
Enable preparation for upcoming test events.

Instructions + Worksheets
Enable appropriate receipt, storage and testing of samples, and recording of submitted results.

Results Deadline Reminders
Assist in timely results submission.

Performance Reports
Summarise laboratory performance.

Our Program Codes Give You Program Details

HEPM435

- **HEP** — Program Code
- **M** — 4 = EQA
- **4** — Number of Test Events in a year
- **35** — Number of samples

The First Principle

The First Principle describes the requirement for NRL EQAS participants to test and report program samples using the same processes as patient samples.

Our programs are intended to be educational in nature so that if problems are identified, they represent an opportunity for laboratories to improve the quality of testing. We strive to support laboratories to deliver accurate, clinically relevant and timely results.

First Principle Guidelines:

- Test samples in the same manner and number of times as patient samples
- Test samples within the same timeframes as patient samples
- Test samples by the same personnel that routinely test patient samples
- Test samples using the same systems used to routinely test patient samples
- Submit results within the same timeframes as patient results
- Not discuss your results with other participants or send samples for outside testing

Program Samples = Patient Samples

Why do Result Deadlines Matter?

Submitting Results Before the Deadline Signals Your Commitment to the First Principle

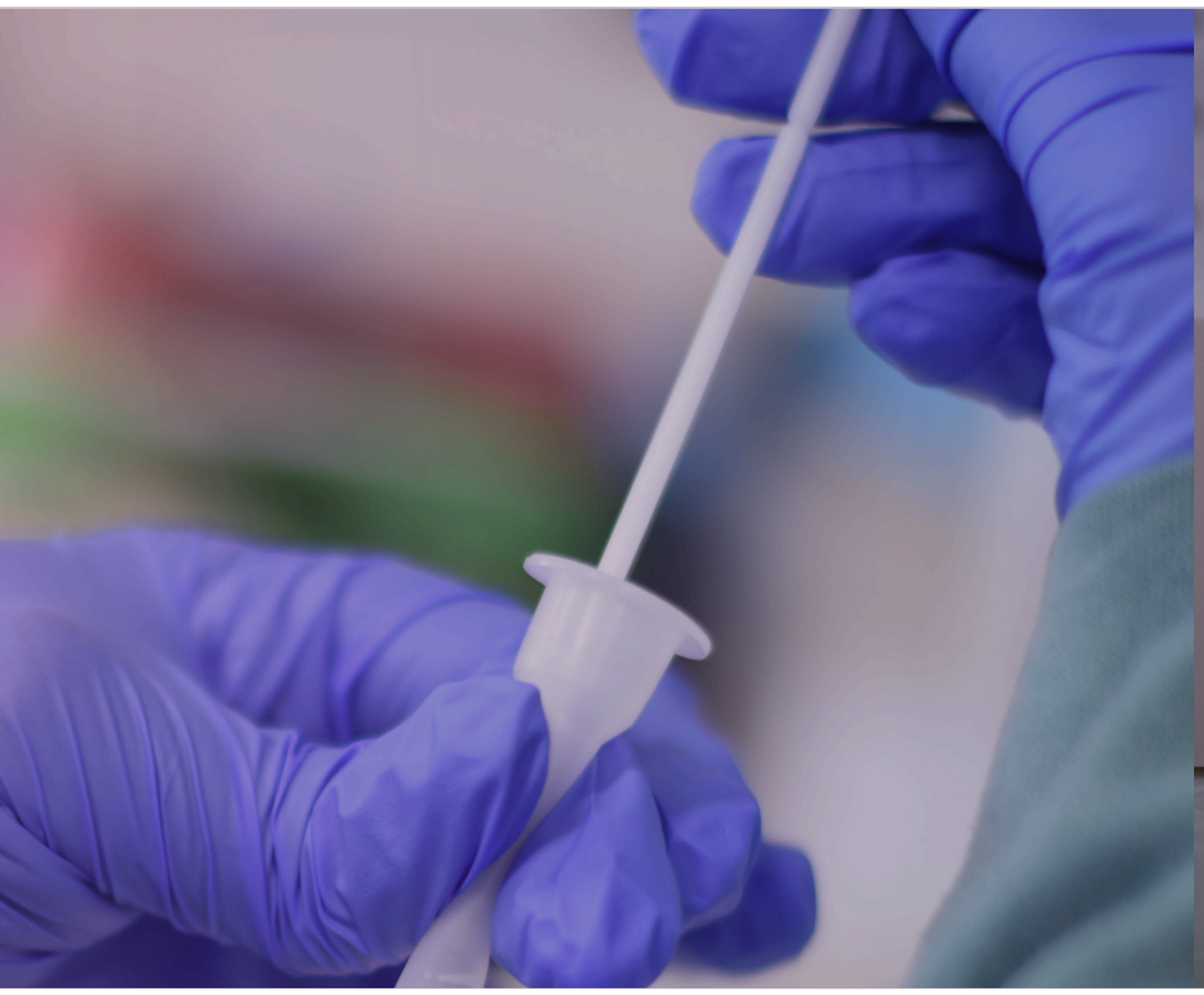
For consistency, all Result Deadlines end at 11:59 pm (23:59) local time on the closing date for the Test Event. Submitting on time enables us to evaluate and provide feedback as soon as possible. To ensure sufficient testing time, all programs have Test Event Windows that exceed routine testing times for patient samples. Reminders are sent for missing results and Result Deadlines.

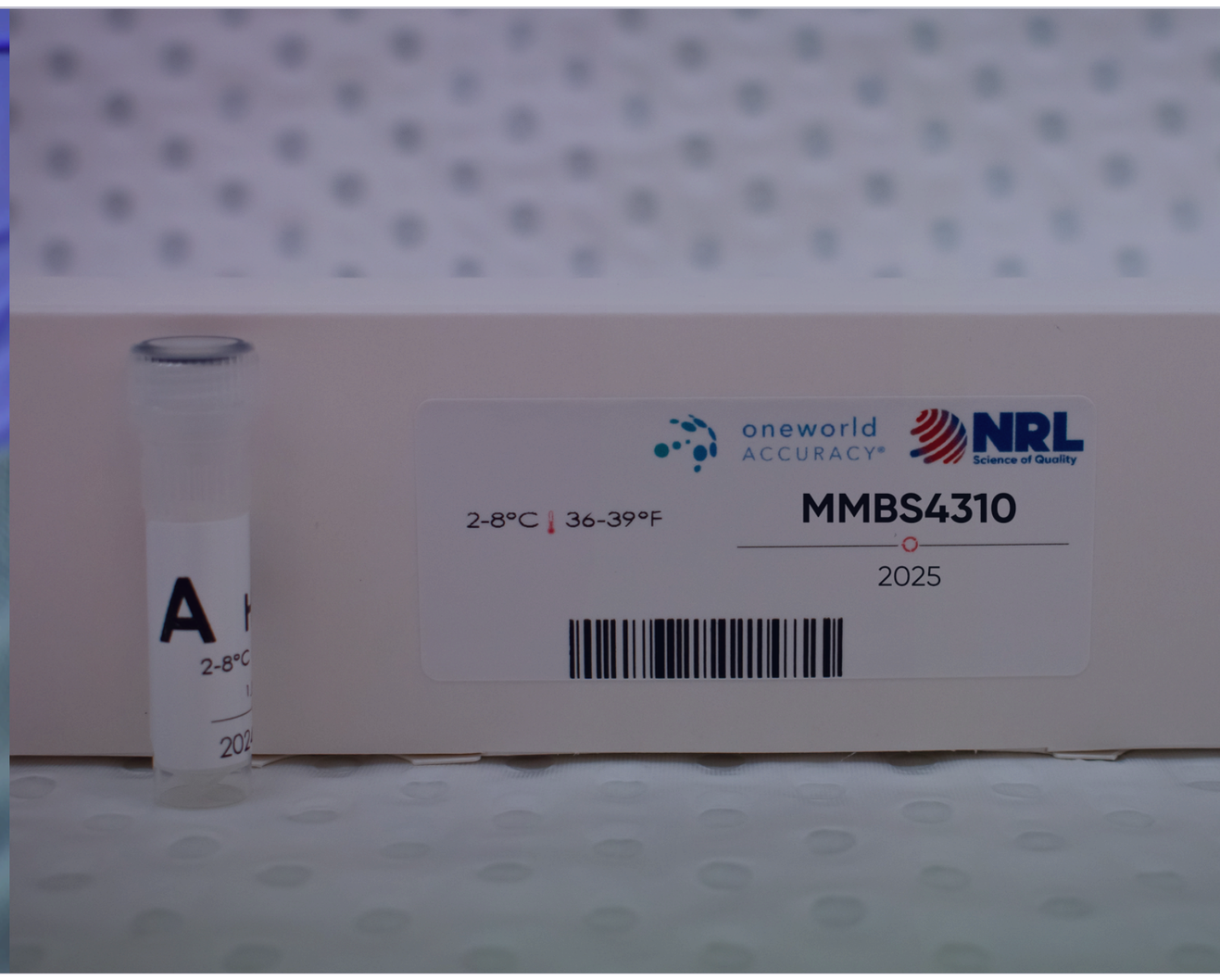
Supporting adherence to Result Deadlines:

- To encourage early submission, the system records when results are submitted and calculates Turn-Around-Time measured in days before the Result Deadline.
- To discourage late submission, the system does not accept results after the Result Deadline.
- To fix clerical errors, the system accepts all changes to submitted results any time before the Result Deadline.

OASYS

In partnership with Oneworld Accuracy, Vancouver Canada, (www.oneworldaccuracy.com) and its extensive network of collaborators, all NRL EQAS are supported by OASYS, an Internet-based software management system.





Shipping and Test Event Information

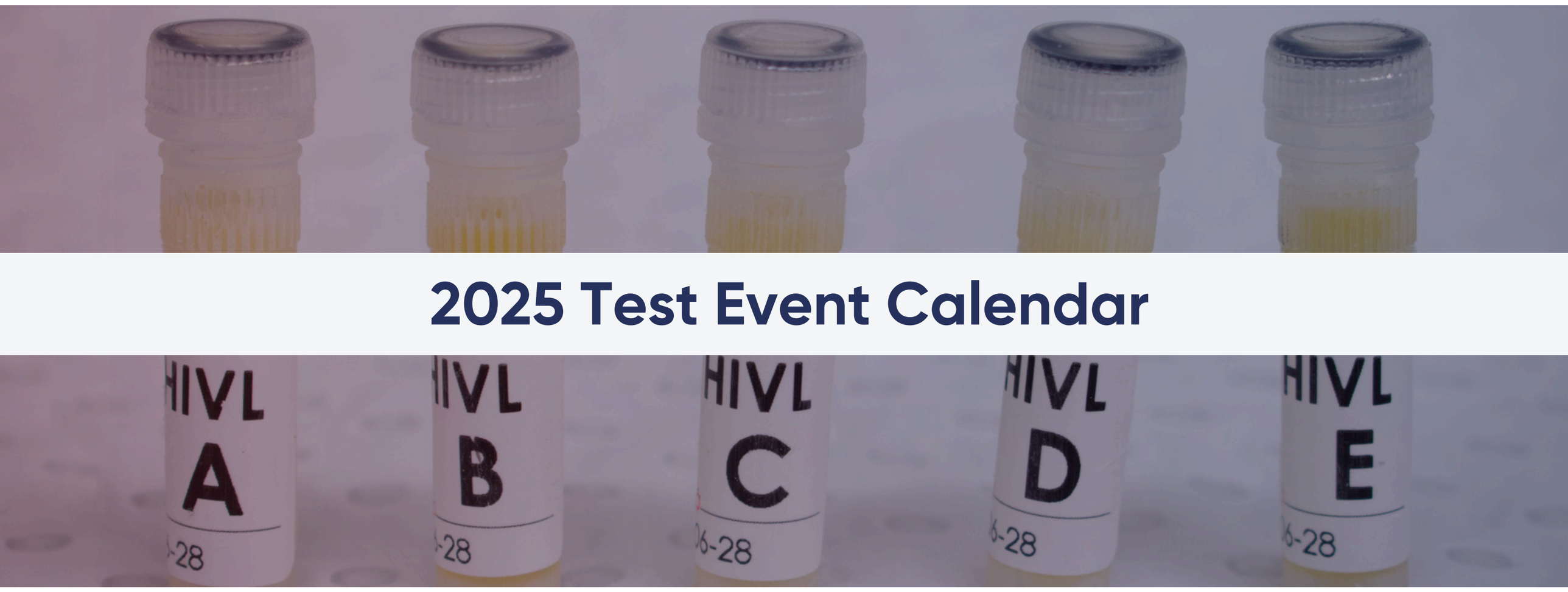
All Ambient Programs

- 3 shipments, shipped Ambient prior to each Test Event.

All Dry Ice Programs

- 1 shipment of all 3 panels of the year, shipped on Dry Ice prior to Test Event 1.

Please refer to individual program details for more information.



2025 Test Event Calendar

Test Event	Panel ID	Test Event Open	Test Event Window	Result Deadline
1	2025-04-16	26 Mar 2025	21 days	16 Apr 2025
2	2025-07-16	25 Jun 2025	21 days	16 Jul 2025
3	2025-10-15	24 Sep 2025	21 days	15 Oct 2025

The Test Event Calendar applies for all EQAS

BLOOD SCREENING EQAS

Blood Screening EQAS

1. MULTIMARKER BLOOD SCREENING SEROLOGY

SHIPPING CONDITION: **Ambient** **ANALYSIS:** **Qualitative** **SAMPLE TYPE:** **Liquid Human Plasma** **SHIPPING CODE:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
MMBS4310	**3** Test Events x **10** Samples x **1.8** mL **3** Shipments	Participants can report multiple runs and replicates for multiple analytes or methods. **Not compatible** with Non-*Treponemal* detection methods.

HIV p24 Ag	HCVAg	HBsAg	Anti-HTLV
Anti-HIV	Anti-HCV	Anti-HBc Total	Anti- *Treponema pallidum*

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform blood and tissue screening serology for infectious diseases.

Science - The MMBS4310 EQA program is the only ISO 17043 accredited infectious disease blood and tissue screening serology program that offers samples representative of those normally tested in blood and tissue screening facilities. To maintain both affordability and scientific integrity, we offer the panel size of 10 samples per Test Event. To ensure sufficient sample volume for testing for multiple analytes and multiple assays, we offer the volume of 1.8 mL per sample. We use undiluted single human plasma or pooled plasma samples in this program. This program meets the highest international quality standards.

2. MULTIMARKER BLOOD SCREENING MOLECULAR

SHIPPING CONDITION: **Dry Ice** **ANALYSIS:** **Qualitative** **SAMPLE TYPE:** **Liquid Human Plasma** **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
NATA4310	**3** Test Events x **10** Samples x **4.4** mL **1** Shipment	Compatible with Blood Screening NAT assays. No known compatibility issues with any method or analyser.

HBV DNA	HCV RNA	HIV-1 RNA	HIV-2 RNA NEW

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for blood and tissue screening laboratories that perform routine molecular testing for HBV DNA, HCV RNA, HIV-1 RNA and HIV-2 RNA.

Science - This program is the only ISO 17043 accredited infectious disease blood screening molecular EQAS that offers samples representative of those normally tested in blood screening molecular testing. To maintain both affordability and scientific integrity, we offer the panel size of 10 samples per Test Event. To further enhance this program, we calibrate samples to the prevailing WHO international standards for HBV, HCV and HIV-1, to enable laboratories to assess the precision, the accuracy and the limit of detection of their testing. This program meets the highest international quality standards.

Blood Screening EQAS

3. MULTIMARKER PLASMA FRACTIONATION MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
MMPF4310	**3** Test Events x **10** Samples x **4.4** mL **1** Shipment	No known compatibility issues with any method or analyser.

HAV RNA	Parvovirus B19 DNA	HEV RNA	CMV DNA

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for plasma fractionators and laboratories that perform quantitative and/or qualitative molecular testing for HAV, Parvovirus B19, HEV and CMV.

Science - This program is specially designed for facilities that screen donor samples for plasma fractionation and comprises samples representative of those normally received for screening for HAV, Parvovirus B19, HEV and/or CMV. To maintain both affordability and scientific integrity, we offer the panel size of 10 samples per Test Event. This program is ISO 17043 accredited and meets the highest international clinical standards.

COMPREHENSIVE SEROLOGY EQAS

Comprehensive Serology EQAS

1. HEPATITIS SEROLOGY

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODE:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
HEPM435	**3** Test Events x **5** Samples x **1.8** mL **3** Shipments	Participants can report multiple runs and replicates for multiple analytes or methods.

Anti-HAV IgG	Anti-HAV Total	Anti-HBc Total	Anti-HBs	Anti-HBe	Anti-HCV
Anti-HAV IgM	HBsAg	Anti-HBc IgM	HBeAg	HCVAg	Anti-HDV

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform serology testing for hepatitis markers using automated testing platforms, manual assays and rapid tests.

Science - We created sample sets to cover all serology analytes relevant to hepatitis serology testing. To improve affordability while maintaining scientific integrity, we offer 5 samples per Test Event. To ensure sufficient sample volume for testing for multiple analytes and multiple assays, we offer the volume of 1.8 mL per sample. We use undiluted single human plasma or pooled plasma samples in this program. This program is ISO 17043 accredited and meets the highest international clinical standards.

2. RETROVIRUS AND SYPHILIS SEROLOGY

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODE:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
RVSS435	**3** Test Events x **5** Samples x **1.8** mL **3** Shipments	Participants can report multiple runs and replicates for multiple analytes or methods.

HIV p24 Ag	Anti- *Treponema pallidum*	Anti-HTLV
Anti-HIV	Non-*Treponemal* antibodies	

DESCRIPTION

Application – Designed as a comprehensive, cost-effective EQA program for laboratories that perform serology testing for HIV, HTLV and Syphilis. We combined anti-HIV, HIV p24, anti-HTLV, anti-*Treponema* and Non-*Treponemal* antibodies into a single, convenient program. This program replaced single analyte programs HTLV, HIVC and TREP and presents excellent value compared to multiple single analyte programs.

Science – Clinicians routinely screen for HIV, HTLV and Syphilis serology together in one test request. We created sample sets to mimic the clinical need, with coverage of these three pathogens. Laboratories can submit results from multiple assays across the entire testing algorithm for multiple analytes. To improve affordability while maintaining scientific integrity, we offer 5 samples per Test Event. To ensure sufficient sample volume for testing for multiple analytes and multiple assays, we offer the volume of 1.8 mL per sample. We use undiluted single human plasma or pooled plasma samples. This program is ISO 17043 accredited and meets the highest international clinical standards.

Comprehensive Serology EQAS

3. TORCH AND EBV SEROLOGY

SHIPPING CONDITION: **Ambient** **ANALYSIS:** **Qualitative** **SAMPLE TYPE:** **Liquid Human Plasma** **SHIPPING CODE:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
TRCH435	**3** Test Events x **5** Samples x **1.8** mL **3** Shipments	Participants can report multiple runs and replicates for multiple analytes or methods.

Anti-CMV IgG	Anti-Rubella IgG	Anti-Toxoplasma IgG	Anti-HSV-1/2 IgG	Anti-EBV VCA IgG	Anti-EBV EBNA IgG
Anti-CMV IgM	Anti-Rubella IgM	Anti-Toxoplasma IgM	Anti-HSV-1/2 IgM	Anti-EBV VCA IgM	

DESCRIPTION

Application – Designed as a comprehensive, cost-effective EQA program for laboratories that perform serology testing for CMV, Rubella, Toxoplasma, HSV and EBV.

Science - Clinicians often request testing for a range of Serology analytes to determine cause of illness and facilitate diagnosis of patients. We created sample sets to mimic the clinical needs, with coverage of all serology analytes relevant to ToRCH and EBV screening. To improve affordability while maintaining scientific integrity, we offer 5 samples per Test Event. To ensure sufficient sample volume for testing for multiple analytes and multiple assays, we offer the volume of 1.8 mL per sample. This program is ISO 17043 accredited and meets the highest international clinical standards.

COMPREHENSIVE MOLECULAR EQAS

Comprehensive Molecular EQAS

1. CMV MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
CMVN435	**3** Test Events x **5** Samples x **1.2** mL **1** Shipment	No known compatibility issues with any method or analyser.

CMV DNA

DESCRIPTION

Application - CMVN is a comprehensive, cost-effective EQA program for laboratories that perform quantitative and/or qualitative molecular testing for CMV in plasma sample type.

Science - CMVN program was discontinued in 2020 and re-introduced in 2023 to accommodate the requirement of laboratories that perform quantitative and/or qualitative molecular testing for CMV in plasma sample type. To maintain both affordability and scientific integrity, we offer the panel size of 5 samples per Test Event. This program is ISO 17043 accredited and meets the highest international clinical standards.

2. HBV MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
HBVL435	**3** Test Events x **5** Samples x **1.4** mL **1** Shipment	No known compatibility issues with any method or analyser.

HBV DNA

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform HBV DNA viral load testing and HBV DNA detection.

Science - We calibrated sample sets to the prevailing WHO international standard to enable laboratories to assess the accuracy of their testing, the Limits of Detection (LOD), the reproducibility and repeatability of their assays, and the coefficient of variation within their laboratories and peer group. We believe this is the only ISO 17043 accredited EQA program of its type globally that uses sample sets derived from a secondary WHO international standard. We offer the panel size of 5 samples with 1.4 mL per sample to accommodate the needs of testing on multiple assays, retesting and troubleshooting. This program is ISO 17043 accredited and meets the highest international clinical standards.

Comprehensive Molecular EQAS

3. HCV MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
HCVQ435	**3** Test Events x **5** Samples x **1.4** mL **1** Shipment	No known compatibility issues with any method or analyser.

HCV RNA

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform HCV RNA viral load testing and HCV RNA detection.

Science - We calibrated sample sets to the prevailing WHO international standard to enable laboratories to assess the accuracy of their testing, the Limits of Detection (LOD), the reproducibility and repeatability of their assays, and the coefficient of variation within their laboratories and peer group. We believe this is the only ISO 17043 accredited EQA program of its type globally that uses sample sets derived from a secondary WHO international standard. We offer the panel size of 5 samples with 1.4 mL per sample to accommodate the needs of testing on multiple assays, retesting and troubleshooting. This program is ISO 17043 accredited and meets the highest international clinical standards.

4. HIV MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
HIVL435	**3** Test Events x **5** Samples x **1.4** mL **1** Shipment	No known compatibility issues with any method or analyser.

HIV-1 RNA HIV-2 RNA NEW

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform HIV-1 RNA viral load testing, HIV-1 RNA and HIV-2 RNA detection.

Science - We calibrated sample sets to the prevailing WHO international standard to enable laboratories to assess the accuracy of their testing, the Limits of Detection (LOD), the reproducibility and repeatability of their assays, and the coefficient of variation within their laboratories and peer group. We believe this is the only ISO 17043 accredited EQA program of its type globally that uses samples derived from a secondary WHO international standard. We offer the panel size of 5 samples with 1.4 mL per sample to accommodate the needs of testing on multiple assays, retesting and troubleshooting. This program is ISO 17043 accredited and meets the highest international clinical standards.

Comprehensive Molecular EQAS

5. HPV MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative **SAMPLE TYPE:** Liquid Based Cytology Medium **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
HPVN435	**3** Test Events x **5** Samples x **1.2** mL **1** Shipment	No known compatibility issues with any method or analyser.

HPV DNA | HPV Type 16 | HPV Type 18 | Other High-Risk HPV Types

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform molecular testing for high-risk HPV detection and genotyping.

Science - We created sample sets derived from real patient specimens. Samples consist of known HPV genotypes, including HPV high-risk types 16 and 18, and have been extended to include more other high-risk HPV genotypes. Samples are provided in liquid-based cytology fluid suitable for all test systems. Laboratories can submit all results from multiple assays for HPV detection and genotyping. This program is ISO 17043 accredited and meets the highest international clinical standards.

6. VIRAL EXANTHEMS MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Liquid Samples **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
RASH435	**3** Test Events x **5** Samples x **1.2** mL **1** Shipment	No known compatibility issues with any method or analyser.

HSV-1 DNA | HSV-2 DNA | VZV DNA | CMV DNA | *Treponema pallidum* DNA NEW

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform molecular testing for HSV-1, HSV-2, VZV, CMV and *Treponema pallidum.*

Science - Clinicians routinely request screening for HSV, VZV, CMV and *Treponema pallidum* together. We created the syndromic sample sets to meet the clinical need with coverage of these four analytes. This program allows laboratories using multiplex molecular assays to test EQA samples in the same manner as testing for patient samples. This program is ISO 17043 accredited and meets the highest international clinical standards.

Comprehensive Molecular EQAS

7. BACTERIAL PLUS RESPIRATORY MOLECULAR

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Liquid Samples **SHIPPING CODE:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
RESB435	**3** Test Events x **5** Samples x **0.8** mL **3** Shipments	No known compatibility issues with any method or analyser.

Bordetella species *Legionella species* *Chlamydophila species* *Pneumocystis species*
Streptococcus species *Mycoplasma species* *Haemophilus species*

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform molecular testing for a wide range of bacterial and fungal respiratory analytes.

Science - We created syndromic sample sets for testing of these common respiratory and pneumonia bacteria and fungi, including *Bordetella species*, *Streptococcus species*, *Legionella species*, *Mycoplasma species*, *Chlamydophila species*, *Haemophilus species* and *Pneumocystis species*. The samples feature real clinical samples with bacteria and fungi of various strains, which enables monitoring of extraction efficiency as well as detection of analytes on multiplex assays. The panels of this program are shipped at ambient temperature. This program is ISO 17043 accredited and meets the highest international clinical standards.

8. VIRAL RESPIRATORY MOLECULAR

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Liquid Samples

PROGRAM CODE	FORMAT	COMPATIBILITY
RESP435	**3** Test Events x **5** Samples x **1.2** mL **3** Shipments	No known compatibility issues with any method or analyser.

Influenza RNA RSV RNA SARS-CoV-2 RNA Influenza A Typing

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories and POC facilities that perform molecular testing for Influenza A and B, RSV and SARS-CoV-2.

Science - We created syndromic sample sets for these common respiratory viruses. Samples feature real inactivated virus, which enables monitoring of extraction efficiency as well as detection of analytes. Since the panels of the program are shipped at ambient temperature, this program is ideal for both sophisticated laboratories using multiplex molecular assays as well as POC facilities using platforms such as the Cepheid GeneXpert. This program is ISO 17043 accredited and meets the highest international clinical standards.

Comprehensive Molecular EQAS

9. EXTENDED VIRAL RESPIRATORY MOLECULAR

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Liquid Samples

PROGRAM CODE	FORMAT	COMPATIBILITY
RESV435	**3** Test Events x **5** Samples x **0.8** mL **3** Shipments	No known compatibility issues with any method or analyser.

Adenovirus DNA	Rhinovirus RNA	Parainfluenza RNA	Seasonal Coronavirus RNA
Enterovirus RNA	Metapneumovirus RNA	Parechovirus RNA	

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform molecular testing for a wide range of viral respiratory analytes other than Influenza, RSV and SARS-CoV-2.

Science - We created these syndromic sample sets for a wide range of viral respiratory analytes other than Influenza, RSV and SARS-CoV-2, including Human Adenovirus, Enterovirus, Rhinovirus, Metapneumovirus, Parainfluenza, Parechovirus and Seasonal Coronavirus, which cover majority of the clinical testing requirements for viral respiratory infection. The samples feature real inactivated virus of various strains, which enable monitoring of extraction efficiency as well as detection of the analytes on multiplex assays. The panels of this program are shipped at ambient temperature. This program is ISO 17043 accredited and meets the highest international clinical standards.

10. SEXUALLY-TRANSMITTED INFECTIONS MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Liquid Samples **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
STIC435	**3** Test Events x **5** Samples x **1.2** mL **1** Shipment	No known compatibility issues with any method or analyser.

Chlamydia trachomatis	*Neisseria gonorrhoeae*	*Trichomonas vaginalis*	*M. genitalium* Fluoroquinolone Resistant
Chlamydia trachomatis serovar	*N. gonorrhoeae* CFT Resistant	*Ureaplama species*	*M. genitalium* Macrolide Resistant
		Mycoplasma species	*M. genitalium* Azithromycin Resistant

DESCRIPTION

Application - Designed as a comprehensive, cost-effective EQA program for laboratories that perform molecular testing for sexually-transmitted infections including *Chlamydia trachomatis* (including LGV and other serovars), *Neisseria gonorrhoeae, Trichomonas vaginalis, Ureaplasma species, Mycoplasma species* and several drug-resistant strains.

Science - We created these syndromic sample sets to cover a wide range of sexually-transmitted infections. This program also assesses the laboratories' ability to differentiate between different serovars of *Chlamydia trachomatis* including LGV, and drug-resistant strains including *Mycoplasma genitalium* Fluoroquinolone resistant, *Mycoplasma genitalium* Macrolide resistant, *Mycoplasma genitalium* Azithromycin resistant and *Neisseria gonorrhoeae* CFT resistant. Laboratories can submit all results for multiple analytes from multiple assays and/or from multiplex assays. This program is ISO 17043 accredited and meets the highest international clinical standards.

Comprehensive Molecular EQAS

11. TRANSPLANT-TRANSMITTED INFECTIONS MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 3373, UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
TTIM435	**3** Test Events x **5** Samples x **1.4** mL **1** Shipment	No known compatibility issues with any method or analyser.

EBV DNA BKV DNA JCV DNA HHV6 DNA

DESCRIPTION

Application – We introduced this comprehensive, cost-effective EQA program for laboratories that monitor post-transplantation infections and laboratories that perform quantitative and/or qualitative molecular testing of EBV, BKV, JCV and HHV6.

Science – This program is specifically designed for facilities that test recipient plasma samples post-transplantation for viral infections and comprises samples representative of those normally received for testing for EBV, BKV, JCV and HHV6. To accommodate the needs of testing on multiple assays, retesting and troubleshooting, we offer a sample volume of 1.4 mL per sample. This program is ISO 17043 accredited and meets the highest international clinical standards.

12. VECTOR-BORNE INFECTIOUS DISEASES NEW

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODES:** UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
VECT435	**3** Test Events x **5** Samples x **1.2** mL **1** Shipment	No known compatibility issues with any method or analyser.

Chikungunya virus RNA
Dengue virus RNA
Japanese Encephalitis virus RNA
Murray Valley Encephalitis virus RNA
Ross River virus RNA
West Nile virus RNA
Zika virus RNA

DESCRIPTION

Application - We introduced this new comprehensive, cost-effective EQA program for laboratories that perform molecular surveillance testing of emerging infectious diseases and laboratories that perform molecular testing of vector-borne infectious diseases, including Chikungunya virus, Dengue virus, Japanese Encephalitis virus, Murray Valley Encephalitis virus, Ross River virus, West Nile virus and Zika virus.

Science - This program is specifically designed for facilities that monitor emerging tropical infectious diseases that are vector-borne. The samples feature real inactivated pathogens, which enable monitoring of extraction efficiency as well as detection of the analytes on multiplex assays. This program is ISO 17043 accredited and meets the highest international clinical standards.

POINT-OF-CARE MOLECULAR EQAS

Point-of-Care Molecular EQAS

1. *C. TRACHOMATIS, N. GONORRHOEAE & T. VAGINALIS* MOLECULAR POC

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Swabs

PROGRAM CODE	FORMAT	COMPATIBILITY
CNTP435	**3** Test Events x **5** Samples **3** Shipments	No known compatibility issues with any method or analyser.
CNTP432	**3** Test Events x **2** Samples **3** Shipments	

Chlamydia trachomatis *Neisseria gonorrhoeae* *Trichomonas vaginalis*

DESCRIPTION

Application - Designed as a simplified, cost-effective EQA program for POC facilities and laboratories in resource limited settings that perform molecular testing on *Chlamydia trachomatis*, *Neisseria gonorrhoeae* and *Trichomonas vaginalis* using POC platforms and laboratory platforms. This program has options for 2 and 5 samples per Test Event.

Science - We optimised sample sets for POC testing platforms such as the Cepheid GeneXpert. Samples are dried swabs, and feature inactivated organisms, which means that the panels of this program are stable, non-infectious (UN3373 exempt) and shipped at ambient temperature. This program is ISO 17043 accredited and meets the highest international clinical standards.

2. DRIED TUBE SAMPLE HBV MOLECULAR POC

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Dried Human Plasma Matrix

PROGRAM CODE	FORMAT	COMPATIBILITY
DTSB435	**3** Test Events x **5** Samples **3** Shipments	No known compatibility issues.

HBV DNA

DESCRIPTION

Application - Designed as a simplified, cost-effective EQA program for POC facilities and laboratories in resource limited settings that perform molecular testing for HBV DNA Viral Load and HBV DNA detection. This program offers 5 samples per Test Event.

Science - After extensive research, development and validation, we created dried tube samples (DTS) suitable for HBV DNA viral load and HBV DNA detection. This is the only international ISO 17043 accredited DTS EQAS for HBV molecular testing. This program features inactivated dried human plasma samples, optimised for both POC platforms such as the Cepheid GeneXpert and laboratory platforms. The panels of this program are stable, non-infectious (UN3373 exempt) and shipped at ambient temperature. This program meets the highest international clinical standards.

Point-of-Care Molecular EQAS

3. DRIED TUBE SAMPLE HCV MOLECULAR POC

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Dried Human Plasma Matrix

PROGRAM CODE	FORMAT	COMPATIBILITY
DTSC435	**3** Test Events x **5** Samples **3** Shipments	No known compatibility issues.

HCV RNA

DESCRIPTION

Application - Designed as a simplified, cost-effective EQA program for POC facilities and laboratories in resource limited settings that perform molecular testing for HCV RNA Viral Load and HCV RNA detection. This program offers 5 samples per Test Event.

Science - After extensive research, development and validation, we created dried tube samples (DTS) suitable for HCV RNA viral load and HCV RNA detection. This is the only international ISO 17043 accredited DTS EQAS for HCV molecular testing. This program features inactivated dried human plasma samples, optimised for both POC platforms such as the Cepheid GeneXpert and laboratory platforms. The panels of this program are stable, non-infectious (UN3373 exempt) and shipped at ambient temperature. This program meets the highest international clinical standards.

4. DRIED TUBE SAMPLE HIV AND EARLY INFANT DIAGNOSIS MOLECULAR POC

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Dried Human Plasma Matrix

PROGRAM CODE	FORMAT	COMPATIBILITY
DTSI435	**3** Test Events x **5** Samples **3** Shipments	Not compatible with the Cavidi ExaVir Load Version 3.0 kit. Compatible with proviral DNA assays for testing Early Infant Diagnosis.

HIV RNA Proviral HIV DNA

DESCRIPTION

Application - Designed as a simplified, cost-effective EQA program for POC facilities and laboratories in resource limited settings that perform molecular testing for HIV RNA Viral Load, HIV RNA detection and also early infant diagnosis (EID) testing for HIV proviral DNA, particularly those engaged in HIV elimination initiatives. This program offers 5 samples per Test Event.

Science - After extensive research, development and validation, we created dried tube samples (DTS) suitable for HIV RNA viral load, HIV RNA detection and also early infant diagnosis (EID) testing for HIV proviral DNA. This is the only international ISO 17043 accredited DTS EQAS for HIV molecular testing. This program features inactivated dried human plasma samples, optimised for both POC platforms such as the Cepheid GeneXpert and laboratory platforms. The panels of this program are stable, non-infectious (UN3373 exempt) and shipped at ambient temperature. This program meets the highest international clinical standards.

Point-of-Care Molecular EQAS

5. MYCOBACTERIUM MOLECULAR POC

SHIPPING CONDITION: **Ambient** **ANALYSIS:** **Qualitative** **SAMPLE TYPE:** **Clinical Liquid Samples**

PROGRAM CODE	FORMAT	COMPATIBILITY
MTBN435	**3** Test Events x **5** Samples x **1.2** mL **3** Shipments	No known compatibility issues with any method or analyser.
MTBN432	**3** Test Events x **2** Samples x **1.2** mL **3** Shipments	

Mycobacterium species *M. tuberculosis* Rifampicin Resistance Other Drug Resistance Typing

DESCRIPTION

Application - Designed as a simplified, cost-effective EQA program for laboratories performing molecular testing for *Mycobacterium tuberculosis* and/or its drug resistance typing (Rifampicin resistance and now extended to other resistance types), and particularly optimised for resource limited settings and POC testing sites. This program has options for 2 and 5 samples per Test Event.

Science - We created inactivated bacterial samples that include wild type and drug resistant strains (Rifampicin resistance and now extended to other resistance types) of *Mycobacterium tuberculosis*. The panels of this program are stable, non-infectious (UN3373 exempt) and shipped at ambient temperature. This program is ISO 17043 accredited and meets the highest international clinical standards.

SPECIALISED EQAS

Specialised EQAS

1. SARS-CoV-2 ANTIBODIES

SHIPPING CONDITION: Ambient **ANALYSIS:** Qualitative **SAMPLE TYPE:** Liquid Human Plasma **SHIPPING CODE:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
COVS432	**3** Test Events x **2** Samples x **0.5** mL **3** Shipments	No known compatibility issues with any method or analyser.

SARS-CoV-2 IgG SARS-CoV-2 IgA SARS-CoV-2 IgM

DESCRIPTION

Application – Designed as a comprehensive, cost-effective EQA program for laboratories that perform serology testing for SARS-CoV-2 antibodies using automated testing platforms, manual assays and rapid tests. This program offers 2 samples per Test Event

Science - This EQA program has been designed for participants that perform serology testing for SARS-CoV-2 antibodies and features single donor human plasma samples with IgG, IgA, and/or IgM antibodies against SARS-CoV-2. Single donor samples are traceable to the donor's clinical history. These samples are compatible with common serology methods including ELISA, rapid lateral-flow assays, immunofluorescence, chemiluminescence and electrochemiluminescence. To improve affordability while maintaining scientific integrity, we offer the panel size of 2 samples per Test Event. With NRL's scientific foundation and reformatted Test Event assessments, this program is ISO 17043 accredited and meets the highest international clinical standards.

2. HTLV MOLECULAR

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative and Quantitative **SAMPLE TYPE:** Human Whole Blood Matrix **SHIPPING CODES:** UN 3373 UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
HTLD435	**3** Test Events x **5** Samples x **0.5** mL **1** Shipment	No known compatibility issues with any method or analyser.

Proviral HTLV DNA

DESCRIPTION

Application - This program offers a unique EQA for the molecular testing, proviral load and detection of proviral HTLV DNA. The program assesses linearity, reproducibility and limit of detection of the assay in use.

Science - We designed the human T-cell lymphotropic virus (HTLV) Molecular EQA program consisting of 5 samples/panels. Samples contain SP cells diluted with stabilised red cells, creating a matrix designed to mimic whole blood. SP cells are human T cells containing a full-length copy of HTLV-1 DNA. The program assesses linearity, reproducibility and limit of detection of the assay in use. From 2024, we optimised and validated HTLD435 to be shipped frozen prior to Test Event 1.

Specialised EQAS

3. LEPTOSPIROSIS MOLECULAR

SHIPPING CONDITION: **Ambient** **ANALYSIS:** **Qualitative** **SAMPLE TYPE:** **Clinical Liquid Samples**

PROGRAM CODE	FORMAT	COMPATIBILITY
LEPN435	**3** Test Events x **5** Samples x **1.2** mL **3** Shipments	No known compatibility issues with any method or analyser.

Leptospira species

DESCRIPTION

Application - Designed as a simplified, cost-effective EQA program for laboratories that perform testing for leptospirosis detection and genotyping.

Science - We collaborated with the International Leptospirosis Society to create inactivated sample sets that include a range of Leptospira species to assess the laboratories ability to detect and distinguish between species. The panels of this program are stable, non-infectious (UN3373 exempt) and are shipped at ambient temperature. This program is ISO 17043 accredited and meets the highest international clinical standards.

4. MELIOIDOSIS SEROLOGY NEW

SHIPPING CONDITION: **Ambient** **ANALYSIS:** **Qualitative** **SAMPLE TYPE:** **Clinical Serum Samples** **SHIPPING CODES:** UN 3373

PROGRAM CODE	FORMAT	COMPATIBILITY
MLIO423	**2** Test Events x **3** Samples x **0.5** mL **2** Shipments	No known compatibility issues with any method or analyser.

anti-*Burkholderia pseudomallei*

DESCRIPTION

Application - This new program is designed as a simplified, cost-effective and specialised EQAS for laboratories that perform serological surveillance testing of the bacteria *Burkholderia pseudomallei* that causes Melioidosis.

Science - This program was created for laboratories that perform serological surveillance testing of the bacteria *B. pseudomallei.* The samples feature true undiluted clinical human serum and can be tested on various serological methods for anti-*B. pseudomallei.* This program is ISO 17043 accredited and meets the highest international clinical standards.

Please Note: This program is only run twice per year, aligned with TE1 and TE3 time frames.

Specialised EQAS

5. MPOX MOLECULAR NEW

SHIPPING CONDITION: Dry Ice **ANALYSIS:** Qualitative **SAMPLE TYPE:** Clinical Liquid Samples **SHIPPING CODES:** UN 1845

PROGRAM CODE	FORMAT	COMPATIBILITY
MPOX423	**2** Test Events x **3** Samples x **0.5** mL **1** Shipment	No known compatibility issues with any method or analyser.

Mpox virus DNA

DESCRIPTION

Application - This new program is designed as a simplified, cost-effective and specialised EQAS for laboratories that perform molecular surveillance testing of Mpox virus.

Science - This unique program was created for laboratories that perform surveillance testing of Mpox virus using various nucleic acid testing methods. The samples feature real inactivated virus, which enables monitoring of extraction efficiency as well as detection of the analyte. This program is ISO 17043 accredited and meets the highest international clinical standards.

Please Note: This program is only run twice per year, aligned with TE1 and TE3 time frames.

Science of Quality

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