TENDER REF. NO.: KK/256/2026/LAB(TC)

MINISTRY OF HEALTH

NEGARA BRUNEI DARUSSALAM

TO SUPPLY AND DELIVER BLOOD GAS TESTS REAGENTS AND CONSUMABLES WITH EQUIPMENT RENTAL BLOOD GAS TESTING PROGRAM FOR POINT OF CARE TESTING SECTION, DEPARTMENT OF LABORATORY SERVICES, MINISTRY OF HEALTH FOR A PERIOD OF FIVE (5) YEARS USAGE

TENDER FEE : $500.00

RECEIPT NO. :

CLOSING DATE : ON TUESDAY, 17th November 2026

TIME : 2.00 PM

FOA :

THE CHAIRMAN
MINI TENDER BOARD, TENDER BOX
GROUND FLOOR, MINISTRY OF HEALTH
COMMONWEALTH DRIVE
BANDAR SERI BEGAWAN BB3910
NEGARA BRUNEI DARUSSALAM

[CLUSTERING]

SECTION 2

SPECIFICATIONS AND REQUIREMENTS

TENDER REFERENCE NO.: KK/256/2026/LAB(TC)

INVITATION TO TENDER
TO SUPPLY AND DELIVER BLOOD GAS TESTS REAGENTS AND CONSUMABLES WITH EQUIPMENT RENTAL BLOOD GAS TESTING PROGRAM FOR POINT OF CARE TESTING SECTION, DEPARTMENT OF LABORATORY SERVICES, MINISTRY OF HEALTH FOR A PERIOD OF FIVE (5) YEARS USAGE

1. SUPPLY OF REAGENTS

1.1 To supply reagents and associated consumables (calibrators, controls, accessories and consumables) for the tests listed below.

APPENDIX A: SUMMARY OF UNIT PRICE OF REAGENT KIT
(To be completed by Vendor for submission)

	USER'S REQUIREMENTS		
NO	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PACKAGING SIZE**	**TOTAL ESTIMATE USAGE / YEAR**
1	The reportable POC -Blood Gases test results of the following parameters on standalone analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb) • Metabolites (Glucose, Lactate) • **Neonatal total bilirubin**	Unit Price of Reportable POC - Blood Gases test result	24500 Reportable POC-Blood Gases test results/Year
2	The reportable POC -Blood Gases test result of the following parameters on standalone or handheld analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb) • Metabolites (Glucose, Lactate)	Unit Price of Reportable POC - Blood Gases test result	65,800 Reportable POC-Blood Gases test results/Year

	USER'S REQUIREMENTS		
NO	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PACKAGING SIZE**	**TOTAL ESTIMATE USAGE / YEAR**
3	The reportable POC -Blood Gases test result of the following parameters on handheld or standalone analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, sO2)	Unit Price of Reportable POC - Blood Gases test result	950 Reportable POC- Blood Gases test results/Year
4	EQA PROGRAM	programs/ enrolment	23 programs/ Enrolement or equivalent

NO	SPECIFICATIONS AND REQUIREMENTS
1.0	**PROVISION OF EQUIPMENT AND SERVICES**
1.1	This tender is intended to acquire a comprehensive blood gas testing solution through the provision of blood gas analysers (benchtop/ high-throughput and/or handheld/low-throughput) on an equipment rental basis (not outright purchased) for the Department of Laboratory Services and its associated Point-of-Care Testing (POCT) facilities. All blood gas analysers supplied under this contract shall be fully interfaced with Bru-HIMS and shall serve the following hospitals and their associated laboratory and POCT sites: ● RIPAS Hospital, Brunei-Muara ● SSB Hospital, Kuala Belait ● PMMPMHAMB Hospital, Tutong ● PIHM Hospital, Temburong The contract term is **five (5)** years. All equipment supplied under this contract shall remain the property of the tenderer and shall be returned to the tenderer upon expiry or termination of the contract.
1.2	The number of blood gas analysers to be deployed under this contract is not fixed by this tender. Tenderers shall propose an equipment deployment plan sufficient to meet the service coverage, analyte menu, throughput, turnaround-time, connectivity and backup / uptime requirements specified in Appendix B for each laboratory and POCT site listed in Clause 1.1. An indicative baseline of twenty-three (23) analysers is stated in [Appendix B] for the sole purpose of bid pricing, evaluation and comparison. This figure shall not constitute a minimum, maximum, or guaranteed quantity, and no tenderer shall rely on it as a committed volume. The Department reserves the right to increase or decrease the number, type and location of deployed analysers at any time during the contract term, to accommodate changes in clinical workload, service reconfiguration, or the establishment of new laboratory or POCT testing sites without re-tendering, in accordance with Clause 1.7 (Variation), at no additional unit cost beyond the tendered cost-per-reportable-result. The proposed configuration shall maintain uninterrupted clinical services, support efficient workflow, optimise resource utilisation, and demonstrate overall cost-effectiveness across the full contract term.
1.3	(a) Tenderers shall price this contract on a **cost-per-reportable-result (CPRR)** basis. A “reportable result” means the complete set of blood gas examination results generated from a single patient sample that has satisfied the applicable quality-control acceptance criteria and has been validated and released into the patient record via Bru-HIMS. Each such validated, released panel shall constitute one (1) reportable result, irrespective of the number of measured or calculated parameters it contains. (b) QC and verification testing performed to satisfy the Department’s quality and accreditation requirements shall not be charged as reportable results.
1.4	The quoted unit price per reportable result shall include the cost of all the following activities and services for the full five (5)-year contract term. No item listed below shall attract any additional charge beyond the tendered unit price:

	1.4.1 Equipment supply, installation and backup **(a)** Supply and delivery of the proposed number of rented analysers to the laboratories and POCT facilities at all hospitals. **(b)** Supply and provision of all backup analysers required to meet the uptime and continuity obligations set out in Clause 1.6 and Appendix B, included within the unit price. **(c)** Relocation, re-installation and re-verification of any analyser redeployed under Clause 1.7 (Variation), included within the unit price. **(d)** Insurance of, and all risk of loss or damage to, the rented equipment for the contract term. As the analysers remain the tenderer's property, this risk shall rest with the tenderer. **(e)** Installation and initial set-up of all analysers. Each benchtop (mains-powered) analyser shall be supplied with an Uninterruptible Power Supply (UPS).
	1.4.2 Consumables, calibration and quality control **(a)** Supply, delivery and use of all reagents, cartridges, consumables, calibration materials and internal quality-control (IQC) material required for testing in accordance with the manufacturer's instructions and the DLS POCT programme requirements. **(b)** Initial verification and re-verification (when applicable) of analyser performance, including all consumables and QC material for reagent lot-to-lot verification performed each time a new reagent lot is introduced. **(c)** Supply of thermal paper for printing reports and patient results. **(d)** Supply of consumable-waste / used-cartridge disposal provisions for the biohazard and sharps streams generated by the analysers. **(e)** Enrolment in, and supply of samples for, an External Quality Assessment (EQA) / Proficiency Testing scheme for blood gas for the full contract term, at the tenderer's cost. The EQA scheme provided shall satisfy the following minimum selection criteria: ● A peer / comparison group of more than fifteen (15) participants (of the same or a comparable method / instrument group) for each reported parameter, to ensure statistical validity of the performance assessment;

- Coverage of the complete blood gas parameter menu reported by the deployed analysers including pH, pCO_2, pO_2, electrolytes, metabolites and co-oximetry, so that every reportable analyte is externally assessed;
- Accreditation of the EQA / proficiency-testing provider to ISO/IEC 17043;
- A distribution frequency sufficient to meet ISO 15189:2022 and DLS POCT programme requirements (for example, at least monthly or per defined scheme cycle).
- EQA programs to include parameters as below:
    - Blood Gases Full Program – 23 enrolments or equivalents
    - Co-oximetry Full Program – 23 enrolments or equivalents
    - Neonatal Bilirubin Full Program – 3 enrolments or equivalents

1.4.3 Information technology, connectivity and cybersecurity

(a) Provision of all information-technology appliances required for operation and monitoring including computers / laptops / tablets, printers, and all associated licensing together with all licensing, interfacing and configuration required to connect every blood gas analyser to the POC middleware system and Bru-HIMS, including cybersecurity for the middleware and Bru-HIMS interfacing.

(b) Replacement of any failed, obsolete or end-of-life IT appliance (laptop, tablet, printer or peripheral) during the contract term, at no additional cost.

(c) The successful tenderer shall provide all software updates and licensing renewals for the supplied equipment at no additional cost throughout the contract period

(d) Provision of the Data Management System or POC-Middleware System placed at Point of Care Testing Section and National Reference Clinical Chemistry Laboratory for the monitoring of all Blood Gases analysers installed. Data Management System should include the following (with licensing) but not limited to:

- Peer Quality Control
- Device Management
- Compliance Management
- Operator and Competency Management with E-Learning

1.4.4 Documentation, training and competency

(a) Supply of manuals and related documentation for the testing procedure, and any other items required to produce a reportable result.

(b) Provision of in-house training and all documentation required for training, including certificates, training manuals and training forms.

	(c) Provision of initial and yearly competency evaluation activities for all users.
	1.4.5 Maintenance and technical support **(a)** Provision of at least two (2) Biomedical Engineers providing 24-hour on-going support, including all parts required for repair and the performance of scheduled preventive maintenance for the analysers. Response and resolution shall meet the service levels specified in Clause 1.6
	1.4.6.1 Provision of Personnel **(a)** The successful tenderer is required to provide two (2) Scientific Officers, or Medical Laboratory Technologists, or equivalent, to be stationed at the Point of Care Testing Section, Department of Laboratory Services (DLS), for the five-year contract duration. The officer will support daily operations and maintain quality assurance standards during the following working hours: Standard Hours: Monday–Thursday and Saturday (07:45–12:15 and 13:30–16:30) Ramadan Hours: 08:00–14:00 **(b)** The officers shall have the following duties and responsibilities, but are not limited to: i. Manage inventory of reagents and consumables and to deliver when required. ii. Perform the reagent lot-to-lot verification for every new delivery and new lot where applicable. iii. Review daily activity at the POCT sites via the POC-Middleware System and report any issue or outlier to the POCT Section. iv. Support audit activities related to the POC Blood Gas Programme ISO 15189 accreditation v. Retrieve quality data or statistic on monthly basis and submit the report to the Head of POCT Section for verification. vi. Train and evaluate competency of the staffs/poct operators as requested by HOS of POCT Section. vii. Review daily activity and report to HOS of POCT Section if issue or outlier is identified. viii. Report and document any instrument breakdown and ensure any issues are corrected immediately and ensure downtime of instrument are minimal so as not to disrupt downstream processes and services. The Tenderer may provide additional duties and responsibilities suitable with the officer's post and qualifications. However, his/her duties and responsibilities at POCT Section shall take precedence. ix. Assist nurses at the respective POCT sites when required. x. Retrieve quality data and statistics monthly from the POC-Middleware System and submit reports to the laboratory and POCT sites for verification xi. Create and provide user IDs and barcodes for newly trained POCT personnel and operators (nurses or doctors) **(c)** The Tenderer shall ensure the officers must be citizen of Kebawah Duli Yang Maha Mulia Paduka Seri Baginda Sultan dan Yang Di-Pertuan Negara Brunei Darussalam.

	(d) The Tenderer shall ensure that the officers are registered with the Allied Health Professional (AHP) Council of Brunei Darussalam, under the supervision of the HOS of POCT Section. **(e)** The Tenderer shall ensure that the officer must be between 20 and 40 years of age at the commencement of employment (provided with medical fitness report). **(f)** The Tenderer shall ensure that selected officer must possess a minimum of Bachelor of Science degree or an equivalent qualification and at least 6 months' experience in a clinical laboratory or Point-of-Care Testing setting **(g)** The Tenderer shall ensure that the officer must be able to write and communicate effectively in Malay and English. **(h)** The Tenderer shall ensure that the officers are subject to further security assessment and must be free from any criminal record before employment. **(i)** The Tenderer shall ensure that selected officers have undergone medical screening and deemed medically fit to perform the duties. The Tenderer is required to provide a copy of the report to the Department. All costs incurred for medical screening shall be borne by the Tenderer. **(j)** The Tenderer shall ensure that selected personnel receive the appropriate vaccination, particularly against Hepatitis B, before being deployed to the Point of Care Testing Section. **1.4.6.2 Removal and Replacement of Personnel** **(a)** The Department reserves the right to remove or request for replacement for any of the officer employed by the Tenderer from any of the premises of placement, who in the opinion of the Department has misbehaved or is incompetent or negligent in the performance of his/her duties. **(b)** The Tenderer shall ensure that any officer who resign or removed are promptly replaced with suitably qualified and competent individuals. **(c)** Such replacement must be approved by the Department prior to the deployment. **1.4.6.3 Wages and Welfare** **(a)** The Tenderer is responsible for the wages, insurance (workmen compensation and medical insurance), medical and welfare of his personnel in accordance with the requirements of the Labour Department, Brunei Darussalam. **(b)** The Tenderer shall take out, at its own expense, with an insurance approved in writing by the Department a policy or policies each specifically endorsed to provide indemnity to the Tenderer and to the Department against any liabilities arising out of claims by any personnel for payment of compensation under the Workmen's Compensation Act (Cap 74 of the Laws of Brunei)

	1.4.7 Future expansion and development **a)** Provision of future development and upscaling, including upgrading of software and hardware. **b)** Provision of any additional analysers (benchtop and/or handheld) required to maintain the specified service levels as testing volume increases, or as new laboratory / POCT sites are established during the contract term, at no additional cost beyond the tendered unit price.
1.5	The tenderer must submit the tender document with the **Executive Summary of Project Proposal** suitable for POC- Blood Gases Program for Brunei Ministry of Health. The Executive Summary Project Proposal report must include but not limited to the following and based on information given in **APPENDIX B**: a) Proposal of brand, type and number of units of blood gases equipment to be installed in each laboratory and POCT site. b) The cost-effectiveness of the proposed project and value better services for POCT Blood Gases Program. c) The breakdown of the costing per reportable test, including reagents, calibrators, consumables, and all supplies required to provide a final test result. d) Implementation and installation timeline e) Training and competency development plan f) Bru-HIMS/POC-Middleware interfacing approach g) After-sales support and service model h) Business continuity and risk management plan i) Total cost of ownership over the 5-year term j) Equipment return and exit plan k) Company background, track record, and references l) Regulatory and quality compliance status

1.6	**BACKUP AND UPTIME** **1.6.1** The tenderer shall provide sufficient backup analyser capacity at each laboratory and POCT site to maintain uninterrupted clinical blood gas testing at all times. Backup capacity is a service-level obligation included within the tendered cost-per-reportable-result and shall not be counted as a fixed quantity of units. **1.6.2** The tenderer shall meet the following minimum service levels at each site (final figures to be confirmed in Appendix B): (a) Maximum unplanned downtime per analyser: not more than 2 hours per event. (b) Remote or telephone response to a reported failure: within 1 hours. (c) On-site attendance, or provision of a functioning replacement analyser: within 2 hours of a confirmed failure (d) A confirmed failure at a single-analyser site shall be treated as critical and shall require a functioning replacement within 2 hours. **1.6.3** Scheduled preventive maintenance shall be planned with the POCT Section and shall not reduce available testing capacity below the level required to maintain clinical service. **1.6.4** Any backup or replacement analyser placed into clinical service shall first complete the installation, verification and operator-competency requirements of this specification before patient testing
1.7	**VARIATION (ADDITIONS, RELOCATIONS AND REMOVALS)** **1.7.1** The Department may, by written instruction from its authorised representative, increase or decrease the number, type or location of deployed analysers during the contract term to accommodate changes in clinical workload, service reconfiguration, or the establishment of new laboratory or POCT sites. **1.7.2** Not less than 2 days' written notice shall be given for a planned relocation or removal, save in cases of urgent clinical need. **1.7.3** Additional analysers deployed to serve new or expanded sites shall be provided under the same terms and at the same tendered cost-per-reportable-result, with no additional unit charge and without re-tendering. **1.7.4** Every added, relocated or replacement analyser shall complete installation, verification, qualification and operator-competency requirements before being placed into clinical service. **1.7.5** No variation under this clause shall of itself extend the five (5)-year contract term.

1.8	**PRECEDENCE AND NON-DUPLICATION** **1.8.1** Clause 1.4 is the master schedule of activities and services included in the tendered cost-per-reportable-result. Where any activity, service, personnel provision or obligation is also referred to elsewhere in this specification (including Sections 4 and 5), such references describe the same single obligation and shall not be construed as additional or separately chargeable items. **1.8.2** Where any conflict exists between Clause 1.4 and another provision as to the scope of what is included in the unit price, Clause 1.4 shall prevail. **1.8.3** For the avoidance of doubt, the quality-assurance duties, lot-to-lot verification, IT and middleware provision, training and competency, and maintenance obligations stated in Sections 4 and 5 are included within the cost-per-reportable-result and apply to all deployed analysers, both benchtop and handheld.
2.0	**EQUIPMENT SPECIFICATION**
2.1	**GENERAL**
2.1.1	The Tenderer must propose the suitable type of blood gas analyser(s) for both laboratory services and POCT facilities. The offered blood gas analysers may either be: a) all benchtop analysers, with different reagent pack/volume sizes offered according to the throughput requirements of each respective site; **OR** b) a mix of benchtop and handheld analysers, with the choice of benchtop or handheld analyser to be determined in accordance with the anticipated testing throughput at each respective site. The brand offered shall not be more than two (2) brands. (Tenderers shall state this in the **Executive Summary of their Project Proposal**.)
2.1.2	The offered blood gases analysers must be designed for analysing Blood Gases, Electrolytes, Metabolites and Co-Oximetry using whole blood sample and must be FDA-approved, CE-marked, or approved by a recognised equivalent regulatory authority, for testing whole blood for arterial, capillary and venous and the procedures of testing must comply to the requirement CLSI C46-A2, Blood Gas and pH Analysis and Related Measurements
2.1.3	The offered unit blood gases analysers must be easy to use, requiring minimal routine maintenance, available daily with very minimum daily start-up time.
2.1.4	Software upgrades and updates for the blood gases analysers must be provided free of charge and available to Department of Laboratory Services immediately after release.
2.1.5	Analyser to be offered must be of low generation of hazardous chemical and biological waste with temperature requirement of 22° to 28°C and humidity requirement up to 80% relative humidity
2.1.6	The offered blood gases analysers must come with the self-contained cartridge or cassette reagents ready for sample entry.
2.1.7	The offered blood gases analysers must have built-in bar-code scanner to supports faster and easier sample processing which can scan the patient barcode and/or specimen barcode and operator ID.

2.1.8

The offered BENCHTOP type analyser must have system dimension not exceeding the following measurement:

- Width: 13 in
- Depth: 17 in
- Height: 22 in
- Weight: 17 kg

2.1.9

Analytical ranges of the following parameter must within the measurement below:

Parameter	Range
pH	6.50-7.800
pCO2	5.0-200 mmHg
PO2	10-700 mm/Hg
Glucose	1.1-40 mmol/L
Lactate	0.18-30 mmol/L
Na+	100-200 mmol/L
K+	0.5-15.0 mmol/L
Cl-	65-140 mmol/L
Ca2+	0.2 -5.0 mmol/L
Neonatal Bilirubin	0-1000 µmol/L
Measured S02	0-100%
Measured Total Hb	0-20

2.2 **BENCHTOP ANALYSER**

2.2.1

The offered BENCHTOP type analyser must have the capability to having the high or low throughput options and comply to the following:

- Start-up time not more than 30 minutes.
- Self-contained cartridge reagents ready for sample entry for routine specimens and easy replacement.
- Throughput of not less than 20 samples per hour
- The analyzer should be able to meet test volume for a period of 5 years and allow for the 5 % growth in test per year.
- Having continuous system and analysis check includes:
  - Sample integrity check
  - Calibration status
  - Temperature check
  - Mechanical check
  - Electronically check
  - Measurement preparations
  - Consumable check
- Easy-to-use, maintenance-free cartridge-based system which is ideal for non-laboratory personnel
- Touchscreen monitor with optimal viewing on the test panel/parameters and access to other functions
- Ease of use for sample introduction with a single sample port that accepts syringes or capillary without adapters

	• Hands-free sample port with automated sample aspiration, self-cleaning probe, and clot and bubbles detection features. • USB ports to enable back-up of results and event log. • Minimal down-time during calibration. Calibration time of not more than 30 minutes for full calibration • Having customizable QC schedule with a minimum of 3 times (for every 8 hours) a day • Levey-Jennings plot available in the system and can be extracted for documentation. • Automatic system and analysis check calibration at regular interval. • Fully automated calibration and quality control systems. • Automated corrective actions without or minimal operators' intervention • On-board reagents, not less than 28-day reagent cartridge requires no operator intervention • Test full menu from a single sample or customize panels to meet specific needs • Set user privileges based on operator needs for testing, administration, and reporting • Sample size for adults of not more than 100 ul for both syringe and glass capillary • Sample size of not more than 70 ul for neonates (paediatric sample). • Measuring testing time of not more than 40 seconds for the whole parameters • System for automatic lockout of parameters that fails QC reports and calibration • Display and report only ordered tests results. • Automatic temperature correction for results. • On board result storage capacity for at least 500 results. • On board video tutorial to assist operation and troubleshooting. • Remote diagnostics and control capability. • Electronic QC submission with real time review. • Pre-analytical error detection – automatic clot detection and removal • Capability to connect to multiple data management systems to wireless integration with BruHIMS Laboratory Information system (Laboratory Services) and BruHIMS Health Information System (POCT sites) or with docking system

2.2	**HANDHELD ANALYSER (IF APPLICABLE)**
2.2.1	The offered HANDHELD type analyser (If applicable) must have capability to provide cartridges application where appropriate for the laboratories or POCT setting. • The device is lightweight, portable and easy to use analyser in obtaining time-sensitive results at the patient's side and suitable for testing in the laboratory. • Supplied with printer and thermal paper for printing report or patient results. • The handheld analyser can connect to middleware data management systems to integrate seamlessly with Hospital and/or Laboratory Information System, Electronic Medical Records or both to help for the managements of test results, operators and devices. • The device should have measurement not exceeding the following measurement: o Width: 3.5 in o Length: 9.5 in o Depth: 3.0 in o Weight: With battery 650 grams • The device must have the following features: o Capability to have auto-calibration. o Capability to scan operator ID, patient ID and specimen ID barcode. o Display and report only ordered tests results. o Require small sample volume of not more than 200ul for full panel in micro sampling mode and delivers results in less than 2 minutes. o Temperature correction for results. o On board result storage capacity for at least 50 results. o Lengthy cartridges stability and shelf life of not less than 6 months upon delivery. o Short analysis time (results shall be available within 60 seconds for full menu of tests). o Sample type: whole blood from syringe, test tube or capillary. o Supplied with remote or contactless printing or built-in printing. o Built-in scanner. o Power rechargeable battery or any suitable battery. o Capability to connect to multiple data management systems to wireless integration with BruHIMS Laboratory Information system (Laboratory Services) and BruHIMS Health Information System (POCT sites) or with docking system.
3.0	**REAGENTS AND CONSUMABLES SPECIFICATIONS**
	Cartridges or reagents and consumables for the analyser must be staggered delivery and consist of the following criteria: Benchtop type analyser: • Have usage life of not less than 28 days • Have flexible number of tests per cartridges • Storage at room temperature is preferred; reagents/cartridges requiring refrigerated storage (2–8 °C) are acceptable provided the tenderer supplies and maintains the necessary cold-chain and states the storage conditions • Not more than 2 types of reagents/consumables

	Handheld type analyser (if applicable): • Storage at room temperature is preferred; reagents/cartridges requiring refrigerated storage (2–8 °C) are acceptable provided the tenderer supplies and maintains the necessary cold-chain and states the storage conditions
4.0	**TECHNICAL SPECIFICATIONS**
4.1	The tender contract includes the provision of the Data Management System or POC - Middleware System placed at Point-of-Care Testing Section and National Reference Clinical Chemistry Laboratory for the monitoring of all Blood Gases Analysers (Benchtop and Handheld). Data Management Systems should include the following (with licensing) but not limited to: • Peer Quality Control • Device Management • Compliance Management • Operator and Competency Management with E-Learning • Sample Flow Management
4.2	The offered POC-Middleware System shall be capable of supporting the interfacing requirement of Bru-HIMS
4.3	The offered POC-Middleware System software should able to: • monitor instrument status and performance, and reagent levels, • control functions of analysers remotely • monitor status of analyser without interruption of test analysis. • maintain and generate records of Quality Control and graphical reports • forward all alert messages to main terminal. • permit interface with other POC devices.
4.4	The successful tenderer must provide the necessary IT equipment and accessories for POC-Middleware such as desktop computer or laptop with printers with the upgradable software for access of data management system of the supplied Blood Gases analysers to enable remote monitoring of all analysers at Point of Care Testing Section.
4.5	The successful tenderer is to regularly upgrade the POC-Middleware System when required without additional costs during the tender contract.
4.6	The POC-Middleware System must be able to link or transmit patient's test result to Bru-HIMS via HIS and LIS.

4.7	The POC-Middleware system shall have the following features: • Able to record continuous system and analysis check. • able to notify management operators or operators any issue that requires immediate action or response by both parties for troubleshooting or solution. • Able to record any flagged issues, recurrent issues and any corrective actions performed • Able to retrieve data such as: o Statistical data o Authorised users/operators o Non-conformities such as clotted specimens, bubbles and etc o Operators' compliance o Competency documentation (operator's performance tracking) o Corrective actions o QC reports for each device o Preventive actions done to resolve the issues. • Able to compile statistical data such as: o Daily/Monthly/Yearly Performance Overview of each analyser o Daily/Monthly/Yearly QC violations of each analyser o Daily/Monthly/Yearly non-conformities incidents and corrective actions taken for each analyser o Daily/Monthly/Yearly reports of total number of tests done at each analyser o Number of successful tests done by each operator per month/year
4.8	**DATA SECURITY AND PROTECTION**
	The POC-Middleware System and all interfaces with Bru-HIMS shall meet the following minimum data-security requirements: (a) Encryption of patient and quality data both in transit and at rest. (b) Role-based access control, with unique user authentication and enforced privilege levels. (c) A tamper-evident audit trail (audit logging) of all data access, changes and result transmissions. (d) Secure user provisioning and de-provisioning, and protection against unauthorised access to patient data. (e) Compliance with all applicable national health-data protection and cybersecurity requirements.
4.9	**DATA OWNERSHIP AND RETURN**
	4.9.1 All patient results, quality-control data, competency records, audit data and reports generated under this contract shall remain the property of the Ministry of Health.

	4.9.2 On expiry or termination of the contract, the tenderer shall export all such data to the Ministry of Health in a usable, non-proprietary format at no additional cost, and shall securely delete the data from vendor-controlled systems on the Department's instruction.
5.0	**SERVICE AND AFTER SALES SUPPORT**
5.1	The successful tenderer must be able to manage their manpower and absorbing the workload throughout the operational contract agreement to smoothen 24-hours operation for the POC-Blood Gases Program of Department of Laboratory Services.
5.2	The successful tenderer must perform installation and performance qualification in order to verify the supplied equipment is deemed "Fit for Use". The report of the individual analyser shall be filed and submitted to the POCT Section.
5.3	The successful tenderer must supply, at no additional cost of reagents, and consumables for initial evaluation purposes after the instrument has been installed according to the specifications.
5.4	All reagent test kits / consumables supplied throughout this tender shall have a minimum expiry date of **six (6) months on delivery**. Should the reagent or consumable be urgently needed, provision of a reagent test kit or consumable with expiry date of less than six (6) months should be first agreed by the User of the particular laboratory before delivery is made.
5.6	Letter of Undertaking (LOU) shall be produced upon each delivery of test kit or consumable with expiry date of less than **six (6)** months and vendor shall declare in the LOU that unused, unopened, expired kits will be replaced accordingly. For items which are known to have short expiry date such as those containing red blood cells, list down all such items and vendor shall declare in this tender submission of such items and shall be exempted from submitting LOU upon delivery.
5.7	Staggered delivery every 3 months period directly to the Point of Care Testing Section, Department of Laboratory Services.
5.8	User shall have the rights to refuse delivery of items that do not meet the acceptance criteria such as, but not limited to, the following: 1. Tampered or damaged box 2. Leakage upon delivery 3. Items stored pre-delivery not in accordance to manufacturer's instructions 4. Expiry date not meeting requirement
5.9	User shall have the rights to return any items, and to be replaced at no extra cost, if found not meeting the acceptance criteria upon opening a pack such as, but not limited to, the following: 1. Tampered or damaged packaging 2. Evident of leakage or damaged products 3. Expired products that are evidently less than the requirement mentioned in para 5.6 calculated from delivery date 4. Leakage upon delivery
5.10	Vendor shall submit samples of the offered items directly to the Users no later than 7 days after the Closing Date of this advertisement or as required by the Users.

5.11	Please supply details of the arrangement for 24-hour service support. There should preferably be remote diagnostic facility available. This should include the number of engineers and application specialist, their qualification/training with the system, response time during office hours, after office hours, weekdays and weekends.
5.12	The supplier SHALL be responsible for the preventive maintenance (Weekly, Monthly, and Quarterly as needed) and breakdown maintenance of the analyzers. Any breakdown should be quickly attended to within 2 hours.
5.13	A copy of service report must be submitted to the laboratory whenever service work is done on the instrument.
5.14	Spare parts SHALL be supplied by the supplier should any replacement is required during preventive and breakdown maintenance.
5.15	Vendor shall aid the user with verification of a comprehensive methods performance for all of the tests listed above including, but not limited to, precision, accuracy, linearity, sensitivity, specificity, carryover, limit of detection or as required by the User depending on the nature of testing. Report of the verification study shall be submitted to the User for approval by the Director of Laboratory Services.
5.16	In the event of test results cannot be produced due to equipment failure or unavailable reagent supplies within the specified turnaround time, the vendor shall arrange and bear all costs for analysis of tests to an accredited laboratory (ISO 15189).
6.0	**ENVIRONMENTAL AND INFRASTRUCTURE REQUIREMENTS**
6.1	The system shall occupy space not more than the present system in the laboratory. If any renovation (electrical and/or environmental) is required, costs shall be borne by Vendor.
6.2	Should any renovation is required, Vendor shall comply with the Ministry's procedure for infection control risk assessment (ICRA), implementation and monitoring as set out in the document titled Construction and/or Renovation, Maintenance, Repair and Demolition in the Health Care Setting.
6.3	Power and water requirements: No or low water consumption. If water is required, state how much and what purity, with provision of water purification system included. Please provide specification for power requirement. All costs for installing electrical and water requirements shall be borne by the Vendor. All the electrical wires shall be covered with PVC trunk properly for safety precautions.
6.4	Electrical Safety – Vendor shall test for and maintain the electrical safety of all equipment and accessory devices installed throughout their usage period. This include conducting electrical safety testing upon installation & during preventive maintenance (at least every six (6) months) using calibrated device. Electrical safety testing report shall be submitted to the laboratory for acceptance.
6.5	Temperature and humidity requirement: preferably 22 – 28 ^{o}C and up to 80% relative humidity.
6.6	Floor area and drainage requirements: preferably adaptable to present facilities.
6.7	Low generation of hazardous chemical or biological waste.

6.8	If biological liquid waste is generated, the supplier shall provide the following for suitable waste containers; i. Two waste containers shall be capped, have an inlet and outlet, easy to handle and do not hold more than 15L of liquid waste ii. When the production of waste liquid is more than 15L/day, a direct waste pipe shall be installed. A pre-dilution container shall be provided with easy access to add disinfectant and dispose of waste liquid. A preventive pipe shall be installed to prevent overflowing liquid waste from the waste containers iii. Proper guidelines to disinfect the liquid waste that is acceptable to ISO 15189 shall be provided
6.9	The successful vendor shall keep the area behind of the equipment tidy and clean at all times. All wires and cables shall be properly covered using PVC trunk, flexible wire and cable cover or equivalent that is acceptable to the laboratory or POCT sites.
6.10	The successful tenderer must ensure the availability of service parts of the blood gases analysers and the validity of the reagents and consumables during the period 5 years of tender contract and at least 2 years after expiration of the tender contract
6.11	The successful tenderer must advise and/or provide necessary tools if required for safe disposal of used cartridge/reagent kits following the manufacturer's recommendation or as practiced by the Department of Laboratory Services for disposal of chemical and biological waste.
6.12	The successful tenderer must provide UPS (uninterrupted power supply unit) that will support each analyser while operating in full capacity for all analysers where required.
6.13	The successful tenderer is to provide customised mobile workstation by providing system trolley supplied for benchtop analyser with all the necessary accessories (such as power cable, tablet or laptop, barcode scanner) as per required for daily operation for POCT sites (wards)
7.0	**MISCELLANEOUS**
7.1	The successful tenderer must upgrade the current analyser to reflect any improvements or new developments that become available during the life of the contract at no additional charge.
7.2	The successful tenderer must report immediately any adverse incident or related issue against the reagents or analyser and provide all product alerts to the POCT Section during the life of the contract.
8.0	**LITERATURE**
8.1	To supply PDF copy of the Operating Manual and Service Manual including circuit diagrams of the equipment shall be provided upon commissioning.
8.2	To supply the laboratory with one (1) set of Material Safety Data Sheet (MSDS)
8.3	To supply softcopy of maintenance log with list of details of daily, weekly or scheduled maintenance
8.4	To provide any training materials and quick-guide instruction of the offered blood gas analysers for POCT operators
9.0	**TRAINING -** Training shall be provided, at no additional cost, as follows:

9.1	On-site training for ALL staff members expected to handle the machine. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory and POCT operators at wards/clinics.
9.2	Certificate of competence is to be issued to all trainees after completion of training.
9.3	The successful tenderer needs to ensure the key users are updated on any relevant information related to the laboratory testing. **They shall provide ONE off-site training for two (2) key users per year of contract.** All expenses for attending the training shall be borne by the vendor; full registration, air ticket, daily allowance, accommodation, transport to and from the airport and place of training. **Training may be in the form of operator's training, workshop, congress, international conference including 3rd-party conference, or other forms of training that is deemed appropriate and relevant.**
9.4	Inviting speakers from overseas to give talks or presentations to the users on topics related to the laboratory testing as part of users' continuous education. Certificate of attendance is to be issued to all trainees after completion of training.
10	**FINANCIAL AGREEMENT**
10.1	A rental agreement is required over a period of five (5) years for the provision of the reagent kits as per estimated total costs for this contract. However, contract agreement shall be terminated when total expenditures of supplies exceed the estimated total costs regardless of five (5) years contract.
10.2	Supply of the test kit including reagents, consumables and accessories is based on the number of kits required in the Purchase Order according to an agreed schedule period.
10.3	Buffer stock of the test kit including reagents, consumables and accessories should be available at the local representative as contingency.
10.4	The equipment supplied should include reagents, consumables, calibrators, maintenance record sheet, maintenance cleaning kit and quality control for initially setting up of the instruments.
10.5	Should there be any discontinuity of reagents due to non-compliance in the manufacturing of reagents; the vendor must be able to provide an alternative so that the test requests are still available for the customers.
10.6	All costs incurred for the supply and delivery of test kit including reagents, consumables and accessories, equipment and other accessories required by the tender will be borne by the successful vendor.
10.7	**EXIT CLAUSE**: The tender contract shall be automatically terminated even though tender has not yet expired and this shall be in effect due to, but not limited to, the following: 1. When the testing is no longer required or relevant i.e. test is obsolete, to the laboratory or department. 2. When the item(s) set out in this tender is/are no longer required by the laboratory or the Department. 3. When the approved budget allocation for this tender contract has been used up before the tender contract expires whereby a renewal of tender shall be submitted by the user for an open advertisement subject to approval by the Mini Tender Board (*Lembaga Tawaran Kecil*).

11	**DELIVERY PERIOD:** Preferably 4 – 8 weeks and no later than 12 weeks after issue of Purchase Order
12	**PRICE VALIDITY:** The quotation shall remain valid for **12 MONTHS*** from the final date for the submission of the quotation and no supplier may withdraw his/her quotation within that period. The Government reserves the right to extend this period if deemed necessary provided that such extension to the quotation validity period shall have written consent of the supplier(s).

APPENDIX B: LIST OF LABORATORIES AND POCT SITE WITH REQUIREMENTS

No	Services	Location/ Sites	Estimated Reportable Results/year	Test Parameters Required	Proposed Type of Analyser
1.	RIPAS Hospital, National Clinical Chemistry Reference Laboratory	Chemistry Section	1000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop orHigh-throughput
2.	SSB Hospital Laboratory Services	Chemistry Section	100		Handheld or Benchtop (High-throughput or Low-throughput) ***(To be deployed if required)**
3.	PMMPHAMB Hospital Laboratory Services	Chemistry Section	350		Handheld or Benchtop (High-throughput or Low-throughput)
POCT SITES					
4.	RIPAS Hospital, Main Building RIPAS Hospital, Women and Child Centre	Emergency Department P1 (Rhesus Area)	8,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
5.		Emergency Department P2 (Trolley Area)	25,000		
6.		Critical Care ICU1	5,000		
7.		Critical Care ICU2	5,000		
8.		Critical Care ICU3	10,000		
9.		Acute Care Operation Theatre-Main Building	350	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
10.		Internal Medicine Ward 3 and 4	2000		
11.		CCU	20		Handheld or Low-throughput
12.		SCBU (Analyser A)	10,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)**	Benchtop or High-throughput
13.		SCBU (Analyser B)	10,000		
14.		PICU/HDU	3500		

No	Services	Location/ Sites	Estimated Reportable Results/year	Test Parameters Required	Proposed Type of Analyser
				• **Metabolites (Glucose, Lactate)** • **Neonatal total bilirubin**	
15.		Labour Room (Operation Theatre)	150	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, sO2)**	Handheld or Benchtop (High-throughput or Low-throughput)
16.		Labour Room	800		
17.	SSB Hospital, Belait	Critical Care, ICU	3,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
18.		SCBU	1,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)** • **Neonatal total bilirubin**	
19.		Emergency Department	4000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
20.	PIHM Hospital, Temburong	Emergency Department	800	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
21.	PMMPHAMB Hospital, Tutong	Emergency Department	1000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-)	Benchtop or High-throughput
22.		National Isolation Centre (NIC)	100		Handheld or Benchtop

No	Services	Location/ Sites	Estimated Reportable Results/year	Test Parameters Required	Proposed Type of Analyser
23.		National Isolation Centre – Extension (NICE)	80	• **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	(High-throughput or Low-throughput) ****(To be deployed if required during an outbreak or pandemic, or when otherwise necessary)**
	BACK-UP ANALYSERS				
24.	POCT Section	-	-	-	Benchtop or High-throughput
25.	POCT Section	-	-	-	
26.	Vendor's Office	-	-	-	Benchtop or High-throughput
		Total estimated test per year	**91,250**	Total number of analyser (unit) including backup analysers	**23 units or equivalent (subject to feasibility and operational requirements – refer to clause 1.2 and 1.7)**

NOTE:

***** New site with no blood gas analyser under the existing tender. The tenderer shall include an analyser for this site in the equipment deployment plan proposed under Clause 1.2.

****** New site with no blood gas analyser under the existing tender, required only during an outbreak or when otherwise necessary. The Department will request analysers for these sites by written instruction under Clause 1.7 (Variation), and they shall be deployed within 48 hours of that instruction and removed once the outbreak requirement ends.

For all sites marked ***** or ******: analysers shall be provided at the same tendered cost-per-reportable-result and shall complete verification and operator-competency requirements before clinical use. The estimated reportable results for these sites are indicative only and are not guaranteed.

No.	GENERAL SPECIFICATIONS
A	Model & Brand
B	Country of Origin
C	Total Price Per Test (CIF): B$
D	Price Ranking:
E	Where marketed
F	Year of Manufacture
G	Warranty:
H	Delivery Time:
I	Power Requirements:
J	Battery Back-up:
K	International Safety Standard:
L	Technical Support:
M	Equipment Whole Life Support
N	Dimensions (WxHxD) cm:
O	Weight (kg):
P	User Manuals
Q	Service Manuals
R	Spare-parts & Consumables Listing
S	Technical Training On-Site:
T	Site Requirements:

DELIVERY PERIOD AFTER PO ISSUED	**Preferably 4-8 weeks and no longer than 12 weeks**	
Lab/Section/Unit	POINT OF CARE TESTING SECTION	
Lab/Section/Unit Ref No.:	DLS/PU/POC/2026/08-01(POC BLOOD GAS)	
Person to Contact	Name : SUSYLAWATI BINTI HJ MAGON	
	E-mail : susylawati.magon@moh.gov.bn	
	Tel.No. : 2242424 ext 6354	Fax No. :
FOR ADMINISTRATION USE ONLY		
PPM/PROC Ref.No.	PPM/PROC/2026/>50K/023(POC)	
Advertisement Ref. No.		Date :

SECTION 3

SCHEDULE 1

TENDER FORM

To:

TENDER REFERENCE NO.: KK/256/2026/LAB(TC)

INVITATION TO TENDER
TO SUPPLY AND DELIVER BLOOD GAS TESTS REAGENTS AND CONSUMABLES WITH EQUIPMENT RENTAL BLOOD GAS TESTING PROGRAM FOR POINT OF CARE TESTING SECTION, DEPARTMENT OF LABORATORY SERVICES, MINISTRY OF HEALTH FOR A PERIOD OF FIVE (5) YEARS USAGE

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1. SUPPLY OF REAGENTS

1.1 To supply reagents and associated consumables (calibrators, controls, accessories and consumables) for the tests listed below.

APPENDIX A: SUMMARY OF UNIT PRICE OF REAGENT KIT
(To be completed by Vendor for submission)

	USER'S REQUIREMENTS			VENDOR'S OFFER					
NO	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PACKAGING SIZE**	**TOTAL ESTIMATE USAGE / YEAR**	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PART/ CATALOGUE NUMBER AND BRAND**	**PACKAGING SIZE**	**TOTAL QUANTITY OFFERED / YEAR**	***COST PER UNIT (B$)**	**TOTAL COSTS (B$)**
1	The reportable POC - Blood Gases test results of the following parameters on standalone analyser: • Blood gas (pH, pCO2, pO2)	Unit Price of Reportable POC - Blood	24500 Reportable						

	USER'S REQUIREMENTS			VENDOR'S OFFER					
NO	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PACKAGING SIZE**	**TOTAL ESTIMATE USAGE / YEAR**	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PART/ CATALOGUE NUMBER AND BRAND**	**PACKAGING SIZE**	**TOTAL QUANTITY OFFERED / YEAR**	***COST PER UNIT (B$)**	**TOTAL COSTS (B$)**
	• Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb) • Metabolites (Glucose, Lactate) • **Neonatal total bilirubin**	Gases test result	POC-Blood Gases test results/Year						
2	The reportable POC - Blood Gases test result of the following parameters on standalone or handheld analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb) • Metabolites (Glucose, Lactate)	Unit Price of Reportable POC - Blood Gases test result	65,800 Reportable POC-Blood Gases test results/Year						

	USER'S REQUIREMENTS			VENDOR'S OFFER					
NO	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PACKAGING SIZE**	**TOTAL ESTIMATE USAGE / YEAR**	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PART/ CATALOGUE NUMBER AND BRAND**	**PACKAGING SIZE**	**TOTAL QUANTITY OFFERED / YEAR**	***COST PER UNIT (B$)**	**TOTAL COSTS (B$)**
3	The reportable POC - Blood Gases test result of the following parameters on handheld or standalone analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, sO2)	Unit Price of Reportable POC - Blood Gases test result	950 Reportable POC-Blood Gases test results/Year						
4	EQA PROGRAM	programs/ enrolment	23 programs/ Enrolement or equivalent						

***Cost per test should include the kit, control, calibrator and accessories/consumables required to run the test.**

NO	SPECIFICATIONS AND REQUIREMENTS	**VENDOR'S OFFER** (PLEASE STATE)
1.0	**PROVISION OF EQUIPMENT AND SERVICES**	
	This tender is intended to acquire a comprehensive blood gas testing solution through the provision of blood gas analysers (benchtop/ high-throughput and/or handheld/low-throughput) on an equipment rental basis (not outright purchased) for the Department of Laboratory Services and its associated Point-of-Care Testing (POCT) facilities.	
1.1	All blood gas analysers supplied under this contract shall be fully interfaced with Bru-HIMS and shall serve the following hospitals and their associated laboratory and POCT sites: ● RIPAS Hospital, Brunei-Muara ● SSB Hospital, Kuala Belait ● PMMPMHAMB Hospital, Tutong ● PIHM Hospital, Temburong The contract term is **five (5)** years. All equipment supplied under this contract shall remain the property of the tenderer and shall be returned to the tenderer upon expiry or termination of the contract.	
1.2	The number of blood gas analysers to be deployed under this contract is not fixed by this tender. Tenderers shall propose an equipment deployment plan sufficient to meet the service coverage, analyte menu, throughput, turnaround-time, connectivity and backup / uptime requirements specified in Appendix B for each laboratory and POCT site listed in Clause 1.1. An indicative baseline of twenty-three (23) analysers is stated in [Appendix B] for the sole purpose of bid pricing, evaluation and comparison. This figure shall not constitute a minimum, maximum,	

	or guaranteed quantity, and no tenderer shall rely on it as a committed volume. The Department reserves the right to increase or decrease the number, type and location of deployed analysers at any time during the contract term, to accommodate changes in clinical workload, service reconfiguration, or the establishment of new laboratory or POCT testing sites without re-tendering, in accordance with Clause 1.7 (Variation), at no additional unit cost beyond the tendered cost-per-reportable-result. The proposed configuration shall maintain uninterrupted clinical services, support efficient workflow, optimise resource utilisation, and demonstrate overall cost-effectiveness across the full contract term.	
1.3	(a) Tenderers shall price this contract on a **cost-per-reportable-result (CPRR)** basis. A “reportable result” means the complete set of blood gas examination results generated from a single patient sample that has satisfied the applicable quality-control acceptance criteria and has been validated and released into the patient record via Bru-HIMS. Each such validated, released panel shall constitute one (1) reportable result, irrespective of the number of measured or calculated parameters it contains. (b) QC and verification testing performed to satisfy the Department’s quality and accreditation requirements shall not be charged as reportable results.	
1.4	The quoted unit price per reportable result shall include the cost of all the following activities and services for the full five (5)-year contract term. No item listed below shall attract any additional charge beyond the tendered unit price:	

	1.4.1 Equipment supply, installation and backup **(a)** Supply and delivery of the proposed number of rented analysers to the laboratories and POCT facilities at all hospitals. **(b)** Supply and provision of all backup analysers required to meet the uptime and continuity obligations set out in Clause 1.6 and Appendix B, included within the unit price. **(c)** Relocation, re-installation and re-verification of any analyser redeployed under Clause 1.7 (Variation), included within the unit price. **(d)** Insurance of, and all risk of loss or damage to, the rented equipment for the contract term. As the analysers remain the tenderer's property, this risk shall rest with the tenderer. **(e)** Installation and initial set-up of all analysers. Each benchtop (mains-powered) analyser shall be supplied with an Uninterruptible Power Supply (UPS).	
	1.4.2 Consumables, calibration and quality control **(a)** Supply, delivery and use of all reagents, cartridges, consumables, calibration materials and internal quality-control (IQC) material required for testing in accordance with the manufacturer's instructions and the DLS POCT programme requirements.	

	(b) Initial verification and re-verification (when applicable) of analyser performance, including all consumables and QC material for reagent lot-to-lot verification performed each time a new reagent lot is introduced. **(c)** Supply of thermal paper for printing reports and patient results. **(d)** Supply of consumable-waste / used-cartridge disposal provisions for the biohazard and sharps streams generated by the analysers. **(e)** Enrolment in, and supply of samples for, an External Quality Assessment (EQA) / Proficiency Testing scheme for blood gas for the full contract term, at the tenderer's cost. The EQA scheme provided shall satisfy the following minimum selection criteria: ● A peer / comparison group of more than fifteen (15) participants (of the same or a comparable method / instrument group) for each reported parameter, to ensure statistical validity of the performance assessment; ● Coverage of the complete blood gas parameter menu reported by the deployed analysers including pH, pCO_2, pO_2, electrolytes, metabolites and co-oximetry, so that every reportable analyte is externally assessed; ● Accreditation of the EQA / proficiency-testing provider to ISO/IEC 17043;	

	● A distribution frequency sufficient to meet ISO 15189:2022 and DLS POCT programme requirements (for example, at least monthly or per defined scheme cycle). ● EQA programs to include parameters as below: • Blood Gases Full Program – 23 enrolments or equivalents • Co-oximetry Full Program – 23 enrolments or equivalents • Neonatal Bilirubin Full Program – 3 enrolments or equivalents	
	1.4.3 Information technology, connectivity and cybersecurity **(a)** Provision of all information-technology appliances required for operation and monitoring including computers / laptops / tablets, printers, and all associated licensing together with all licensing, interfacing and configuration required to connect every blood gas analyser to the POC middleware system and Bru-HIMS, including cybersecurity for the middleware and Bru-HIMS interfacing. **(b)** Replacement of any failed, obsolete or end-of-life IT appliance (laptop, tablet, printer or peripheral) during the contract term, at no additional cost. **(c)** The successful tenderer shall provide all software updates and licensing renewals for the supplied equipment at no additional cost throughout the contract period	

	(d) Provision of the Data Management System or POC-Middleware System placed at Point of Care Testing Section and National Reference Clinical Chemistry Laboratory for the monitoring of all Blood Gases analysers installed. Data Management System should include the following (with licensing) but not limited to: • Peer Quality Control • Device Management • Compliance Management • Operator and Competency Management with E-Learning	
	1.4.4 Documentation, training and competency **(a)** Supply of manuals and related documentation for the testing procedure, and any other items required to produce a reportable result. **(b)** Provision of in-house training and all documentation required for training, including certificates, training manuals and training forms. **(c)** Provision of initial and yearly competency evaluation activities for all users.	
	1.4.5 Maintenance and technical support **(a)** Provision of at least two (2) Biomedical Engineers providing 24-hour on-going support, including all parts required for repair and the performance of scheduled preventive	

	maintenance for the analysers. Response and resolution shall meet the service levels specified in Clause 1.6	
	1.4.6.1 Provision of Personnel **(a)** The successful tenderer is required to provide two (2) Scientific Officers, or Medical Laboratory Technologists, or equivalent, to be stationed at the Point of Care Testing Section, Department of Laboratory Services (DLS), for the five-year contract duration. The officer will support daily operations and maintain quality assurance standards during the following working hours: Standard Hours: Monday–Thursday and Saturday (07:45–12:15 and 13:30–16:30) Ramadan Hours: 08:00–14:00 **(b)** The officers shall have the following duties and responsibilities, but are not limited to: i. Manage inventory of reagents and consumables and to deliver when required. ii. Perform the reagent lot-to-lot verification for every new delivery and new lot where applicable. iii. Review daily activity at the POCT sites via the POC-Middleware System and report any issue or outlier to the POCT Section. iv. Support audit activities related to the POC Blood Gas Programme ISO 15189 accreditation v. Retrieve quality data or statistic on monthly basis and submit the report to the Head of POCT Section for verification. vi. Train and evaluate competency of the staffs/poct operators as requested by HOS of POCT Section. vii. Review daily activity and report to HOS of POCT Section if issue or outlier is identified. viii. Report and document any instrument breakdown and ensure any issues are corrected immediately	.

	and ensure downtime of instrument are minimal so as not to disrupt downstream processes and services. The Tenderer may provide additional duties and responsibilities suitable with the officer's post and qualifications. However, his/her duties and responsibilities at POCT Section shall take precedence. ix. Assist nurses at the respective POCT sites when required. x. Retrieve quality data and statistics monthly from the POC-Middleware System and submit reports to the laboratory and POCT sites for verification xi. Create and provide user IDs and barcodes for newly trained POCT personnel and operators (nurses or doctors) **(c)** The Tenderer shall ensure the officers must be citizen of Kebawah Duli Yang Maha Mulia Paduka Seri Baginda Sultan dan Yang Di-Pertuan Negara Brunei Darussalam. **(d)** The Tenderer shall ensure that the officers are registered with the Allied Health Professional (AHP) Council of Brunei Darussalam, under the supervision of the HOS of POCT Section. **(e)** The Tenderer shall ensure that the officer must be between 20 and 40 years of age at the commencement of employment (provided with medical fitness report). **(f)** The Tenderer shall ensure that selected officer must possess a minimum of Bachelor of Science degree or an equivalent qualification and at least 6 months' experience in a clinical laboratory or Point-of-Care Testing setting	

	(g) The Tenderer shall ensure that the officer must be able to write and communicate effectively in Malay and English. **(h)** The Tenderer shall ensure that the officers are subject to further security assessment and must be free from any criminal record before employment. **(i)** The Tenderer shall ensure that selected officers have undergone medical screening and deemed medically fit to perform the duties. The Tenderer is required to provide a copy of the report to the Department. All costs incurred for medical screening shall be borne by the Tenderer. **(j)** The Tenderer shall ensure that selected personnel receive the appropriate vaccination, particularly against Hepatitis B, before being deployed to the Point of Care Testing Section. **1.4.6.2 Removal and Replacement of Personnel** **(a)** The Department reserves the right to remove or request for replacement for any of the officer employed by the Tenderer from any of the premises of placement, who in the opinion of the Department has misbehaved or is incompetent or negligent in the performance of his/her duties. **(b)** The Tenderer shall ensure that any officer who resign or removed are promptly replaced with suitably qualified and competent individuals. **(c)** Such replacement must be approved by the Department prior to the deployment. **1.4.6.3 Wages and Welfare** **(a)** The Tenderer is responsible for the wages, insurance (workmen compensation and medical insurance), medical and	

	welfare of his personnel in accordance with the requirements of the Labour Department, Brunei Darussalam. **(b)** The Tenderer shall take out, at its own expense, with an insurance approved in writing by the Department a policy or policies each specifically endorsed to provide indemnity to the Tenderer and to the Department against any liabilities arising out of claims by any personnel for payment of compensation under the Workmen's Compensation Act (Cap 74 of the Laws of Brunei)	
	1.4.7 Future expansion and development **a)** Provision of future development and upscaling, including upgrading of software and hardware. **b)** Provision of any additional analysers (benchtop and/or handheld) required to maintain the specified service levels as testing volume increases, or as new laboratory / POCT sites are established during the contract term, at no additional cost beyond the tendered unit price.	
1.5	The tenderer must submit the tender document with the **Executive Summary of Project Proposal** suitable for POC- Blood Gases Program for Brunei Ministry of Health. The Executive Summary Project Proposal report must include but not limited to the following and based on information given in **APPENDIX B**: a) Proposal of brand, type and number of units of blood gases equipment to be installed in each laboratory and POCT site. b) The cost-effectiveness of the proposed project and value better services for POCT Blood Gases Program.	

	c) The breakdown of the costing per reportable test, including reagents, calibrators, consumables, and all supplies required to provide a final test result. d) Implementation and installation timeline e) Training and competency development plan f) Bru-HIMS/POC-Middleware interfacing approach g) After-sales support and service model h) Business continuity and risk management plan i) Total cost of ownership over the 5-year term j) Equipment return and exit plan k) Company background, track record, and references l) Regulatory and quality compliance status	

1.6	**BACKUP AND UPTIME** **1.6.1** The tenderer shall provide sufficient backup analyser capacity at each laboratory and POCT site to maintain uninterrupted clinical blood gas testing at all times. Backup capacity is a service-level obligation included within the tendered cost-per-reportable-result and shall not be counted as a fixed quantity of units. **1.6.2** The tenderer shall meet the following minimum service levels at each site (final figures to be confirmed in Appendix B): (a) Maximum unplanned downtime per analyser: not more than 2 hours per event. (b) Remote or telephone response to a reported failure: within 1 hours. (c) On-site attendance, or provision of a functioning replacement analyser: within 2 hours of a confirmed failure (d) A confirmed failure at a single-analyser site shall be treated as critical and shall require a functioning replacement within 2 hours. **1.6.3** Scheduled preventive maintenance shall be planned with the POCT Section and shall not reduce available testing capacity below the level required to maintain clinical service. **1.6.4** Any backup or replacement analyser placed into clinical service shall first complete the installation, verification and operator-competency requirements of this specification before patient testing	

1.7	**VARIATION (ADDITIONS, RELOCATIONS AND REMOVALS)** **1.7.1** The Department may, by written instruction from its authorised representative, increase or decrease the number, type or location of deployed analysers during the contract term to accommodate changes in clinical workload, service reconfiguration, or the establishment of new laboratory or POCT sites. **1.7.2** Not less than 2 days' written notice shall be given for a planned relocation or removal, save in cases of urgent clinical need. **1.7.3** Additional analysers deployed to serve new or expanded sites shall be provided under the same terms and at the same tendered cost-per-reportable-result, with no additional unit charge and without re-tendering. **1.7.4** Every added, relocated or replacement analyser shall complete installation, verification, qualification and operator-competency requirements before being placed into clinical service. **1.7.5** No variation under this clause shall of itself extend the five (5)-year contract term.	
1.8	**PRECEDENCE AND NON-DUPLICATION** **1.8.1** Clause 1.4 is the master schedule of activities and services included in the tendered cost-per-reportable-result. Where any activity, service, personnel provision or obligation is also referred to elsewhere in this specification (including Sections 4 and 5), such references describe the same single obligation and shall not be construed as additional or separately chargeable items.	

	1.8.2 Where any conflict exists between Clause 1.4 and another provision as to the scope of what is included in the unit price, Clause 1.4 shall prevail. **1.8.3** For the avoidance of doubt, the quality-assurance duties, lot-to-lot verification, IT and middleware provision, training and competency, and maintenance obligations stated in Sections 4 and 5 are included within the cost-per-reportable-result and apply to all deployed analysers, both benchtop and handheld.	
2.0	**EQUIPMENT SPECIFICATION**	
2.1	**GENERAL**	
2.1.1	The Tenderer must propose the suitable type of blood gas analyser(s) for both laboratory services and POCT facilities. The offered blood gas analysers may either be: a) all benchtop analysers, with different reagent pack/volume sizes offered according to the throughput requirements of each respective site; **OR** b) a mix of benchtop and handheld analysers, with the choice of benchtop or handheld analyser to be determined in accordance with the anticipated testing throughput at each respective site. The brand offered shall not be more than two (2) brands. (Tenderers shall state this in the **Executive Summary of their Project Proposal**.)	
2.1.2	The offered blood gases analysers must be designed for analysing Blood Gases, Electrolytes, Metabolites and Co-Oximetry using whole blood sample and must be FDA-approved, CE-marked, or approved by a recognised equivalent regulatory authority, for testing whole blood for arterial, capillary and venous and the procedures of testing must comply to the requirement CLSI C46-A2, Blood Gas and pH Analysis and Related Measurements	

<table>
<tr><td>2.1.3</td><td>The offered unit blood gases analysers must be easy to use, requiring minimal routine maintenance, available daily with very minimum daily start-up time.</td><td></td></tr>
<tr><td>2.1.4</td><td>Software upgrades and updates for the blood gases analysers must be provided free of charge and available to Department of Laboratory Services immediately after release.</td><td></td></tr>
<tr><td>2.1.5</td><td>Analyser to be offered must be of low generation of hazardous chemical and biological waste with temperature requirement of 22° to 28°C and humidity requirement up to 80% relative humidity</td><td></td></tr>
<tr><td>2.1.6</td><td>The offered blood gases analysers must come with the self-contained cartridge or cassette reagents ready for sample entry.</td><td></td></tr>
<tr><td>2.1.7</td><td>The offered blood gases analysers must have built-in bar-code scanner to supports faster and easier sample processing which can scan the patient barcode and/or specimen barcode and operator ID.</td><td></td></tr>
<tr><td>2.1.8</td><td>The offered BENCHTOP type analyser must have system dimension not exceeding the following measurement:
Width: 13 in
Depth: 17 in
Height: 22 in
Weight: 17 kg</td><td></td></tr>
<tr><td>2.1.9</td><td>Analytical ranges of the following parameter must within the measurement below:

<table><tr><th>Parameter</th><th>Range</th></tr><tr><td>pH</td><td>6.50-7.800</td></tr><tr><td>pCO2</td><td>5.0-200 mmHg</td></tr><tr><td>PO2</td><td>10-700 mm/Hg</td></tr><tr><td>Glucose</td><td>1.1-40 mmol/L</td></tr><tr><td>Lactate</td><td>0.18-30 mmol/L</td></tr><tr><td>Na+</td><td>100-200 mmol/L</td></tr><tr><td>K+</td><td>0.5-15.0 mmol/L</td></tr></table></td><td></td></tr>
</table>

	<table><tr><td>Cl-</td><td>65-140 mmol/L</td></tr><tr><td>Ca2+</td><td>0.2 -5.0 mmol/L</td></tr><tr><td>Neonatal Bilirubin</td><td>0-1000 µmol/L</td></tr><tr><td>Measured S02</td><td>0-100%</td></tr><tr><td>Measured Total Hb</td><td>0-20</td></tr></table>	
2.2	**BENCHTOP ANALYSER**	
2.2.1	The offered BENCHTOP type analyser must have the capability to having the high or low throughput options and comply to the following: • Start-up time not more than 30 minutes. • Self-contained cartridge reagents ready for sample entry for routine specimens and easy replacement. • Throughput of not less than 20 samples per hour • The analyzer should be able to meet test volume for a period of 5 years and allow for the 5 % growth in test per year. • Having continuous system and analysis check includes: o Sample integrity check o Calibration status o Temperature check o Mechanical check o Electronically check o Measurement preparations o Consumable check • Easy-to-use, maintenance-free cartridge-based system which is ideal for non-laboratory personnel • Touchscreen monitor with optimal viewing on the test panel/parameters and access to other functions	

	• Ease of use for sample introduction with a single sample port that accepts syringes or capillary without adapters • Hands-free sample port with automated sample aspiration, self-cleaning probe, and clot and bubbles detection features. • USB ports to enable back-up of results and event log. • Minimal down-time during calibration. Calibration time of not more than 30 minutes for full calibration • Having customizable QC schedule with a minimum of 3 times (for every 8 hours) a day • Levey-Jennings plot available in the system and can be extracted for documentation. • Automatic system and analysis check calibration at regular interval. • Fully automated calibration and quality control systems. • Automated corrective actions without or minimal operators' intervention • On-board reagents, not less than 28-day reagent cartridge requires no operator intervention • Test full menu from a single sample or customize panels to meet specific needs • Set user privileges based on operator needs for testing, administration, and reporting	

	• Sample size for adults of not more than 100 ul for both syringe and glass capillary • Sample size of not more than 70 ul for neonates (paediatric sample). • Measuring testing time of not more than 40 seconds for the whole parameters • System for automatic lockout of parameters that fails QC reports and calibration • Display and report only ordered tests results. • Automatic temperature correction for results. • On board result storage capacity for at least 500 results. • On board video tutorial to assist operation and troubleshooting. • Remote diagnostics and control capability. • Electronic QC submission with real time review. • Pre-analytical error detection – automatic clot detection and removal • Capability to connect to multiple data management systems to wireless integration with BruHIMS Laboratory Information system (Laboratory Services) and BruHIMS Health Information System (POCT sites) or with docking system	
2.2	**HANDHELD ANALYSER (IF APPLICABLE)**	

2.2.1	The offered HANDHELD type analyser (If applicable) must have capability to provide cartridges application where appropriate for the laboratories or POCT setting. • The device is lightweight, portable and easy to use analyser in obtaining time-sensitive results at the patient's side and suitable for testing in the laboratory. • Supplied with printer and thermal paper for printing report or patient results. • The handheld analyser can connect to middleware data management systems to integrate seamlessly with Hospital and/or Laboratory Information System, Electronic Medical Records or both to help for the managements of test results, operators and devices. • The device should have measurement not exceeding the following measurement: o Width: 3.5 in o Length: 9.5 in o Depth: 3.0 in o Weight: With battery 650 grams • The device must have the following features: o Capability to have auto-calibration. o Capability to scan operator ID, patient ID and specimen ID barcode. o Display and report only ordered tests results. o Require small sample volume of not more than 200ul for full panel in micro sampling mode and delivers results in less than 2 minutes. o Temperature correction for results. o On board result storage capacity for at least 50 results.	

	○ Lengthy cartridges stability and shelf life of not less than 6 months upon delivery. ○ Short analysis time (results shall be available within 60 seconds for full menu of tests). ○ Sample type: whole blood from syringe, test tube or capillary. ○ Supplied with remote or contactless printing or built-in printing. ○ Built-in scanner. ○ Power rechargeable battery or any suitable battery. ○ Capability to connect to multiple data management systems to wireless integration with BruHIMS Laboratory Information system (Laboratory Services) and BruHIMS Health Information System (POCT sites) or with docking system.	
3.0	**REAGENTS AND CONSUMABLES SPECIFICATIONS**	
	Cartridges or reagents and consumables for the analyser must be staggered delivery and consist of the following criteria: Benchtop type analyser: • Have usage life of not less than 28 days • Have flexible number of tests per cartridges • Storage at room temperature is preferred; reagents/cartridges requiring refrigerated storage (2–8 °C) are acceptable provided the tenderer supplies and maintains the necessary cold-chain and states the storage conditions • Not more than 2 types of reagents/consumables Handheld type analyser (if applicable): • Storage at room temperature is preferred; reagents/cartridges requiring refrigerated storage (2–8 °C) are acceptable provided the tenderer supplies and maintains the necessary cold-chain and states the storage conditions	

4.0	**TECHNICAL SPECIFICATIONS**	
4.1	The tender contract includes the provision of the Data Management System or POC - Middleware System placed at Point-of-Care Testing Section and National Reference Clinical Chemistry Laboratory for the monitoring of all Blood Gases Analysers (Benchtop and Handheld). Data Management Systems should include the following (with licensing) but not limited to: • Peer Quality Control • Device Management • Compliance Management • Operator and Competency Management with E-Learning • Sample Flow Management	
4.2	The offered POC-Middleware System shall be capable of supporting the interfacing requirement of Bru-HIMS	
4.3	The offered POC-Middleware System software should able to: • monitor instrument status and performance, and reagent levels, • control functions of analysers remotely • monitor status of analyser without interruption of test analysis. • maintain and generate records of Quality Control and graphical reports • forward all alert messages to main terminal. • permit interface with other POC devices.	
4.4	The successful tenderer must provide the necessary IT equipment and accessories for POC-Middleware such as desktop computer or laptop with printers with the upgradable software for access of data management system of the supplied Blood Gases analysers to enable remote monitoring of all analysers at Point of Care Testing Section.	

4.5	The successful tenderer is to regularly upgrade the POC-Middleware System when required without additional costs during the tender contract.	
4.6	The POC-Middleware System must be able to link or transmit patient's test result to Bru-HIMS via HIS and LIS.	
4.7	The POC-Middleware system shall have the following features: • Able to record continuous system and analysis check. • able to notify management operators or operators any issue that requires immediate action or response by both parties for troubleshooting or solution. • Able to record any flagged issues, recurrent issues and any corrective actions performed • Able to retrieve data such as: o Statistical data o Authorised users/operators o Non-conformities such as clotted specimens, bubbles and etc o Operators' compliance o Competency documentation (operator's performance tracking) o Corrective actions o QC reports for each device o Preventive actions done to resolve the issues. • Able to compile statistical data such as: o Daily/Monthly/Yearly Performance Overview of each analyser o Daily/Monthly/Yearly QC violations of each analyser o Daily/Monthly/Yearly non-conformities incidents and corrective actions taken for each analyser o Daily/Monthly/Yearly reports of total number of tests done at each analyser o Number of successful tests done by each operator per month/year	
4.8	**DATA SECURITY AND PROTECTION**	

	The POC-Middleware System and all interfaces with Bru-HIMS shall meet the following minimum data-security requirements: (a) Encryption of patient and quality data both in transit and at rest. (b) Role-based access control, with unique user authentication and enforced privilege levels. (c) A tamper-evident audit trail (audit logging) of all data access, changes and result transmissions. (d) Secure user provisioning and de-provisioning, and protection against unauthorised access to patient data. (e) Compliance with all applicable national health-data protection and cybersecurity requirements.	
4.9	**DATA OWNERSHIP AND RETURN**	
	4.9.1 All patient results, quality-control data, competency records, audit data and reports generated under this contract shall remain the property of the Ministry of Health. **4.9.2** On expiry or termination of the contract, the tenderer shall export all such data to the Ministry of Health in a usable, non-proprietary format at no additional cost, and shall securely delete the data from vendor-controlled systems on the Department's instruction.	
5.0	**SERVICE AND AFTER SALES SUPPORT**	
5.1	The successful tenderer must be able to manage their manpower and absorbing the workload throughout the operational contract agreement to smoothen 24-hours operation for the POC-Blood Gases Program of Department of Laboratory Services.	

5.2	The successful tenderer must perform installation and performance qualification in order to verify the supplied equipment is deemed “Fit for Use”. The report of the individual analyser shall be filed and submitted to the POCT Section.	
5.3	The successful tenderer must supply, at no additional cost of reagents, and consumables for initial evaluation purposes after the instrument has been installed according to the specifications.	
5.4	All reagent test kits / consumables supplied throughout this tender shall have a minimum expiry date of **six (6) months on delivery**. Should the reagent or consumable be urgently needed, provision of a reagent test kit or consumable with expiry date of less than six (6) months should be first agreed by the User of the particular laboratory before delivery is made.	
5.6	Letter of Undertaking (LOU) shall be produced upon each delivery of test kit or consumable with expiry date of less than **six (6)** months and vendor shall declare in the LOU that unused, unopened, expired kits will be replaced accordingly. For items which are known to have short expiry date such as those containing red blood cells, list down all such items and vendor shall declare in this tender submission of such items and shall be exempted from submitting LOU upon delivery.	
5.7	Staggered delivery every 3 months period directly to the Point of Care Testing Section, Department of Laboratory Services.	
5.8	User shall have the rights to refuse delivery of items that do not meet the acceptance criteria such as, but not limited to, the following: 1. Tampered or damaged box 2. Leakage upon delivery 3. Items stored pre-delivery not in accordance to manufacturer’s instructions 4. Expiry date not meeting requirement	

5.9	User shall have the rights to return any items, and to be replaced at no extra cost, if found not meeting the acceptance criteria upon opening a pack such as, but not limited to, the following: 1. Tampered or damaged packaging 2. Evident of leakage or damaged products 3. Expired products that are evidently less than the requirement mentioned in para 5.6 calculated from delivery date 4. Leakage upon delivery	
5.10	Vendor shall submit samples of the offered items directly to the Users no later than 7 days after the Closing Date of this advertisement or as required by the Users.	
5.11	Please supply details of the arrangement for 24-hour service support. There should preferably be remote diagnostic facility available. This should include the number of engineers and application specialist, their qualification/training with the system, response time during office hours, after office hours, weekdays and weekends.	
5.12	The supplier SHALL be responsible for the preventive maintenance (Weekly, Monthly, and Quarterly as needed) and breakdown maintenance of the analyzers. Any breakdown should be quickly attended to within 2 hours.	
5.13	A copy of service report must be submitted to the laboratory whenever service work is done on the instrument.	
5.14	Spare parts SHALL be supplied by the supplier should any replacement is required during preventive and breakdown maintenance.	

5.15	Vendor shall aid the user with verification of a comprehensive methods performance for all of the tests listed above including, but not limited to, precision, accuracy, linearity, sensitivity, specificity, carryover, limit of detection or as required by the User depending on the nature of testing. Report of the verification study shall be submitted to the User for approval by the Director of Laboratory Services.	
5.16	In the event of test results cannot be produced due to equipment failure or unavailable reagent supplies within the specified turnaround time, the vendor shall arrange and bear all costs for analysis of tests to an accredited laboratory (ISO 15189).	
6.0	**ENVIRONMENTAL AND INFRASTRUCTURE REQUIREMENTS**	
6.1	The system shall occupy space not more than the present system in the laboratory. If any renovation (electrical and/or environmental) is required, costs shall be borne by Vendor.	
6.2	Should any renovation is required, Vendor shall comply with the Ministry's procedure for infection control risk assessment (ICRA), implementation and monitoring as set out in the document titled Construction and/or Renovation, Maintenance, Repair and Demolition in the Health Care Setting.	
6.3	Power and water requirements: No or low water consumption. If water is required, state how much and what purity, with provision of water purification system included. Please provide specification for power requirement. All costs for installing electrical and water requirements shall be borne by the Vendor. All the electrical wires shall be covered with PVC trunk properly for safety precautions.	
6.4	Electrical Safety – Vendor shall test for and maintain the electrical safety of all equipment and accessory devices installed throughout their usage period. This include conducting electrical safety testing upon installation & during preventive maintenance (at least every six (6) months) using calibrated device. Electrical safety testing report shall be submitted to the laboratory for acceptance.	

6.5	Temperature and humidity requirement: preferably 22 – 28 ^{o}C and up to 80% relative humidity.	
6.6	Floor area and drainage requirements: preferably adaptable to present facilities.	
6.7	Low generation of hazardous chemical or biological waste.	
6.8	If biological liquid waste is generated, the supplier shall provide the following for suitable waste containers; i. Two waste containers shall be capped, have an inlet and outlet, easy to handle and do not hold more than 15L of liquid waste ii. When the production of waste liquid is more than 15L/day, a direct waste pipe shall be installed. A pre-dilution container shall be provided with easy access to add disinfectant and dispose of waste liquid. A preventive pipe shall be installed to prevent overflowing liquid waste from the waste containers iii. Proper guidelines to disinfect the liquid waste that is acceptable to ISO 15189 shall be provided	
6.9	The successful vendor shall keep the area behind of the equipment tidy and clean at all times. All wires and cables shall be properly covered using PVC trunk, flexible wire and cable cover or equivalent that is acceptable to the laboratory or POCT sites.	
6.10	The successful tenderer must ensure the availability of service parts of the blood gases analysers and the validity of the reagents and consumables during the period 5 years of tender contract and at least 2 years after expiration of the tender contract	
6.11	The successful tenderer must advise and/or provide necessary tools if required for safe disposal of used cartridge/reagent kits following the manufacturer's recommendation or as practiced by the Department of Laboratory Services for disposal of chemical and biological waste.	
6.12	The successful tenderer must provide UPS (uninterrupted power supply unit) that will support each analyser while operating in full capacity for all analysers where required.	

6.13	The successful tenderer is to provide customised mobile workstation by providing system trolley supplied for benchtop analyser with all the necessary accessories (such as power cable, tablet or laptop, barcode scanner) as per required for daily operation for POCT sites (wards)	
7.0	**MISCELLANEOUS**	
7.1	The successful tenderer must upgrade the current analyser to reflect any improvements or new developments that become available during the life of the contract at no additional charge.	
7.2	The successful tenderer must report immediately any adverse incident or related issue against the reagents or analyser and provide all product alerts to the POCT Section during the life of the contract.	
8.0	**LITERATURE**	
8.1	To supply PDF copy of the Operating Manual and Service Manual including circuit diagrams of the equipment shall be provided upon commissioning.	
8.2	To supply the laboratory with one (1) set of Material Safety Data Sheet (MSDS)	
8.3	To supply softcopy of maintenance log with list of details of daily, weekly or scheduled maintenance	
8.4	To provide any training materials and quick-guide instruction of the offered blood gas analysers for POCT operators	
9.0	**TRAINING -** Training shall be provided, at no additional cost, as follows:	
9.1	On-site training for ALL staff members expected to handle the machine. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory and POCT operators at wards/clinics.	
9.2	Certificate of competence is to be issued to all trainees after completion of training.	
9.3	The successful tenderer needs to ensure the key users are updated on any relevant information related to the laboratory testing. **They shall provide ONE off-site training for two (2) key**	

	users per year of contract. All expenses for attending the training shall be borne by the vendor; full registration, air ticket, daily allowance, accommodation, transport to and from the airport and place of training. **Training may be in the form of operator's training, workshop, congress, international conference including 3rd-party conference, or other forms of training that is deemed appropriate and relevant.**	
9.4	Inviting speakers from overseas to give talks or presentations to the users on topics related to the laboratory testing as part of users' continuous education. Certificate of attendance is to be issued to all trainees after completion of training.	
10	**FINANCIAL AGREEMENT**	
10.1	A rental agreement is required over a period of five (5) years for the provision of the reagent kits as per estimated total costs for this contract. However, contract agreement shall be terminated when total expenditures of supplies exceed the estimated total costs regardless of five (5) years contract.	
10.2	Supply of the test kit including reagents, consumables and accessories is based on the number of kits required in the Purchase Order according to an agreed schedule period.	
10.3	Buffer stock of the test kit including reagents, consumables and accessories should be available at the local representative as contingency.	
10.4	The equipment supplied should include reagents, consumables, calibrators, maintenance record sheet, maintenance cleaning kit and quality control for initially setting up of the instruments.	
10.5	Should there be any discontinuity of reagents due to non-compliance in the manufacturing of reagents; the vendor must be able to provide an alternative so that the test requests are still available for the customers.	
10.6	All costs incurred for the supply and delivery of test kit including reagents, consumables and accessories, equipment and other accessories required by the tender will be borne by the successful vendor.	

10.7	EXIT CLAUSE: The tender contract shall be automatically terminated even though tender has not yet expired and this shall be in effect due to, but not limited to, the following: 1. When the testing is no longer required or relevant i.e. test is obsolete, to the laboratory or department. 2. When the item(s) set out in this tender is/are no longer required by the laboratory or the Department. 3. When the approved budget allocation for this tender contract has been used up before the tender contract expires whereby a renewal of tender shall be submitted by the user for an open advertisement subject to approval by the Mini Tender Board (*Lembaga Tawaran Kecil*).	
11	DELIVERY PERIOD: Preferably 4 – 8 weeks and no later than 12 weeks after issue of Purchase Order	(Yes / No) **(If No, please specify)**
12	PRICE VALIDITY: The quotation shall remain valid for **12 MONTHS*** from the final date for the submission of the quotation and no supplier may withdraw his/her quotation within that period. The Government reserves the right to extend this period if deemed necessary provided that such extension to the quotation validity period shall have written consent of the supplier(s).	

* 6 months validity required for <$50K or 12 months for >$50K

APPENDIX B: LIST OF LABORATORIES AND POCT SITE WITH REQUIREMENTS

No	Services	Location/ Sites	Estimated Reportable Results/year	Test Parameters Required	Proposed Type of Analyser
1.	RIPAS Hospital, National Clinical Chemistry Reference Laboratory	Chemistry Section	1000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop orHigh-throughput
2.	SSB Hospital Laboratory Services	Chemistry Section	100		Handheld or Benchtop (High-throughput or Low-throughput) ***(To be deployed if required)**
3.	PMMPHAMB Hospital Laboratory Services	Chemistry Section	350		Handheld or Benchtop (High-throughput or Low-throughput)
POCT SITES					
4.	RIPAS Hospital, Main Building RIPAS Hospital, Women and Child Centre	Emergency Department P1 (Rhesus Area)	8,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
5.		Emergency Department P2 (Trolley Area)	25,000		
6.		Critical Care ICU1	5,000		
7.		Critical Care ICU2	5,000		
8.		Critical Care ICU3	10,000		
9.		Acute Care	350	• Blood gas (pH, pCO2, pO2)	

No	Services	Location/ Sites	Estimated Reportable Results/year	Test Parameters Required	Proposed Type of Analyser
		Operation Theatre-Main Building		• Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
10.		Internal Medicine Ward 3 and 4	2000		
11.		CCU	20		Handheld or Low-throughput
12		SCBU (Analyser A)	10,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)** • **Neonatal total bilirubin**	Benchtop or High-throughput
13		SCBU (Analyser B)	10,000		
14		PICU/HDU	3500		
15		Labour Room (Operation Theatre)	150	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, sO2)**	Handheld or Benchtop (High-throughput or Low-throughput)
16		Labour Room	800		
17	SSB Hospital, Belait	Critical Care, ICU	3,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
18		SCBU	1,000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)** • **Neonatal total bilirubin**	
19		Emergency Department	4000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput

No	Services	Location/ Sites	Estimated Reportable Results/year	Test Parameters Required	Proposed Type of Analyser
20	PIHM Hospital, Temburong	Emergency Department	800	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
21	PMMPHAMB Hospital, Tutong	Emergency Department	1000	• Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • **CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb)** • **Metabolites (Glucose, Lactate)**	Benchtop or High-throughput
22		National Isolation Centre (NIC)	100		Handheld or Benchtop (High-throughput or Low-throughput) ****(To be deployed if required during an outbreak or pandemic, or when otherwise necessary)**
23		National Isolation Centre – Extension (NICE)	80		
	BACK-UP ANALYSERS				
24	POCT Section	-	-	-	Benchtop or High-throughput
25	POCT Section	-	-	-	
26	Vendor's Office	-	-	-	Benchtop or High-throughput
		Total estimated test per year	**91,250**	Total number of analyser (unit) including backup analysers	**23 units or equivalent (subject to feasibility and operational requirements – refer to clause 1.2 and 1.7)**

NOTE:

***** New site with no blood gas analyser under the existing tender. The tenderer shall include an analyser for this site in the equipment deployment plan proposed under Clause 1.2.

****** New site with no blood gas analyser under the existing tender, required only during an outbreak or when otherwise necessary. The Department will request analysers for these sites by written instruction under Clause 1.7 (Variation), and they shall be deployed within 48 hours of that instruction and removed once the outbreak requirement ends.

For all sites marked ***** or ******: analysers shall be provided at the same tendered cost-per-reportable-result and shall complete verification and operator-competency requirements before clinical use. The estimated reportable results for these sites are indicative only and are not guaranteed.

No.	GENERAL SPECIFICATIONS	VENDOR'S OFFER
A	Model & Brand	
B	Country of Origin	
C	Total Price Per Test (CIF): B$	
D	Price Ranking:	(leave blank)
E	Where marketed	
F	Year of Manufacture	
G	Warranty:	
H	Delivery Time:	
I	Power Requirements:	
J	Battery Back-up:	
K	International Safety Standard:	
L	Technical Support:	
M	Equipment Whole Life Support	
N	Dimensions (WxHxD) cm:	
O	Weight (kg):	
P	User Manuals	
Q	Service Manuals	
R	Spare-parts & Consumables Listing	
S	Technical Training On-Site:	
T	Site Requirements:	

*To all participating companies, please fill in the table above along with your other documents during submission of tender.

DELIVERY PERIOD AFTER PO ISSUED	**Preferably 4-8 weeks and no longer than 12 weeks**	
Lab/Section/Unit	POINT OF CARE TESTING SECTION	
Lab/Section/Unit Ref No.:	DLS/PU/POC/2026/08-01(POC BLOOD GAS)	
Person to Contact	Name : SUSYLAWATI BINTI HJ MAGON	
	E-mail : susylawati.magon@moh.gov.bn	
	Tel.No. : 2242424 ext 6354	Fax No. :
FOR ADMINISTRATION USE ONLY		
PPM/PROC Ref.No.	PPM/PROC/2026/>50K/023(POC)	
Advertisement Ref. No.		Date :

We offer and undertake on your acceptance of our Tender to supply and deliver the above mentioned goods in accordance with your Invitation To Tender.

2. Our Tender is fully consistent with and does not contradict or derogate from anything in your Invitation To Tender. We have not qualified or changed any of the provisions of your Invitation To Tender.

3. We shall execute a formal agreement in the appropriate form set out in Section 4 – Contract of the Invitation to Tender together with such further terms and conditions, if any, agreed between the Government and us.

4. OUR OFFER IS VALID FOR **TWELVE (12)** CALENDER MONTHS FROM THE TENDER CLOSING DATE.

5. When requested by you, we shall extend the validity of this offer.

6. We further undertake to give you any further information which you may require.

Dated this_____day of_____, 20_____

_____ Tenderer's official stamp:

[Signature of authorised officer of Tenderer]

Name:

Designation:

SCHEDULE 2 - INFORMATION SUMMARY

2.1 Tenderers shall provide in this Schedule the following information:

a. Management summary

b. Company profile (including Contractor and sub-contractor(s), if any)

c. Years of experience (as of the Tender Closing Date) of the Contractor and sub-contractor(s) in the:

- To Supply And Deliver Blood Gas Tests Reagents And Consumables With Equipment Rental Blood Gas Testing Program For Point Of Care Testing Section, Department Of Laboratory

d. Other information which is considered relevant

SCHEDULE 3 – SUB-CONTRACTS

a. Tenderers shall complete Table 3.1 with information about all the companies involved in the provision of the services and items specified in this tender. This shall include details about the Contractor and each sub-contractor involved, as well as their respective responsibilities.

3.2 Tenderers shall also indicate in Table 3.1 any alliance relationship established with each sub-contractor. An alliance is defined as a formal and binding business relationship between the allied parties.

Table 3.1 - Responsibility Table

Company Name	Responsibility Description	Alliance Relationship between Contractor and Sub-contractor(s)		
		Alliance Exists? (Y/N)	Date Established	Alliance Description
Contractor				
		Not Applicable	Not Applicable	Not Applicable
Sub-contractor(s)				

SCHEDULE 4 – COMPANY'S BACKGROUND

4.1 Each of the companies involved in this tender, including Contractor and sub-contractor(s) (if any), shall provide information on the company's background, scope of operations, financial standing and certified copy of its Certificate of Incorporation or Certificate of Registration (as the case may be).

SCHEDULE 5 – REFERENCES

5.1 Tenderers shall submit a list of customers in Table 5.1 to whom the Contractor has provided similar services and items as specified in this tender in the recent 5 years as of the Tender Closing Date.

Table 5.1 - References of previous customers

Customer Name and Address	Customer Type (Govt or Quasi Govt)*	Contact Person	Title	Contact Number, Fax Number and E-mail Address

***Note: Tenderers shall indicate whether the customer is a Government or Quasi Government organisation. A Quasi Government is defined as an organisation which (1) is managed and controlled by the Government; or (2) has at least 50% shares being held by the Government. Please leave the column blank if the customer is neither a Government or Quasi Government organisation.**

5.2 The Ministry of Health shall treat all the information submitted under this schedule in strict confidence.

5.3 The Ministry of Health reserves the right to contact the references for tender assessment purposes.

SCHEDULE 6 - SUBMISSION OF SAMPLE

6.1 Tenderers shall submit the Submission of Sample form below in respect of the items specified in this tender.

6.2 Samples of the items to be submitted shall be:

a) identical in packing and manufacture to the items to be offered by the Tenderer; and

b) marked with the corresponding item number of the tender.

SUBMISSION OF SAMPLE FORM

To:

TENDER REFERENCE NO.: KK/256/2026/LAB(TC)

INVITATION TO TENDER
TO SUPPLY AND DELIVER BLOOD GAS TESTS REAGENTS AND CONSUMABLES WITH EQUIPMENT RENTAL BLOOD GAS TESTING PROGRAM FOR POINT OF CARE TESTING SECTION, DEPARTMENT OF LABORATORY SERVICES, MINISTRY OF HEALTH FOR A PERIOD OF FIVE (5) YEARS USAGE

SUBMISSION OF SAMPLE FORM OF (*NAME OF TENDERER*)

NO.	TEST/REAGENT NAME	SAMPLE SUBMITTED (indicate with ✓)	SAMPLE NOT SUBMITTED (indicate with ✕)	OFFERED/ NOT OFFERED (indicate as appropriate)
1	The reportable POC -Blood Gases test results of the following parameters on standalone analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb) • Metabolites (Glucose, Lactate) **Neonatal total bilirubin**			
2	The reportable POC -Blood Gases test result of the following parameters on standalone or handheld analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, HHb, O2Hb, sO2, COHb, MetHb) • Metabolites (Glucose, Lactate)			
3	The reportable POC -Blood Gases test result of the following parameters on handheld or standalone analyser: • Blood gas (pH, pCO2, pO2) • Electrolytes (Na+, K+, Ca++, Cl-) • CO-oximetry (tHb, sO2)			
4	EQA PROGRAM			

We understand as stated in the Instructions to Tenderers that Tenders without samples shall not be considered.

Tenderer's official stamp:

_____
[signature of authorized officer of Tenderer]
Name:
Designation:
Date:

FOR OFFICE USE

Date of receipt : _____

Receiving Officer : _____