



Opening Date: 2020-07-30 
Closing Date: 2020-08-06 
Closing Time: 11:00

INSTITUTION DETAILS

Institution Name: Ekombe hospital
Province: KwaZulu-Natal
Department or Entity: Department of Health
Division or section: Central Supply Chain Management
Place where goods / services is required: Ekombe District Hospital
Date Submitted: 2020-07-29 

ITEM CATEGORY AND DETAILS

Quotation Number: ZNQ:
ZNQ127/20-21
Item Category: Goods
Item Description: Supply and deliver blood gas analysis machine

Quantity (if supplies) 01

COMPULSORY BRIEFING SESSION / SITE VISIT

Select Type: Not Applicable
Date : 
Time:
Venue:

QUOTES CAN BE COLLECTED FROM:

QUOTES SHOULD BE DELIVERED TO:

ENQUIRIES REGARDING THE ADVERT MAY BE DIRECTED TO:

Name: Miss S.Z NXUMALO
Email: Senamisile.Nxumalo@kznhealth.gov.za
Contact Number: 035 834 8082
Finance Manager Name: Miss S.M. Ntombela
Finance Manager Signature: 

No late quotes will be considered

REVISED: 24/11/2016

PROVINCE OF KWAZULU-NATAL

DEPARTMENT OF HEALTH

HEALTH TECHNOLOGY SERVICES (H.T.S.)

SPECIFICATION FOR:

UMDNS: 15709

SPECIFICATION: H.T.S. E57B (ELECTRONICS)

ANALYSER BLOOD GAS (CARTRIDGE TYPE) Low Volume Use

Description of Item: For point-of-care analysis of arterial, venous and capillary blood gases including co-oximetry, electrolytes and haemoglobin

Intended Areas of Use:

Expert Advisory Group:

District Hospitals Regional Hospitals Tertiary Hospitals Quaternary Hospitals	Paediatrics Anaesthesia Critical Care Emergency Medicine
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Dr. S.A. Moko
MBChB

NB: GENERAL CLAUSES THAT DO NOT APPLY TO THE EQUIPMENT OFFERED MUST BE ANSWERED "COMPLIES", "DOES NOT COMPLY" OR ANSWER THE QUESTION UNDER BIDDERS COMMENTS.

NO	SPECIFICATION	BIDDERS COMMENTS: STATE "COMPLIES" OR "DOES NOT COMPLY" OR ANSWER THE QUESTION.
Clause G1.1	The space provided under "Bidder's Comments" for each clause must be used for this purpose. Bidders who neglect to provide answers to every Clause in this Bid Specification will be disqualified. Bidders must note that abbreviated answers e.g. N/A etc. will not be accepted. Bidders must also note that no part of any clause/s in this Bid Specification may be altered. Where there are traces of alterations found to any clauses in this Bid Specification during Adjudication, the Adjudication Committee will reserve the right to disqualify the bidder. The Bidder must clearly indicate if their offered product complies with the stated requirements, by indicating, "Complies" or "Does not comply" or answer the question next to the corresponding clause.	
Clause G2	All responses must be clear and legible.	
Clause G3	GUARANTEE:	
Clause G3.1	All Equipment, Materials and Workmanship provided under this Contract must be Guaranteed for a minimum period of twenty four (24) Months. The successful bidder must arrange with the respective Hospital / Institution and the Health Technology Services before Commissioning the Equipment at the respective Hospital / Institution. The bidder to note that the Guarantee period must only take effect upon successful Commissioning at the respective Hospital / Institution and successful test and acceptance by the Health Technology Services.	
Clause G3.2	State percentage guaranteed up time of machine (Should be at least 99%).	
Clause G3.3	The recommended number of services, per annum, by the manufacturer, must be included during and up until the end of the guarantee period and all costs related to the provision of such service/s will be for the bidders account.	
Clause G3.4	The bidder must state the number of services that will be provided during and up to the end of the guarantee period.	
Clause G3.5	Any breakdown during the guarantee period must include all cost (spares, labour, travelling and sundries) for any prescribed maintenance services (major and minor) as well as any QA testing that is required by Department Health's Radiation Control Board during the guarantee period.	
Clause G3.6	Travelling and Travelling Time costs must be included during the Guarantee Period?	
Clause G3.7	Spares that may be required during the Guarantee Period will be supplied at the expense of the bidder.	

NO	SPECIFICATION	BIDDERS COMMENTS: STATE "COMPLIES" OR "DOES NOT COMPLY" OR ANSWER THE QUESTION.
Clause G3.8	Downtime during the Guarantee Period must extend the Guarantee time on a Day-to-Day basis.	
Clause G3.9	Any repetition (twice or more) of the same type of fault that first occurred during the guarantee period must be considered as a repair under guarantee if it occurs within the first year after the expiry of the guarantee period.	
Clause G3.10	The same guarantee conditions must apply to replacement units.	
Clause G4	The successful bidder must Supply, Deliver, Commission and install the Equipment and will be required to demonstrate the product to the Applicable Staff at the Institution and costs for the abovementioned must be included in the final bid price.	
Clause G5	Bidders must offer the Health Technology Service's In House Technicians a demonstration of the product, which will enable the Health Technology Service's In House Technicians to become acquainted with the equipment during the Test and Acceptance phase.	
Clause G6	Preference may be given to a make and model that has been technically and clinically evaluated by a Government Institution within the R.S.A. (Attach proof of evaluation where applicable).	
Clause G7	The successful bidder must provide the Health Technology Service's in house Technicians, full training in the calibration, maintenance, service and repair of the product down to PCB Level. N.B. The quality and level of the training must be equivalent to the manufacturer's original factory training and any costs incurred to provide this training will be for the bidders account. A Certificate of Competency must be issued on completion of the training. The Training must be provided by the successful bidder to the Health Technology Services within three months from date of initial supply and delivery of the equipment to the end user.	
Clause G8	SERVICING:	
Clause G8.1	The bidder must have a well established service and repair facility in KwaZulu-Natal, to service, repair and calibrate the equipment offered. (The Health Technology Services reserves the right to inspect the premises).	
Clause G8.2	If the service is subcontracted to a local service agent, a signed copy of The letter of appointment by the bidder and acceptance by the Subcontractor must be submitted with this bid / quotation. (The Health Technology Services reserves the right to inspect the premises).	
Clause G8.3	State Number of other medical equipment "Repair & Service" Agencies (excluding your Agency) represented by the subcontractor.	
Clause G8.4	Supply the Name, Address and Telephone Number/s of the Local Service Department within KwaZulu-Natal. Please supply details as follows: Company name : _____ Physical Address : _____	

NO	SPECIFICATION	BIDDERS COMMENTS: STATE "COMPLIES" OR "DOES NOT COMPLY" OR ANSWER THE QUESTION.
	<p>Telephone Number/s : _____ Fax number : _____</p> <p><i>(The Health Technology Services reserves the right to inspect the premises).</i></p>	
Clause G8.5	State if the Technician(s) are in the direct employ of the bidder or a subcontractor.	
Clause G8.6	The bidder must supply information on the number of Technicians permanently working in KwaZulu-Natal and their names and contact Telephone Number/s must be listed (Directly employed or subcontracted) in an annexure to the bid document.	
Clause G8.7	The Technician(s) must be original equipment manufacturer trained to deal with the service, repair and calibration of the equipment quoted on. N.B. Proof of original equipment manufacturer training must be submitted with this bid / quotation offer.	
Clause G8.8	The Institution's requirement is that a technician is available within a reasonable time (24 hours) to attend to malfunctioning equipment. The Bidder to state the technician per install base e.g. equipment ratio to technician ratio, e.g. 1 technician per 10 pieces of equipment.	
Clause G9	The bidder must Guarantee that no additional equipment will be Required for the successful operation of the equipment bided for on delivery and commissioning at the customers site. A starter pack of all essential accessories and disposables must be supplied so that the unit can be put into immediate operation. The cost of the starter pack must be included in the final bid price.	
Clause G10	Optional accessories must be offered for separately on the Schedule of optional accessories found at the end of this Technical specification, indicating catalogue numbers, correct descriptions and Prices inclusive of V.A.T.	
Clause G11	Bidder must state the period of time for delivery of Spare parts following the receipt of an official order as follows: 0 to 10 days; 0 to 20 days; 0 to 30 days; 0 to 60 days; 0 to 90 days; more than 90 days.	
Clause G11.1	The Bidder must supply with this offer a list together with the quantities of spares held locally in stock in the KwaZulu-Natal Province on the offered product. The Health Technology Services reserves the right to inspect the premises to verify the spares stock held.	
Clause G12	The bidder must include a firm commitment in writing, which must be attached with this bid that they would supply spares, components, upgrades, complete original service / repair manual, technical support and ongoing training support for technical staff of the Health Technology Services and the end users Department of Health, KwaZulu-Natal	

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	throughout the life cycle of the equipment offered.	
Clause G13	Spares must be available for 10 (Ten) years from the original equipment manufacturer for the product offered.	
Clause G14	The successful bidder must include in their offer at no extra cost to the final bid price:	
Clause G14.1	Complete user Operation / Maintenance Manual x 2 (two) Book / File; CD, DVD copies in English Language.	
Clause G14.2	Complete ORIGINAL Service / Repair Manual x 2 (two) Book / File; CD; DVD copies In English Language which MUST include the following information: Fault Finding Guide, Circuit Diagrams / Schematics, Circuit Descriptions, and PCB Layouts, Calibration Guide, Part Numbers and exploded diagram of Mechanical Parts / Panels.	
Clause G14.3	All the above Manuals must be properly bound in either a Book, File or CD form.	
Clause G14.4	The Bidder must supply all software (including software-keys and / or passwords) to allow for trouble shooting (faultfinding), maintenance, calibrations, repairs and services at no additional cost.	
Clause G15	Does your Company have an after hour service back up facility.	
Clause G16	If the equipment is taken away for repairs, a loan set must be made available on request to the end user by the Institution until the institution's unit is returned. All costs incurred for providing the loan unit must be for the bidders account.	
Clause G17	Bidder must bid on the latest model and Technology that fully complies with this Technical Specification.	
Clause G17.1	The Bidder must state how long this technology has been commercially available (state when the model offered was launched).	
Clause G17.2	The bidder must state if there are any near future updates expected.	
Clause G18	The successful bidder must maintain a system for notifying and Providing users with Updates, Modifications, new Software Releases and Recalls.	
a. Clause G19	The successful bidders must arrange for an acceptance test of the equipment with the Manager of the Health Technology Services and the Hospital Manager. A copy of the original answered Specification, copy Of the invoice order and relevant paperwork (PH form) from the Receiving Hospital must be submitted with the equipment when the ACCEPTANCE TEST is to be undertaken.	
Clause G20	Where equipment bided for, operates off 220 Volt, 50Hz a.c. supply, bidder must ensure that the product being quoted for is fitted with a 15 Amp approved mains plug top, which is held together by two screws.	
Clause G21	The unit must comply with an acceptable International Electrical Safety Standard such as IEC 60601-1 and 60601-1-2 for Medical Equipment Where the quoted equipment operates off an electrical supply.	
Clause G22	All equipment, the installation and any alteration / additions must comply with:	

NO	SPECIFICATION	BIDDERS COMMENTS: STATE "COMPLIES" OR "DOES NOT COMPLY" OR ANSWER THE QUESTION.
Clause G22.1	The Occupational Health and Safety Act (1993);	
Clause G22.2	The wiring code S.A.N.S. 0142.	
Clause G23	Units being quoted for must be CE Certified. (Attach a copy of certification). The make and the model offered must be reflected on the certificate.	
Clause G24	The Mains Cable of the unit being quoted for must be the Hospital Grade Type and it must be a minimum length of (3) three metres. N.B. The mains cable of the unit being quoted for must be S.A.N.S. Colour coded.	
Clause G25	The equipment being quoted for must be protected against Electro Magnetic Interference.	
Clause G26	Only new equipment must be quoted for. Refurbished and reconditioned equipment being quoted on will not be accepted.	
Clause G27	Bidders must note that dedicated test equipment, spare parts and any special tooling required for the upkeep and maintenance of the equipment quoted on must be available to the Health Technology Services to procure if requested.	
Clause G28	All the necessary calibration and maintenance software, where applicable, required to maintain and calibrate the equipment, must be supplied with the equipment to the Health Technology Services at no extra cost to the final bid price.	
Clause G29	NB. HAZARDOUS SUBSTANCE ACT:	
Clause G29.1	If this type of equipment / apparatus appears on the schedule of Hazardous Substances issued by the Directorate: Health Technology of the Department of Health, a license in terms of the Act on Hazardous Substances (Act. 15/1973) must be submitted with this bid document. The license must be registered under the bidders name or a letter of joint venture must be submitted by the license holder where the license is not in the name of the bidder. Bidders that neglect to submit a license will not be considered.	
Clause G29.2	Bidder must state the Radiation Control licence number of the make and model of equipment offered.	License No:
Clause G29.3	Where it has been established by the bidder that the equipment offered does not require Radiation Control licence, proof from the Radiation Control authority must be submitted with this bid document.	
Clause G30	The system offered must comply fully with or exceed all of the minimum specification requirements per the Technical Clauses.	
Clause G31	The offer submitted must be supported by descriptive literature, colour pamphlets, colour brochures and technical data sheets applicable to the offer (i.e. supporting information for all components of the system) must accompany the bid, failing which the bid will not be considered.	
Clause G32	The equipment and any accessories ordered from the successful bidder will be delivered, installed, tested, calibrated, demonstrated (including specified training) and commissioned in the specific Hospital at the expense of the successful Bidder, prior to full payment being made.	

NO	SPECIFICATION	BIDDERS COMMENTS: STATE "COMPLIES" OR "DOES NOT COMPLY" OR ANSWER THE QUESTION.
Clause G33	All prices are to include V.A.T. and must be quoted in the South African currency. The price must be valid for a period of 180 days from closing date of bid.	
Clause G34	If the product offered is unknown to the Department, the Department reserves the right to have the unit evaluated by a team of Technical and Clinical experts with regards to its functionality, performance and quality. The decision of this committee will be used as a motivation for the evaluation and recommendation of the bid. For this reason a demonstration unit must be readily available, or the bidder must take arrange for demonstration with representatives of the Department for the equipment offered at a site within South Africa where a same make and model of unit is installed and is in full clinical operation. The cost of this site visit is for the account of the bidder and it must therefore not place any obligation on the Department to procure from the bidder.	
Clause G35	The Institution requesting the unit reserves the right to clinically trial and evaluate the unit in order to ensure that the unit meets the clinical requirements of the Department before adjudication of the bid.	
Clause G36	UPGRADEABILITY WHERE APPLICABLE:	
Clause G36.1	Bidders are to state the policy with regard to future software updates and the costs that will be involved.	
Clause G36.2	The Bidder to state what hardware and software will be available, with costs and projected dates.	
Clause G37	UPGRADE POLICY:	
Clause G37.1	All future upgrades (hardware and software) involving <u>patient safety</u> must be offered at no additional cost.	
Clause G37.2	All future upgrades removing software viruses from existing software must be supplied at no cost.	
Clause G37.3	Any upgrade before or after installation of the equipment involving additional cost must be brought to the attention of the Manager, Health Technology Services.	
Clause G38	The Bidder must indicate the expected life of their offered unit and software in years.	

TECHNICAL SPECIFICATION

Scope of work:

This bid calls for the supply, delivery and commissioning of a point of care blood gas analyser of the cartridge type with integrated printer for use in patient contact areas.

Clause 1

It must be an integrated unit requiring a single sample insertion. The blood should be automatically aspirated from either a syringe or capillary tube. The volume of blood required to produce a full analysis should not exceed 200ul (0.2ml) for a syringe sample or 100ul (0.1ml) for a capillary tube sample.

Bidder to state volume of blood required for a syringe and a capillary tube sample:

BIDDERS COMMENTS:

Clause 2

The following parameters must be able to be measured by the machine. The results must be accurate within the specified range (+/- 5%):

a. Blood Gas		
	i) pH	: 6.8-7.8
	ii) pCO ₂ (carbon dioxide partial pressure)	: 2-12 kPa
	iii) pO ₂ (oxygen partial pressure)	: 4-65 kPa
b. Electrolytes		
	i) Na ⁺ (sodium)	: 110-180 mmol/l
	ii) K ⁺ (potassium)	: 2-10 mmol/l
	iii) Ca ²⁺ (ionised calcium)	: 0.5-2.5 mmol/l
	iv) Cl ⁻ (chloride)	: 85-150 mmol/l
c. Metabolites		
	i) Glucose	: 0.5-30 mmol/l
	ii) Lactate	: 1-20 mmol/l
d. CO-Oximetry		
	i) tHb (haemoglobin)	: 4-25 g/dl
	ii) sO ₂ (saturation of haemoglobin)	: 30-100%
	iii) O ₂ Hb (fraction of oxyhaemoglobin)	: 30-100%
	iv) COHb (fraction of carboxyhaemoglobin)	: 0-70%
	v) MetHb (fraction of methaemoglobin)	: 0-70%
	vi) HHb (fraction of deoxyhaemoglobin)	: 0-70%
	vii) Bilirubin	: 85-500 umol/l

The units used to report the results must be able to be set according to the end-users requirements.

BIDDERS COMMENTS:

Clause 3

The following parameters must be able to be calculated by the machine

- a. Bicarbonate standard
- b. Bicarbonate actual
- c. Base excess
- d. Temperature adjusted values (Operator must be able to input patient's temperature)

BIDDERS COMMENTS:

Clause 4

Measurement Cartridges

- a. The machine must utilize 1 measurement cartridge for analysis of all the specified parameters and must not require the use of reagent bottles or gas tanks.
- b. The cartridge must be all inclusive .There must be no need to change fluids, electrodes or reagents separately
- c. The insertion of the cartridge must be end-user-friendly and not require special expertise.
- d. The machine must utilize cartridges that have an expiry period (use life) not less than 28 days after installation into the machine.
- e. Cartridges of variable sizes must be available for the machine so the end-user can purchase according to use.
- f. There must be a range of cartridges with sample size < 100 (less than 100) available.

Bidder to state available cartridge sizes and use life:

Clause 5

Quality Control/Calibration

- a. This must be fully automated, with all necessary reagents contained within cartridges, and must not require the use of separate reagents or gas tanks.
- b. The insertion of the cartridge must be end-user-friendly and not require special expertise.
- c. The number of Quality Control / Calibrations per day must be end-user adjustable to account for different usage patterns.

BIDDERS COMMENTS:

Clause 6

Wash and Waste Management

- a. This must be fully contained – either within the measurement cartridge or in a separate cartridge to minimize the risk of contamination of the end-user.
- b. The insertion of the cartridge must be end-user-friendly and not require special expertise

BIDDERS COMMENTS:

Clause 7

The machine must have a system to prevent clots from being aspirated into the machine.
Bidder to state the system used:

Clause 8

The machine must take no longer than 120 seconds from time of aspiration to printing of the result
Bidder to state time taken:

Clause 9

The user interface must be user friendly, with clear on screen instructions on how to navigate around the system as well as how to perform basic maintenance tasks such as changing of cartridges.

The following information should be easily accessible:

- a. Samples either utilized or remaining
- b. Days until cartridge(s) need to be replaced

BIDDERS COMMENTS:

Clause 10

There must be a memory storage facility to store previous test results, which must be able to be printed.
Bidder to state how many results can be stored:

Clause 11

A printer for results must be an integral part of the machine.

BIDDERS COMMENTS:

Clause 12

The unit offered must be supplied with a UPS (Uninterrupted Power Supply) system the cost of which must be included in the final bid price.

BIDDERS COMMENTS:

Clause 13

The final bid price must include all consumables required for the full operation of the machine for 28 days or 500 analyses, whichever is the greater. These must be supplied on delivery so that the machine can be put into full service immediately on delivery.

BIDDERS COMMENTS:

Clause T14

MAINTENANCE AND SERVICE AGREEMENT

Upon termination of the guarantee / warranty period the bidder must provide a fully - costed PREVENTATIVE MAINTENANCE AND SERVICE AGREEMENT for a period of 3 years to commence upon termination of the guarantee / warranty period with an option to enter into a renewable agreement.

BIDDER'S COMMENTS:

Clause T15

GUARANTEE / WARRANTY

The bidder must provide a minimum of 24-month warranty / guarantee period for the unit offered.

BIDDER'S COMMENTS:

DETAILED TECHNICAL SPECIFICATION

GENERAL INFORMATION REQUIRED

FAILURE TO COMPLETE THIS PART WILL DISQUALIFY THE BIDDER

Make: _____

Model Number / Part Number for: _____

Country of Origin _____

Delivery Period _____

R S A Import Permit Holder (License No) _____

Bidder _____

Signature _____ Date _____

Address _____

Telephone No _____ Fax No. _____

Contact Person _____
(Please Print)