REGISTRATION INSTRUCTIONS & RIQAS POLICIES

CRITERIA FOR PARTICIPATION

This programme is available to any laboratory running the parameters listed in this document. Qualitative and quantitative results will be accepted on this programme.

INTRODUCTION

Method questionnaires are available for all routine RIQAS Programmes and are reviewed and updated every month, as indicated by the issue date at the bottom of every page. They are designed to allow you to register for this RIQAS Programme and to inform you of RIQAS protocols and policies. It is important that you read and understand all the information in these introductory pages before completing the enrolment document, which forms the basis of your registration and contract with RIQAS. If you have any questions or concerns about any of the information presented in this document, please contact RIQAS either directly or through your local Randox Laboratories representative. RIQAS Calendar dates and information about the RIQAS portfolio of products can be found on www.randox.com/external-quality-assessment.

REGISTRATION INSTRUCTIONS

NOTE: IF A REGISTERED PARTICIPANT DOES NOT PARTICIPATE FOR A CYCLE, THEY WILL BE EXPECTED TO COMPLETE NEW ENROLMENT DOCUMENTS IN ORDER TO RE-JOIN THE PROGRAMME.

METHOD QUESTIONNAIRE:- To be retained by participant

This method questionnaire should be completed and retained by you for your records. Please ensure that you complete the method questionnaire in full. Your details will help us to classify your results correctly and thus provide you with useful statistical data.

In order to fully complete this questionnaire you will also need a copy of the RIQAS Instruments and Reagent Suppliers which is available to download from the Randox website (www.randox.com/external-quality-assessment). Please ensure you have this list available when completing this questionnaire.

Following this introduction section is the method questionnaire which indicates the method codes available for each parameter along with the standard RIQAS unit. On the method questionnaire, for each parameter you wish to run, please tick the method appropriate to you, then state your instrument code, reagent code, and the units that you use in your laboratory if they are different from the RIQAS standard units. If codes are not available for your assay, please state the details of your method clearly in the section at the end of the enrolment document.

NB For enzymes, it is important for you to record the temperature at which the assay is performed.

Once your method questionnaire has been completed, you must transfer the information onto your enrolment document.

ENROLMENT DOCUMENT:- To be returned to RIQAS

Please be aware that it may take up to 3 weeks to process enrolment documents if you are not entering your own assay details. When registering RIQAS enrolment documents, it is recommended that you state business contact details, rather than personal.

A. LABORATORY REFERENCE NUMBER

On receipt of an enrolment document, each participant is assigned a **laboratory reference number** which consists of a **participant number** which is unique to your laboratory and a **registration letter** which is assigned for each new registration we receive from you. If you are a current or previous participant, please state your **participant number** on the enrolment document. If you do not have a Laboratory Reference Number, this will be generated by RIQAS when you register for the first time. Please quote this number on all correspondence with RIQAS.

B. CYCLE/PRODUCT REQUIREMENTS

Please tick the cycles you wish to subscribe for. If there is more than one kit/product offered for the programme, please also tick the kit you wish to subscribe for.

C. PRIMARY CONTACT DETAILS

It is important to state the full address details of the Quality Assessment Officer or contact person who will receive all correspondence during the cycle. Please also state the company name of the Randox representative who is supplying you with the RIQAS product under 'Randox Office/Distributor'

Please inform RIQAS of any change to contact details as soon as possible.

D. RIQAS**Net**

RIQASNet is a web-based online method for result entry / method changes and additions of parameters / viewing of released reports. To access RIQASnet go to www.riqas.net. Internet access and login details are required for RIQASNet and Adobe Reader is required for viewing reports. Your initial login information and password will be supplied by RIQAS. Once you have logged in for the first time you will be able to change your RIQASNet password. If you forget your password please follow the 'Forgotten Password' link. Your login information will be based on the 1st email address you supply on your enrolment document. A PDF copy of the report will be sent to this address and can also be sent to 2 other email addresses. These addresses should be stated on your enrolment document.

E. PDF REPORTS

Reports are sent as PDF files. These files can be sent to up to 3 email addresses. Adobe Reader is required to view the reports. The email addresses to which reports are sent can be reviewed and changed on RIQASNet.

F. CUSTOMER DECLARATION

The declaration indicates that by submitting your enrolment document to RIQAS, either directly or via your local Randox representative, you have read and understood the RIQAS policies stated in the most recent Method Questionnaire associated with this programme. You understand that the submission of your enrolment document to RIQAS marks the beginning of an on-going agreement, and you will be automatically enrolled in subsequent cycles of this programme until we receive written confirmation of your cancellation. This should be received 12 weeks prior to the month in which the cycle starts. You understand that you must inform RIQAS of any changes to your contact details, assay details or contract status. You authorise Randox Laboratories Ltd. to send communication related to the products and service provided to the e-mail or postal addresses stated on your submitted enrolment document. You understand that you are permitted to request disclosure of, change or erase personal details held by Randox Laboratories Ltd. at any time. Note: Method questionnaires are updated every month and the issue date is stated on every questionnaire and enrolment document.

G. REGISTRATION OF ASSAY DETAILS

Labs can register their assay details using RIQASNet or can complete the 'Registration of Assay Details' section of the enrolment document. Labs should tick the appropriate box under the 'Registration of Assay Details' section of the enrolment document. If a lab wishes RIQAS to register their assay details, they should complete the Registration of Assay Details section using the codes from this method questionnaire and the Instrument/Reagent Supplier Book.

Once a participant has registered they will receive an email containing their RIQASNet login information. Once you have successfully logged in to RIQASNet you will see your various laboratory reference numbers for each registered programme. If you have opted to add parameters/assay details using RIQASNet, please do so as soon as possible (see below).

If no code is available for your assay, please state the details of your method clearly in the section at the end of the enrolment document or follow the instructions on RIQASNet.
For Ortho-Clinical Diagnostics VITROS registrations, please state the 2 digit slide Generation number for each analyte.

If units other than the standard RIQAS units are used, please specify these in the boxes supplied.

ONCE COMPLETED, THE ENROLMENT DOCUMENT SHOULD BE SENT TO RIQAS **FOR REGISTRATION.**

H. UPDATING ASSAY DETAILS

It is possible to change your unit, method, instrument or reagent classification during a cycle.

Method Changes via RIQASNet: These can be made in the Assay Details section of the Data Entry menu. A list of your registered laboratory reference numbers will appear on screen. Select the laboratory reference number for which you would like to change the assay details. A current list of assay details will appear, click on the appropriate parameter. To change the details click the arrow box on the appropriate details and select a new one. Save the changes and submit them to RIQAS. Changes will not be instantaneously updated on RIQASNet but will be uploaded onto RIQASNet usually within 3 working days. It is possible to submit results and method changes together as method changes will be made before results are entered in to the RIQAS database.

I. ADDITION OF PARAMETERS / ASSAY DETAILS

Adding Parameters via RIQASNet: Parameters can be added using the Assay Details section of the Data Entry menu. A list of your registered laboratory reference numbers will appear on screen. Select the laboratory reference number for which you would like to add the assay details. At the top of the screen is 'Add Parameter'. Click on this and a list of parameters you are not registered for will appear. Select the parameter you wish to add and click the arrow box on the appropriate details and select your assay details. Save the changes and submit them to RIQAS. As above, additions will be available on RIQASnet usually within 3 working days.

ORDERING RIQAS PRODUCTS

Please ensure your purchase order for each cycle is placed with your local Randox representative 12 weeks prior to the month in which the cycle starts. This will ensure sufficient time to process and despatch your kit(s) to you. Participants from UK or Ireland may order products directly from RIQAS with an official order number. Orders received within 12 weeks of the start of the cycle will be processed with an additional administration fee. Current prices of RIQAS products are available from your local Randox Laboratories representative.

It may be possible to order RIQAS products during a cycle, subject to availability. Please contact your local Randox representative for more information.

SHIPPING AND RECEIPT OF RIQAS PRODUCTS

Provided that you have ordered sufficiently in advance, your RIQAS kit(s) will be shipped to you to arrive before the analysis date of the first sample in the kit. If you do not receive your kit(s) before this time, please contact your local Randox representative.

On RIQASNet please access your account and download the relevant Instructions For Use (IFU) document for the programme and cycle purchased. The IFU includes material characteristics, preparation, stability, storage and safety information. On receipt of your RIQAS kit, please check that:

a) it is the product you ordered
b) the correct number of samples are present as indicated on the IFU
c) the samples have the appearance as indicated on the IFU and that none of them are damaged

Please notify your local Randox representative immediately if any of these are incorrect.

Please ensure that the product is immediately stored according to the recommendations on the package labelling.

ASSAY OF SAMPLES & RETURN OF RESULTS

Carefully read the instructions stated on the Instructions for Use (IFU) prior to preparation and assay of RIQAS samples. **These are available on RIQASNet only**. The RIQAS samples should be assayed at the recommended time specified on the IFU. Following appropriate preparation, samples should be treated as routine, unless otherwise stated on the IFU. Please assay the samples on or before the recommended date for analysis and forward your results to RIQAS by no later than **17:00 GMT on the FINAL DATE**, as indicated in the IFU. Results are submitted via RIQASNet, which can be accessed once you have received log in details via email. This will include a link to RIQASNet Instructions for Use.

LATE AND CORRECTED RESULTS

In keeping with the objectives of EQA schemes, participants should be aware that collusion and falsification of results is considered to be unethical and constitutes scientific fraud. RIQAS policies must ensure that a laboratory is unaware of RIQAS means for comparison before submitting their own results. Where a result is not submitted by the final date, a report will be issued, but the missing results will be indicated as “No return” or “N” throughout the RIQAS reports. RIQAS permits the submission of late or corrected results only under the circumstances described below. Requests for the submission of late or corrected results must be submitted in writing and in English on RIQAS Form No. 9277-RQ (either by the participant or their local Randox Representative) and must be approved by RIQAS Management. The form is available on www.riqas.net.

Requests for the submission of late results must be accompanied by evidence that an error has been made, and that the error has not been caused by the participant.

Requests for the correction or removal of erroneous results must be accompanied by evidence that the error was non-analytical, as defined on form 9277-RQ. RIQAS is obliged to inform country-specific regulatory bodies of requests for correction of results (if they request such information for laboratory monitoring purposes).

New reports will be re-issued for late or corrected results only where there has been an error made by Randox Laboratories HQ, Randox representatives or distributors.

LATE RESULTS

In general, late results will not be accepted after the final date.
Late results will only be accepted where there has been an error made by Randox Laboratories HQ, Randox representatives or distributors.

CORRECTED RESULTS

Laboratories may correct results only if it can be determined that the error was non-analytical and where the request for submission is within 4 weeks of the original final date. A laboratory may correct a result under the following circumstances:

- Reconstituting a sample in an incorrect volume before analysis
- Assaying and/or submitting the results for the wrong sample
- Making a transcription error - submission of an analyser print-out indicating that the analysis date was before the final date is required.

DESPATCH OF REPORTS

PDF reports will be emailed within 72 hours of the FINAL DATE and for those registered for RIQASNet the PDF reports will be available on RIQASNet shortly after.

USE OF RIQAS REPORTS

Participants have permission to make copies of their RIQAS reports for internal use and for regulatory purposes only. RIQAS reports must not be duplicated for external use without permission from the RIQAS Scheme Co-ordinator. Under no circumstances should information on RIQAS reports be taken out of context or falsified in any way. Information regarding the format of RIQAS Reports and the monitoring of EQA performance can be found in the RIQAS Brochure on www.randox.com/external-quality-assessment Information regarding the calculations and scores used to evaluate participants' performance on RIQAS Reports can be found following log in to RIQASNet, in a document entitled "Evaluation of Performance".

CONFIDENTIALITY

Participation in any RIQAS programme is considered to be strictly confidential. Any data transfer or correspondence with participants, either directly or via local Randox representative, will be deemed confidential. Participants should be aware that regulatory authorities have the right to request an assessment of a participant's performance. Where regulatory authorities are to be provided with a participant's results, participants will be notified.

GENERAL DATA PROTECTION REGULATION 2018 & UK DATA PROTECTION ACT 2018

Randox Laboratories Ltd. complies with GDPR and the UK Data Protection Act and holds the minimum information required to maintain the contract with RIQAS customers. Contact details are required in order to effectively provide you with the RIQAS products and services. Participants are not under any obligation to provide personal information to enter into a contract with RIQAS. We recommend that business contact details are provided. All data associated with the provision of RIQAS is collated, stored and processed confidentially and securely, to avoid unlawful processing, accidental loss or damage.

CERTIFICATES OF PARTICIPATION

Complimentary certificates of participation for each RIQAS programme are made available on RIQASNet to participants at the **end of the current cycle**, provided that **at least 50%** of results have been returned. Participants who enrol mid-cycle will be eligible for a Certificate for Participation if they have participated in at least 50% of samples available for the remainder of the cycle since enrolment. The certificate will specify the cycle, programme and the LABORATORY / HOSPITAL NAME which is detailed in the certificate section of RIQASNet. At the end of a cycle, a list of all eligible labs will be exported from RIQASNet and certificates will be created according to these details. Please ensure all certificate details are up to date in your RIQASNet account.

PERFORMANCE SURVEILLANCE OF UK LABS

RIQAS is obligated to identify and report persistent poor performing UK labs to the National Quality Assessment Advisory Panel. Poor performers are identified as those failing to meet performance criteria agreed with NQAAP. The performance criteria is specified in all performance surveillance correspondence with participants, and is also available on request. Participants are initially informed of poor performance by letter. Failure to improve performance will prompt details to be forwarded to NQAAP. All information sent to participants and NQAAP is strictly confidential. Please contact RIQAS if you require further information on Performance Surveillance.

PARTICIPANT FEEDBACK, COMPLAINTS & APPEALS

In order to ensure that RIQAS provides an appropriate and satisfying service, participants are invited to complete a feedback survey on RIQASNet. You may contact us at any time during the cycle, should you have any requests for additional programmes or parameters or comments regarding existing programmes.

RIQAS makes every effort to ensure that the samples provided are clinically challenging to as many laboratory systems as possible. For details, please contact RIQAS either directly or through your local Randox representative.

Should the need arise, participants may raise requests or enquiries through correspondence with the local Randox Laboratories representative or by contacting RIQAS directly. Participants may appeal against the evaluation of their performance by completing a PARTICIPANT APPEALS FORM, 10770-RQ. Participants may raise a complaint in relation to the product or service provided by completing the PARTICIPANT COMPLAINTS FORM, 10772-RQ. These forms are available on RIQASNet, or on request from RIQAS.

SUB-CONTRACTING

RIQAS sub-contracts aspects of the scheme. RIQAS accepts responsibility for the sub-contractors' work and protocols are in place to ensure that sub-contractors are deemed competent.

OUR COMPETENCE AS A PROFICIENCY TESTING PROVIDER

On request, RIQAS is willing to co-operate with participants seeking evidence of our competence as a proficiency testing provider or information on the design and implementation of RIQAS Programmes.

DEVIATION FROM EXISTING POLICIES/SERVICE

If there is any deviation from the existing policies or service, participants will be notified either directly or via their local Randox representative.

COMMUNICATION

As part of the service provided by Randox Laboratories Ltd., participants may be contacted by e-mail regarding updates and new products, in line with Randox Laboratories Ltd. privacy policy, as stated in www.randox.com.

THIS PROGRAMME IS NOT ACCREDITED TO ISO/IEC 17043:2010

Please contact RIQAS at
Tel: +44 (0) 28 9445 4399
E-Mail mail@riqas.com
RIQAS Scheme Co-ordinator: Sarah Fleck
RANDOX LABORATORIES LTD., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

SERUM INDICES PARAMETERS

HAEMOLYTIC INDEX MG/DL

CODE		METHOD
1HARC	☐	Abbott Architect
1HAAC	☐	Abbott Alinity
1HOAU	☐	Beckman AU Instruments
1HDXC	☐	Beckman DxC600/ DxC 800
1HDC	☐	Ortho Vitros Microslide Systems
1HRXI	☐	Randox RX Imola
1HRC1	☐	Roche Cobas C111
1HRC2	☐	Roche Cobas C311
1HRC5	☐	Roche Cobas C303/501/502/503
1HRC7	☐	Roche Cobas C701/ 702/703/ 711
1HRCI	☐	Roche Integra
1HCNS	☐	Siemens ADVIA Chemistry
1HSAC	☐	Siemens Atellica
1HDD	☐	Siemens Dimension
1HSB2	☐	Snibe Biossays 240 Plus
		Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

ICTERIC INDEX UMOL/L

CODE		METHOD
1IARC	☐	Abbott Architect
1IAAC	☐	Abbott Alinity
1IOAU	☐	Beckman AU Instruments
1IDXC	☐	Beckman DxC600/ DxC 800
1IDC	☐	Ortho Vitros Microslide Systems
1IRXI	☐	Randox RX Imola
1IRC1	☐	Roche Cobas C111
1IRC3	☐	Roche Cobas C311
1IRC5	☐	Roche Cobas C303/501/502/503
1IRC7	☐	Roche Cobas C701/ 702/703/ 711
1IRCI	☐	Roche Integra
1ICNS	☐	Siemens ADVIA Chemistry
1ISAC	☐	Siemens Atellica
1IDD	☐	Siemens Dimension
1ISB2	☐	Snibe Biossays 240 Plus
		Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

LIPAEMIC INDEX MMOL/L

CODE		METHOD
1LARC	☐	Abbott Architect
1LAAC	☐	Abbott Alinity
1LOAU	☐	Beckman AU Instruments
1LDXC	☐	Beckman DxC600/ DxC 800
1LDC	☐	Ortho Vitros Microslide Systems
1LRXI	☐	Randox RX Imola
1LCNS	☐	Siemens ADVIA Chemistry
1LSAC	☐	Siemens Atellica
1LDD	☐	Siemens Dimension
1LSB2	☐	Snibe Biossays 240 Plus
		Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

LIPAEMIC INDEX, ROCHE, ROCHE ARB

CODE		METHOD
1LRC1	☐	Roche Cobas C111
1LRC5	☐	Roche Cobas C303/501/502/503
1LRC3	☐	Roche Cobas C311
1LRC7	☐	Roche Cobas C701/ 702/703/ 711
1LRCI	☐	Roche Cobas Integra

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

CHEMISTRY PARAMETERS

ALKALINE PHOSPHATASE U/I

CODE		METHOD
APAAI	☐	Abbott Alinity Alkaline Phosphatase 2
APARC	☐	Abbott Architect Alkaline Phosphatase 2
APBC	☐	Beckman AMP (Calibrator)
APBE	☐	Beckman AMP (Extinction Coeff)
APNON	☐	AMP, non-optimised
APIF	☐	AMP, optimised to IFCC
APINT	☐	Roche AMP Buffer IFCC
APDB	☐	Siemens/Dade Dimension, AMP buffer
APC	☐	Colorimetric
APDEA	☐	Diethanolamine buffer, DEA
APFJ	☐	Fuji Dri-Chem JSCC
APDC	☐	Ortho Vitros Microslide Systems
APDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
APOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐

ALANINE TRANSAMINASE, ALT U/I

CODE		METHOD
ALTAAI	☐	Abbott Alinity ALT 2
ALTARC	☐	Abbott Architect ALT 2
ALTBTC	☐	Beckman (Extinction Coefficient)
ALTBIP	☐	Beckman IFCC Ref. with P5P
ALTBNP	☐	Beckman Mod. IFCC Ref. without P5P
ALTC	☐	Colorimetric
ALTP	☐	Phosphate buffer, DGKC
ALTDB	☐	Siemens/Dade standard non IFCC correlated
ALTNP	☐	Tris buffer without pyridoxal - 5 - phosphate
ALTIF	☐	Tris buffer with pyridoxal - 5 - phosphate
ALTP5	☐	Tris buffer with pyridoxal - 5 - phosphate, NVKC
ASTT	☐	Tris buffer, SCE
ALTDC	☐	Ortho Vitros Microslide Systems
ALTDV	☐	Ortho Vitros MicroSlide visible
ALTDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
ALTOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

ASPARTATE TRANSAMINASE. AST U/l

CODE		METHOD
ASTAAI	☐	Abbott Alinity AST 2
ASTARC	☐	Abbott Architect AST 2
ASTBTC	☐	Beckman (Extinction Coefficient)
ASTBIP	☐	Beckman IFCC Ref. with P5P
ASTBNP	☐	Beckman Mod. IFCC Ref. without P5P
ASTC	☐	Colorimetric
ASTP	☐	Phosphate buffer, DGKC
ASTDB	☐	Siemens/Dade standard non IFCC correlated
ASTIF	☐	Tris buffer with pyridoxal - 5 - phosphate
ASTP5	☐	Tris buffer with pyridoxal - 5 - phosphate, NVKC
ASTNP	☐	Tris buffer without pyridoxal - 5 - phosphate
ASTT	☐	Tris buffer, SCE
ASTDV	☐	Ortho Vitros Microslide visible slide
ASTDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
ASTOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐

BILIRUBIN, CONJUGATED VITROS BC µmol/l

CODE		METHOD
BCBUBC	☐	BuBc Vitros slide

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

BILIRUBIN, UNCONJUGATED VITROS BU µmol/l

CODE		METHOD
BUBUBC	☐	BuBc Vitros slide
BUDB	☐	Direct Bilirubin Vitros Slide

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

BILIRUBIN, DIRECT µmol/l

CODE		METHOD
BDDI	☐	Diazo with Dichloroanaline
BDSA	☐	Diazo with Sulphanilic Acid
BDBC	☐	Diazo/ Sulphanilic Beckman DxC
BDSD	☐	Diazo/ Sulphanilic Siemens Dimension
BDDD	☐	Dichlorophenyl Diazonium
BDVER	☐	Oxidation to Biliverdin/Vanadate
BDRD	☐	Roche DPD Doumas standardised
BDRJG	☐	Roche DPD JG standardised
BDCUS	☐	Roche (US Calibrator Only)
BDOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

BILIRUBIN, TOTAL µmol/l

CODE		METHOD
BIAAI	☐	Abbott Alinity Total Bilirubin 2
BIARC	☐	Abbott Architect Total Bilirubin 2
BIDI	☐	Diazo with Dichloroaniline
BISA	☐	Diazo with Sulphanilic Acid
BIION	☐	Diazonium ion
BDD	☐	Dichlorophenyl Diazonium
BBDPD	☐	Dichlorophenyl Diazonium (Beckman AU)
BINBD	☐	Nitrobenzenediazonium Salt
BIVER	☐	Oxidation to Biliverdin/Vanadate
BIPM	☐	Pfaff Medical - Bilimeter 3
BIBL	☐	Ortho Vitros Microslide Systems Total Bil
BIBT	☐	Vitros DT60/DT60 II Total Bil
		Vitros Slide Generation Number ☐☐
BIOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

CALCIUM mmol/l

CODE		METHOD
CAZO	☐	Arsenazo
CAAA	☐	Atomic absorption
CACPC	☐	Cresolphthalein complexone
CAISE	☐	Ion selective electrode
CAMB	☐	Methylthymol blue
CABAP	☐	NM-BAPTA
CAOES	☐	Optical Emission Spectroscopy
CAPO	☐	Phosphonazo
CADC	☐	Ortho Vitros Microslide Systems
CADT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
CAOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

CHLORIDE mmol/l

CODE		METHOD
CLCOL	☐	Colorimetric
CLCOU	☐	Coulometric
CLISE	☐	Ion Selective Electrode
CLTIT	☐	Titrimetric
CLOF	☐	Optical Fluorescence
CLDC	☐	Ortho Vitros Microslide Systems
CLDT	☐	Vitros DT60/DT60 II/DTE II
		Vitros Slide Generation Number ☐☐
CLOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

CHOLESTEROL mmol/l

CODE		METHOD
CHOAAI	☐	Abbott Alinity Cholesterol 2
CHOARC	☐	Abbott Architect Cholesterol 2
CHOCD	☐	Cholesterol Dehydrogenase
CHOL	☐	Cholesterol Oxidase - Abell Kendall
CHOLI	☐	Cholesterol Oxidase - IDMS
CHODB	☐	Siemens Dimension
CHODC	☐	Ortho Vitros Microslide Systems
CHODT	☐	Vitros DT60/DT60 II
		Vitros Slide Generation Number ☐☐
CHOOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐☐☐☐

REAGENT CODE ☐☐☐☐

OTHER UNITS, SPECIFY ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

CREATINE KINASE, TOTAL U/l

CODE		METHOD
CKIAB	☐	Abbott CK-NAC (IFCC)
CKIBC	☐	Beckman CK-NAC (IFCC)
CKIBE	☐	Beckman CK-NAC (Extinction Coeff)
CKIFF	☐	CK-NAC (IFCC)
CKACT	☐	CK-NAC serum start (DGKC)
CKNAC	☐	CK-NAC substrate start (DGKC)
CKCP	☐	Creatine phosphate substrate start
CKTD	☐	Dithioerythritol (DTE)
CKDIF	☐	Dithioerythritol (DTE) IFCC correlated
CKTM	☐	Monothioglycerol
CKDC	☐	Ortho Vitros Microslide Systems
CKDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
CKOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐☐☐☐

REAGENT CODE ☐☐☐☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

CREATININE µmol/l

CODE		METHOD
CRAAI	☐	Abbott Alinity Creatinine 2
CRARC	☐	Abbott Architect Creatinine 2
CREAP	☐	Alkaline picrate without deproteinisation
CRDEP	☐	Alkaline picrate with deproteinisation
CRPAP	☐	Creatinine PAP method
CREUV	☐	Enzymatic UV method (340nm)
CRIDM	☐	IDMS traceable
CRERB	☐	Jaffe rate blanked
CREJC	☐	Jaffe rate blanked comp. for serum (-18umol/l)
CRERC	☐	Jaffe rate blanked compensated (subtract -26umol/l)
CRERD	☐	Jaffe rate blanked comp. (-33umol/l)
CRECP	☐	Roche Creatinine Plus
CREDT	☐	Vitros DT60/DT60 II/DTSC II
CREID	☐	Vitros, IDMS traceable
		Vitros Slide Generation Number ☐☐
CREOD	☐	Other Dry Chemistry
CREAO	☐	Other enzymatic methods

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐☐☐☐

REAGENT CODE ☐☐☐☐

OTHER UNITS, SPECIFY ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

GAMMA GLUTAMYL TRANSFERASE, GGT U/l

CODE		METHOD
GGTAAI	☐	Abbott Alinity GGT 2
GGTARC	☐	Abbott Architect GGT 2
GGTBS	☐	Beckman Szasz (Extinction Coeff.)
GGTCL	☐	DCL gamma glutamyl-3-carboxy-4-nitroanalide
GGTCN	☐	Gamma glutamyl-3-carboxy-4-nitroanalide
GGTIF	☐	Gamma glutamyl-3-carboxy-4-nitroanalide (IFCC)
GGTN	☐	Gamma glutamyl-4-nitroanilide
GGTRCN	☐	Randox Colorimetric
GGTDB	☐	Siemens Dimension
GGTDC	☐	Ortho Vitros Microslide Systems
GGTDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
GGTOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐

GLUCOSE mmol/l

CODE		METHOD
GLUDH	☐	Glucose dehydrogenase
GLUOX	☐	Glucose oxidase
GLBEK	☐	GOD/02-Beckman method
GLUHX	☐	Hexokinase
GLUOE	☐	Oxygen electrode
GLDC	☐	Ortho Vitros Microslide Systems
GLUDT	☐	Vitros DT60/DT60 II
		Vitros Slide Generation Number ☐☐
GLUOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

HDL-CHOLESTEROL mmol/l

CODE		METHOD
DIRECT METHODS		
HDL12	☐	Direct HDL, Clearance method
HDL10	☐	Direct HDL, Immunoseparation
HDL11	☐	Direct HDL, PEGME
HDL9	☐	Direct HDL, PPD (Polymer/Polyanion detergent)
HDR4	☐	Direct HDL, Roche 4th gen.
HDLUL	☐	HDL, Ultra/Accel Selective Detergent
HDLOD	☐	Other Dry Chemistry
HDLDP	☐	Vitros dHDL, PTA/MgCl2 direct precip.
HDLMT	☐	Vitros 5.1 FS Microtip assay
HDVIM	☐	Vitros, Magnetic HDL
		Vitros Slide Generation Number ☐☐

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

IRON µmol/l

CODE		METHOD
FEAAI	☐	Abbott Alinity Iron 2
FEARC	☐	Abbott Architect Iron 2
FE1	☐	Colorimetric with precipitation
FE2	☐	Colorimetric without precipitation
FEOES	☐	Optical Emission Spectroscopy
FEDC	☐	Ortho Vitros Microslide Systems
FEDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
FEOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

LACTATE mmol//l

CODE		METHOD
LACALI2	☐	Abbott Alinity LAC 2
LACARC2	☐	Abbott Architect LAC 2
LACCLO	☐	Colorimetric - Lactate oxidase
LACEE	☐	Enzymatic Electrode
LACISE	☐	Ion Selective Electrode
LACOD	☐	Other Dry Chemistry
LACUV	☐	UV - LDH
LACDC	☐	Ortho Vitros MicroSlide Systems
LACDT	☐	Vitros DT60/DT60 II
		Vitros Slide Generation Number ☐☐

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

LACTATE DEHYDROGENASE, LD U/l

CODE		METHOD
LACTATE TO PYRUVATE METHODS		
LDAAI	☐	Abbott Alinity LD2 (LDH2, Factored)
LDAA2	☐	Abbott Alinity LD2 (LDH2)
LDARC	☐	Abbott Architect LD2 (LDH2)
LDAR2	☐	Abbott Architect LD2 (LDH2, Factored)
LDBC	☐	L to P Beckman (Extinction Coeff)
LDIF	☐	L to P, IFCC
LDDB	☐	L to P Siemens/Dade,non-IFCC
LDLP	☐	Other Lactate to Pyruvate methods
PYRUVATE TO LACTATE METHODS		
LDPL2	☐	P to L German methods
LDPL1	☐	P to L Scandinavian & Dutch methods
LDPL3	☐	P to L SFBC
LDPL4	☐	Pyruvate 1.4 mM - Beckman LD-P
DRY CHEMISTRY		
LDDCI	☐	Ortho Vitros IFCC Traceable
LDDC	☐	Ortho Vitros Microslide Systems
LDDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
LDOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

LIPASE U/l

CODE		METHOD
LIP10	☐	Colorimetric, Randox
LIP6	☐	Colorimetric, Roche ACN(8)731 / ID 0-100
LIP11	☐	Colorimetric, Roche ACN(8)789 / ID 0-052
LIP12	☐	Colorimetric, Sentinel NG OC (04Y85-20)
LIP5A	☐	Colorimetric, Siemens/Dade Dimension (LIPL kit)
LIP7	☐	Colorimetric, Sigma
LIP2	☐	Other Colorimetric
LIP9	☐	Randox, Turbidimetric with colipase
LIP8	☐	Roche,Turbidimetric with colipase
LIP1	☐	Other Turbidimetric with colipase
LIP4	☐	Turbidimetric without colipase
LIP3	☐	Titrimetric
LIPDC	☐	Ortho Vitros Microslide Systems
LIPDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
LIPOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

RESULTS REPORTED AT 25°C ☐ 30°C ☐ 37°C ☐

OTHER UNITS, SPECIFY ☐

MAGNESIUM mmol/l

CODE		METHOD
MGAZO	☐	Arsenazo
MGAA	☐	Atomic absorption
MGCA	☐	Calmagite
MGCP	☐	Chlorphosphonazo III
MGEN	☐	Enzymatic
MGMS	☐	Mass Spectrometry
MGMB	☐	Methylthymol blue
MGXY	☐	Xylidyl Blue
MAGDC	☐	Ortho Vitros Microslide Systems
MGDT	☐	Vitros DT60/DT60 II
		Vitros Slide Generation Number ☐☐
MAGOD	☐	Other Dry Chemistry
MGMD	☐	Other magnesium dyes

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

PHOSPHATE, INORGANIC mmol/l

CODE		METHOD
PHALI2	☐	Abbott Alinity Phos 2
PHARC2	☐	Abbott Architect Phos 2
PHBK	☐	Beckman PHOSm kit (365nm)
PHENZ	☐	Phosphomolybdate enzymatic
PHMD	☐	Phosphomolybdate UV
PHDC	☐	Ortho Vitros Microslide Systems
PHDT	☐	Vitros DT60/DT60 II/DTSC II
		Vitros Slide Generation Number ☐☐
PHOD	☐	Other Dry Chemistry
PHOP	☐	Other methods, no protein ppt, please specify
PHOPT	☐	Other methods, with protein ppt, please specify

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

POTASSIUM mmol/l

CODE		METHOD
KCHR	☐	Chromolyte
KCOL	☐	Colorimetric
KEN	☐	Enzymatic
KFP	☐	Flame photometry
KISE	☐	Ion Selective Electrode
KOF	☐	Optical Fluorescence
KTUR	☐	Turbidimetric
KDC	☐	Ortho Vitros Microslide Systems
KDT	☐	Vitros DT60/DT60 II/DTE II
		Vitros Slide Generation Number ☐☐
KOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

PROTEIN, TOTAL g/l

CODE		METHOD
PRAAI	☐	Abbott Alinity Total Protein 2
PRARC	☐	Abbott Architect Total Protein 2
PRCX	☐	Biuret reaction, CX4/CX5/CX7
PREP	☐	Biuret reaction, end point
PRKE	☐	Biuret reaction, kinetic
PRRF	☐	Refractometry
PRDC	☐	Ortho Vitros Microslide Systems
PRDT	☐	Vitros DT60/DT60 II
		Vitros Slide Generation Number ☐☐
PROD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

SODIUM mmol/l

CODE		METHOD
NACH	☐	Chromolyte
NACOL	☐	Colorimetric
NAEN	☐	Enzymatic
NAFP	☐	Flame photometry
NAISE	☐	Ion Selective Electrode
NAOES	☐	Optical Emission Spectroscopy
NAOF	☐	Optical Fluorescence
NADC	☐	Ortho Vitros Microslide Systems
NADT	☐	Vitros DT60/DT60 II/DTE II ☐☐
		Vitros Slide Generation Number
NAOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

TRIGLYCERIDES
IMPORTANT NOTE
Triglycerides can be analysed and reported using several techniques

a) TOTAL GLYCEROL

The Total Glycerol in the sample is measured and reported . With this method only one measurement is required. Participants using this technique should select a method code from the TRIGLYCERIDES, TOTAL GLYCEROL section below.

b) TOTAL GLYCEROL WITH ESTIMATED FREE GLYCEROL CORRECTION

The Total Glycerol is measured as in a) and 0.11 mmol/l (10 mg/dl) is subtracted from this to give a corrected result. Participants using this technique should select a method code from the TRIGLYCERIDES, TOTAL GLYCEROL section below.

c) TOTAL GLYCEROL WITH TRUE FREE GLYCEROL CORRECTION

Two measurements are made: one for Total Gylcerol and one for Free Glycerol and the difference between the two is reported. ***RIQAS*** participants using this method should choose a method code from the TRIGLYCERIDES, TOTAL GLYCEROL WITH TRUE FREE GLYCEROL CORRECTION section.

If you are in any doubt which method you use, please contact ***RIQAS***

TRIGLYCERIDES, TOTAL GLYCEROL mmol/l

CODE	METHOD
METHOD 1 - LIPASE/GPO-PAP	
TGAAI ☐	Abbott Alinity Triglyceride 2
TGARC ☐	Abbott Architect Triglyceride 2
TG1A ☐	Colorimetric without glycerol correction
TG1B ☐	Colorimetric with 0.11 mmol/l (10 mg/dl) glycerol correction
TGBD ☐	Siemens Dimension
METHOD 2 - LIPASE/GLYCEROL KINASE UV	
TG2A ☐	End-point without glycerol correction
TG2B ☐	End-point with 0.11 mmol/l (10 mg/dl) glycerol correction
METHOD 3 - LIPASE/GLYCEROL DEHYDROGENASE	
TG3 ☐	Lipase/Glycerol Dehydrogenase
METHOD 4 - DRY CHEMISTRY	
TRIDC ☐	Ortho Vitros Microslide Systems
TRIDT ☐	Vitros DT60/DT60 II ☐☐ Vitros Slide Generation Number
TRIOD ☐	Other Dry Chemistry

Other methods, please specify on enrolment document

TRIGLYCERIDES, TOTAL GLYCEROL WITH TRUE FREE GLYCEROL CORRECTION mmol/l

CODE	METHOD
METHOD 1 - LIPASE/GPO-PAP	
TG1C ☐	Colorimetric 'free' glycerol blank correction
METHOD 2 - LIPASE/GLYCEROL KINASE UV	
TG2C ☐	End-point 'free' glycerol blank correction

Other methods, please specify on enrolment document

INSTRUMENT CODE ☐

REAGENT CODE ☐

OTHER UNITS, SPECIFY ☐

RQ9194 - SERUM INDICES
METHOD QUESTIONNAIRE

UREA mmol/l

CODE		METHOD
URARC	☐	Abbott Architect Urea Nitrogen 2
URAC	☐	Beckman-Conductivity
URDM	☐	Diacetyl monoxime
URPHT	☐	O-Phthalaldhyde
URUEP	☐	Urease, end point
URURH	☐	Urease, hypochlorite
URUK	☐	Urease, kinetic
URDC	☐	Ortho Vitros Microslide Systems
URDT	☐	Vitros DT60/DT60 II ☐☐
		Vitros Slide Generation Number
UROD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

URIC ACID mmol/l

CODE		METHOD
UAAI	☐	Abbott Alinity Uric Acid 2
UARC	☐	Abbott Architect Uric Acid 2
URBEA	☐	Beckman AU US Calibrator (DR0070)
URBEO	☐	Beckman AU Non US Calibrator (66300)
URED	☐	Reduction methods
URSP	☐	Uricase @ 293nm
URPER	☐	Uricase peroxidase without ascorbate oxidase
URPA2	☐	Uricase peroxidase with ascorbate oxidase @ 546nm
URPAS	☐	Uricase peroxidase with ascorbate oxidase
URCAT	☐	Uricase - catalase 340nm.
UACDC	☐	Ortho Vitros Microslide Systems
UADT	☐	Vitros DT60/DT60 II ☐☐
		Vitros Slide Generation Number
UACOD	☐	Other Dry Chemistry

Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY