

# ***RIQAS***

**RANDEX INTERNATIONAL QUALITY ASSESSMENT SCHEME**

**METHOD QUESTIONNAIRE  
GENERAL CLINICAL  
CHEMISTRY PROGRAMME**

Please be aware that the *RIQAS* Instrument and reagent supplier codes are now in a separate booklet. Please ensure you have a copy of this in order to complete this document.

**This document must be retained by participant**

# REGISTRATION INSTRUCTIONS & RIQAS POLICIES

## CRITERIA FOR PARTICIPATION

This programme is available to any laboratory running the assays listed in this document. Quantitative results will be accepted on this programme.

## INTRODUCTION

Method questionnaires are available for all routine *RIQAS* Programmes. 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. 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.

## REGISTRATION INSTRUCTIONS

### 1. 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 *RIQAS* website ([www.riqas.com](http://www.riqas.com)). 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.**

### 2. ENROLMENT DOCUMENT:- To be returned to *RIQAS*

**Please be aware that it may take up to 3 weeks to process enrolment documents.**

#### A. LABORATORY REFERENCE NUMBER

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.

#### B. ORDER NUMBER

If you are a UK or Irish participant, please state your official order number in the boxes provided. Other participants may order directly from their local Randox Laboratories representative.

#### C. 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.

#### D. CONTACT DETAILS

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

#### E. *RIQAS*Net

*RIQAS*Net is a web-based online method for result entry/method changes/viewing of released reports. Reports will be sent to up to 3 email addresses as PDF files. Internet access and login details are required for *RIQAS*Net and Adobe Reader is required for viewing reports. If you wish to use *RIQAS*Net please indicate this by ticking the box on the enrolment document. Your login information and password will be supplied by *RIQAS*. 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.

#### F. PDF reports

Reports can now be sent as PDF files as an alternative to paper reports. These files can be sent to up to 3 email addresses. If you wish to receive PDF reports please indicate this by ticking the box on the enrolment document and include the email addresses to which the reports should be sent. Adobe Reader is required to view the reports.

#### G. GROUP REPORTS

It is possible to enrol **multiple instruments** within your laboratory. **Kindly complete separate enrolment documents for each instrument.** A **complementary instrument group report** is supplied if you have returned results for more than one registration of the same programme. If you intend to enrol laboratories at different sites or if you are part of a group of laboratories, an **inter-laboratory group report for each sample** can be supplied on receipt of a completed authorisation form from each registered laboratory. Please contact RIQAS for a copy of the official inter-laboratory authorisation form.

#### H. REGISTRATION OF METHODS

Complete the 'Registration of Methods' section for all required parameters using the codes you selected on your method questionnaire. 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.

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.**

**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.**

## I. CHANGES DURING A CYCLE

Please inform **RIQAS** of any change to contact details as soon as possible. It is also possible to change your unit, method, instrument or reagent classification during a cycle.

**Participants who use return sheets:** Each Results Return Sheet has a section for method changes. Please state your new classification codes at the bottom of your next return sheet. We assume that your new classification will be in routine use from the date on the return sheet unless you tell us otherwise. If you have added or deleted a parameter, changed your unit or Vitros slide generation number, an updated return sheet will be forwarded to you. It is important that you discard your old return sheet and use only your updated copy for future returns.

**Participants who use *RIQAS* Net:** Changes can be made in the Method Changes 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 and the assay details will appear. 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 receipt of method changes **RIQAS** staff will manually process and update your assay details which will then be uploaded onto **RIQAS** Net. It is possible to submit results and method changes at the same time as method changes will be made before results are submitted.

## LABORATORY REFERENCE NUMBERS & RETURN SHEETS

On receipt of your enrolment document **RIQAS** will generate a **Laboratory Reference Number** for your laboratory and additional numbers for associated laboratories or multiple instruments if requested. If you are registering for the first time you will be sent **RIQAS** literature, which will enable you to understand the **RIQAS** process and interpret your reports.

Participants using **RIQAS** Net will receive an email containing their login information. Once you have successfully logged in to **RIQAS** Net you will see your various laboratory reference numbers for each registered programme.

Participants who do not use **RIQAS** Net will be sent a master return sheet which is specific for your registered parameters and units. You should photocopy this sheet as required and use it to return results to **RIQAS**.

## ORDERING RIQAS PRODUCTS

Please ensure that your order is placed with your local Randox representative **at least 6-8 weeks** before 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 6 weeks of the start of the cycle will be processed, but **RIQAS** cannot guarantee delivery in time for the first sample. 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 receipt of your **RIQAS** kit, please check that:

- a) it is the product you ordered
- b) the tamper-proof label has not been broken
- c) the kit contains detailed Instructions For Use (IFU), including material characteristics, preparation, stability, storage and safety
- d) the correct number of samples are present as indicated on the IFU
- e) 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. 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. If returning results on return sheet, it is most important that your Laboratory Reference Number(s), cycle number, sample number and FINAL DATE for return of results are clearly written at the top of the return sheet. If you wish to fax your results please transmit them 3 working days before the FINAL DATE to + 44 (0) 28 9445 4398. You may also e-mail your results to mail@riqas.com. Please contact **RIQAS** for a RESULT RETURN SHEET template.

## 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. While **RIQAS** permits the submission of late or corrected results under the circumstances described below, routine reports are clearly marked to indicate late and corrected results.

### LATE RESULTS

Results received after the FINAL DATE will be processed retrospectively. Participants will still receive their report which will record late results as "NO RESULTS" until reprocessing is complete. Please ensure that any late results you wish to submit reach us by no later than the final date of the following sample. Any results received after this date will not be entered.

### CORRECTED RESULTS

Participants will be permitted to submit corrected results up to 4 weeks after the final date of the sample. While a new report will not be issued, corrected results will be processed retrospectively and results can be viewed on subsequent reports.

## DESPATCH OF REPORTS

Results will normally be processed within 2 days of the FINAL DATE. PDF reports will be sent as soon as the results have been processed and for those registered for **RIQAS** Net the PDF reports will be available on **RIQAS** Net shortly after. Printed reports usually take a further 1-3 days to print and despatch.

## 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.

## 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 their laboratory accreditation bodies 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.

## CERTIFICATES OF PARTICIPATION

Complimentary certificates of participation for each *RIQAS* programme are available to participants at the **end of the current cycle**, provided that **at least 50%** of results have been returned. The certificate will specify the cycle, programme and the LABORATORY / HOSPITAL NAME specified in the address details of the enrolment document. However, **there will be an administration charge for modifications or additions to the standard certificate**. A maximum of three lines will be permitted for a modified certificate. Please state modifications in the ADDITIONAL CERTIFICATE DETAILS section of the enrolment document. There will also be an administration charge for additional copies of certificates. Modified certificates may be requested through your local Randox representative.

## 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 & RIGHT TO APPEAL

In order to ensure that *RIQAS* provides an appropriate and satisfying service, all participants will be provided with a feed-back questionnaire towards the end of a cycle. We would invite you to 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 appeal against the interpretation of their results or assessment of their performance through correspondence with the local Randox Laboratories representative or by contacting *RIQAS* directly.

## 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.

THIS PROGRAMME IS ACCREDITED BY UKAS TO ILAC G13:08/2007

Please contact *RIQAS* at

Tel: +44 (0) 28 9445 4399

Fax: +44 (0) 28 9445 4398

E-Mail [mail@riqas.com](mailto:mail@riqas.com)

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Revised November 2011



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# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### ACID PHOSPHATASE, PROSTATIC U/I

CODE	METHOD
APP2	<input type="checkbox"/> Naphthyl phosphate substrate, end point
APP1	<input type="checkbox"/> Naphthyl phosphate substrate, kinetic
APP6	<input type="checkbox"/> Naphthyl phosphate with pentane diol
APP3	<input type="checkbox"/> p-Nitrophenyl phosphate substrate
APP4	<input type="checkbox"/> Thymolphthalein phosphate substrate
APPDC	<input type="checkbox"/> Ortho Vitros Microslide Systems Vitros Slide Generation Number <input type="text"/> <input type="text"/>
APPO	<input type="checkbox"/> Other methods, please specify on enrolment document
INSTRUMENT CODE	<input type="text"/>
REAGENT CODE	<input type="text"/>
RESULTS REPORTED AT	25°C <input type="checkbox"/> 30°C <input type="checkbox"/> 37°C <input type="checkbox"/>
OTHER UNITS, SPECIFY	<input type="text"/>

### ACID PHOSPHATASE, TOTAL U/I

CODE	METHOD
ACP2	<input type="checkbox"/> Naphthyl phosphate substrate, end point
ACP1	<input type="checkbox"/> Naphthyl phosphate substrate, kinetic
ACP6	<input type="checkbox"/> Naphthyl phosphate with pentane diol
ACP3	<input type="checkbox"/> p-Nitrophenyl phosphate substrate
ACP4	<input type="checkbox"/> Thymolphthalein phosphate substrate
ACPDC	<input type="checkbox"/> Ortho Vitros Microslide Systems Vitros Slide Generation Number <input type="text"/> <input type="text"/>
ACP5	<input type="checkbox"/> Other methods, please specify on enrolment document
INSTRUMENT CODE	<input type="text"/>
REAGENT CODE	<input type="text"/>
RESULTS REPORTED AT	25°C <input type="checkbox"/> 30°C <input type="checkbox"/> 37°C <input type="checkbox"/>
OTHER UNITS, SPECIFY	<input type="text"/>

### ALBUMIN g/l

CODE	METHOD
ALB1	<input type="checkbox"/> Bromocresol Green (BCG)
ALB2	<input type="checkbox"/> Bromocresol Purple (BCP)
ALBNP	<input type="checkbox"/> Nephelometric Assays
ALBT	<input type="checkbox"/> Turbidimetric Assays
ALBDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
ALBDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/> <input type="text"/>
ALBOD	<input type="checkbox"/> Other Dry Chemistry
ALBO	<input type="checkbox"/> Other methods, please specify on enrolment document
INSTRUMENT CODE	<input type="text"/>
REAGENT CODE	<input type="text"/>
OTHER UNITS, SPECIFY	<input type="text"/>

### ALKALINE PHOSPHATASE U/I

CODE	METHOD
APNON	<input type="checkbox"/> AMP, non-optimised
APIF	<input type="checkbox"/> AMP, optimised to IFCC
APNS	<input type="checkbox"/> AMP, optimised to NVKC/SFBC
APRED	<input type="checkbox"/> AMP, reduced interference
APINT	<input type="checkbox"/> Roche, AMP Buffer
APDB	<input type="checkbox"/> Siemens/Dade Dimension, AMP buffer
APAMP	<input type="checkbox"/> Other AMP kits
APDEA	<input type="checkbox"/> Diethanolamine buffer, DEA
APTRI	<input type="checkbox"/> Tris/carbonate buffer
APDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
APDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/> <input type="text"/>
APOD	<input type="checkbox"/> Other Dry Chemistry
APO	<input type="checkbox"/> Other methods, please specify on enrolment document
INSTRUMENT CODE	<input type="text"/>
REAGENT CODE	<input type="text"/>
RESULTS REPORTED AT	25°C <input type="checkbox"/> 30°C <input type="checkbox"/> 37°C <input type="checkbox"/>
OTHER UNITS, SPECIFY	<input type="text"/>

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### ALANINE TRANSAMINASE, ALT U/I

CODE	METHOD
ALTC	<input type="checkbox"/> Colorimetric
ALTP	<input type="checkbox"/> Phosphate buffer, DGKC
ALTDDB	<input type="checkbox"/> Siemens/Dade standard non IFCC correlated
ALTNP	<input type="checkbox"/> Tris buffer without pyridoxal - 5 - phosphate, IFCC/SFBC
ALTIF	<input type="checkbox"/> Tris buffer with pyridoxal - 5 - phosphate, IFCC/SFBC
ALTP5	<input type="checkbox"/> Tris buffer with pyridoxal - 5 - phosphate, NVKC
ALTT	<input type="checkbox"/> Tris buffer, SCE
ALTDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
ALTDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/> <input type="text"/>
ALTOD	<input type="checkbox"/> Other Dry Chemistry

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### AMYLASE, PANCREATIC U/I

CODE	METHOD
PAMBK	<input type="checkbox"/> Beckman Synchron CX/LXi/DxC
PAM2	<input type="checkbox"/> Roche & Randox Liquid Stable pNPG7
PAM1	<input type="checkbox"/> Immunoinhibition, EPS substrate
PAMO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### AMYLASE, TOTAL U/I

CODE	METHOD
<b>BLOCKED MALTOHEPTAOSIDE SUBSTRATES</b>	
AM1T	<input type="checkbox"/> Beckman Synchron AMY7
AM1C	<input type="checkbox"/> bioMerieux
AM1D	<input type="checkbox"/> Biotrol
AM1P	<input type="checkbox"/> DCL
AM1F	<input type="checkbox"/> Human
AM1G	<input type="checkbox"/> Instrumentation Laboratory (IL)
AM1H	<input type="checkbox"/> Medical Analysis Systems (MAS)
AM1S	<input type="checkbox"/> Olympus
AM1N	<input type="checkbox"/> Other blocked Maltoheptaoside substrates
AM1K	<input type="checkbox"/> RAChem
AM1I	<input type="checkbox"/> Randox - Benzylidene blocked pNPG7
AM1J	<input type="checkbox"/> Randox - Ethylidene blocked pNPG7
AM1Q	<input type="checkbox"/> Randox Liquid stable pNPG7
AM1R	<input type="checkbox"/> Roche liquid stable pNPG7
AM1B	<input type="checkbox"/> Siemens/Bayer
AM1L	<input type="checkbox"/> Sigma
AM1M	<input type="checkbox"/> Trace
<b>NON-BLOCKED pNP MALTOHEPTAOSIDE SUBSTRATES</b>	
AM2B	<input type="checkbox"/> Other non-blocked pNPG7
<b>MALTOTETRAOSE SUBSTRATES</b>	
AM3A	<input type="checkbox"/> Beckman Synchron CX4/CX5/CX7
AM3B	<input type="checkbox"/> Other Maltotetraose substrates
<b>pNP MALTOPENTA/HEXA OSIDE SUBSTRATES</b>	
AM4A	<input type="checkbox"/> Siemens/Bayer
AM4B	<input type="checkbox"/> Siemens/Dade
AM4C	<input type="checkbox"/> Other Maltopenta/hexaoside substrates

CONTINUED ON NEXT PAGE

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### AMYLASE, TOTAL U/I (Continued)

CODE METHOD

**OTHER SUBSTRATES**

- AM8F  2-chloro-pNPG3 - bioMerieux  
 AM8E  2-chloro-pNPG3 - Siemens/Dade Behring  
 AM8G  2-chloro-pNPG3 - Other  
 AM8B  2-chloro-pNP-linked substrate - Siemens/Bayer  
 AM8C  2-chloro-pNP-linked substrate - Roche Integra  
 AM8D  2-chloro-pNP-linked substrate - Other Roche  
 AM8A  2-chloro-pNP-linked substrate - Other
- AM5A  Beckman Synchron AS - dyed amylopectin  
 AM7A  Phadebas Tablet  
 AM10  pNP Maltotrioxide substrates  
 AM6A  Saccharogenic methods
- AYDC  Ortho Vitros Microslide Systems  
 AYDT  Vitros DT60/DT60 II  
            Vitros Slide Generation Number
- AYOD  Other Dry Chemistry  
 AM9A  Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### ASPARTATE TRANSAMINASE, AST U/I

CODE METHOD

- ASTC  Colorimetric  
 ASTP  Phosphate buffer, DGKC  
 ASTDB  Siemens/Dade standard non IFCC correlated  
 ASTIF  Tris buffer with pyridoxal - 5 - phosphate, IFCC/SFBC  
 ASTP5  Tris buffer with pyridoxal - 5 - phosphate, NVKC  
 ASTNP  Tris buffer without pyridoxal - 5 - phosphate, IFCC/SFBC  
 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

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### BICARBONATE mmol/l

CODE METHOD

- BICOL  Colorimetric  
 BIDIF  Differential rate pH change  
 BIENZ  Enzymatic  
 BIISE  Ion selective electrode  
 BIMAN  Manometric  
 BIDC  Ortho Vitros Microslide Systems  
 BIDT  Vitros DT60/DT60 II/DTE II  
            Vitros Slide Generation Number
- BICOD  Other Dry Chemistry  
 BICO  Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### BILE ACIDS µmol/l

CODE METHOD

- BIAE  Enzymatic Colorimetric  
 BIOM  Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### BILIRUBIN, DIRECT $\mu\text{mol/l}$

CODE	METHOD
BDDI	<input type="checkbox"/> Diazo with Dichloroaniline
BDSA	<input type="checkbox"/> Diazo with Sulphanilic Acid
BDDD	<input type="checkbox"/> Dichlorophenyl Diazonium
BDVER	<input type="checkbox"/> Oxidation to Biliverdin
BDRJG	<input type="checkbox"/> Roche JG factored
BDDU	<input type="checkbox"/> Ortho Vitros Microslide Systems conjugated from BUBC
BDTB	<input type="checkbox"/> Ortho Vitros Microslide Systems Total Bil-BU (from BUBC) Vitros Slide Generation Number <input type="text"/>
BDOD	<input type="checkbox"/> Other Dry Chemistry
BDO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### BILIRUBIN, TOTAL $\mu\text{mol/l}$

CODE	METHOD
BIDI	<input type="checkbox"/> Diazo with Dichloroaniline
BISA	<input type="checkbox"/> Diazo with Sulphanilic Acid
BIION	<input type="checkbox"/> Diazonium ion
BDD	<input type="checkbox"/> Dichlorophenyl Diazonium
BINBD	<input type="checkbox"/> Nitrobenzenediazonium Salt
BIVER	<input type="checkbox"/> Oxidation to Biliverdin
BICAL	<input type="checkbox"/> Roche calibrator (US set point only)
BIBL	<input type="checkbox"/> Ortho Vitros Microslide Systems Total Bil
BIBU	<input type="checkbox"/> Ortho Vitros Microslide Systems Total BUBC
BIBT	<input type="checkbox"/> Vitros DT60/DT60 II Total Bil Vitros Slide Generation Number <input type="text"/>
BIOD	<input type="checkbox"/> Other Dry Chemistry
BIO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### CALCIUM $\text{mmol/l}$

CODE	METHOD
CAZO	<input type="checkbox"/> Arsenazo
CAAA	<input type="checkbox"/> Atomic absorption
CACPC	<input type="checkbox"/> Cresolphthalein complexone
CAISE	<input type="checkbox"/> Ion selective electrode
CAMB	<input type="checkbox"/> Methylthymol blue
CADC	<input type="checkbox"/> Ortho Vitros Microslide Systems
CAPO	<input type="checkbox"/> Phosphonazo
CADT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/>
CAOD	<input type="checkbox"/> Other Dry Chemistry
CAO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### CALCIUM, IONISED $\text{mmol/l}$

CODE	METHOD
CIISE	<input type="checkbox"/> Ion Selective Electrode - ISE
CIOF	<input type="checkbox"/> Optical Fluorescence
CIIO	<input type="checkbox"/> Other methods (non calculated)

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

Please note that Ionised Calcium results should not be pH adjusted

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### CHOLINESTERASE (PILOT) U/I

CODE	METHOD
CHEAT	<input type="checkbox"/> Colorimetric - Acetylthiocholine
CHECBC	<input type="checkbox"/> Colorimetric - Benzoylcholine
CHECBT	<input type="checkbox"/> Colorimetric - Butyrylthiocholine
CHEPT	<input type="checkbox"/> Colorimetric - Propionylthiocholine
CHEDC	<input type="checkbox"/> Ortho Vitros Microslide Systems Vitros Slide Generation Number <input type="text"/>
CHEO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### CHLORIDE mmol/l

CODE	METHOD
CLCOL	<input type="checkbox"/> Colorimetric
CLCOU	<input type="checkbox"/> Coulometric
CLSED	<input type="checkbox"/> Ion Selective Electrode, direct
CLISE	<input type="checkbox"/> Ion Selective Electrode, indirect
CLTIT	<input type="checkbox"/> Titrimetric
CLOF	<input type="checkbox"/> Optical Fluorescence
CLDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
CLDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTE II Vitros Slide Generation Number <input type="text"/>
CLOD	<input type="checkbox"/> Other Dry Chemistry
CLO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### CHOLESTEROL mmol/l

CODE	METHOD
CHOL	<input type="checkbox"/> Cholesterol Oxidase
CHODB	<input type="checkbox"/> Siemens/Dade Behring reagents
CHODC	<input type="checkbox"/> Ortho Vitros Microslide Systems
CHODT	<input type="checkbox"/> Vitros DT60/DT60 II Vitros Slide Generation Number <input type="text"/>
CHOOD	<input type="checkbox"/> Other Dry Chemistry
CHOLO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### CREATINE KINASE, TOTAL U/I

CODE	METHOD
CKTD	<input type="checkbox"/> Dithioerythritol (DTE)
CKDIF	<input type="checkbox"/> Dithioerythritol (DTE) IFCC correlated
CKTM	<input type="checkbox"/> Monothioglycerol
CKIFF	<input type="checkbox"/> CK-NAC (IFCC)
CKACT	<input type="checkbox"/> CK-NAC serum start (DGKC)
CKNAC	<input type="checkbox"/> CK-NAC substrate start (DGKC)
CKDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
CKDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/>
CKOD	<input type="checkbox"/> Other Dry Chemistry
CKO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### COPPER $\mu\text{mol/l}$

CODE	METHOD
CUAA	<input type="checkbox"/> Atomic absorption
CUCOL	<input type="checkbox"/> Colorimetric
CUMS	<input type="checkbox"/> Mass Spectrometry
CUO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### CREATININE $\mu\text{mol/l}$

CODE	METHOD
CREAP	<input type="checkbox"/> Alkaline picrate without deproteinisation
CRDEP	<input type="checkbox"/> Alkaline picrate with deproteinisation
CRPAP	<input type="checkbox"/> Creatinine PAP method
CREUV	<input type="checkbox"/> Enzymatic UV method
CRIDM	<input type="checkbox"/> IDMS traceable
CRERB	<input type="checkbox"/> Jaffe rate blanked
CREJC	<input type="checkbox"/> Jaffe rate blanked comp. for serum (-18 $\mu\text{mol/l}$ )
CRERC	<input type="checkbox"/> Jaffe rate blanked compensated (subtract 26 $\mu\text{mol/l}$ )
CRECP	<input type="checkbox"/> Roche Creatinine Plus
CREDD	<input type="checkbox"/> Ortho Vitros Microslide Double Slide
CREDC	<input type="checkbox"/> Ortho Vitros Microslide Single Slide
CREDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II
CREID	<input type="checkbox"/> Vitros, IDMS traceable
	Vitros Slide Generation Number <input type="text"/>
CREOD	<input type="checkbox"/> Other Dry Chemistry
CREAO	<input type="checkbox"/> Other enzymatic methods

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### D-3-HYDROXYBUTYRATE $\text{mmol/l}$

CODE	METHOD
D3HRD	<input type="checkbox"/> Randox - Tris buffer 100 $\text{mmol}$ pH 8.5
D3H0	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### FRUCTOSAMINE (PILOT) $\mu\text{mol/l}$

CODE	METHOD
FRNBT	<input type="checkbox"/> Nitrotetrazolium blue colorimetric assay
FRRDE	<input type="checkbox"/> Randox enzymatic assay

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### GAMMA GLUTAMYL TRANSFERASE, GGT U/l

CODE	METHOD
GGTCL	<input type="checkbox"/> DCL gamma glutamyl-3-carboxy-4-nitroanalide
GGTCN	<input type="checkbox"/> Gamma glutamyl-3-carboxy-4-nitroanalide
GGTIF	<input type="checkbox"/> Gamma glutamyl-3-carboxy-4-nitroanalide (IFCC)
GGTN	<input type="checkbox"/> Gamma glutamyl-4-nitroanalide
GGTDB	<input type="checkbox"/> Siemens/Dade standard non IFCC correlated
GGTDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
GGTDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II
	Vitros Slide Generation Number <input type="text"/>
GGTOD	<input type="checkbox"/> Other Dry Chemistry
GGTO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### GLUTAMATE DEHYDROGENASE U/I

CODE	METHOD
GLDRX	<input type="checkbox"/> $\alpha$ -oxoglutarate Triethanolamine buffer 50 mmol/l
GLDDC	<input type="checkbox"/> Ortho Vitros Microslide Systems Vitros Slide Generation Number <input type="text"/>
GLDO	<input type="checkbox"/> 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	<input type="checkbox"/> Glucose dehydrogenase
GLUOX	<input type="checkbox"/> Glucose oxidase
GLBEK	<input type="checkbox"/> GOD/02-Beckman method
GLUHX	<input type="checkbox"/> Hexokinase
GLUOE	<input type="checkbox"/> Oxygen electrode
GLDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
GLUDT	<input type="checkbox"/> Vitros DT60/DT60 II Vitros Slide Generation Number <input type="text"/>
GLUOD	<input type="checkbox"/> Other Dry Chemistry
GLUO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### HYDROXYBUTYRATE DEHYDROGENASE U/I

CODE	METHOD
HBDH2	<input type="checkbox"/> Oxobutyrate < 10 mmol/l
HBDH1	<input type="checkbox"/> Oxobutyrate > 10mmol/l
HBDDC	<input type="checkbox"/> Ortho Vitros Microslide Systems Vitros Slide Generation Number <input type="text"/>
HBDHO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### HDL-CHOLESTEROL mmol/l

CODE	METHOD
<b>DIRECT METHODS</b>	
HDR3	<input type="checkbox"/> Direct HDL, Roche 3rd gen.
HDLUL	<input type="checkbox"/> HDL, Ultra
HDL10	<input type="checkbox"/> Immunoseparation
HDL11	<input type="checkbox"/> PEGME
HDL9	<input type="checkbox"/> PPD (Polymer/Polyanion detergent)
HDL12	<input type="checkbox"/> Clearance method
HDLDP	<input type="checkbox"/> Vitros dHDL, PTA/MgCl <sub>2</sub> direct precip.
HDLMT	<input type="checkbox"/> Vitros 5.1 FS Microtip assay
HDVIM	<input type="checkbox"/> Vitros, Magnetic HDL Vitros Slide Generation Number <input type="text"/>

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### IRON $\mu\text{mol/l}$

CODE	METHOD
FE1	<input type="checkbox"/> Colorimetric with precipitation
FE2	<input type="checkbox"/> Colorimetric without precipitation
FEDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
FEDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/>
FEOD	<input type="checkbox"/> Other Dry Chemistry
FE01	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### LACTATE (PILOT) $\text{mmol/l}$

CODE	METHOD
LACCL0	<input type="checkbox"/> Colorimetric - Lactate oxidase
LACDC	<input type="checkbox"/> Ortho Vitros MicroSlide Systems
LACEE	<input type="checkbox"/> Enzymatic Electrode
LACISE	<input type="checkbox"/> Ion Selective Electrode
LACOD	<input type="checkbox"/> Other Dry Chemistry
LACUV	<input type="checkbox"/> UV - LDH
LACDT	<input type="checkbox"/> Vitros DT60/DT60 II

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### LACTATE DEHYDROGENASE, LD U/l

CODE	METHOD
<b>LACTATE TO PYRUVATE METHODS</b>	
LDIF	<input type="checkbox"/> L to P, IFCC
LDLPR	<input type="checkbox"/> L to P, Roche
LDDB	<input type="checkbox"/> L to P Siemens/Dade, non-IFCC
LDLP	<input type="checkbox"/> Other Lactate to Pyruvate methods

<b>PYRUVATE TO LACTATE METHODS</b>	
LDPL2	<input type="checkbox"/> P to L German methods
LDPL1	<input type="checkbox"/> P to L Scandinavian & Dutch methods
LDPL3	<input type="checkbox"/> P to L SFBC
LDPL4	<input type="checkbox"/> Pyruvate 1.4 mM - Beckman LD-P

DRY CHEMISTRY	
LDDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
LDDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/>
LDOD	<input type="checkbox"/> Other Dry Chemistry

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### LIPASE U/I

CODE	METHOD
LIP10	<input type="checkbox"/> Colorimetric, Randox
LIP6	<input type="checkbox"/> Colorimetric, Roche
LIP5	<input type="checkbox"/> Colorimetric, Siemens/Dade Dimension (LIP kit)
LIP5A	<input type="checkbox"/> Colorimetric, Siemens/Dade Dimension (LIPL kit)
LIP7	<input type="checkbox"/> Colorimetric, Sigma
LIP2	<input type="checkbox"/> Other Colorimetric
LIP9	<input type="checkbox"/> Randox, Turbidimetric with colipase
LIP8	<input type="checkbox"/> Roche, Turbidimetric with colipase
LIP1	<input type="checkbox"/> Other Turbidimetric with colipase
LIP4	<input type="checkbox"/> Turbidimetric without colipase
LIP3	<input type="checkbox"/> Titrimetric
LIPDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
LIPDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/>
LIPOD	<input type="checkbox"/> Other Dry Chemistry <input type="text"/>

INSTRUMENT CODE

REAGENT CODE

RESULTS REPORTED AT 25°C  30°C  37°C

OTHER UNITS, SPECIFY

### LITHIUM mmol/l

CODE	METHOD
LIAA	<input type="checkbox"/> Atomic absorption
LIFP	<input type="checkbox"/> Flame photometry
LISE	<input type="checkbox"/> Ion selective electrode
LISP	<input type="checkbox"/> Spectrophotometry
LIDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
LIDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/>
LIOD	<input type="checkbox"/> Other Dry Chemistry
LIO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### MAGNESIUM mmol/l

CODE	METHOD
MGAZO	<input type="checkbox"/> Arsenazo
MGAA	<input type="checkbox"/> Atomic absorption
MGCA	<input type="checkbox"/> Calmagite
MGCP	<input type="checkbox"/> Chlorphosphonazo III
MGEN	<input type="checkbox"/> Enzymatic
MGMB	<input type="checkbox"/> Methylthymol blue
MGXY	<input type="checkbox"/> Xylidyl Blue
MAGDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
MGDT	<input type="checkbox"/> Vitros DT60/DT60 II Vitros Slide Generation Number <input type="text"/>
MAGOD	<input type="checkbox"/> Other Dry Chemistry
MGMD	<input type="checkbox"/> Other magnesium dyes
MGO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### NON-ESTERIFIED FATTY ACIDS (NEFA) mmol/l (PILOT)

CODE	METHOD
NFACS	<input type="checkbox"/> ACS-ACOD-MEHA Method
NFACSM	<input type="checkbox"/> ACS-ACOD-MEHA Method (inc. Maleimide)
NFCOL	<input type="checkbox"/> Colorimetric Endpoint
NFGC	<input type="checkbox"/> GC/MS
NFHPL	<input type="checkbox"/> HPLC
NFMIC	<input type="checkbox"/> Micro Method - FACL 50

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### OSMOLALITY mOsm/Kg

CODE	METHOD
OSC	<input type="checkbox"/> Calculated
OSFPD	<input type="checkbox"/> Freezing point depression
OSVP	<input type="checkbox"/> Vapour pressure

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### PHOSPHATE, INORGANIC mmol/l

CODE	METHOD
PHBK	<input type="checkbox"/> Beckman PHOSm kit (365nm)
PHENZ	<input type="checkbox"/> Phosphomolybdate enzymatic
PHMD	<input type="checkbox"/> Phosphomolybdate UV
PHDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
PHDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTSC II Vitros Slide Generation Number <input type="text"/>
PHOD	<input type="checkbox"/> Other Dry Chemistry
PHOP	<input type="checkbox"/> Other methods, no protein ppt, please specify
PHOPT	<input type="checkbox"/> Other methods, with protein ppt, please specify

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### POTASSIUM mmol/l

CODE	METHOD
KCHR	<input type="checkbox"/> Chromolyte
KCOL	<input type="checkbox"/> Colorimetric
KEN	<input type="checkbox"/> Enzymatic
KFP	<input type="checkbox"/> Flame photometry
KISE	<input type="checkbox"/> Ion Selective Electrode method - direct
KISE1	<input type="checkbox"/> Ion Selective Electrode method - indirect
KOF	<input type="checkbox"/> Optical Fluorescence
KDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
KDT	<input type="checkbox"/> Vitros DT60/DT60 II/DTE II Vitros Slide Generation Number <input type="text"/>
KOD	<input type="checkbox"/> Other Dry Chemistry
KOM	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### PROTEIN, TOTAL g/l

CODE	METHOD
PRCX	<input type="checkbox"/> Biuret reaction, CX4/CX5/CX7
PREP	<input type="checkbox"/> Biuret reaction, end point
PRKE	<input type="checkbox"/> Biuret reaction, kinetic
PRDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
PRDT	<input type="checkbox"/> Vitros DT60/DT60 II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/> <input type="text"/>
PROD	<input type="checkbox"/> Other Dry Chemistry
PRO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### PSA, TOTAL µg/l

CODE	METHOD
PSA31	<input type="checkbox"/> Abbott Architect
PSA18	<input type="checkbox"/> Abbott Axsym - monoclonal
PSA15	<input type="checkbox"/> Abbott Axsym - polyclonal
PSA21	<input type="checkbox"/> Abbott IMx - monoclonal
PSA1	<input type="checkbox"/> Abbott IMx - polyclonal
PSA26	<input type="checkbox"/> Beckman Access Hybritech TPSA
PSA36	<input type="checkbox"/> Beckman Coulter AU 3000i
PSA20	<input type="checkbox"/> bioMerieux VIDAS TPSA
PSA2	<input type="checkbox"/> CIS ELISA 2
PSA38	<input type="checkbox"/> DSI ELISA
PSA37	<input type="checkbox"/> ELISA
PSA39	<input type="checkbox"/> Monobind Inc ELISA/CLIA
PSA32	<input type="checkbox"/> Ortho Vitros, 3600/5600/ECi
PSA35	<input type="checkbox"/> Roche Cobas 6000 / 8000
PSA6	<input type="checkbox"/> Roche Cobas Core EIA
PSA34	<input type="checkbox"/> Roche Cobas 4000 / e411
PSA19	<input type="checkbox"/> Roche Elecsys, Modular E170
PSA16	<input type="checkbox"/> Roche Enzymun
PSA7	<input type="checkbox"/> Serono MAIA Clone
PSA17	<input type="checkbox"/> Siemens/Bayer ACS 180 - PSA II kit
PSA27	<input type="checkbox"/> Siemens/Bayer ACS180 (equimolar)
PSA24	<input type="checkbox"/> Siemens/Bayer ADVIA Centaur
PSA28	<input type="checkbox"/> Siemens/Bayer ADVIA Centaur (equimolar)
PSA14	<input type="checkbox"/> Siemens/Bayer Immuno 1
PSA22	<input type="checkbox"/> Siemens/Dade Behring Opus
PSA33	<input type="checkbox"/> Siemens/Dade, Dimension
PSA29	<input type="checkbox"/> Siemens/DPC Immulite 2000, 1st Generation
PSA30	<input type="checkbox"/> Siemens/DPC Immulite 2000, 3rd Generation
PSA13	<input type="checkbox"/> Siemens/DPC Immulite, 1st generation
PSA25	<input type="checkbox"/> Siemens/DPC Immulite, 3rd Generation
PSA3	<input type="checkbox"/> Siemens/DPC IRMA count
PSA12	<input type="checkbox"/> TOSOH
PSA8	<input type="checkbox"/> Wallac DELFIA
PSA9	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### SODIUM mmol/l

CODE	METHOD
NACH	<input type="checkbox"/> Chromolyte
NACOL	<input type="checkbox"/> Colorimetric
NAEN	<input type="checkbox"/> Enzymatic
NAFP	<input type="checkbox"/> Flame photometry
NAISE	<input type="checkbox"/> Ion Selective Electrode method - direct
NISE1	<input type="checkbox"/> Ion Selective Electrode method - indirect
NAOF	<input type="checkbox"/> Optical Fluorescence
NADC	<input type="checkbox"/> Ortho Vitros Microslide Systems
NADT	<input type="checkbox"/> Vitros DT60/DT60 II/DTE II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/> <input type="text"/>
NAOD	<input type="checkbox"/> Other Dry Chemistry
NAOM	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### FREE TRIIODOTHYRONINE (FREE T3) pmol/l

CODE	METHOD
F3ARC	<input type="checkbox"/> Abbott, Architect
F3ABX	<input type="checkbox"/> Abbott, AxSym
F3ABB	<input type="checkbox"/> Abbott, IMx
F3SAN	<input type="checkbox"/> Beckman, Access
F3DXI	<input type="checkbox"/> Beckman, DxI800
F3BIV	<input type="checkbox"/> Biomerieux, VIDAS
F3VIA	<input type="checkbox"/> Biomerieux, VIDIA
F3CII	<input type="checkbox"/> CIS, IRMA
F3BYK	<input type="checkbox"/> Diasorin (RIA)
F3LIA	<input type="checkbox"/> Diasorin Liaison
F3ELI	<input type="checkbox"/> ELISA
F3MOE	<input type="checkbox"/> Monobind Inc ELISA/CLIA
F3VEC	<input type="checkbox"/> Ortho Vitros, 3600/5600/ECi
F3C6	<input type="checkbox"/> Roche Cobas 6000 / 8000
F3RCE	<input type="checkbox"/> Roche Cobas 4000 / e411
F3ROC	<input type="checkbox"/> Roche, Cobas Core
F3EYS	<input type="checkbox"/> Roche, Elecsys
F3BOE	<input type="checkbox"/> Roche, Enzymun
F3RME	<input type="checkbox"/> Roche, Modular E170
F3CC	<input type="checkbox"/> Siemens/Bayer, ACS 180
F3CEN	<input type="checkbox"/> Siemens/Bayer, ADVIA Centaur
F3BAY	<input type="checkbox"/> Siemens/Bayer, Immuno I
F3DDV	<input type="checkbox"/> Siemens/Dade Dimension Vista
F3DPC	<input type="checkbox"/> Siemens/DPC, Coat-a-Count
F3DPI	<input type="checkbox"/> Siemens/DPC, Immulite 1000
F3DP2	<input type="checkbox"/> Siemens/DPC, Immulite 2000/2500
F3TOS	<input type="checkbox"/> TOSOH
F3DEL	<input type="checkbox"/> Wallac, Delfia
F3O	<input type="checkbox"/> Other methods

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### TRIIODOTHYRONINE (TOTAL T3 ) nmol/l

CODE	METHOD
T3ARC	<input type="checkbox"/> Abbott, Architect
T3ABX	<input type="checkbox"/> Abbott, AxSym
T3ABB	<input type="checkbox"/> Abbott, IMx
T3SAN	<input type="checkbox"/> Beckman, Access/LXi725
T3DXI	<input type="checkbox"/> Beckman, DxI800
T3BIV	<input type="checkbox"/> bioMerieux, VIDAS
T3CIR	<input type="checkbox"/> CIS, RIA coated tube
T3BYK	<input type="checkbox"/> Diasorin (RIA)
T3LIA	<input type="checkbox"/> Diasorin Liaison
T3DSL	<input type="checkbox"/> DSL, RIA
T3ELI	<input type="checkbox"/> ELISA
T3IMI	<input type="checkbox"/> Immunotech, IRMA
T3MOE	<input type="checkbox"/> Monobind Inc ELISA/CLIA
T3MP	<input type="checkbox"/> MP Biomedicals, RIA
T3VEC	<input type="checkbox"/> Ortho Vitros, 3600/5600/ECi
T3C6	<input type="checkbox"/> Roche Cobas 6000 / 8000
T3RCE	<input type="checkbox"/> Roche Cobas 4000 / e411
T3ROC	<input type="checkbox"/> Roche, Cobas Core
T3EYS	<input type="checkbox"/> Roche, Elecsys
T3BOE	<input type="checkbox"/> Roche, Enzymun
T3RME	<input type="checkbox"/> Roche, Modular E170
T3CC	<input type="checkbox"/> Siemens/Bayer, ACS 180
T3CEN	<input type="checkbox"/> Siemens/Bayer, ADVIA Centaur
T3BAY	<input type="checkbox"/> Siemens/Bayer, Immuno I
T3DPC	<input type="checkbox"/> Siemens/DPC, Coat-a-count
T3DPI	<input type="checkbox"/> Siemens/DPC, Immulite 1000
T3DP2	<input type="checkbox"/> Siemens/DPC, Immulite 2000/2500
T3TOS	<input type="checkbox"/> TOSOH
T3O	<input type="checkbox"/> Other methods

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### FREE THYROXINE (FREE T4) pmol/l

CODE	METHOD
F4ARC	<input type="checkbox"/> Abbott, Architect
F4ABX	<input type="checkbox"/> Abbott, AxSym
F4ABB	<input type="checkbox"/> Abbott, IMx
F4SAN	<input type="checkbox"/> Beckman, Access/LXi725
F4DXI	<input type="checkbox"/> Beckman, DxI800
F4BIV	<input type="checkbox"/> Biomerieux, VIDAS
F4VIA	<input type="checkbox"/> Biomerieux, VIDIA
F4BYK	<input type="checkbox"/> DiaSorin (RIA)
F4LIA	<input type="checkbox"/> Diasorin Liaison
F4ELI	<input type="checkbox"/> ELISA
F4GB	<input type="checkbox"/> General Biologicals ELISA
F4IMI	<input type="checkbox"/> Immunotech, IRMA
F4MOE	<input type="checkbox"/> Monobind Inc ELISA/CLIA
F4VEC	<input type="checkbox"/> Ortho Vitros, 3600/5600/ECi
F4C6	<input type="checkbox"/> Roche Cobas 6000 / 8000
F4ROC	<input type="checkbox"/> Roche Cobas Core
F4RCE	<input type="checkbox"/> Roche Cobas 4000 / e411
F4EYS	<input type="checkbox"/> Roche, Elecsys
F4RME	<input type="checkbox"/> Roche, Modular E170
F4CC	<input type="checkbox"/> Siemens/Bayer, ACS 180
F4CEN	<input type="checkbox"/> Siemens/Bayer, ADVIA Centaur
F4IMS	<input type="checkbox"/> Siemens/Bayer, ADVIA IMS 800i
F4BAY	<input type="checkbox"/> Siemens/Bayer, Immuno I
F4DD	<input type="checkbox"/> Siemens/Dade Dimension
F4DDV	<input type="checkbox"/> Siemens/Dade Dimension Vista
F4DPC	<input type="checkbox"/> Siemens/DPC, Coat-a-Count
F4DPI	<input type="checkbox"/> Siemens/DPC, Immulite 1000
F4DP2	<input type="checkbox"/> Siemens/DPC, Immulite 2000/2500
F4TOS	<input type="checkbox"/> TOSOH
F4DEL	<input type="checkbox"/> Wallac, Delfia
F4O	<input type="checkbox"/> Other methods

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### THYROXINE (TOTAL T4) nmol/l

CODE	METHOD
T4ARC	<input type="checkbox"/> Abbott, Architect
T4ABX	<input type="checkbox"/> Abbott, AxSym
T4ABB	<input type="checkbox"/> Abbott, IMx/FLx/TDx
T4DXI	<input type="checkbox"/> Beckman DxI800
T4SAN	<input type="checkbox"/> Beckman, Access/LXi725
T4BIV	<input type="checkbox"/> Biomerieux, VIDAS
T4CIR	<input type="checkbox"/> CIS, RIA coated tube
T4LIA	<input type="checkbox"/> Diasorin, Liaison
T4DSL	<input type="checkbox"/> DSL, RIA
T4ELI	<input type="checkbox"/> ELISA
T4IMI	<input type="checkbox"/> Immunotech RIA
T4MIE	<input type="checkbox"/> Microgenics DRI assay
T4MOE	<input type="checkbox"/> Monobind Inc ELISA/CLIA
T4MP	<input type="checkbox"/> MP Biomedicals, RIA
T4VEC	<input type="checkbox"/> Ortho Vitros, 3600/5600/ECi
T4C6	<input type="checkbox"/> Roche Cobas 6000 / 8000
T4ROC	<input type="checkbox"/> Roche Cobas Core
T4RCE	<input type="checkbox"/> Roche Cobas 4000 / e411
T4EYS	<input type="checkbox"/> Roche, Elecsys
T4RME	<input type="checkbox"/> Roche, Modular E170
T4CC	<input type="checkbox"/> Siemens/Bayer, ACS 180
T4CEN	<input type="checkbox"/> Siemens/Bayer, ADVIA Centaur
T4BAY	<input type="checkbox"/> Siemens/Bayer, Immuno I
T4DPC	<input type="checkbox"/> Siemens/DPC, Coat-a-Count
T4DPI	<input type="checkbox"/> Siemens/DPC, Immulite 1000
T4DP2	<input type="checkbox"/> Siemens/DPC, Immulite 2000/2500
T4TOS	<input type="checkbox"/> TOSOH
T4DEL	<input type="checkbox"/> Wallac, Delfia
T4O	<input type="checkbox"/> Other methods

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### TOTAL IRON BINDING CAPACITY $\mu\text{mol/l}$

CODE	METHOD
TIBCD	<input type="checkbox"/> Direct Colorimetric
UIBC	<input type="checkbox"/> FE+UIBC(saturation with fixed amount of iron)
TIBC	<input type="checkbox"/> Removal of excess free iron
IBDCD	<input type="checkbox"/> Ortho Vitros Microslide Systems Vitros Slide Generation Number <input type="text"/>
IBCOD	<input type="checkbox"/> Other Dry Chemistry
TIBCO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### 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 Glycerol 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

TG1A  Colorimetric without glycerol correction  
TG1B  Colorimetric with 0.11 mmol/l (10 mg/dl) glycerol correction

#### 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

### 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

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

### THYROID STIMULATING HORMONE (TSH) uU/ml

**IMPORTANT NOTE - TSH is only available at endogenous levels in this programme.**

**Clinical concentration ranges are available in RQ9125 and RQ9130**

CODE	METHOD
TSARC	<input type="checkbox"/> Abbott, Architect
TSAX3	<input type="checkbox"/> Abbott, AxSym 3rd generation
TSABX	<input type="checkbox"/> Abbott, AxSym Ultrasensitive hTSH II
TSABB	<input type="checkbox"/> Abbott IMx Ultrasensitive hTSH II
TSAIR	<input type="checkbox"/> Adaltis, IRMA
TSSAF	<input type="checkbox"/> Beckman Access / LXI725 Fast TSH 2nd gen
TSSAN	<input type="checkbox"/> Beckman Access / LXI725 hyper TSH 3rd gen
TSDXI	<input type="checkbox"/> Beckman DXI800 1st generation
TSDXF	<input type="checkbox"/> Beckman DXI800 fast TSH
TSDXH	<input type="checkbox"/> Beckman DXI800 Hyper TSH
TSVIA	<input type="checkbox"/> Biomerieux VIDIA
TSBV3	<input type="checkbox"/> Biomerieux, VIDAS TSH3 (ultrasensitive)
TSBIV	<input type="checkbox"/> Biomerieux, VIDAS TSH
TSDME	<input type="checkbox"/> DiaMetra ELISA
TSLIA	<input type="checkbox"/> Diasorin Liaison
TSELI	<input type="checkbox"/> ELISA
TSGB	<input type="checkbox"/> General Biologicals ELISA
TSIMI	<input type="checkbox"/> Immunotech, IRMA
TSMOE	<input type="checkbox"/> Monobind Inc ELISA/CLIA
TSVEC	<input type="checkbox"/> Ortho Vitros, 3600 / 5600 / ECi
TSC6	<input type="checkbox"/> Roche Cobas 6000 / 8000
TSROC	<input type="checkbox"/> Roche Cobas Core
TSRCE	<input type="checkbox"/> Roche Cobas 4000 / e411
TSEYS	<input type="checkbox"/> Roche Elecsys
TSRME	<input type="checkbox"/> Roche Modular E170
TSCEN	<input type="checkbox"/> Siemens/Bayer ADVIA Centaur
TSCN3	<input type="checkbox"/> Siemens/Bayer ADVIA Centaur 3rd generation
TSCC	<input type="checkbox"/> Siemens/Bayer, ACS 180
TSCC3	<input type="checkbox"/> Siemens/Bayer, ACS 180, 3rd generation
TSDD	<input type="checkbox"/> Siemens/Dade Dimension
TSDDV	<input type="checkbox"/> Siemens/Dade Dimension Vista
TSDDPI	<input type="checkbox"/> Siemens/DPC Immulite 1000
TSDDP2	<input type="checkbox"/> Siemens/DPC Immulite 2000/2500
TSTOS	<input type="checkbox"/> TOSOH
TSDEL	<input type="checkbox"/> Wallac Delfia
TSDEU	<input type="checkbox"/> Wallac Delfia Ultra
TSO	<input type="checkbox"/> Other methods

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

### UREA mmol/l

CODE	METHOD
URAC	<input type="checkbox"/> Beckman-Conductivity
URDM	<input type="checkbox"/> Diacetyl monoxime
URPHT	<input type="checkbox"/> O-Phthalaldehyde
URUEP	<input type="checkbox"/> Urease, end point
URURH	<input type="checkbox"/> Urease, hypochlorite
URUK	<input type="checkbox"/> Urease, kinetic
URDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
URDT	<input type="checkbox"/> Vitros DT60/DT60 II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/>
UROD	<input type="checkbox"/> Other Dry Chemistry

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

# GENERAL CLINICAL CHEMISTRY

## METHOD QUESTIONNAIRE

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### URIC ACID mmol/l

CODE	METHOD
URED	<input type="checkbox"/> Reduction methods
URSP	<input type="checkbox"/> Spectrophotometric at 280-290 nm
URPER	<input type="checkbox"/> Uricase peroxidase without ascorbate oxidase
URPA2	<input type="checkbox"/> Uricase peroxidase with ascorbate oxidase @ 546nm
URPAS	<input type="checkbox"/> Uricase peroxidase with ascorbate oxidase
URCAT	<input type="checkbox"/> Uricase - catalase 340nm.
UACDC	<input type="checkbox"/> Ortho Vitros Microslide Systems
UADT	<input type="checkbox"/> Vitros DT60/DT60 II
	<input type="checkbox"/> Vitros Slide Generation Number <input type="text"/> <input type="text"/>
UACOD	<input type="checkbox"/> Other Dry Chemistry
URICO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

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### ZINC µmol/l

CODE	METHOD
ZAA	<input type="checkbox"/> Atomic absorption
ZCOL	<input type="checkbox"/> Colorimetric with deprot.
ZNMS	<input type="checkbox"/> Mass Spectrometry
ZO	<input type="checkbox"/> Other methods, please specify on enrolment document

INSTRUMENT CODE

REAGENT CODE

OTHER UNITS, SPECIFY

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