File Data 1

Catalgoue:Biochemistry 3

Catalgoue Item:Sample\_type 5

Catalgoue Item:Test\_code 7

Catalgoue Item:Result 8

Catalgoue Item:origResult 9

Catalgoue Item:Source\_code 10

Catalgoue Item:Lab\_number 11

Catalgoue Item:High 12

Catalgoue Item:Units 13

Catalgoue Item:Comment 14

Catalgoue Item:Lab\_system 15

Catalgoue Item:CTC\_Source 17

Catalgoue Item:DT\_sampled 19

Catalgoue Item:Low 20

Catalgoue Item:CHI 21

Technical Data 22

Query 22

Filters 23

Biochemistry Meta Data

# File Data

|  |  |
| --- | --- |
| File Name | Biochemistry.csv |
| Cohort Size | 9 |
| Dataset Line Count | 530 |
| MD5 | 6A-01-7F-EB-D5-FA-23-BC-19-A4-37-64-AE-1D-32-4A |
| File Size | 48083bytes (46KB) |
| Extraction Date | 13/03/2014 14:18:14 |
| Table Load ID (for HIC) | 5474 |
| Separator | , |
| Date Format | dd/MM/yyyy |

# Catalgoue:Biochemistry

|  |  |
| --- | --- |
| Acronym | BC |
| Name | Biochemistry |
| Description | Taysde Biochemistry data. |
| Type | EHRExtract |
| Periodicity | Weekly |
| Granularity | Regional |
| Geographical\_coverage | Tayside only, but HIC has permission to receive biochemistry dataset from Fife. |
| Background\_summary | \* Ninewells data fairly complete but some missing patches in the early data.  \* Perth data incomplete as early computer systems were simply turned off and data was lost. HIC has recovered the server and are trying to retrieve this data.  \* Stracathro data became computerised much later than other labs.    \* From 01/May/2010, all laboratory data is being received directly from a SCI-Store data feed. |
| Search\_keywords | Biochemistry, Clinical Chemistry, Laboratory tests |
| Update\_freq | Daily |
| Update\_sched |  |
| Time\_coverage | 1992 - Current |
| Last\_revision\_date |  |
| Contact\_details | info@hic.dundee.ac.uk |
| Resource\_owner | MasterLab |
| Attribution\_citation | We acknowledge the support of the Health Informatics Centre (HIC), University of Dundee for managing and supplying the anonymised data and NHS 'xxx' (e.g., Tayside), the original data source. |
| Access\_options |  |
| SubjectNumbers | 823,137 |
| Country\_of\_origin | Scotland, United Kingdom |
| Data\_standards | None. |
| Administrative\_contact\_name | Yvonne Gormley |
| Administrative\_contact\_email | y.gormley@dundee.ac.uk |
| Administrative\_contact\_telephone | (+ 44) 01382 383711 |
| Administrative\_contact\_address | HIC Services  The Farr Institute  University of Dundee  Level 2, Mail Box 15  Chiltern Building, Patrick Blair Place  Ninewells Hospital & Medical School  Dundee, DD2 1GZ |
| Explicit\_consent | False |
| Ethics\_approver | Caldicott Guardian, NHS Tayside |
| Source\_of\_data\_collection | Clinical examination, From health records. |

## Catalgoue Item:Sample\_type

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Sample\_type |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This indicates the type of sample taken for the test. Sample types include:  B = Blood  C = Cerebrospinal  FA = Faeces  F = Fluid  FO = Floride Oxalate  H = Hair  LI = Liver Biopsy  M = Miscellaneous  MU = Muscle Biopsy  SK = Skin Biopsy  ST = Stone  SW = Sweat  U = Urine  W = Water  (can also include full textual descriptions - at least in database) |
| Topic | Biochemistry, Sample Type |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:Test\_code

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Test\_code |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is a code of test taken/performed (e.g., CHOL = Cholesterol). |
| Topic | Biochemistry, Test Code |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:Result

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Result |
| Statistical\_cons | Any non-numeric value is stored in the origResult and/or Comment field. |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is the result of the biochemistry test done in decimal format. |
| Topic | Biochemistry, Result |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:origResult

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | origResult |
| Statistical\_cons | For some tests where results are recorded as GT or LT or Negative/Positive (eg GT60 for eGFR tests) then this field will have to be used. |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is the original result field from the lab system. HIC extracts the decimal part and puts it in the Result field. Any non-numeric values go into the Comment field. |
| Topic | Biochemistry, Original Result |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:Source\_code

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Source\_code |
| Statistical\_cons | This field does contain practice codes if the test was performed at a practice. |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is a code of where the test was done (e.g. N1 = NW Ward 1). This is now anonymised to an anonSource code to prevent identification. |
| Topic | Biochemistry, Source |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:Lab\_number

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Lab\_number |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is a unique internal number assigned in MasterLab system. It is used by HIC for referring back to individual laboratory results. |
| Topic | Biochemistry, Lab Number |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:High

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | High |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This represents the normal upper limit for a laboratory test based on patient age and/or sex. |
| Topic | Biochemistry, Higher Range |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations | This is only available from 1st of May, 2010, as part of SCI-Store data feed. |
| Comments |  |

## Catalgoue Item:Units

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Units |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This represents the units of the test code (e.g. HDL = mmol/L). |
| Topic | Biochemistry, Test Units |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations | This is only available from 1st of May, 2010, as part of SCI-Store data feed. |
| Comments |  |

## Catalgoue Item:Comment

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Comment |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is any non-numeric result (e.g. LT0.5) or any comment relative to the test performed. |
| Topic | Biochemistry, Laboratory Comment |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:Lab\_system

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Lab\_system |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is the Lab System source the data came from. This is to be used in conjunction with the CTC\_SOURCE. CTC\_SOURCE is the first number, Lab\_system is the second number:  0 - 1 - Pre 98 Ninewells - Ninewells Pinnacle Data  0 - 2 - Pre 98 Ninewells - Ninewells Data prior to Pinnacle  0 - 3 - Pre 98 Perth - Perth data from Ilims System  0 - 4 - Pre 98 Perth - Perth Telepath Data  0 - 5 - Pre 98 Perth - Perth manual entry of HbA1c Diabetes Clinic Results  0 - 6 - Pre 98 Ninewells - Ninewells Masterlab Data  0 - 7 - Pre 98 Stracathro - Scracathro manual entry of limited data for diabetics  0 - 8 - Pre 98 Stracathro - Scracathro Masterlab Data  0 - 9 - Pre 98 Clinic - Ninewells Diabetes Clinic Database  0 - 10 - Pre 98 Clinic - Angus Diabetes Clinic Database  0 - 11 - Pre 98 Clinic - Perth Diabetes Clinic Database  6 - 6 - Ninewells - Ninewells Masterlab  7 - 13 - Stracathro - Stracathro Masterlab  8 - 12 - Perth - Perth Masterlab  9 - 6 - Ninewells/Stracathro Merged |
| Topic | Biochemistry, Lab System |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:CTC\_Source

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | CTC\_Source |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is the CTC\_SOURCE source the data came from. This is to be used in conjunction with the Lab System. CTC\_SOURCE is the first number, Lab\_system is the second number:  0 - 1 - Pre 98 Ninewells - Ninewells Pinnacle Data  0 - 2 - Pre 98 Ninewells - Ninewells Data prior to Pinnacle  0 - 3 - Pre 98 Perth - Perth data from Ilims System  0 - 4 - Pre 98 Perth - Perth Telepath Data  0 - 5 - Pre 98 Perth - Perth manual entry of HbA1c Diabetes Clinic Results  0 - 6 - Pre 98 Ninewells - Ninewells Masterlab Data  0 - 7 - Pre 98 Stracathro - Scracathro manual entry of limited data for diabetics  0 - 8 - Pre 98 Stracathro - Scracathro Masterlab Data  0 - 9 - Pre 98 Clinic - Ninewells Diabetes Clinic Database  0 - 10 - Pre 98 Clinic - Angus Diabetes Clinic Database  0 - 11 - Pre 98 Clinic - Perth Diabetes Clinic Database  6 - 6 - Ninewells - Ninewells Masterlab  7 - 13 - Stracathro - Stracathro Masterlab  8 - 12 - Perth - Perth Masterlab  9 - 6 - Ninewells/Stracathro Merged |
| Topic | Biochemistry, CTC Source |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:DT\_sampled

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | DT\_sampled |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This is the date and time when the sample was taken. It is in the datetime format (e.g., 2000-02-17 10:45:00.000). |
| Topic | Biochemistry, Date Sampled |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations |  |
| Comments |  |

## Catalgoue Item:Low

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | Low |
| Statistical\_cons |  |
| Research\_relevance | This field is primarily used internally to determine what may or may not be of interest and significance to each study. If this field is blank it was determined there was no information to provide. |
| Description | This represents the normal lower limit for a laboratory test based on patient age and/or sex. |
| Topic | Biochemistry, Lower Range |
| Periodicity | Weekly |
| Agg\_method | The aggregation method of the data will be different for each study. This field should have a description of how the data was gathered and put together for the specific study. If this field is blank, it was determined there was no information to provide. |
| Limitations | This is only available from 1st of May, 2010, as part of SCI-Store data feed. |
| Comments |  |

## Catalgoue Item:CHI

|  |  |
| --- | --- |
| Catalogue\_ID | 211 |
| Name | CHI |
| Statistical\_cons | CHI is a unique number assigned to an individual therefore CHI will not be a factor for statistics. |
| Research\_relevance | This field is primarily used internally to help determine if an entry is significant to the research. CHI is replaced by a PROCHI for the purpose of research to enable the researcher the ability to keep the data in tact for each person in the study. |
| Description | Community Health Index (CHI) number is a unique personal indentifier allocated to each patient on first registration with a GP Practice. It is 10 digits consisting of the date of birth (DDMMYY), 2 digits, a gender identifier (odd numbers are assigned to females, even numbers are assigned to males), and an arithmetical check digit.. |
| Topic | Demography, Community Health Index, CHI |
| Periodicity | Quarterly |
| Agg\_method | There is no aggregation method for CHI. CHI does not play a part in gathering data for research purposes. |
| Limitations | This can only be supplied by HIC if explicit Caldicott approval has been obtained. |
| Comments |  |

# Technical Data

## Query

SELECT DISTINCT

Biochemistry..BC\_header.CHI,

Biochemistry..BC\_header.Sample\_type,

UPPER(Biochemistry..BC\_results.Test\_code) Test\_code,

Biochemistry..BC\_results.Result,

Biochemistry..BC\_results.origResult,

Work.dbo.get\_anon\_source(Biochemistry..BC\_header.Source\_code) anon\_source\_code,

Work.dbo.HicHash(Biochemistry..BC\_results.Lab\_number,Work.dbo.get\_PM\_code(LEFT(PROCHI,3))) Lab\_number,

Biochemistry..BC\_results.Low,

Biochemistry..BC\_results.High,

Biochemistry..BC\_results.Units,

Biochemistry..BC\_results.Comment,

Biochemistry..BC\_header.Lab\_system,

Biochemistry..BC\_header.CTC\_source,

Biochemistry..BC\_header.DT\_sampled Sample\_date

FROM

Biochemistry..BC\_results Inner JOIN Biochemistry..BC\_header ON Biochemistry..BC\_results.Lab\_number = Biochemistry..BC\_header.Lab\_number

INNER JOIN Work..tt\_XX\_testCases ON Biochemistry..BC\_header.CHI=Work..tt\_XX\_testCases.CHI collate Latin1\_General\_BIN

WHERE

(

(

--HbA1c biochem results

Biochemistry..BC\_results.Test\_code IN (SELECT Biochemistry..BC\_results.Test\_code FROM Biochemistry..z\_BC\_Testcodes WHERE commonCode = 'HBA1C')

OR

--Serum Creatinine

UPPER(REPLACE(Biochemistry..BC\_results.Test\_code, ' ','')) IN ('ACRE', 'BCRCL', 'CC', 'CCLEAR', 'CCRE', 'CK', 'CRCL', 'CRE', 'CRE2', 'CREA', 'CREATR', 'DCRE', 'FCRE', 'MACRE', 'MCREAT', 'OXR')

)

AND

--Not Null

Biochemistry..BC\_results.Test\_code IN (SELECT Biochemistry..BC\_results.Test\_code FROM Biochemistry..z\_BC\_Testcodes WHERE commonCode = 'HBA1C')

AND

--CHI doesnt start with a 0

UPPER(REPLACE(Biochemistry..BC\_results.Test\_code, ' ','')) IN ('ACRE', 'BCRCL', 'CC', 'CCLEAR', 'CCRE', 'CK', 'CRCL', 'CRE', 'CRE2', 'CREA', 'CREATR', 'DCRE', 'FCRE', 'MACRE', 'MCREAT', 'OXR')

)

## Filters

|  |  |  |
| --- | --- | --- |
| Name | Description | SQL |
| Not Null | CHI is not null | CHI is not null |
| CHI doesnt start with a 0 |  | LEFT(1,CHI) <> '0' |
| HbA1c biochem results | Extract all HbA1c biochemistry data | Biochemistry..BC\_results.Test\_code IN (SELECT Biochemistry..BC\_results.Test\_code FROM Biochemistry..z\_BC\_Testcodes WHERE commonCode = 'HBA1C') |
| Serum Creatinine |  | UPPER(REPLACE(Biochemistry..BC\_results.Test\_code, ' ','')) IN ('ACRE', 'BCRCL', 'CC', 'CCLEAR', 'CCRE', 'CK', 'CRCL', 'CRE', 'CRE2', 'CREA', 'CREATR', 'DCRE', 'FCRE', 'MACRE', 'MCREAT', 'OXR') |