



Unrestricted					
Data and Business Rules – Coronary Heart Disease Specification					
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New GMS Contract QOF Implementation

Dataset and Business Rules

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Coronary Heart Disease Indicator Set

Amendment History:

Version	Date	Amendment History
0.1	09-Jul-2004	From Peter Horsfield. Extracted from July Read Code Release. Contains Read v0 only.
1.0	27-Sep-2004	Amended following 4 Country Review
1.1	18-Jan-2005	Amended following January Read Code Release
1.2	21-Jun-2005	Amended following 4 Country Review
2.0	21-July-2005	Signed off following 4 Country Review
2.1	21-July-2005	Amended following July 2005 Read Code release and January 2005 SNOMED CT release
2.2	21-Aug-2005	Amended following 4 Country review
3.0	23-Sep-2005	Signed off following 4 Country review
3.1	21-Nov-2005	Amended following review by Phil Brown
3.2	22-Nov-2005	Amended following review by Peter Horsfield
3.3	3-Dec-2005	Draft revised for internal review
7.4	26-Feb-2006	Amended following internal & 4 Countries review. Also includes uplifting to 7.4 to bring the 4-Byte documents to the same version number as the 5-Byte/CTV3/SNOMED-CT documents
8.0	15-Mar-2006	Signed off following 4 Country review
8.1	18-May-2006	Responding to queries raised Amend wording for Note 3
8.5	18-May-2006	Approved by NHSE
8.6	20-Oct-2006	April Read Code Release October Read Code Release Corrections and amendments following feedback
8.7	09-Nov-2006	Following 4-Country Review Diagnostic Code Status: Add "excluding G4A." IHD_COD: Add "excluding G4A." EXC_COD: Correct 8H4R. to 8H4R
9.0	30-Nov-2006	Approved by NHSE
9.1	11-Apr-2007	April 2007 Read Code Release
10.0	18-Jun-2007	Signed off following 4 Country review
10.1	23-Sep-2007	October 2007 Read Code Release
11.0	28-Nov-2007	Signed off following 4 Country review
11.1	30-Jun-2008	April 2008 Read Code Release QOF Review 2007
12.0	24-Jul-2008	Signed off following 4 Country review
12.1	06-Oct-2008	October 2008 Read Code Release
13.0	05-Dec-2008	Signed off following 4 Country review
13.2	09-Mar-2009	QOF Review 2008
14.0	01-May-2009	Signed-off following Four-country review

New GMS contract Q&O framework implementation

Dataset and business rules – Coronary heart disease indicator set

Notes

- 1) The specified dataset and rulesets are to support analysis of extracted data to reflect the status at a specified point in time of patient records held by the practice. In the context of this document that specified time point is designated the 'Reference date' and identified by the abbreviation 'REF_DAT'. In interpreting the specification REF_DAT should be taken to mean midnight of the preceding day (i.e. a REF_DAT of 01.04.2003 equates to midnight on 31.03.2003).
- 2) To support accurate determination of the population of patients to which the indicators should relate (the denominator population) these rulesets have been compiled with a prior assumption that the reference date is specified prior to extraction of data and is available for computation in the data extraction routine. The reference date will also be required to be included in the data extraction to support processing of rules that are dependent upon it. It is possible that an alternative approach could be adopted in which rules to determine the denominator population by registration status would be applied as a component of rule processing. If this second approach were to be adopted it would be essential to specify default time criteria for determining the registration characteristics of the denominator population during the data extraction process. Additionally there would be a requirement to supplement the dataset and rulesets to support identification of the appropriate denominator population.
- 3) Clinical codes quoted are (where known) from the October 2008 release of Read codes (version 0). The codes are shown within the document as a 4 character value to show that the Read Code is for a 4-Byte system.
 - i) Where a '%' wildcard is displayed, the Read Code is filled to 4 characters with full-stops. When implementing a search for the Read Code, only the non full-stop values should be used in the search, For example, a displayed Read Code of c1..% should be implemented as a search for c1%, i.e. should find c1 and any of it's children.
 - ii) Where a range of read codes are displayed, the Read Code is filled to 4 characters with full-stops. When implementing the search, only the non full-stop values should be used in the search, For example, a displayed Read Code range of G342 – G3z. should find all codes between G342 and G3z (including any children where applicable).
- 4) Datasets comprise a specification of two elements:
 - a) Patient selection criteria. These are the criteria used to determine the patient population against whom the indicators are to be applied.
 - i) Registration status. This determines the current patient population at the practice
 - ii) Diagnostic code status. This determines the current patient population (register size) for a given clinical condition

There are three scenarios within the diagnostic code status, these are where

- There is a single morbidity patient population (disease register) required (e.g. within CHD). Where this occurs, a single set of rules for identifying the patient population is provided.
- There is a single co-morbidity patient population (disease register) required (e.g. within Smoking). Where this occurs, a set of rules for *each* morbidity is provided. A patient *must* only be included in the patient population (register size) *once*.
- There are multiple patient populations (disease registers) required (e.g. within Heart Failure). Where this occurs, a single set of rules for *each* patient population is provided.
N.B. where there are multiple patient populations (disease registers), it is possible that one or more will also be a co-morbidity patient population (e.g. within Depression)

Where this occurs, details of which register population applies to which indicator(s) are provided. Where the register size applies to an indicator, this is the base denominator population for that indicator.

- b) Clinical data extraction criteria. These are the data items to be exported from the clinical system for subsequent processing to calculate points allocations. They are expressed in the form of a MIQUEST 'Report-style' extract of data.

The record of each patient that satisfies the appropriate selection criteria for a given indicator will be interrogated against the clinical data criteria (also appropriate to that indicator). A report of the data contained in the selected records will be exported in the form of a fixed-format tabular report. Each selected patient will be represented by a single row in the report. Rows will contain a fixed number of fields each containing a single data item. The number of fields in each row and their data content will be determined by the clinical data criteria. Data items that match the clinical data criteria will be exported in the relevant field of the report. Where there is no data to match a specific clinical criterion a null field will be exported.

- 5) Rulesets are specified as multiple rules to be processed sequentially. Processing of rules should terminate as soon as a 'Reject' or 'Select' condition is encountered
- 6) Rules are expressed as logical statements that evaluate as either 'true' or 'false'. The following operators are required to be supported:
- | | |
|---------------------|--------|
| a) > (greater than) | e) AND |
| b) < (less than) | f) OR |
| c) = (equal to) | g) NOT |
| d) ≠ (not equal to) | |
- 7) Where date criteria are specified with intervals of multiples of months or years these should be interpreted as calendar months or calendar years.
- 8) The new GMS contract requires that influenza vaccinations should be given between 1st September and 31st March of any given contract year in order to qualify for the relevant indicators. Hence in the contract year 2004 – 2005 the relevant dates will be 1st September 2004 and 31st March 2005 inclusive. In this document these dates are expressed as variable parameters FLU_COM and FLU_END respectively. For the purposes of data extraction these variables will be required to be specified prior to processing the relevant rules.

Dataset Specification1) Patient selection criteria:

a) Registration status

<i><u>Current registration status</u></i>	<i><u>Qualifying criteria</u></i>
Currently registered for GMS	Most recent registration date < (REF_DAT)
Previously registered for GMS	Any sequential pairing of registration date and deregistration date where both of the following conditions are met: registration date < (REF_DAT); AND deregistration date >= (REF_DAT)

b) Diagnostic code status

<i>Code criteria</i>	<i>Qualifying diagnostic codes</i>	<i>Time criteria</i>
<i>Included</i>	<i>Read codes v0</i>	<i>Earliest < (REF_DAT)</i>
	G4.. - G451 G45Z - G4Z. (excluding G4A.)	

2) Clinical data extraction criteria

<u>Field Number</u>	<u>Field name</u>	<u>Data item</u>	<u>Qualifying criteria</u>
1	PAT_ID	Patient ID number	Unconditional
2	REG_DAT	Date of patient registration	Latest < REF_DAT
3	CHDEXC_COD	<i>Read codes v0</i>	Latest < REF_DAT
		9h0.%	
		<i>(CHD exception reporting codes)</i>	
4	CHDEXC_DAT	Date of CHDEXC_COD	Chosen record
5	IHD_COD	<i>Read codes v0</i>	Earliest < REF_DAT
		G4..- G451 G45Z - G4Z. (excluding G4A.)	
		<i>(Ischaemic heart disease codes)</i>	
6	IHD_DAT	Date of IHD_COD	Chosen record
7	ANG_COD	<i>Read codes v0</i>	Earliest episode < REF_DAT
		G44.%	
		<i>(Angina codes)</i>	
8	ANG_DAT	Date of ANG_COD	Chosen record
9	MI_COD	<i>Read codes v0</i>	Latest first or new episode < REF_DAT
		G41. G46. G48. G49.	
		<i>(Myocardial infarction codes)</i>	
10	MI_DAT	Date of MI_COD	Chosen record
11	EXR_COD	<i>Read codes v0</i>	Earliest < REF_DAT AND >= (ANG_DAT - 3 months)
		3213 33B9 8H44, 8HRA, 8HVJ, 8HTJ 9N0f 5744, 8H4R	
		<i>(Exercise test codes)</i>	
12	EXR_DAT	Date of EXR_COD	Chosen record

13	EXREXC_COD	<i>Read codes v0</i>	Earliest < REF_DAT AND >= ANG_DAT
		813S 33BE	
		<i>(Exception codes for exercise test)</i>	
14	EXREXC_DAT	Date of EXREXC_COD	Chosen record
15	BP_COD	<i>Read codes v0</i>	Latest < REF_DAT
		246.% (excluding 2460, 2468 246H, 246I, 246K, 246L, 246M)	
		<i>(BP recording codes)</i>	
16	BP_DAT	Date of BP_COD	Chosen record
17	BP_SYS	Value 1 of BP_COD <i>(Systolic BP value)</i>	Chosen record
18	BP_DIA	Value 2 of BP_COD <i>(Diastolic BP value)</i>	Chosen record
19	BPEX_COD	<i>Read codes v0</i>	Latest < REF_DAT
		813Y	
		<i>(BP recording exception codes)</i>	
20	BPEX_DAT	Date of BPEX_COD	Chosen record
21	HTMAX_COD	<i>Read codes v0</i>	Latest < REF_DAT
		8BLO	
		<i>(Code for maximal BP therapy)</i>	
22	HTMAX_DAT	Date of HTMAX_COD	Chosen record
23	CHOL_COD	<i>Read codes v0</i>	Latest < REF_DAT
		44OE 44P. - 44P4 44PH 44PJ	
		<i>(Total cholesterol codes)</i>	
24	CHOL_DAT	Date of CHOL_COD	Chosen record
25	CHOL_VAL	Value 1 of CHOL_COD <i>(Total cholesterol value)</i>	Chosen record
26	CHEXC_COD	<i>Read codes v0</i>	Latest < REF_DAT

		Q563 <i>(Codes for exception from serum cholesterol target; persisting)</i>	
27	CHEXC_DAT	Date of CHEXC_COD	Chosen record
28	TCHEXC_COD	<i>Read codes v0</i>	Latest < REF_DAT
		8BL1 8I3C 8I27 8I63 8I76	
		<i>(Codes for exception from serum cholesterol target; expiring)</i>	
29	TCHEXC_DAT	TCHEXC_COD	Chosen record
30	XSAL_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LK Q545	
		<i>(Salicylate contra-indications: persistent)</i>	
31	XSAL_DAT	Date of XSAL_COD	Chosen record
32	TXSAL_COD	<i>Read codes v0</i>	Latest < REF_DAT
		8I24 8I38 8I66 8I70	
		<i>(Salicylate contra-indications: expiring)</i>	
33	TXSAL_DAT	Date of TXSAL_COD	Chosen record
34	XWAR_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LP Q565	
		<i>(Warfarin contraindications: persistent)</i>	
35	XWAR_DAT	Date of XWAR_COD	Chosen record
36	TXWAR_COD	<i>Read codes v0</i>	Latest < REF_DAT

		8125 813E 8165 8171 812R 813d 816N 817A (<i>Warfarin contraindications: expiring</i>)	
37	TXWAR_DAT	Date of TXWAR_COD	Chosen record
38	XCLO_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LQ Q566	
		(<i>Clopidogrel contraindications: persistent</i>)	
39	XCLO_DAT	Date of XCLO_COD	Chosen record
40	TXCLO_COD	<i>Read codes v0</i>	Latest < REF_DAT
		812K 813R 816B 8172	
		(<i>Clopidogrel contraindications: expiring</i>)	
41	TXCLO_DAT	Date of TXCLO_COD	Chosen record
42	OSAL_COD	<i>Read codes v0</i>	Latest < REF_DAT
		6718 8B63 8B3T 8B6P	
		(<i>OTC salicylate codes</i>)	
43	OSAL_DAT	Date of OSAL_COD	Chosen record
44	SAL_COD	<i>Read codes v0</i>	Latest < REF_DAT
		bu2.% di1.% j11.% blm.% bu4.%	
		(<i>Salicylate prescription codes</i>)	
45	SAL_DAT	Date of SAL_COD	Chosen record
46	CLO_COD	<i>Read codes v0</i>	Latest < REF_DAT

		bu5.% <i>(Clopidogrel prescription codes)</i>	
47	CLO_DAT	Date of CLO_COD	Chosen record
48	WAR_COD	<i>Read codes v0</i>	Latest < REF_DAT
		bs..% 8B2K	
		<i>(Warfarin prescription codes)</i>	
49	WAR_DAT	Date of WAR_COD	Chosen record
50	XBB_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LL Q562	
		<i>(Beta-blocker contraindications: persistent)</i>	
51	XBB_DAT	Date of XBB_COD	Chosen record
52	TXBB_COD	<i>Read codes v0</i>	Latest < REF_DAT
		8126 8136 8162 8173	
		<i>(Beta-blocker contraindications: expiring)</i>	
53	TXBB_DAT	Date of TXBB_COD	Chosen record
54	BB_COD	<i>Read codes v0</i>	Latest < REF_DAT
		bd..%	
		<i>(Beta-blocker prescription codes)</i>	
55	BB_DAT	Date of BB_COD	Chosen record
56	XACE_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LM Q564	
		<i>(Ace inhibitor contraindications; persistent)</i>	
57	XACE_DAT	Date of XACE_COD	Chosen record
58	TXACE_COD	<i>Read codes v0</i>	Latest < REF_DAT

		8128 813D 8164 8174 <i>(Ace inhibitor contraindications; expiring)</i>	
59	TXACE_DAT	Date of TXACE_COD	Chosen record
60	XAII_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LN Q567	
		<i>(All antagonist contraindications: persisting)</i>	
61	XAII_DAT	Date of XACE_COD	Chosen record
62	TXAII_COD	<i>Read codes v0</i>	Latest < REF_DAT
		812H 813P 816C 8175	
		<i>(All antagonist contraindications: expiring)</i>	
63	TXAII_DAT	Date of TXAII_COD	Chosen record
64	ACE_COD	<i>Read codes v0</i>	Latest < REF_DAT
		bi..% bA..% bk6.%	
		<i>(Ace inhibitor prescription codes)</i>	
65	ACE_DAT	Date of ACE_COD	Chosen record
66	AII_COD	<i>Read codes v0</i>	Latest < REF_DAT
		bk3. - bk5z bk7. - bk9z bkB.%, bkD.%	
		<i>(All antagonist prescription codes)</i>	
67	AII_DAT	Date of AII_COD	Chosen record
68	XFLU_COD	<i>Read codes v0</i>	Latest < REF_DAT
		14LJ Q5AB	
		<i>(Flu vaccine contraindications: persisting)</i>	
69	XFLU_DAT	Date of XFLU_COD	Chosen record

70	TXFLU_COD	<i>Read codes v0</i>	Latest < REF_DAT
		812F 816D 68NE 9OX5	
		<i>(Flu vaccine contraindications: expiring)</i>	
71	TXFLU_DAT	Date of TXFLU_COD	Chosen record
72	FLU_COD	<i>Read codes v0</i>	Latest < REF_DAT
		n47.% 65E.%	
		<i>(Flu vaccination codes)</i>	
73	FLU_DAT	Date of FLU_COD	Chosen record

Indicator rulesets

- 1 Indicator CHD 1: The practice can produce a register of patients with coronary heart disease

The terms of this indicator will be satisfied if the practice is able to produce a data extraction according to the above criteria.

No numerator or denominator determination is required.

- 2 Indicator CHD 2: The percentage of patients with newly diagnosed angina (diagnosed after 1 April 2003) who are referred for exercise testing and/or specialist assessment.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>ANG_COD</u> = Null	Reject	Next rule
2	If <u>ANG_DAT</u> >= 01.04.2003	Next rule	Reject
3	If <u>EXR_DAT</u> <= (<u>ANG_DAT</u> + 12 months) AND If <u>EXR_DAT</u> >= (<u>ANG_DAT</u> - 3 months)	Select	Next rule
4	If <u>REG_DAT</u> >= (<u>REF_DAT</u> - 3 months)	Reject	Next rule
5	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Reject	Next rule
6	If <u>EXREXC_DAT</u> <= (<u>ANG_DAT</u> + 12 months)	Reject	Next rule
7	If <u>ANG_DAT</u> >= (<u>REF_DAT</u> - 3 months)	Reject	Select

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>EXR_DAT</u> <= (<u>ANG_DAT</u> + 12 months) AND If <u>EXR_DAT</u> >= (<u>ANG_DAT</u> - 3 months)	Select	Reject

Indicator CHD 5: The percentage of patients with coronary heart disease, whose notes have a record of blood pressure in the previous 15 months.

c) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If BP_DAT >= (REF_DAT – 15 months)	Select	Next rule
2	If BPEX_DAT >= (REF_DAT – 15 months)	Reject	Next rule
3	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
4	If CHDEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
5	If IHD_DAT >= (REF_DAT – 3 months)	Reject	Select

d) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If BP_DAT >= (REF_DAT – 15 months)	Select	Reject

3 Indicator CHD 6: The percentage of patients with coronary heart disease, in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>BP_SYS</u> <= 150 AND If <u>BP_DIA</u> <= 90 AND If <u>BP_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Select	Next rule
2	If <u>BPEX_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Reject	Next rule
3	If <u>REG_DAT</u> >= (<u>REF_DAT</u> - 9 months)	Reject	Next rule
4	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Reject	Next rule
5	If <u>IHD_DAT</u> >= (<u>REF_DAT</u> - 9 months)	Reject	Next rule
6	If <u>HTMAX_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Reject	Select

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>BP_SYS</u> <= 150 AND If <u>BP_DIA</u> <= 90 AND If <u>BP_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Select	Reject

4 Indicator CHD 7: The percentage of patients with coronary heart disease, whose notes have a record of total cholesterol in the previous 15 months

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>CHOL_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Select	Next rule
2	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
3	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>IHD_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Select

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>CHOL_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Select	Reject

5 Indicator CHD 8: The percentage of patients with coronary heart disease, whose last measured total cholesterol (measured in the previous 15 months) is 5 mmol/l or less.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>CHOL_VAL</u> <= 5 AND If <u>CHOL_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Select	Next rule
2	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 9 months)	Reject	Next rule
3	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>IHD_DAT</u> >= (<u>REF_DAT</u> – 9 months)	Reject	Next rule
5	If <u>CHEXC_COD</u> ≠ Null OR If <u>TCHEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Select

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>CHOL_VAL</u> <= 5 AND If <u>CHOL_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Select	Reject

- 6 **Indicator CHD 9:** The percentage of patients with coronary heart disease with a record in the previous 15 months that aspirin, an alternative anti-platelet therapy, or an anti-coagulant is being taken (unless a contraindication or side effects are recorded).

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>SAL_DAT</u> >= (<u>REF_DAT</u> - 15 months) OR If <u>WAR_DAT</u> >= (<u>REF_DAT</u> - 15 months) OR If <u>CLO_DAT</u> >= (<u>REF_DAT</u> - 15 months) OR If <u>OSAL_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Select	Next rule
2	If <u>REG_DAT</u> >= (<u>REF_DAT</u> - 3 months)	Reject	Next rule
3	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Reject	Next rule
4	If <u>IHD_DAT</u> >= (<u>REF_DAT</u> - 3 months)	Reject	Next rule
5	If <u>XSAL_COD</u> = Null AND If <u>TXSAL_DAT</u> = Null	Select	Next rule
6	If <u>XSAL_COD</u> = Null AND If <u>TXSAL_DAT</u> < (<u>REF_DAT</u> - 15 months)	Select	Next rule
7	If <u>XWAR_COD</u> = Null AND If <u>TXWAR_DAT</u> = Null	Select	Next rule
8	If <u>XWAR_COD</u> = Null AND If <u>TXWAR_DAT</u> < (<u>REF_DAT</u> - 15 months)	Select	Next rule
9	If <u>XCLO_COD</u> = Null AND If <u>TXCLO_DAT</u> = Null	Select	Next rule
10	If <u>XCLO_COD</u> = Null AND If <u>TXCLO_DAT</u> < (<u>REF_DAT</u> - 15 months)	Select	Reject

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>SAL_DAT</u> >= (<u>REF_DAT</u> - 15 months) OR If <u>WAR_DAT</u> >= (<u>REF_DAT</u> - 15 months) OR If <u>CLO_DAT</u> >= (<u>REF_DAT</u> - 15 months) OR If <u>OSAL_DAT</u> >= (<u>REF_DAT</u> - 15 months)	Select	Reject

- 7 Indicator CHD 10: The percentage of patients with coronary heart disease who are currently treated with a beta blocker (unless a contraindication or side effects are recorded).

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>BB_DAT</u> >= (<u>REF_DAT</u> – 6 months)	Select	Next rule
2	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
3	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>IHD_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
5	If <u>XBB_COD</u> ≠ Null	Reject	Next rule
6	If <u>TXBB_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Select

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>BB_DAT</u> >= (<u>REF_DAT</u> – 6 months)	Select	Reject

8 Indicator CHD 11: The percentage of patients with a history of myocardial infarction (diagnosed after 1 April 2003) who are currently treated with an ACE inhibitor or angiotensin II antagonist.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>MI_DAT</u> >= 01.04.2003	Next rule	Reject
2	If <u>ACE_DAT</u> >= (<u>REF_DAT</u> – 6 months) OR If <u>AII_DAT</u> >= (<u>REF_DAT</u> – 6 months)	Select	Next rule
3	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
4	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
5	If <u>MI_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
6	If <u>XACE_COD</u> = Null AND If <u>TXACE_DAT</u> = Null	Select	Next rule
7	If <u>XACE_COD</u> = Null AND If <u>TXACE_DAT</u> < (<u>REF_DAT</u> – 15 months)	Select	Next rule
8	If <u>XAII_COD</u> = Null AND If <u>TXAII_DAT</u> = Null	Select	Next rule
9	If <u>XAII_COD</u> = Null AND If <u>TXAII_DAT</u> < (<u>REF_DAT</u> – 15 months)	Select	Reject

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>ACE_DAT</u> >= (<u>REF_DAT</u> – 6 months) OR If <u>AII_DAT</u> >= (<u>REF_DAT</u> – 6 months)	Select	Reject

- 9 Indicator CHD 12: The percentage of patients with coronary heart disease who have a record of influenza immunisation in the preceding 1st September to 31st March.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>FLU_DAT</u> >= <u>FLU_COM</u> AND If <u>FLU_DAT</u> <= <u>FLU_END</u>	Select	Next rule
2	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
3	If <u>CHDEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>IHD_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
5	If <u>XFLU_COD</u> ≠ Null	Reject	Next rule
6	If <u>TXFLU_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Select

b) Numerator ruleset: To be applied to the above denominator population

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>FLU_DAT</u> >= <u>FLU_COM</u> AND If <u>FLU_DAT</u> <= <u>FLU_END</u>	Select	Reject