



Unrestricted					
Data and Business Rules – Established Cardiovascular Disease Primary Prevention Indicator Set					
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New GMS Contract QOF Implementation

Dataset and Business Rules - Established Cardiovascular Disease Primary Prevention Indicator Set

Amendment History:

Version	Date	Amendment History
		The version number starts at 13.1 in order to coincide with existing datasets and business rules.
13.1	14-Feb-2009	QOF Review 2008
13.2	09-Mar-2009	Amendments following NHSE review
13.3	27-Apr-2009	Amendments following Four-Country Review
14.0	01-May-2009	Sign off following 4 Country review

New GMS contract Q&O framework implementation

Dataset and business rules – Established Cardiovascular Disease Primary Prevention 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 2, clinical terms version 3 (CTV3) and SNOMED-CT. For non SNOMED-CT, the codes are shown within the document as a 5 character value to show that the Read Code is for a 5-Byte system.
 - i) Where a '%' wildcard is displayed, the Read Code is filled to 5 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 5 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 Specification

1) Patient selection criteria:

a) Registration status

<u>Current registration status</u>	<u>Qualifying criteria</u>
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

(Note: To be included in the patient population a patient needs to qualify for hypertension and not be excluded from other conditions below).

<i>Code criteria</i>	<i>Qualifying diagnostic codes</i>			<i>Time criteria</i>
<i>Included</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest < (REF_DAT) AND >= 01.04.2009</i>
	G2... G20..% G24.. - G2z.. (Excluding G24z1)	38341003% (excluding 69909000, 72022006%, 198941007%, 367390009%, 62275004, 64715009%, 38481006%, 206596003, 169465000 194791005%, 199008003)	XE0Ub XE0Uc% G24..% (excluding 61462) G2...% Xa0Cs XSDSbG202. Xa3fQ	
<i>Excluded</i>	<i>(Hypertension diagnosis codes)</i>			<i>Latest < (REF_DAT) AND > Date of diagnostic code above</i>
	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
	21261 212K.	162659009	21261	
<i>(Codes for hypertension resolved)</i>				

	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
<i>Excluded</i>	G3... - G330z G33z. - G3401 G342. - G366. G38.. - G3z.. Gyu3.%	194828000% (excluding 87343002) 22298006% 53741008% (excluding 42866003) 414545008% (excluding 276516009%) 67682002	XE2uV% (excluding Xa07j%, G341.%, X200B%, X200c)	
<i>(Chronic Heart Disease diagnosis codes)</i>				

	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
<i>Excluded</i>	G61..% (excluding G617.) G63y0 - G63y1 G64..% G66..% G6760 G6W.. G6X.. Gyu62 – Gyu66 Gyu6F Gyu6G	29322000%, 95458005%, 95459002 20059004% (excluding 195231004) 75543006% 73020009% (excluding 65971006, 38453000, 23276006%) 287731003% (excluding 230716006%, 276706004%, 230717002%) 71444005% 230690007% (excluding 23276006%, 106016005%, 39925003, 371121002, 233983001%) 371158002% (excluding 371158002, 277324009, 276275000, 195199008) 274100004% (excluding 195168007, 261808007) 28790007%, 195174007% 89142007, 48601002%, 40276003% 43658003, 195182007, 195602006, 195601004	X00D1%	<i>Earliest < (REF_DAT) AND < Date of Hypertension diagnosis</i>
	<i>(Stroke diagnosis codes)</i>			

	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
<i>Excluded</i>	G65.- G654. G656.- G65zz F4236	266257000%, 15258001	XE0VK%	<i>Earliest < (REF_DAT) AND < Date of Hypertension diagnosis</i>
	<i>(TIA diagnosis Codes)</i>			

(Note: To be included in the patient population a patient needs to qualify for hypertension and have a diabetes resolve code).

<i>Excluded</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest < (REF_DAT) AND < Date of Hypertension diagnosis</i>
	C10E.% C10F.% (excluding C10F8)	46635009% 44054006%	X40J4% X40J5% X40J6	
	<i>(Diabetes diagnostic codes)</i>			
<i>Included</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest < (REF_DAT) AND > Date of Diabetes diagnosis</i>
	21263 212H.	315051004	XaFsp	
	<i>(Diabetes resolved codes)</i>			

	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
<i>Excluded</i>	<i>G73.. G73z.% (Excluding G73z1) Gyu74.,</i>	<i>266260007 195311000 400047006 399957001 63491006 400701000000105</i>	<i>XEOVP G73z. Gyu74. Xa0IV XEOVR</i>	<i>Earliest < (REF_DAT) AND < Date of Hypertension diagnosis</i>
	<i>(PVD diagnostic codes)</i>			

	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
<i>Excluded</i>	<i>C3200</i>			<i>Earliest < (REF_DAT) AND < Date of Hypertension diagnosis</i>
	<i>C3201</i>	398036000%	<i>C3200%</i>	
<i>C3204</i>	<i>(Familial Hypercholesterolemia diagnostic codes)</i>			

	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	
<i>Excluded</i>	1Z12. 1Z13. 1Z14. 1Z15. 1Z16. 1Z1B. – 1Z1L.	200451000000101% 200461000000103% 200471000000105%	XaLHI% XaLHJ% XaLHK%	<i>Latest first or new < (REF_DAT) AND < Date of Hypertension diagnosis</i>
	<i>(Chronic Kidney Disease codes 3-5)</i>			
<i>Included</i>	1Z10. 1Z11. 1Z17. – 1Z1A.	200431000000108% 200441000000104%	XaLHH% XaLHG%	<i>Latest first or new < (REF_DAT) AND > Date of Chronic kidney Disease 3-5</i>
	<i>(Chronic Kidney Disease codes 1-2)</i>			

(Note: To be included in the patient population a patient needs to qualify for hypertension and have a CKD code 1-2).

Clinical data extraction criteria

<i>Field Number</i>	<i>Field name</i>	<i>Data item</i>			<i>Qualifying criteria</i>
1	PAT_ID	Patient ID number			Unconditional
2	REG_DAT	Date of patient registration			Latest < REF_DAT
3	HYP_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Earliest < (REF_DAT) AND >= 01.04.2009</i>
		G2... G20..% G24.. - G2z.. (Excluding G24z1)	38341003% (excluding 69909000 72022006%, 198941007%, 367390009%, 62275004, 64715009%, 38481006%, 206596003, 169465000, 194791005%, 199008003)	XE0Uj XE0Uc% G24..% (excluding 61462) G2...% Xa0Cs XSDSb G202. Xa3fQ	
		<i>(Hypertension diagnosis codes)</i>			
4	HYP_DAT	Date of HYP_COD			Chosen record

5	CVDASS_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Earliest < (REF_DAT) AND >= (HYP_DAT - 3 months)
		662k. - 662n. 38DF.	166711000000108 166721000000102 166731000000100 166741000000109 353641000000105	XaKCr XaKCu XaKCs XaKct XaPBq	
		<i>(Cardio Vascular Risk Assessment codes)</i>			
6	CVDASS_DAT	Date of CVDASS_COD			Chosen record
The CVDASS_COD code group below is for use in Scottish Practices Only.					
	CVDASS_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Earliest < (REF_DAT) AND >= (HYP_DAT - 3 months)
		662k. - 662n. 38DF. 38D6.	166711000000108 166721000000102 166731000000100 166741000000109 353641000000105 341431000000102	XaPBq XaOdJ	
		<i>(Cardio Vascular Risk Assessment codes) - Scotland only</i>			
	CVDASS_DAT	Date of CVDASS_COD			Chosen record
7	CVDEXC_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		9hJ0., 9hJ1.	381141000000107 381171000000101	XaPx1 XaPx0	

		(Cardio Vascular Disease Risk Assessment exception codes)			
8	CVDEXC_DAT	Date of CVDEXC_COD			Chosen record
9	LSADV_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		67H..	313204009	XaEFY	
		(Lifestyle Advice codes)			
10	LSADV_DAT	Date of LSADV_COD			Chosen record
11	CVDEXC1_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		9hJ0., 9hJ1. 9Oh9.	381141000000107 381171000000101 429284000	XaPx1 XaPx0 XaN8t	
		(Cardio Vascular Disease Risk Assessment exception codes)			
12	CVDEXC1_DAT	Date of CVDEXC1_COD			Chosen record

Indicator rulesets

- 1 **Indicator PP 1:** In those patients with a new diagnosis of hypertension (excluding those with pre-existing CHD, diabetes, stroke and/or TIA) recorded between the preceding 1 April to 31 March: the percentage of patients who have had a face to face cardiovascular risk assessment at the outset of diagnosis using an agreed risk assessment treatment tool.

a) Denominator ruleset

<u>Rule Number</u>	<u>Rule</u>	<u>Action if true</u>	<u>Action if false</u>
1	If <u>HYP_DAT</u> < (<u>REF_DAT</u> – 15 months)	Reject	Next rule
2	If <u>CVDASS_DAT</u> <= (<u>HYP_DAT</u> + 3 months) AND If <u>CVDASS_DAT</u> >= (<u>HYP_DAT</u> - 3 months)	Select	Next rule
3	If <u>CVDASS_DAT</u> <= (<u>REF_DAT</u> – 12 months)	Reject	Next rule
4	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Next rule
5	If <u>CVDEXC1_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
6	If <u>HYP_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Select

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

<u>Rule number</u>	<u>Rule</u>	<u>Action if true</u>	<u>Action if false</u>
1	If <u>CVDASS_DAT</u> <= (<u>HYP_DAT</u> + 3 months) AND If <u>CVDASS_DAT</u> >= (<u>HYP_DAT</u> - 3 months)	Select	Reject

Rule 1: HYP_DAT is the date of the earliest episode of hypertension (recorded after the 01.04.2009) that is recorded for the patient before the end of the current QOF Financial Year.
True: If the episode is more than 15 months before the end of the current QOF Financial Year, then the patient is disregarded and not included in the denominator.
False: If the episode is within 15 months of the end of the current QOF Financial Year, then the patient is further considered

Rule 2; This rule uses HYP_DAT (see details in Rule 1) and CVDASS_DAT which is the date of the Cardiovascular Risk Assessment.
True: If the assessment is within 3 months either side of the hypertension diagnosis then the patient is selected.
False: If the assessment is not within 3 months either side of the hypertension diagnosis then the patient is further considered.

Rule 3: The aim of this rule is to identify any patient who has had a Cardiovascular Risk Assessment outside 12 months from the end of the current QOF financial year.
True: If the assessment is outside 12 months from the end of the current QOF financial year then the patient is disregarded and not included in the denominator.
False: If the assessment is within 12 months from the end of the current QOF financial year end then the patient is further considered.

Rule 4: The aim of this rule is to identify any patient that 'recently registered' at the practice. If the patient has registered at the practice in the last 3 months, the patient should not be included in the denominator.

Rule 5: The aim of this rule is to identify any patient that has an accepted 'CVD Exception' Read Code recorded. If the patient has an accepted 'CVD Exception' Read Code recorded in the last 15 months, the patient should not be included in the denominator.

Rule 6: The aim of this rule is to identify any patient that has been 'recently diagnosed' as a hypertension patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.

Indicator PP 2: The percentage of people diagnosed with hypertension diagnosed after 1 April 2009 who are given lifestyle advice in the last 15 months for: increasing physical activity, smoking cessation, safe alcohol consumption and healthy diet.

c) Denominator ruleset

<u>Rule Number</u>	<u>Rule</u>	<u>Action if true</u>	<u>Action if false</u>
1	If <u>LSADV_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>CVDEXC_DAT</u> >= (<u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>HYP_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Select

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

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

Rule 1: LSADV_DAT is the date of the latest lifestyle advice recorded for the patient before the end of the current QOF Financial Year.

True: If the lifestyle advice recording is within 15 of the current QOF Financial Year, then the patient is further considered.

False: If the lifestyle advice recording is more than 15 months before the end of the current QOF Financial Year, then the patient is disregarded and not included in the denominator.

Rule 2: The aim of this rule is to identify any patient that 'recently registered' at the practice. If the patient has registered at the practice in the last 3 months, the patient should not be included in the denominator.

Rule 3: The aim of this rule is to identify any patient that has an accepted 'CVD Exception' Read Code' recorded. If the patient has an accepted 'CVD Exception' Read Code recorded in the last 15 months, the patient should not be included in the denominator.

Rule 4: The aim of this rule is to identify any patient that has been 'recently diagnosed' as a hypertension patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.