



Unrestricted					
Data and Business Rules – Depression Indicator Set					
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## **New GMS Contract QOF Implementation**

### **Dataset And Business Rules**

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### **Depression Indicator Set**

**Amendment History:**

<b>Version</b>	<b>Date</b>	<b>Amendment History</b>
		The version number starts at 7.1 in order to coincide with existing datasets and business rules.
7.1	21-Nov-2005	From Phil Brown
7.2	22-Nov-2005	Amended following review by Peter Horsfield
7.3	3-Dec-2005	Draft revised for internal review
7.4	18-Feb-2006	Amended following internal & 4 Countries review
8.0	15-Mar-2006	Signed off following 4 Country review
8.1	02-May-2006	Responding to queries raised a) Amend wording for Note 3 b) Correct typo to DIAG_DAT cluster c) Add a check to exclude 'patients diagnosed with depression' from DEP1
8.5	18-May-2006	Approved by NHSE
8.6	20-Oct-2006	April Read Code Release April SNOMED CT Release October Read Code Release Corrections and amendments following feedback Amend 'Qualifying Criteria' for DEPAS_COD
8.7	16-Nov-2006	Response to queries raised by 4 Country Review: Remove Reaven's syndrome
9.0	30-Nov-2006	Approved by NHSE
9.1	11-Apr-2007	April 2007 Read Code Release
9.2	13-Jun-2007	Following 4-Country Review: Correction in Rule 1 (Depression 2) to standardise date check
10.0	18-Jun-2007	Signed off following 4 Country review
10.1	23-Aug-2007	April 2007 SNOMED CT Release
10.2	23-Sep-2007	October 2007 Read Code Release October 2007 SNOMED CT Release
11.0	28-Nov-2007	Signed off following 4 Country review

## **New GMS contract Q&O framework implementation**

### Dataset and business rules – Depression 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 April 2006 release of Read codes version 2, clinical terms version 3 (CTV3) and the July 2005 version of 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).The version number starts at 7.1 in order to coincide with existing datasets and business rules.
- 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.

**Dataset Specification****1) 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) patient population with depression

<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 first or new episode &lt; (REF_DAT)</i>
	E0013, E0021 E112.%, E113.% E118., E11y2 E11z2, E130. E135. E2003 E291., E2B.. E2B1., Eu204 Eu251, Eu32.% Eu33.%, Eu341 Eu412	35489007% (excluding 191627008%, 231542000 58703003%, 162722001, 192079006) 191455000%	X00SO% (excluding 62T1.% E2B0., XaCHo)	
	<i>(Depression diagnosis codes)</i>			
<i>Excluded</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest &lt; (REF_DAT) AND &gt; Date of diagnostic code above</i>
	212S.	196381000000100	XaLGO	
	<i>(Codes for depression resolved)</i>			
<i>Excluded</i>	Age < 18 yrs at REF_DAT			

- ii) patient population with co-morbidity of diabetes or coronary heart disease  
 (Note: A patient need only qualify for ONE of the disease areas to be included in the patient population)

<i>Code criteria</i>	<i>Qualifying diagnostic codes (diabetes mellitus)</i>			<i>Time criteria</i>
<i>Included</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest &lt; (REF_DAT)</i>
	C10E.%, C10F.% (Excluding C10F8)	46635009% 44054006%	X40J4% X40J5% X40J6	
	<i>(Diagnostic codes for diabetes mellitus)</i>			
<i>Excluded</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest &lt; (REF_DAT) AND &gt; Date of diagnostic code above</i>
	21263 212H.	315051004	XaFsp	
	<i>(Codes for diabetes resolved)</i>			
<i>Excluded</i>	Age < 17 yrs at REF_DAT			

<i>Code criteria</i>	<i>Qualifying diagnostic codes (IHD)</i>			<i>Time criteria</i>
<i>Included</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Earliest &lt; (REF_DAT)</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)	

**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	PAT_AGE	Patients age (years) at REF_DAT			Unconditional
4	DEPEXC_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		9hC0. 9hC1.	196251000000103 196241000000101	XaLFq XaLFr	
		<i>(Depression exception reporting codes)</i>			
5	DEPEXC_DAT	Date of <u>DEPEXC_COD</u>			Chosen record
6	DEPR_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest first or new episode < REF_DAT
		E0013, E0021 E112.%, E113.% E118., E11y2 E11z2, E130. E135., E2003 E291., E2B.. E2B1., Eu204 Eu251, Eu32.% Eu33.%, Eu341 Eu412	35489007% (excluding 191627008%, 231542000 162722001 58703003%, 192079006) 191455000%	X00SO% (excluding 62T1.% E2B0., XaCho)	
		<i>(Depression diagnosis codes)</i>			
7	DEPR_DAT	Date of DEPR_COD			Chosen record
8	DEPRO_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT

		6896.	200971000000100	XaLlc	
		<i>(Depression question codes)</i>			
9	DEPRQ_DAT	Date of DEPRQ_COD			Chosen record
10	DEPAS_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Earliest (>= DEPR_DAT) AND (< REF_DAT)
		388f. 388g. 388P.	401320004 201721000000109 200231000000107	XaLDN XaLLG Xalwf	
		<i>(Depression assessment tool codes)</i>			
11	DEPAS_DAT	Date of DEPAS_COD			Chosen record
12	IHD_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Earliest < REF_DAT
		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>(Ischaemic heart disease codes)</i>			
13	IHD_DAT	Date of IHD_COD			Chosen record
14	DM_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Earliest < (REF_DAT)
		C10E.% C10F.% (Excluding C10F8)	46635009% 44054006%	X40J4% X40J5% X40J6	

		<i>(Codes for diabetes)</i>			
15	DM_DAT	Date of DM_COD			Chosen record
16	DMRES_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < (REF_DAT) AND > (DM_DAT)
		21263 212H.	315051004	XaFsp	
		<i>(Codes for diabetes resolved)</i>			
17	DMRES_DAT	Date of DMRES_COD			Chosen record
18	DIAG_DAT	The earliest diagnosis date of disease for inclusion in the co-morbidity register			Earliest of  DM_DAT (where (DMRES_DAT = Null) AND (PAT_AGE >= 17)),  IHD_DAT

**Indicator rulesets**

1 Indicator DEP 1: The percentage of patients with diabetes and/or heart disease for whom case finding for depression has been undertaken on one occasion during the previous 15 months using the two standard screening questions

a) Denominator ruleset: To be applied to the patient population with diabetes and/or CHD

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>DEPRQ_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Select	Next rule
2	If <u>DEPR_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
3	If <u>REG_DAT</u> >= ( <u>REF_DAT</u> – 3 months)	Reject	Next rule
4	If <u>DEPEXC_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
5	If <u>DIAG_DAT</u> < ( <u>REF_DAT</u> – 3 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>DEPRQ_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Select	Reject

**Indicator DEP 2:** In those patients with a new diagnosis of depression, recorded between the preceeding 1 April and 31st March, the percentage of patients who have had an assessment of severity at the outset of treatment using an assessment tool validated for use in primary care.

a) Denominator ruleset: To be applied to patient population with depression

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>DEPR_DAT</u> < ( <u>REF_DAT</u> – 12 months)	Reject	Next rule
2	If <u>DEPAS_DAT</u> <= ( <u>DEPR_DAT</u> + 1 month)	Select	Next rule
3	If <u>REG_DAT</u> >= ( <u>REF_DAT</u> – 3 months)	Reject	Next rule
4	If <u>DEPEXC_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
5	If <u>DEPR_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>DEPAS_DAT</u> <= ( <u>DEPR_DAT</u> + 1 month)	Select	Reject