



Unrestricted					
Data and Business Rules – Depression Indicator Set					
Author	Paul Amos	Version No	14.0	Version Date	01-May-2009

## **New GMS Contract QOF Implementation**

### **Dataset And Business Rules**

-

### **Depression Indicator Set**

**Amendment History:**

<b>Version</b>	<b>Date</b>	<b>Amendment History</b>
		The version number starts at 3.1 in order to coincide with existing datasets and business rules.
Draft 3.1	21-Nov-2005	From Phil Brown
Draft 3.2	22-Nov-2005	Amended following review by Peter Horsfield
Draft 3.3	3-Dec-2005	Draft revised for internal review
7.4	22-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	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 October Read Code Release Corrections and amendments following feedback Amend 'Qualifying Criteria' for DEPAS_COD
9.0	30-Nov-2006	Approved by NHSE
9.1	11-Apr-2007	April 2007 Read Code Release
9.2	11-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-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
13.1	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	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 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.

**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 (Depression)</i>	<i>Time criteria</i>
<i>Included</i>	<i>Read codes v0</i>	<i>Latest first or new episode &lt; (REF_DAT)</i>
	E222 E4J5 E412 E4J6 E4J7 E4J9 E4JC E4JB E4J8 <i>(Depression diagnosis codes)</i>	
<i>Excluded</i>	<i>Read codes v0</i>	<i>Latest &lt; (REF_DAT) AND &gt; Date of diagnostic code above</i>
	212S <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 v0</i>	<i>Latest &lt; (REF_DAT)</i>
	C2C.% C2D.%	
	<i>(Diagnostic codes for diabetes mellitus)</i>	
<i>Excluded</i>	<i>Read codes v0</i>	<i>Latest &lt; (REF_DAT) AND &gt; Date of diagnostic code above</i>
	212H	
	<i>(Code for diabetes resolved)</i>	
<i>Excluded</i>	Age < 17 yrs at REF_DAT	

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

**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	PAT_AGE	Patients age (years) at REF_DAT	Unconditional
4	DEPEXC_COD	<i>Read codes v0</i>	Latest < REF_DAT
		9hC0 9hC1	
		<i>(Depression exception reporting codes)</i>	
5	DEPEXC_DAT	Date of DEPEXC_COD	Chosen record
6	DEPR_COD	<i>Read codes v0</i>	Latest first or new episode < REF_DAT
		E222 E4J5 E412 E4J6 E4J7 E4J9 E4JC E4JB E4J8	
		<i>(Depression diagnosis codes)</i>	
7	DEPR_DAT	Date of DEPR_COD	Chosen record
8	DEPRQ_COD	<i>Read codes v0</i>	Latest < REF_DAT
		6896	
		<i>(Depression question codes)</i>	
9	DEPRQ_DAT	Date of DEPRQ_COD	Chosen record
10	DEPAS_COD	<i>Read codes v0</i>	Earliest (>= DEPR_DAT) AND (< REF_DAT)
		388f 388g 388P	
		<i>(Depression assessment tool codes)</i>	
11	DEPAS_DAT	Date of DEPAS_COD	Chosen record

12	IHD_COD	<i>Read codes v0</i>	Earliest < REF_DAT
		G4.. - G451 G45Z - G4Z. (excluding G4A.)	
		<i>(Ischaemic heart disease codes)</i>	
13	IHD_DAT	Date of IHD_COD	Chosen record
14	DM_COD	<i>Read codes v0</i>	Earliest < (REF_DAT)
		C2C.% C2D.%	
		<i>(Codes for diabetes)</i>	
15	DM_DAT	Date of DM_COD	Chosen record
16	DMRES_COD	<i>Read codes v0</i>	Latest < (REF_DAT) AND > (DM_DAT)
		212H	
		<i>(Codes for diabetes resolved)</i>	
17	DMRES_DAT	Date of DERES_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
19	DEPAS2_COD	<i>Read codes v0</i>	Earliest (>= DEPAS_DAT + 5 weeks) AND (<= DEPAS_DAT + 12 weeks) AND < (REF_DAT)
		388f 388g 388P	
		<i>(Depression assessment tool codes)</i>	
20	DEPAS2_DAT	Date of DEPAS2_COD	Chosen record

**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

**Please note: any reference to depression diagnosis relates only to a patients first or new episode.**

**Rule 1:** The aim of this rule is to identify those patients for whom case finding for depression has been undertaken within 15 months from the end of the QOF Financial year end.

True: If the patient has been asked about depression within 15 months from the end of the QOF Financial year end then the patient is selected.

False: If the patient has not been asked about depression within 15 months from the end of the QOF Financial year end then the patient is further considered.

**Rule 2:** The aim of this rule is to identify those patients who have had a diagnosis of depression within 15 months from the end of the QOF Financial year end.

True: If the patient has been diagnosed with depression within 15 months from the end of the QOF Financial year end then the patient is disregarded and not included in the denominator.

False: If the patient has been diagnosed with depression outside 15 months from the end of the QOF Financial year end, then the patient is further considered.

**Rule 3:** 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 4:** The aim of this rule is to identify any patient that has an accepted 'Depression Exception' Read Code recorded. If the patient has an accepted 'Depression Exception' Read Code recorded in the last 15 months, the patient should not be included in the denominator.

**Rule 5:** The aim of this rule is to identify any patient that has been 'recently diagnosed' as either a diabetes or IHD patient. If the patient has been diagnosed with either disease in the last 3 months, the patient should not be included in the denominator.

- 2 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> – 15 months)	Reject	Next rule
2	If <u>DEPR_DAT</u> >= ( <u>REF_DAT</u> – 28 days) AND If <u>DEPAS_DAT</u> = Null	Reject	Next rule
3	If <u>DEPAS_DAT</u> < ( <u>REF_DAT</u> – 12 months)	Reject	Next rule
4	If <u>DEPAS_DAT</u> <= ( <u>DEPR_DAT</u> + 28 days)	Select	Next rule
5	If <u>REG_DAT</u> >= ( <u>REF_DAT</u> – 3 months)	Reject	Next rule
6	If <u>DEPEXC_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
7	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> + 28 days)	Select	Reject

**Please note: any reference to depression diagnosis relates only to a patients first or new episod.**

**Rule 1:** The aim of this rule is to identify those patients that have been diagnosed with depression outside 15 months from the end of the current QOF Financial year end.  
True: If the patient has been diagnosed 15 months outside the end of the current QOF Financial year end then the patient is disregarded and not included in the denominator.  
False: If the patient has not been diagnosed 15 months outside the end of the current QOF Financial year end then the patient is further considered.

**Rule 2:** The aim of this rule is to identify if the depression diagnosis is within 28 days of the reference date and the depression assessment is null.  
True: If the patient has a recording of depression within 28 days from the end of the QOF financial year end and the depression assessment date is null the patient is disregarded and not included in the denominator.

False: If the patient has a recording of depression within 28 from the end of the QOF financial year end and the depression assessment date is not null then the patient is further considered.

**Rule 3:** The aim of this rule is to identify those patients that have had an assessment for depression outside 12 months from the end of the current QOF financial year end.

True: If the patient has had an assessment for depression outside 12 months from the end of the current QOF financial year end then the patient is disregarded and not included in the denominator.

False: : If the patient has had not had an assessment for depression outside 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 those patients who have had a depression assessment within 28 days from the depression diagnosis date.

True: If the assessment for depression has taken place within 28 days from the depression diagnosis date then the patient is selected.

False: If the patient has not had a depression assessment within 28 days from the depression diagnosis date then the patient is further considered.

**Rule 5:** 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 6:** The aim of this rule is to identify any patient that has an accepted 'Depression Exception' Read Code recorded. If the patient has an accepted 'Depression Exception' Read Code recorded in the last 15 months, the patient should not be included in the denominator.

**Rule 7:** The aim of this rule is to identify any patient that has been 'recently diagnosed' as either a diabetes or IHD patient. If the patient has been diagnosed with either disease in the last 3 months, the patient should not be included in the denominator

**Indicator DEP 3:** In those patients with a new diagnosis of depression and assessment of severity recorded between the preceding 1 April to 31 March, the percentage of patients who have had a further assessment of severity 5 – 12 weeks (inclusive) after the initial recording of the assessment of severity. Both assessments should be completed using an assessment tool validated for use in primary care.

We also agreed that the depression section of the QOF guidance should be amended as follows:

Currently - "For the purposes of QOF measurement 'at the outset of treatment' is defined as within one month of the initial diagnosis."

Revised - "is defined as within 28 days of the initial diagnosis."

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 <a href="#">DEPR_DAT</a> < 01.04.09	Reject	Next rule
2	If <a href="#">DEPR_DAT</a> <= ( <a href="#">REF_DAT</a> – 68 weeks)	Reject	Next rule
3	If <a href="#">DEPR_DAT</a> >= ( <a href="#">REF_DAT</a> – 16 weeks) AND If <a href="#">DEPAS2_DAT</a> = Null	Reject	Next rule
4	If <a href="#">DEPAS2_DAT</a> < ( <a href="#">REF_DAT</a> – 12 months)	Reject	Next rule
5	If <a href="#">DEPAS_DAT</a> <= ( <a href="#">DEPR_DAT</a> + 28 days) AND I If <a href="#">DEPAS2_DAT</a> ≠ Null	Select	Next rule
6	If <a href="#">REG_DAT</a> >= ( <a href="#">REF_DAT</a> – 3 months)	Reject	Next rule
7	If <a href="#">DEPEXC_DAT</a> >= ( <a href="#">REF_DAT</a> – 15 months)	Reject	Next rule
8	If <a href="#">DEPR_DAT</a> >= ( <a href="#">REF_DAT</a> – 3 months)	Reject	Select

b) Numerator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <a href="#">DEPAS_DAT</a> <= ( <a href="#">DEPR_DAT</a> + 28 days) AND If <a href="#">DEPAS2_DAT</a> ≠ Null	Select	Reject

**Please note: any reference to depression diagnosis relates only to a patients first or new episode.**

**Rule 1:** The aim of this rule is to only identify those patients that have been diagnosed with depression before the 01.04.2009

True: If the patient has been diagnosed before the 01.04.2009 then the patient is disregarded and not included in the denominator.

False: If the patient has not been diagnosed before the 01.04.2009 then the patient is further considered.

**Rule 2:** The aim of this rule is to identify those patients who have been diagnosed with depression outside 68 weeks from the end of the current QOF financial year end.

True: If the patient has been diagnosed with depression outside 68 weeks from the end of the current QOF financial year end then the patient is disregarded and not included in the denominator.

False: If the patient has not been diagnosed with depression outside 68 weeks from the end of the current QOF financial year end then the patient is further considered.

**Rule 3:** The aim of this rule is to identify those patients that have been diagnosed with depression within 16 weeks from the end of the current QOF financial year end and do not have a second depression assessment.

The second depression assessment is as follows:

Searches for the earliest recording of a depression assessment that has occurred within 5 to 12 weeks from the initial depression assessment, this must take place within the end of the current QOF financial year end.

True: If the patient has been diagnosed with depression within 16 weeks from the end of the current QOF financial year end and do not have a recording of a second depression assessment then the patient is disregarded and not included in the denominator.

False: If the patient has not been diagnosed with depression within 16 weeks from the end of the current QOF financial year end then they are further considered.

**Rule 4:** The aim of this rule is to identify that the patient has had a second depression assessment outside 12 months from the end of the current QOF financial year end.

True: If the patient has had a second depression assessment outside 12 months from the end of the current QOF financial year end then the patient is disregarded and not included in the denominator.

False: If the patient has not had a second depression assessment outside 12 months from the end of the current QOF financial year end then the patient is further considered.

**Rule 5:** The aim of this rule is to identify those patients that have had a depression assessment within 28 days of the depression diagnosis where there is a recording of a second assessment that has occurred within 5-12 weeks after the first assessment.

True: If the patient has had a depression assessment within 28 days from the depression diagnosis and a second assessment within 5-12 weeks after the first assessment then the patient is selected.

False: If the patient has not had a depression assessment within 28 days of the depression diagnosis, or the patient has not had a second assessment within 5-12 weeks after the first assessment then the patient is further considered.

**Rule 6:** 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 7:** The aim of this rule is to identify any patient that has an accepted 'Depression Exception' Read Code recorded. If the patient has an accepted 'Depression Exception' Read Code recorded in the last 15 months, the patient should not be included in the denominator.

**Rule 8:** The aim of this rule is to identify any patient that has been 'recently diagnosed' as either a diabetes or IHD patient. If the patient has been diagnosed with either disease in the last 3 months, the patient should not be included in the denominator