New GMS Contract QOF Implementation

Dataset and Business Rules
-
Dementia Indicator Set

Published by HSCIC on behalf of NHS England

Amendment History:

Version	Date	Amendment History
		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	24-Feb-2006	Amended following internal & 4 Countries review
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 April SNOMED CT Release October Read Code Release Corrections and amendments following feedback
8.7	16-Nov-2006	Responding to queries raised by 4 Country Review
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	22-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
11.1	30-Jun-2008	April 2008 Read Code Release April 2008 SNOMED CT Release
11.2	21-Jul-2008	Following 4-Country Review: Bring Numerator Rule 1 into line with Denominator Rule 1 for indicator DEM02
12.0	24-Jul-2008	Signed off following 4 Country review
12.1	06-Oct-2008	October 2008 Read Code Release October 2008 SNOMED CT 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 4 Country review
14.1	25-June-2009	April 2009 Read Code Release
15.0	17-August-2009	Sign off following 4 Country release
15.1	12-October-2009	October 2009 Clinical Code Release
15.2	28-October-2009	October 2009 Clinical Code Release review
16.0	02-December-2009	Sign off following 4 Country review
17.0	07-May-2010	April 2010 Read Code Release following NHS IC review
18.0	29-October-2010	October 2010 Read Code Release following NHS IC review
19.0	13-December-2010	Signed off following 4 Country review.
20.0	13-May-2011	April 2011 Read Code Release following NHS IC review
21.0	10-November-2011	October 2011 Read Code Release following NHS IC review
22.0	12-December-2011	Signed off following 4 Country review
23.0	31-May-2012	April 2012 Read Code Release following HSCIC review
24.0	31-October-2012	October 2012 Read Code Release following

		HSCIC review
25.0	28-March-2013	Signed off following consultation
26.0	01-June-2013	April 2013 Read Code Release following HSCIC review
27.0	25-October-2013	October 2013 Read Code Release following HSCIC review
Dates_1415	17-January-2014	Review of proposed date changes for QOF 2014/15
Jan14_Review	23-January-2014	Internal review of changes for 2014/15
28.0	28-March-2014	Signed off following review and negotiations. Changes made to incorporate new date terminology
29.0	27-June-2014	April 2014 Read Code Release following HSCIC review
30.0	10-October-2014	October 2014 Read Code Release following HSCIC review

New GMS contract Q&O framework implementation

Dataset and business rules – Dementia indicator set

Notes

1) QOF has been in operation since 2003 as the landscape within the NHS and Primary Care changes, the QOF dataset and rulesets must change in accordance with that new landscape. QOF is categorised as one of many Quality Services and a Quality Service has a start date (Quality Service Start Date) and an end date (Quality Service End Date). For QOF these reflect the QOF Year (i.e. 1st April to 31st March).

2) 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 use of a number of dates. The dates are as follows
   a) **ACHIEVEMENT_DAT**: The date up to which patient information is considered when determining the output for each extraction.
      - For QOF 2014/15, **ACHIEVEMENT_DAT** will vary for each extraction depending on the reporting period for that extraction, e.g. for the end of ***September extraction*** it would have a value of ***30.09.2014***; for the end of ***March extraction*** it would have a value of ***31.03.2015***.
   b) **PAYMENTPERIODEND_DAT**: The end date of the period for which payments are made for a given Quality Service. For any given Quality Service there will be one or more payment periods.
      - For QOF 2014/15, **PAYMENTPERIODEND_DAT** is **31.03.2015**
   c) **QUALITY_SERVICE_START_DAT (QSSD)**: The start of the period during which a GP Practice provides the Quality Service
      - For QOF 2014/15, **QUALITY_SERVICE_START_DAT (QSSD)** is **01.04.2014**, however it is not utilised within the QOF dataset and rulesets.
   d) **QUALITY_SERVICE_END_DAT (QSED)**: The end of the period during which a GP Practice provides the Quality Service
      - For QOF 2014/15, **QUALITY_SERVICE_END_DAT (QSED)** is **31.03.2015**

3) When interpreting these dates midnight is to be taken as meaning
   a) **for the 'start of a period'**: the midnight is at the start of that day, For example; "**If CSMOK_DAT > (PAYMENTPERIODEND_DAT – 24 months)**"
   This example is used to determine if a code has been recorded in the 24 months preceding end of the payment period. If PAYMENTPERIODEND_DAT has a value of 31.03.2015, then this condition uses a value of 31.03.2013, but to be true the recorded code must be **after** 31.03.2013 and therefore this equates to the midnight between 31.03.2013 and 01.04.2013. This means information effective on 31st March will be excluded but information effective on 1st April will be included for the extraction.

   b) **for the 'end of a period'**: the midnight at the end of that day, For example; "**Earliest <= ACHIEVEMENT_DAT**"
   This example is used to determine if a recorded code has been recorded before the achievement date. If ACHIEVEMENT_DAT has a value of 30th September (i.e. the end of September extraction) then this condition uses a value of 30.09.2014, but to be true the recorded code must be **on or before** 30.09.2014 and therefore this equates to the midnight between 30.09.2014 and 01.10.2014. This means information

effective on 30th September will be included but information effective on 1st October will be excluded from the extraction.

c) **for Patient Age**: the midnight at the end of that day, For example; "**Patients age (years) at ACHIEVEMENT_DAT**"

This example is used to determine a patients age, in years, at the achievement date. If ACHIEVEMENT_DAT has a value of 30th September (i.e. the end of September extraction) then this condition determines a patient age as of 30.09.2014. Therefore this equates to the midnight between 30.09.2014 and 01.10.2014.

4) 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 all of the dates (described in point 2 above) are specified prior to extraction of data and are available for computation in the data extraction routine. The dates are required to be included in the data extraction to support processing of rules that are dependent upon them. 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.

5) Clinical codes quoted are (where known) from the October 2014 release of Read codes version 2 and clinical terms version 3 (CTV3).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.

6) 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 , unless the operator "ALL" is used.

The "ALL" statement is used within the Qualifying Criteria for the Clinical data extraction criteria. Typically the selection for a READCODE_COD cluster field is based on a date of "LATEST" or "EARLIEST". The "ALL" statement is used to select all occurrences of any of the codes within the READCODE_COD cluster. It selects an array of instances, of which there may be more than one for each patient

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

7) 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

8) Rules are expressed as logical statements that evaluate as either 'true' or 'false'. The following operators are required to be supported:

a) > (greater than)
b) < (less than)
c) = (equal to)
d) ≠ (not equal to)
e) AND
f) OR
g) NOT

9) 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

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

b) Diagnostic code status

Code criteria	*Qualifying diagnostic codes*		*Time criteria*
Included	Read codes v2	*CTV3*	*Earliest <= (ACHIEVEMENT_DAT)*
	Eu02.% E00..% Eu01.% E02y1 E012.% Eu00.% E041. Eu041 F110. – F112. F116. A4110	X002w% (excluding X003E%, X001T) Eu02.% XE1Xt E00z. THEN ADD X003G	
	(Dementia codes)		

2) Clinical data extraction criteria

<table>
<tr><th>Field Number</th><th>Field name</th><th colspan="2">Data item</th><th>Qualifying criteria</th></tr>
<tr><td>1</td><td>PAT_ID</td><td colspan="2">Patient ID number</td><td>Unconditional</td></tr>
<tr><td>2</td><td>REG_DAT</td><td colspan="2">Date of patient registration</td><td>Latest <= (ACHIEVEMENT_DAT)</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">DEMEXC_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Latest <= (ACHIEVEMENT_DAT)</td></tr>
<tr><td>9hD0.
9hD1.</td><td>XaLFo
XaLFp</td></tr>
<tr><td colspan="2">(Dementia exception reporting codes)</td></tr>
<tr><td>4</td><td>DEMEXC_DAT</td><td colspan="2">Date of DEMEXC_COD</td><td>Chosen record</td></tr>
<tr><td rowspan="3">5</td><td rowspan="3">DEM_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Earliest <= (ACHIEVEMENT_DAT)</td></tr>
<tr><td>Eu02.%
E00..%
Eu01.%
E02y1
E012.%
Eu00.%
E041.
Eu041
F110. – F112.
F116.
A4110</td><td>X002w%
(excluding X003E%, X001T)
Eu02.%
XE1Xt
E00z.
THEN ADD X003G</td></tr>
<tr><td colspan="2">(Codes for Dementia)</td></tr>
</table>

<table>
<tr><td>6</td><td>DEM_DAT</td><td colspan="2">Date of DEM_COD</td><td>Chosen record</td></tr>
<tr><td rowspan="3">7</td><td rowspan="3">DEMR_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Latest <= (ACHIEVEMENT_DAT)</td></tr>
<tr><td>6AB..</td><td>XaMGF</td></tr>
<tr><td colspan="2">(Code for Dementia health review)</td></tr>
<tr><td>8</td><td>DEMR_DAT</td><td colspan="2">Date of DEMR_COD</td><td>Chosen record</td></tr>
<tr><td rowspan="3">9</td><td rowspan="3">FBC_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))</td></tr>
<tr><td>423..
426..
42A..
42H..</td><td>Xa96v
426..
42A..
XaIdY</td></tr>
<tr><td colspan="2">(Full blood count test recording)</td></tr>
<tr><td>10</td><td>FBC_DAT</td><td colspan="2">Date of FBC_COD</td><td>Chosen record</td></tr>
<tr><td rowspan="3">11</td><td rowspan="3">CALC_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))</td></tr>
<tr><td>44h4.
44I8.
44h7.
44h90
44IE.
44ID.
44IC.
44IC0
44h9.
44hD.
4Q721</td><td>XaDvd
XE2q3
XaIRk
XaIdR
XaIU0
44IC.
XaIRn
XaX4E
XaZyY
Xabpr
Xabpk</td></tr>
<tr><td colspan="2">(Calcium test recording)</td></tr>
<tr><td>12</td><td>CALC_DAT</td><td colspan="2">Date of CALC_COD</td><td>Chosen record</td></tr>
</table>

<table>
<tr><td rowspan="3">13</td><td rowspan="3">GLUC_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))</td></tr>
<tr><td>44TM.
44f..%
44g..%
44T1. - 44T3.
44TA.
44TE. - 44TK. (Excluding 44TJ0, 44TJ1, 44TJ2, 44TJ3, 44TJ4, 44TJ5, 44TJ6, 44TJ7, 44TJ9, 44TJA)
44U..% (Excluding 44Uz.)
44V.. – 44V3.
44V6.
R102.
R10D.
R1057
7P172</td><td>XaJmX
X772z% (excluding Xa974%, XE2mr, XE2ms, XE2mt, XaXcx, XaXdZ, XaXda, XaXdX, XaXdW, XaXdY, XaXee, XaXcf, XaaFu, XaaFo, XaaFq, XaaFn, XaaFs, XaaFp, Xabmv, Xabmw)
44f..%
XM0ly%
44T10
44T11
44T12
44U8.
44U9.
XE25Z
44V1.
44V2.
44V3.
XaMLQ
R102.
XaFxf
XS7Nb</td></tr>
<tr><td colspan="2">(Glucose test recording)</td></tr>
<tr><td>14</td><td>GLUC_DAT</td><td colspan="2">Date of GLUC_COD</td><td>Chosen record</td></tr>
<tr><td rowspan="2">15</td><td rowspan="2">RENAL_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="2">Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT</td></tr>
<tr><td>44J9.
44JA.
44J3.
44JF.
44JC.
44JD.</td><td>XM0lt
XaDvl
XE2q5
XaETQ
XaERX
XaERc</td></tr>
</table>

		(Renal test recording)		))
16	RENAL_DAT	Date of RENAL_COD		Chosen record
17	LIVER_COD	*Read codes v2*	*CTV3*	Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))
		44GA. 44GB. 44E.. 44EC. 44E9. 44G7. 44G9.	XaLJx XaIRi 44E.. XaERu XaETf XaES4 XaES3	
		(Liver test recording)		
18	LIVER_DAT	Date of LIVER_COD		Chosen record
19	DEMTFT_COD	*Read codes v2*	*CTV3*	Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))
		442A. 442W. 442X.	XaELV XaELW XE2wy	
		(Thyroid function tests for dementia screening)		
20	DEMTFT_DAT	Date of DEMTFT_COD		Chosen record
21	VITB12_COD	*Read codes v2*	*CTV3*	Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))
		42T.. 44Le.	XE2pf XaJ27	
		(B12 level tests)		

22	VITB12_DAT	Date of VITB12_COD		Chosen record
23	FOL_COD	*Read codes v2*	*CTV3*	Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))
		42U5. 42U4. 42UE.	42U5. 42U4. X76tC	
		(Folate level tests)		
24	FOL_DAT	Date of FOL_COD		Chosen record
25	IFCCHBA_COD	*Read codes v2*	*CTV3*	Earliest ((>= DEM_DAT – 6 months) AND (<= DEM_DAT + 6 months) AND <= (ACHIEVEMENT_DAT))
		42W5.	XaPbt	
		(IFCC HbA1c codes)		
26	IFCCHBA_DAT	Date of IFCCHBA_COD		Chosen record
27	GLUCEXC_COD	*Read codes v2*	*CTV3*	Latest <= (ACHIEVEMENT_DAT)
		8IEG.	XaYH6	
		(Glucose test exception codes)		
28	GLUCEXC_DAT	Date of GLUCEXC_COD		Chosen record
29	BLOODEXC_COD	*Read codes v2*	*CTV3*	Latest <= (ACHIEVEMENT_DAT)
		41M..	XaZOq	

		(Codes for blood test declined)		
30	BLOODEXC_DAT	Date of BLOODEXC_COD		Chosen record

Indicator rulesets

1 Indicator DEM001: The contractor establishes and maintains a register of patients diagnosed with dementia.

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 DEM002: The percentage of patients diagnosed with dementia whose care has been reviewed in a face-to-face review in the preceding 12 months.

a) Denominator ruleset

Rule number	*Rule*	*Action if true*	*Action if false*
1	If DEMR_DAT > (PAYMENTPERIODEND_DAT – 12 months) AND If DEMR_DAT >= DEM_DAT	Select	Next rule
2	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
3	If DEMEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
4	If DEM_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Select

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

Rule number	*Rule*	*Action if true*	*Action if false*
1	If DEMR_DAT > (PAYMENTPERIODEND_DAT – 12 months) AND If DEMR_DAT >= DEM_DAT	Select	Reject

3 Indicator DEM003: The percentage of patients with a new diagnosis of dementia recorded in the preceding 1 April to 31 March with a record of FBC, calcium, glucose, renal and liver function, thyroid function tests, serum vitamin B12 and folate levels recorded between 6 months before or after entering on to the register.

Overview

This indicator has been developed to measure the effectiveness of the provision of a clinical care component for patients with dementia. The aspect that is being measured is that relating to the provision of a complete set of screening tests.

Disease register

The disease register is made up of patients who are eligible to receive the required care component. In this case, patients who have a diagnosis of dementia (i.e. there is evidence in the patient's electronic health record of a dementia diagnosis code).

Numerator and Denominator

The success criteria for this indicator (numerator) are achieved for those patients in the denominator who have all of the tests recorded (not necessarily on the same day) up to 6 months before or up to 6 months after entering on to the register.

The patients that make up the denominator for this indicator are those patients where it is appropriate for the care component to be carried out. This is the relevant disease register adjusted for exclusions and exceptions.

Exclusions

For this indicator there are three exclusions.

- The indicator is specifically looking at newly diagnosed patients within the QOF period. However, as the tests can be carried out in the 6 months before the diagnosis any patient with a dementia diagnosis in the preceding 18 months needs to be checked. If a patient has a dementia diagnosis which falls outside this time span they will be excluded.

- Consideration has to be made for those patients diagnosed with dementia within 6 months of the end of the QoF period i.e. the 6 month 'window' for the tests would then span 2 years. If at least one of the tests has not been carried then it would be unreasonable for the patient to be considered unsuccessful until the full 6 months are checked, which can only be done in the next QOF period. Such patients are excluded for this year.

- Consideration has to be made for those patients who have been diagnosed with dementia in the previous QOF financial year AND have successful recordings for all the tests in the previous QOF Financial Year because practices will have been rewarded for the indicator in that earlier year. This rule is in place to prevent duplicate payments.

Exceptions

Patients that don't achieve the success criteria of the indicator are checked for valid exceptions.

For this indicator the exceptions are:

- any patient that has a relevant glucose test exception code recorded in the preceding 12 months.

- any patient that has a relevant blood test exception code recorded in the preceding 12 months.

- any patient who has been registered within the last 3 months of the qualifying year (new patient). New patients may be regarded as exceptions if they fulfil the criteria of the indicator but have not yet had all of the tests - maybe because there hasn't been an opportunity in the qualifying year to arrange them.

- any patient that has a relevant dementia exception code recorded within the preceding 12 months.

- any patient that has been diagnosed with dementia within the last 3 months of the year (new diagnosis of dementia). Newly diagnosed patients may be regarded as exceptions if they fulfil the criteria of the indicator but have not yet had the tests - maybe because there hasn't been an opportunity in the qualifying year to arrange them.

Note: For the 'new' dementia patient exception, this is only applicable for the first 'ever' diagnosis of dementia for the patient. For a subsequent diagnosis, this exception rule is not considered.

Indicator DEM003: The percentage of patients with a new diagnosis of dementia recorded in the preceding 1 April to 31 March with a record of FBC, calcium, glucose, renal and liver function, thyroid function tests, serum vitamin B12 and folate levels recorded between 6 months before or after entering on to the register.

a) Denominator ruleset

Rule number	*Rule*	*Action if true*	*Action if false*
1	If DEM_DAT <= (PAYMENTPERIODEND_DAT – 18 months)	Reject	Next rule
2	If DEM_DAT > (PAYMENTPERIODEND_DAT – 6 months) AND (If FBC_DAT = Null OR CALC_DAT = Null OR (GLUC_DAT = Null AND IFCCHBA_DAT = Null) OR RENAL_DAT = Null OR LIVER_DAT = Null OR DEMTFT_DAT = Null OR VITB12_DAT = Null OR FOL_DAT = Null)	Reject	Next Rule
3	If FBC_DAT <= (PAYMENTPERIODEND_DAT – 12 months) **AND** CALC_DAT <= (PAYMENTPERIODEND_DAT – 12 months) **AND** (GLUC_DAT <= (PAYMENTPERIODEND_DAT – 12 months) OR IFCCHBA_DAT <= (PAYMENTPERIODEND_DAT – 12 months)) **AND** RENAL_DAT <= (PAYMENTPERIODEND_DAT – 12 months) **AND** LIVER_DAT<= (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule

	AND DEMTFT_DAT <= (PAYMENTPERIODEND_DAT – 12 months) **AND** VITB12_DAT <= (PAYMENTPERIODEND_DAT – 12 months) **AND** FOL_DAT <= (PAYMENTPERIODEND_DAT – 12 months) **AND** DEM_DAT <= (PAYMENTPERIODEND_DAT – 12 months)		
4	If FBC_DAT ≠ Null **AND** CALC_DAT ≠ Null **AND** (GLUC_DAT ≠ Null OR IFCCHBA_DAT ≠ Null) **AND** RENAL_DAT ≠ Null **AND** LIVER_DAT≠ Null **AND** DEMTFT_DAT ≠ Null **AND** VITB12_DAT ≠ Null **AND** FOL_DAT ≠ Null	Select	Next rule
5	If FBC_DAT ≠ Null **AND** CALC_DAT ≠ Null	Reject	Next rule

	AND GLUCEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months) **AND** RENAL_DAT ≠ Null **AND** LIVER_DAT ≠ Null **AND** DEMTFT_DAT ≠ Null **AND** VITB12_DAT ≠ Null **AND** FOL_DAT ≠ Null		
6	If BLOODEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
7	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
8	If DEMEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
9	If DEM_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Select

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

Rule number	*Rule*	*Action if true*	*Action if false*
1	If FBC_DAT ≠ Null **AND** CALC_DAT ≠ Null **AND** (GLUC_DAT ≠ Null OR IFCCHBA_DAT ≠ Null) **AND** RENAL_DAT ≠ Null **AND** LIVER_DAT≠ Null	Select	Reject

	AND DEMTFT_DAT ≠ Null **AND** VITB12_DAT ≠ Null **AND** FOL_DAT ≠ Null		

Additional Notes:

Denominator

Exclusions

Rule 1: This indicator is looking at patients who are newly diagnosed with dementia in the preceding 18 months. So the objective of this rule is to exclude patients from the register whose first diagnosis was before this. If the patient is newly diagnosed within this 18 month time period they are passed on to the next rule.

Rule 2: The objective of this rule is to check that patients who have not achieved the **full** success criteria, but were diagnosed in the last 6 months of the QOF period, are not included in the denominator (or numerator). Subsequent rules ensure that this patient would be 'checked' in the following QOF period to ensure whether or not the full set of tests were carried out.

If the patient has not been newly diagnosed in the last 6 months of the period they are passed on to the next rule.
If a patient has been newly diagnosed in the last 6 months of the period **and** all the tests have been carried out as intended they are also passed on to the next rule.

Rule 3: The objective of this rule is to identify patients who have a dementia diagnosis in the previous QOF Financial Year and have successful recordings for **all** the tests in the previous QOF Financial Year.
If the patient was diagnosed with dementia in the previous QOF Financial Year, has recordings of **all** the tests (FBC, calcium test, glucose test, renal test, liver test, thyroid function test, serum vitamin B12, folate levels test) in the previous QOF financial year and they are all within the appropriate timeframe from diagnosis they are rejected from the denominator. The practice will have been rewarded for this indicator in the previous QOF financial year.
If not they are passed on to the next rule.

Success

Rule 4: The objective of this rule is to identify patients who have successful recordings for all the tests. The patient must have recordings of all the tests (FBC, calcium test, glucose test, renal test, liver test, thyroid function test, serum vitamin B12, folate levels test) within 6 months before a diagnosis or up to 6 months after a diagnosis.

If the patient does not have all tests recorded within the appropriate time frame (as specified in the clinical data extraction criteria) they are passed on to the next rule.

Exceptions

It is worth remembering at this point that if a patient has a recording of all the tests within 6 months before a diagnosis or up to 6 months after a diagnosis then they will already have been selected into the denominator in Rule 4.

Rule 5: The aim of this rule is to identify any patient with a successful recording for the FBC, calcium test, renal test, liver test, thyroid function test, serum vitamin B12 and folate levels tests but with a relevant glucose test exception code also recorded. If this glucose test exception code has been recorded in the preceding 12 months, the patient can be excepted and is not included in the denominator. Otherwise they are passed on to the next rule.

Rule 6: The aim of this rule is to identify any patient that has a valid blood test exception code recorded. If this has been recorded in the preceding 12 months, the patient can be excepted and is not included in the denominator. Otherwise they are passed on to the next rule.

Rule 7: 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. If the patient was not registered in the last 3 months they are passed on to the next rule.

Rule 8: The aim of this rule is to identify any patient that has a valid dementia exception code recorded. If this has been recorded in the preceding 12 months, the patient can be excepted and is not included in the denominator. Otherwise they are passed on to the next rule.

Rule 9: The aim of this rule is to identify any patient that has been 'recently diagnosed' as a dementia patient. If the patient has been diagnosed with dementia in the last 3 months, the patient can be excepted and is not included in the denominator. Otherwise the patient is selected into the denominator.

Numerator

The success criterion for this indicator is as per Denominator Rule 4.