New GMS Contract QOF Implementation

Dataset and Business Rules
-
Rheumatoid Arthritis (RA) Indicator Set

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Amendment History:

Version	Date	Amendment History
4CR_08_12	01-August-2012	Document for 4 country review containing NICE QOF Advisory Committee recommendations from June 2012.
		The version number starts at 25.0 in order to coincide with existing datasets and business rules.
25.0	28-March-2013	Signed off following consultation
25.1	05-April-2013	Correction made to Rule 3 of Indicator RA004
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

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New GMS contract Q&O framework implementation

Dataset and business rules – Rheumatoid Arthritis (RA) 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.

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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).

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*
	Read codes v2	*CTV3*	
Included	N040.% N041. N042.% (excluding N0420) N047. N04X. N04y0 N04y2 Nyu11 Nyu12 Nyu1G Nyu10 G5yA., G5y8.	N040.% XE1DU X705I G5y8.	Earliest <= (ACHIEVEMENT_DAT)
	(Rheumatoid arthritis codes)		
Excluded	Age < 16 years at ACHIEVEMENT_DAT		

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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">RARTHEXC_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="3">Latest <=
ACHIEVEMENT_DAT</td></tr>
<tr><td>9hR.., 9hR0., 9hR1.</td><td>XaYSO, XaYSP, XaYSR</td></tr>
<tr><td colspan="2">(Rheumatoid arthritis exception reporting codes)</td></tr>
<tr><td>4</td><td>RARTHEXC_DAT</td><td colspan="2">Date of RARTHEXC_COD</td><td>Chosen record</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">RARTH_COD</td><td>Read codes v2</td><td>CTV3</td><td rowspan="2">Earliest <=
ACHIEVEMENT_DAT</td></tr>
<tr><td>N040.%
N041.
N042.% (excluding N0420)
N047.
N04X.
N04y0
N04y2
Nyu11
Nyu12
Nyu1G
Nyu10</td><td>N040.%
XE1DU
X705I
G5y8.</td></tr>
</table>

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		G5yA., G5y8.		
		(*Rheumatoid arthritis codes*)		
6	RARTH_DAT	Date of RARTH_COD		Chosen record
7	RARTHRVW_COD	*Read codes v2*	*CTV3*	Latest <= ACHIEVEMENT_DAT
		66HB0	XaZdB	
		(Rheumatoid arthritis review codes)		
8	RARTHRVW_DAT	Date of RARTHRVW_COD		Chosen record

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Indicator rulesets

1 Indicator RA001: The contractor establishes and maintains a register of patients aged 16 or over with rheumatoid arthritis.

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 RA002: The percentage of patients with rheumatoid arthritis, on the register, who have had a face-to-face review in the preceding 12 months.

Overview

This indicator has been developed to measure the effectiveness of the provision of a clinical care component for patients on the rheumatoid arthritis register.

The aspect that is being measured is relating to a face to face annual review.

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 rheumatoid arthritis (i.e. there is evidence in the patient's electronic health record of a rheumatoid arthritis diagnosis code)
and
Are aged 16 years and over at the time the indicator is measured

Numerator and Denominator

The success criteria for this indicator (**numerator**) are achieved for those patients in the denominator who have a record of a face to face annual review within the preceding 12 months.

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 no exclusions.

Exceptions

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

For this indicator the exceptions are:

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

- any patient that has a valid rheumatoid arthritis exception code recorded within the preceding 12 months.

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

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Note: For the ‘new’ rheumatoid arthritis patient exception, this is only applicable for the first ‘ever’ diagnosis of rheumatoid arthritis for the patient. For a subsequent diagnosis, this exception rule is not considered.

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Indicator RA002: The percentage of patients with rheumatoid arthritis, on the register, who have had a face-to-face review in the preceding 12 months.

a) Denominator ruleset

Rule number	*Rule*	*Action if true*	*Action if false*
1	If RARTHRVW_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Select	Next Rule
2	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
3	If RARTHEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
4	If RARTH_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 RARTHRVW_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Select	Reject

Additional Notes:

Denominator

Success

Rule 1: The aim of this rule is to identify if the patient has had a face to face review within the preceding 12 months**.**

Any patient with a record of a face to face review within the preceding 12 months will be selected into the denominator. Any patient that does not meet this criterion is passed on to the next rule.

Exceptions

It is worth remembering at this point that if a patient has a record of a face to face review within the preceding 12 months they will already have been selected into the denominator in Rule 1.

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 within the last 3 months, the patient should not be included in the denominator. If the patient was not registered within the last 3 months they are passed on to the next rule.

Rule 3: The aim of this rule is to identify any patient that has a valid rheumatoid arthritis exception code recorded. If this has been recorded within 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 4: The aim of this rule is to identify any patient that has been 'recently diagnosed' with rheumatoid arthritis. If the patient has been diagnosed within the last 3 months, the patient can be excepted and the patient should not be included in the denominator. Otherwise the patient is selected into the denominator.

Numerator

The success criterion for this indicator is as per Denominator Rule 1.