New GMS Contract QOF Implementation

Dataset and Business Rules
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Epilepsy Indicator Set

Amendment History:

Version	Date	Amendment History
Draft 0.3	21-Jun-2003	From Peter Horsfield
1.0	24-Sep-2003	Standard Headers and footers Applied and set to approved.
1.1	03-Nov-2003	Added headers and footers to Version 0.4 received from Pete Horsfield on 03/11/03.
2.0	12-Nov-2003	Amended following 4 Country review
3.0	20-Jan-2004	Amended following January READ Code Release
4.0	04-Feb-2004	Amended following 4 Country, GPSS and internal review
4.1	09-Apr-2004	SNOMED-CT codes added, 4-byte Read codes removed
4.2	09-Jul-2004	Amended following July READ code release
5.0	27-Sep-2004	Amended following 4 country review
5.1	18-Jan-2005	Amended following January READ Code Release
5.2	21-Jun-2005	Amended following 4 Country review
6.0	21-July-2005	Signed off following 4 Country review
6.1	21-July-2005	Amended following July 2005 Read Code release and January 2005 SNOMED CT release
6.2	21-Aug-2005	Amended following 4 Country review
7.0	23-Sep-2005	Signed off following 4 Country review
7.1	21-Nov-2005	From Phil Brown
7.2	221-Nov-2005	Amended following review by Peter Horsfield
7.3	3-Dec-2005	Draft revised for internal review
7.4	26-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	30-Nov-2006	Response to 4 Country Review: Typo: Missing bracket in ‘diagnostic codes’ and EPIL_COD cluster
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	24-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 QOF Review 2007
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
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 review
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
16.1	05-May-2010	Internal NHS IC 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
25.0W	05-June-2013	Signed off Welsh Government
26.0W	14-August-2013	April 2013 Read Code Release
27.0W	DRAFT	October 2013 Read Code Release

New GMS contract Q&O framework implementation

Dataset and business rules – Epilepsy 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 2012 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).

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 , 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.

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

Current registration status	*Qualifying criteria*
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 and demographic status

Code criteria	*Qualifying diagnostic codes*		*Time criteria*
** Required*	Read codes v2	*CTV3*	*Latest < (REF_DAT)*
	F25..% (excluding F2501, F2504, F2511 F2516, F256.% F258. – F25A., F25y4, F25G., F25H.) F1321 SC200	F25..% (excluding X006g%, X006n, Q480.%, XaEIj%, Xa0lJ% X006G%, XaBM2) SC200 THEN ADD F257.	
	(Diagnostic codes for epilepsy)		
Excluded	*Read codes v2*	*CTV3*	*Latest < (REF_DAT) AND > Date of diagnostic code above*
	21260 212J.	21260	
	(Codes for epilepsy resolved)		
** Required*	dn…% d26..%	x000i% d26..%	*Date >= (REF_DAT – 6 months) AND < REF_DAT*
	(*Drug treatment for epilepsy*)		
Required	Age >= 18 yrs at REF_DAT		

** Note: Both a diagnosis code <u>and</u> a treatment code are required to be present for the patient to be selected for inclusion in the denominator population.*

2) Clinical data extraction criteria

Field Number	*Field name*	*Data item*		*Qualifying criteria*
1	PAT_ID	Patient ID number		Unconditional
2	REG_DAT	Date of patient registration		Latest < REF_DAT
3	PAT_AGE	Patient age (years) at REF_DAT		Unconditional
4	PAT_SEX	Patient sex (gender) at REF_DAT		Unconditional
5	EPILEXC_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		9h6..%	XaJ4S%	
		(*Epilepsy exception reporting codes*)		
6	EPILEXC_DAT	Date of EPILEXC_COD		Chosen record
7	EPIL_COD	*Read codes v2*	*CTV3*	Earliest < REF_DAT
		F25..% (excluding F2501, F2504, F2511 F2516, F256.% F258. – F25A., F25y4, F25G., F25H.) F1321 SC200	F25..% (excluding X006g%, X006n, Q480.%, XaEIj%, Xa0lJ% X006G%, XaBM2) SC200 THEN ADD F257.	
		(Epilepsy diagnosis codes)		

8	EPIL_DAT	Date of EPIL_COD		Chosen record
9	MAXEP_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		8BL3.	XaJ5k	
		(Code for maximal anticonvulsant therapy)		
10	MAXEP_DAT	Date of MAXEP_COD		Chosen record

11	LSZ_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		667F.	XaJ7s	
		(*Code for 'Seizure free > 12 months'*)		
12	LSZ_DAT	Date of LSZ_COD		Chosen record
13	EPILCC_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		6110.	XaRFV	
		(Contraceptive counselling codes)		
14	EPILCC_DAT	Date of EPILCC_COD		Chosen record
15	EPILPCA_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		67IJ0	XaRFW	
		(Pre-conception advice codes)		
16	EPILPCA_DAT	Date of EPILPCA_COD		Chosen record
17	EPILPA_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		67AF.	XaRFX	
		(Pregnancy advice codes)		
18	EPILPA_DAT	Date of EPILPA_COD		Chosen record

19	EPILCCEXC_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		8IAg. 8IB2.	XaRFa XaRFe	
		(Contraceptive counselling inappropriate or declined exception codes)		
20	EPILCCEXC_DAT	Date of EPILCCEXC_COD		Chosen record
21	EPILPCAEXC_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		8IAh. 8IB3.	XaRFb XaRFf	
		(Pre-Conception advice inappropriate or declined exception codes)		
22	EPILPCAEXC_DAT	Date of EPILPCAEXC_COD		Chosen record
23	EPILPAEXC_COD	*Read codes v2*	*CTV3*	Latest < REF_DAT
		8IAi. 8IB4.	XaRFg XaRFc	
		(Pregnancy advice inappropriate or declined exception codes)		
24	EPILPAEXC_DAT	Date of EPILPAEXC_COD		Chosen record
25	STERIL_COD	*Read codes v2*	*CTV3*	Earliest < (REF_DAT)
		7E10.% 7E111 7E113 7E115 7E15.% 7E160 7E162	7E100 7E111 Xa8PW% XaB2V% Xa8PV% XaB2W% 7E1C.%	

		7E1C.% 7E1D0 159A. ZV25x ZV252	7E1D0 7E15.% 7E160 XE06s XaB3Q Xa3rJ Xa3rK Xa3xY XM1Rm ZV25x ZV252	
		(Sterilisation codes)		
26	STERIL_DAT	Date of STERIL_COD		Chosen record
27	HYST2_COD	*Read codes v2*	*CTV3*	
		7E04.% (Excluding 7E04D) 7E05.% 7F1A0 7L0A.% ZV6G8 L3985	X403B% (Excluding XaMBl) 7L0A.% (Excluding Xa3sF) XaRAa 7F1A0% L3985	Earliest < (REF_DAT)
		(Hysterectomy and equivalent codes)		
28	HYST2_DAT	Date of HYST2_COD		Chosen record

Indicator rulesets

Indicator EP001: The contractor establishes and maintains a register of patients aged 18 or over receiving drug treatment for epilepsy.

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.

Indicator EP002W: The percentage of patients aged 18 or over on drug treatment for epilepsy who have been seizure free for the last 12 months recorded in the preceding 15 months.

a) Denominator ruleset

Rule number	*Rule*	*Action if true*	*Action if false*
1	If LSZ_DAT >= (REF_DAT – 15 months)	Select	Next rule
2	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
3	If EPILEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
4	If MAXEP_DAT >= (REF_DAT – 15 months)	Reject	Next rule
5	If EPIL_DAT >= (REF_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 LSZ_DAT >= (REF_DAT – 15 months)	Select	Reject

Indicator EP003W: The percentage of women aged 18 or over and who have not attained the age of 55 who are taking antiepileptic drugs who have a record of information and counselling about contraception, conception and pregnancy in the preceding 15 months.

a) Denominator ruleset

Rule number	*Rule*	*Action if true*	*Action if false*
1	If PAT_SEX ≠ 'F'	Reject	Next rule
2	If PAT_AGE >= 55	Reject	Next rule
3	If HYST2_COD = Null	Next rule	Reject
4	If STERIL_COD = Null	Next rule	Reject
5	(If EPILCC_DAT >= (REF_DAT – 15 months) **AND** (If EPILPCA_DAT >= (REF_DAT – 15 months) **AND** (If EPILPA_DAT >= (REF_DAT – 15 months)	Select	Next rule
6	[(If EPILCC_DAT = Null OR EPILCC_DAT < (REF_DAT – 15 months)) **AND** (If EPILCCEXC_DAT = Null OR EPILCCEXC_DAT < (REF_DAT – 15 months))] **OR** [(If EPILPCA_DAT = Null OR EPILPCA_DAT < (REF_DAT – 15 months)) **AND** (If EPILPCAEXC_DAT = Null OR EPILPCAEXC_DAT < (REF_DAT – 15 months))] **OR** [(If EPILPA_DAT = Null OR EPILPA_DAT < (REF_DAT – 15 months)) **AND** If (EPILPAEXC_DAT = Null OR EPILPAEXC_DAT < (REF_DAT – 15 months))]	Next rule	Reject
7	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
8	If EPILEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
9	If EPIL_DAT >= (REF_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 EPILCC_DAT >= (REF_DAT – 15 months) **AND** (If EPILPCA_DAT >= (REF_DAT – 15 months) **AND** (If EPILPA_DAT >= (REF_DAT – 15 months)	Select	Next rule