



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

## **New GMS Contract QOF Implementation**

### **Dataset and Business Rules**

-

### **Epilepsy Indicator Set**

**Amendment History:**

<b>Version</b>	<b>Date</b>	<b>Amendment History</b>
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

## **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 2008 release of Read codes version 2, clinical terms version 3 (CTV3) and 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).
- 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.
- 8) The new GMS contract requires that influenza vaccinations should be given between 1<sup>st</sup> September and 31<sup>st</sup> 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 1<sup>st</sup> September 2004 and 31<sup>st</sup> 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

<u>Current registration status</u>	<u>Qualifying criteria</u>
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

<i>Code criteria</i>	<i>Qualifying diagnostic codes</i>			<i>Time criteria</i>
<i>* Required</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest &lt; (REF_DAT)</i>
	F25..% (excluding F2504, F2511 F2516, F256.% F258. – F25A.) F1321 SC200	84757009% (excluding 38281008% 6204001, 28055006% 36803009%, 230429005)	F25..% (excluding X006g%, X006n, Q480%, XaE1j% X006G%, XaBM2) SC200	
	<i>(Diagnostic codes for epilepsy)</i>			
<i>Excluded</i>	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	<i>Latest &lt; (REF_DAT)</i> <i>AND &gt; Date of</i> <i>diagnostic code above</i>
	21260 212J.	162658001	21260	
	<i>(Codes for epilepsy resolved)</i>			
<i>* Required</i>	dn...%	63094006% (excluding 37400007%)	x000i%	<i>Date &gt;=</i> <i>(REF_DAT – 6</i> <i>months) AND &lt;</i> <i>REF_DAT</i>
	<i>(Drug treatment for epilepsy)</i>			
<i>Required</i>	Age >= 18 yrs at REF_DAT			

*\* Note: Both a diagnosis code and 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**

<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	EPILEXC_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		9h6..%	89861000000102%	XaJ4S%	
		<i>(Epilepsy exception reporting codes)</i>			
4	EPILEXC_DAT	Date of EPILEXC_COD			Chosen record
5	EPIL_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Earliest < REF_DAT
		F25..% (excluding F2504, F2511 F2516, F256.% F258. – F25A.) F1321 SC200	84757009% (excluding 38281008%, 6204001, 28055006% 36803009%, 230429005)	F25..% (excluding X006g%, X006n, Q480%, XaEIJ% X006G%, XaBM2) SC200	
		<i>(Epilepsy diagnosis codes)</i>			
6	EPIL_DAT	Date of EPIL_COD			Chosen record

7	SZFR_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		6675. 667F. 667P.-667V.	170707004 370994008% 407617005 407618000 407619008 407620002 407621003 407622005	6675. XaJ7s XaJBc XaJBd XaJBe XaJBf XaJBg XaJBh	
<i>(Code for seizure frequency)</i>					
8	SZFR_DAT	Date of SZFR_COD			Chosen record
9	EMRV_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		8BIF 6677.-667A. 667X.	401062003 170709001 170710006 170711005 170712003 414860000	XalyV 6677. 6678. 6679. 667A. XaJtH	
<i>(Code for epilepsy medication review)</i>					
10	EMRV_DAT	Date of EMRV_COD			Chosen record
11	MAXEP_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		8BL3.	407570006	XaJ5k	
<i>(Code for maximal anticonvulsant therapy)</i>					
12	MAXEP_DAT	Date of MAXEP_COD			Chosen record

13	LSZ_COD	<i>Read codes v2</i>	<i>SNOMED-CT</i>	<i>CTV3</i>	Latest < REF_DAT
		667F.	407585000	XaJ7s	
		<i>(Code for 'Seizure free &gt; 12 months')</i>			
14	LSZ_DAT	Date of LSZ_COD			Chosen record

**Indicator rulesets**

- 1 **Indicator EPILEPSY 5:** The practice can produce a register of patients aged 18 years and 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.

- 2 Indicator EPILEPSY 6: The percentage of patients aged 18 years and over on drug treatment for epilepsy who have a record of seizure frequency in the previous 15 months.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>SZFR_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Select	Next rule
2	If <u>REG_DAT</u> >= ( <u>REF_DAT</u> – 3 months)	Reject	Next rule
3	If <u>EPILEXC_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>EPIL_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>SZFR_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Select	Reject

- 3 Indicator EPILEPSY 7: The percentage of patients aged 18 years and over on drug treatment for epilepsy who have a record of medication review involving the patient or carer in the previous 15 months.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>EMRV DAT</u> >= ( <u>REF DAT</u> – 15 months)	Select	Next rule
2	If <u>REG DAT</u> >= ( <u>REF DAT</u> – 3 months)	Reject	Next rule
3	If <u>EPILEXC DAT</u> >= ( <u>REF DAT</u> – 15 months)	Reject	Next rule
4	If <u>EPIL 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>EMRV DAT</u> >= ( <u>REF DAT</u> – 15 months)	Select	Reject

- 4 Indicator EPILEPSY8: The percentage of patients aged 18 years and over on drug treatment for epilepsy who have been seizure free for the last 12 months recorded in the previous 15 months.

a) Denominator ruleset

<i>Rule number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If <u>LSZ_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Select	Next rule
2	If <u>REG_DAT</u> >= ( <u>REF_DAT</u> – 3 months)	Reject	Next rule
3	If <u>EPILEXC_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
4	If <u>MAXEP_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Reject	Next rule
5	If <u>EPIL_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>LSZ_DAT</u> >= ( <u>REF_DAT</u> – 15 months)	Select	Reject