

Data and Business Rules – Cervical screening Indicator Set					
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New GMS Contract QOF Implementation

Dataset and Business Rules

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Cervical Screening Indicator Set (CS)

Northern Ireland

Amendment History:

Version	Date	Amendment History
25.0NI	13-May-2013	V25 Department of Health QOF ruleset (28/03/13) used as a base and adapted to reflect the NI 2013/13 agreement - NI indicators IDs updated; 15 mth rules accepted; indicator wording checked
26.0NI	13-Sept-2013	April 2013 Read Code Release following review
27.0NI	12-NOV-2013	November 2013 Read Code Release
28.0NI	15-Apr-2014	DRAFT – business rules update
28.1NI	11-Jun-2014	Minor formatting changes, version incremented to bring in line with other rulesets
28.2NI	25-Jun-2014	Changes requested post review. SMEAR_COD v2 and v3 now include additional code
29.0NI	24-10-2014	April 2014 Read Code Updates
30.0NI	24-10-2014	October 2014 Read Code Updates
32.0NI	30-June-2015	April 2015 Read Code Updates
32.1NI	28-Sep-2015	Post review changes 2015/16

New GMS contract Q&O framework implementation

Dataset and business rules – Cervical screening 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 April 2015 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 its 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.

- 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.

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) Demographic status

<u>Action</u>	<u>Qualifying criterion</u>
<i>Excluded</i>	Sex ≠ 'F'
<i>Excluded</i>	Age < 25 yrs at REF_DAT
<i>Excluded</i>	Age > 65 yrs at REF_DAT

2) Clinical data extraction criteria

<i>Field Number</i>	<i>Field name</i>	<i>Data item</i>		<i>Qualifying criteria</i>
1	PAT_ID	Patient ID number		Unconditional
2	REG_DAT	Date of patient registration		Latest < (REF_DAT)
3	CYTEXC_COD	<i>Read codes v2</i>	<i>CTV3</i>	Latest < (REF_DAT)
		6853., 685L. 8I6K. 908Q.	6853. XaFs3 XaK29 908Q.	
		<i>(Cervical cytology exception reporting codes)</i>		
4	CYTEXC_DAT	Date of CYTEXC_COD		Chosen record
5	NOCX_COD	<i>Read codes v2</i>	<i>CTV3</i>	Earliest < (REF_DAT)
		685H. 685I. 685K. 908Y. 7E05.% 7E040, 7E042 7E043 7E046 7E049 7E04B 7E04G 7E04P, 7E04N 7L0A.% 26L3.	XE1TV 685I. 685K. XaKbV XE06Z% XaC3i% XE06b% 7E046% X403D% (excluding X403F, XaNln) 7L0A.% (excluding Xa3sF) X76P0	
		<i>(Hysterectomy and equivalent codes)</i>		

6	NOCX_DAT	Date of NOCX_COD		Chosen record
7	SMEAR_COD	<i>Read codes v2</i>	<i>CTV3</i>	Latest < (REF_DAT)
		4K22.-4K29. 4K2C. 4KA1. 4KA3. 4KA4. 6856. 6859. 685B. – 685D. 685R. 7E2A2 7E2A3 ZV762 7E2A0 4K2H. 4K2F. 4K2G. 4K3E. 4K2Q. 4K2R. 4K2N. 4K2P. 4K291 4K290 4K2M. 4K2K. 4K2J. 4K2L. 4K55.	Xa8PI% 7E2A3% XE278% XE279 XE27A XE27B 4K25. 4K26. 4K27. 4K29. 4KA1. 4KA3. 4KA4. 6856. XaKti XE1TU 685B. 685C. 685D. X76zx XM1C9 ZV762 7E2A0 XaYeu XaYc0 XaYc1, XaIVB XaagX, XaagY, Xaaf0, Xaafp, XaaU6, XaaU5, Xaafk, Xaafi, XaaU7, Xaafj, XaKd4	
		<i>(Cervical smear codes)</i>		
8	SMEAR_DAT	Date of SMEAR_COD		Chosen record

Indicator rulesets

Indicator CS002(NI): The percentage of women aged 25 or over and who have not attained the age of 65 whose notes record that a cervical screening test has been performed in the preceding 5 years.

a) Denominator ruleset

<u>Rule number</u>	<u>Rule</u>	<u>Action iftrue</u>	<u>Action iffalse</u>
1	If <u>NOCX_COD</u> = Null	Next rule	Reject
2	If <u>SMEAR_DAT</u> >= (<u>REF_DAT</u> – 5 years)	Select	Next rule
3	If <u>CYTEXC_DAT</u> >= (<u>REF_DAT</u> – 5 years)	Reject	Next rule
4	If <u>REG_DAT</u> >= (<u>REF_DAT</u> – 3 months)	Reject	Select

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

<u>Rule number</u>	<u>Rule</u>	<u>Action iftrue</u>	<u>Action iffalse</u>
1	If <u>SMEAR_DAT</u> >= (<u>REF_DAT</u> – 5 years)	Select	Reject