

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

Dataset and Business Rules

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Contraception Ruleset

Amendment History:

Version	Date	Amendment History
		The version number starts at 13.1 in order to coincide with existing datasets and business rules.
13.1	14-Feb-2009	QOF Review 2008
13.2	09-Mar-2009	Following NHSE review
	21-Apr-2009	Added plain English comments to indicator rules
13.3	27-Apr-2009	Amendments following Four-Country Review
14.0	01-May-2009	Signed off following 4 Country review
14.1	03-June-2009	Amendment to SH3
14.2	25-June-2009	April 2009 Read Code Release
15.0	17-August-2009	Signed off following 4 Country review
15.1	12-October-2009	October 2009 Clinical Codes Release
15.2	28-October-2009	October 2009 Clinical Codes 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
25.0	28-March-2013	Signed off following consultation. Document renamed from Sexual health to Contraception.
26.0	01-June-2013	April 2013 Read Code Release following HSCIC review
27.0	31-October-2013	October 2013 Read Code Release following HSCIC review
27.1	02-December-2013	Updated read codes in IUS and IUD register
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 – Contraception 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).
- 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) | e) AND |
| b) < (less than) | f) OR |
| c) = (equal to) | g) NOT |
| d) ≠ (not equal to) | |
- 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

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

(Note: To be included in the patient population a patient needs to qualify for ONE of the disease areas and not be excluded from other conditions below).

<u>Code Criteria</u>	<u>Qualifying Diagnostic Codes</u>		<u>Time Criteria</u>
<i>Included</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 13 Months) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	61F1. 61A1. ga2B. ga2C. ga2D.	XM1W1 Xa1Is 61F1. 61A1. ga2B.%	
	<i>Emergency hormonal contraception</i>		

<i>Included</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 12 Months) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	6147. g8...% g9...% gk...% gl... gl1.. gl11. gl12.	XE1S1 x002N% gk...% gl... gl1.. gl11. gl12.	
	<i>Combined oral contraception</i>		

	<i>Read codes v2</i>	<i>CTV3</i>	
<i>Included</i>	6148. ga1..% ga22. ga23. ga5..% ga8..% ga92. ga9y. ga2E.	6148. x02ME% ga23.% ga2E. ga5z.% ga8..% ga92. ga9y.	Latest > (ACHIEVEMENT_DAT - 12 Months) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	<i>Progestogen only oral contraception</i>		

<i>Included</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 12 Months) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	fh1q. fh1r.	fh1q.%	
	<i>Contraceptive patch</i>		

	<i>Read codes v2</i>	<i>CTV3</i>	
<i>Included</i>	6161. pg4..% pg5..% pgC..%	6161. pg4..% pg5..% pgC..%	Latest > (ACHIEVEMENT_DAT - 12 Months) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	<i>Contraceptive diaphragm</i>		

<i>Included</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 10 years) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	6151. 7E090 ZV251 pg3..% 61511 615P. 615N.	6151. 7E090 ZV251 pg3..% XaXK3 XaNws XaMhr	
	<i>IUD</i>		
<i>Excluded</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest <= (ACHIEVEMENT_DAT) AND > Date of IUD
	6152. 615B. 615Q. 7E092 7E093 7E095 SP03A	7E093% XaC3g% 615B. 6152.% X407J	
	<i>IUD/IUS Removal</i>		

<i>Included</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 5 years) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	7E094 ga26. ga27. 61R.. 7E096 615P0 ga2F. ga2G.	XaBSw ga26.% XaXLs XaZZX Xaaff ga2F. ga2G.	
	<i>IUS</i>		
<i>Excluded</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest <= (ACHIEVEMENT_DAT) AND > Date of IUS
	6152. 615B. 615Q. 7E092 7E093 7E095 SP03A	7E093% XaC3g% 615B. 6152.% X407J	
	<i>IUD/IUS Removal</i>		

<i>Included</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 12 months) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	ga35. ga36. ga61. ga6z. ga37. ga38.	ga35.% ga6z.% ga37. ga38.	
	<i>Contraceptive injectable</i>		

<i>Included</i>	<i>Read Codes v2</i>	<i>CTV3</i>	Latest > (ACHIEVEMENT_DAT - 3 years) AND <= ACHIEVEMENT_DAT AND >= 01.04.2009
	ga7..% 7G2AG 61KC. 7G2AH 7G2AJ 9kr.. 61KA.	ga7..% XaPwd% XaVyE XaX5O XaXI2 61KA.	
	<i>Contraceptive implant</i>		
<i>Excluded</i>	<i>Read codes v2</i>	<i>CTV3</i>	Latest <= (ACHIEVEMENT_DAT) AND > Date of Contraceptive Implant
	7G2HB 7G2H7 7G2HA 61KF. 7G2HC	Xa85g% (Excluding 7G2H5) XaW9V	
	<i>Removal of Contraceptive Implant</i>		

<i>Excluded</i>	Sex ≠ 'F'	
<i>Excluded</i>	Age > 54 yrs at ACHIEVEMENT_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 <= (ACHIEVEMENT_DAT)
3	EHC_COD	<i>Read codes v2</i>	<i>CTV3</i>	Latest <= (ACHIEVEMENT_DAT)
		61F1. 61A1. ga2B. ga2C. ga2D.	XM1W1 Xa1Is 61F1. 61A1. ga2B.%	
		<i>Emergency hormonal contraception</i>		
4	EHC_DAT	Date of EHC_COD		Chosen record
5	SHEXC_COD	<i>Read codes v2</i>	<i>CTV3</i>	Latest <= (ACHIEVEMENT_DAT)
		9hK0. 9hK1.	XaPwz XaPwy	
		<i>Sexual health exceptions</i>		
6	SHEXC_DAT	Date of SHEXC_COD		Chosen record
7	LARCADV_COD	<i>Read codes v2</i>	<i>CTV3</i>	EARLIEST (>=EHC_DAT) AND (<=ACHIEVEMENT_DAT)
		8CAw. 679K2	XaPnn XaXSf	
		Long-acting reversible method of contraception advice		

8	LARCADV_DAT	Date of LARCADV_COD		Chosen record
9	LARCVERB_COD	<i>Read codes v2</i>	CTV3	Earliest (>=EHC_DAT) AND (<=ACHIEVEMENT_DAT)
		8CAw1	XaXH3	
		<i>Long-acting reversible method of contraception VERBAL advice</i>		
10	LARCVERB_DAT	Date of LARCVERB_COD		Chosen record
11	LARCWRIT_COD	<i>Read codes v2</i>	CTV3	EARLIEST (>=EHC_DAT) AND (<=ACHIEVEMENT_DAT)
		8CAw2 8CEF. 8CEG.	XaXH4 XaPmZ%	
		<i>Long-acting reversible method of contraception WRITTEN advice</i>		
12	LARCWRIT_DAT	Date of LARCWRIT_COD		Chosen record
13	LARCADVEXC_COD	<i>Read codes v2</i>	CTV3	Latest <= (ACHIEVEMENT_DAT)
		8I6r0	XaaiE	
		(Long-acting reversible method of contraception advice exception codes)		
14	LARCADVEXC_DAT	Date of LARCADVEXC_COD		Chosen record

Indicator rulesets

- 1 Indicator CON001: The contractor establishes and maintains a register of women aged 54 or under who have been prescribed any method of contraception at least once in the last year, or other clinically appropriate interval e.g. last 5 years for an IUS.

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 CON003: The percentage of women, on the register, prescribed emergency hormonal contraception one or more times in the preceding 12 months by the contractor who have received information from the contractor about long acting reversible methods of contraception at the time of or within 1 month of the prescription.

a) Denominator ruleset

<i>Rule Number</i>	<i>Rule</i>	<i>Action if true</i>	<i>Action if false</i>
1	If EHC_DAT > (PAYMENTPERIODEND_DAT – 13 Months)	Next Rule	Reject
2	If EHC_DAT > (PAYMENTPERIODEND_DAT – 1 month) AND [(If LARCADV_DAT = Null AND If LARCVERB_DAT = Null AND If LARCWRIT_DAT = Null) OR (If LARCADV_DAT = Null AND If LARCVERB_DAT = Null AND If LARCWRIT_DAT ≠ Null) OR (If LARCADV_DAT = Null AND If LARCVERB_DAT ≠ Null AND If LARCWRIT_DAT = Null)]	Reject	Next rule
3	If LARCADV_DAT <= (PAYMENTPERIODEND_DAT – 12 months) OR (If LARCVERB_DAT <= (PAYMENTPERIODEND_DAT – 12 months) AND If LARCWRIT_DAT <= (PAYMENTPERIODEND_DAT – 12 months))	Reject	Next rule
4	If LARCADV_DAT <= (EHC_DAT + 1 month) OR (If LARCVERB_DAT <= (EHC_DAT + 1 month) AND If LARCWRIT_DAT <= (EHC_DAT + 1 month))	Select	Next rule
5	If LARCADVEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
6	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
7	If SHEXC_DAT > (PAYMENTPERIODEND_DAT – 12 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 <u>LARCADV DAT</u> <= (<u>EHC DAT</u> + 1 month) OR (If <u>LARCVERB DAT</u> <= (<u>EHC DAT</u> + 1 month) AND If <u>LARCWRIT DAT</u> <= (<u>EHC DAT</u> + 1 month))	Select	Reject

Rule 1: Is the emergency hormonal contraceptive prescribed 13 months before the current QOF financial year

True: If the prescription is more than 13 months before the end of the current QOF Financial Year, then the patient is disregarded and not included in the denominator.

False: If the prescription is within 13 months of the end of the current QOF Financial Year, then the patient is further considered.

Please Note: CON003 refers to LARCADV which is the earliest recording of long acting reversible contraceptive advice that has occurred after the latest emergency hormonal contraceptive recording that has occurred before the end of the current QOF financial year.

Please be aware that long acting contraceptive advice should be both written and verbal. If LARCADV is recorded then this indicates that both verbal and written advice were given. LARCVERB refers to *verbal advice only* and LARCWRIT refers to *written advice only* so both codes must be present to indicate both forms of advice have been given.

Rule 2: Is the emergency hormonal contraceptive prescribed within 1 month from the end of the QOF financial year and is the long acting reversible contraceptive advice null.

True: If the emergency health contraception is within 1 month from the end of the of the QOF financial year and there is no recording of long acting reversible contraceptive advice then the patient is disregarded and not included in the denominator.

False: If the emergency health contraceptive is within 1 month of the end of the QOF financial year and there is a recording of long acting reversible contraceptive advice then the patient is further considered.

Rule 3: Is the long acting reversible contraception advice outside 12 months from the end of the QOF financial year.

True: If the long acting reversible advice is outside 12 months from the end of the QOF financial year end, then the patient is disregarded and not included in the denominator.

False: If the long acting reversible advice is within 12 months from the end of the QOF financial year end, then the patient is further considered.

Rule 4: The aim of this rule is to identify whether the long acting reversible contraceptive advice is within 1 month after the date of the emergency hormonal contraceptive recording

True: If the long acting reversible contraceptive advice is within 1 month after the date of the emergency hormonal contraception then the patient is selected.

False: If the long acting reversible contraceptive advice is outside 1 month from the date of the emergency hormonal contraception then the patient is further considered.

Rule 5: The aim of this rule is to identify any patient that has a valid long-acting reversible method of contraception advice exception code recorded. If the patient has a valid exception code recorded in the last 12 months, the patient should not be included in the denominator.

Rule 6: 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.

Rule 7: The aim of this rule is to identify any patient that has an accepted 'Sexual Health Exception' Read Code recorded. If the patient has an accepted 'Sexual Health Exception' Read Code recorded in the last 12 months, the patient should not be included in the denominator.