Data and Business Rules – Chronic Obstructive Pulmonary Disease Indicator Set (COPD)					
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New GMS Contract QOF Implementation

Dataset and Business Rules
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Chronic Obstructive Pulmonary Disease (COPD) 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	22-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	04-May-2006	Responding to queries raised a) Amend wording for Note 3 b) Remove <=12 month check in Rule 1 (COPD9)
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	15-Nov-2006	INDR_COD: Correct typo and ensure ranges are not split over lines
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	21-Aug-2007	April 2007 SNOMED CT Release
10.2	23-Sep-2007	October 2007 Read Code Release October 2007 SNOMED CT Release
10.3	27-Nov-2007	Following the 4-Country review
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 (Replace COPD9 with COPD12)
11.2	21-Jul-2008	Following the 4-Country review: Amend COPDSPIR cluster Denominator rule 2 and Numerator Rule 1 corrected for COPD12

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
13.1	05-Feb-2009	QOF 2008 Review
13.2	09-Mar-2009	Amendments following NHSE review
13.3	16-Apr-2009	Plain English comments added to indicator rules and amendments following Four-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	03-February-2011	Signed off following 4 Country review and further negotiations
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
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
27.1	02-December-2013	Update to FLU_COD and TXFLU_COD
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 – Chronic obstructive pulmonary disease (COPD) 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) 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.

10) The new GMS contract requires that influenza vaccinations should be given between 1st August and 31st March of any given contract year in order to qualify for the relevant indicators.   Hence in the contract year 2014 – 2015 the relevant dates will be 1st August 2014 and 31st March 2015 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 <= (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	H3... H31..% (excluding H3101, H31y0, H3122) H32..% H36.. - H3z.. (excluding H3y0., H3y1.) H5832	H31..% H32..% (excluding XaIQg) H3...% (excluding XE0YL%, H3122%) Xaa7C	Earliest <= (ACHIEVEMENT_DAT)

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 <= ACHIEVEMENT_DAT
3	COPDEXC_COD	*Read codes v2*	*CTV3*	Latest <= ACHIEVEMENT_DAT
		9h5..%	XaJ4R%	
		(*COPD exception reporting codes*)		
4	COPDEXC_DAT	Date of COPDEXC_COD		Chosen record
5	COPD_COD	*Read codes v2*	*CTV3*	Earliest <= ACHIEVEMENT_DAT
		H3... H31..% (excluding H3101, H31y0, H3122) H32..% H36.. - H3z.. (excluding H3y0., H3y1.) H5832	H31..% H32..% (excluding XaIQg) H3...% (excluding XE0YL%, H3122%) Xaa7C	
		(*COPD codes*)		
6	COPD_DAT	Date of COPD_COD		Chosen record

		Read codes v2	*CTV3*	
7	SPEX_COD	8I3b. 8I6L. 8I2j. 33720	XaK27 XaK2A XaWPN XaXlR	Latest <= ACHIEVEMENT_DAT
		(Spirometry exception codes)		
8	SPEX_DAT	Date of SPEX_COD		Chosen record
9	COPDSPIR_COD	*Read codes v2*	*CTV3*	Earliest <= ACHIEVEMENT_DAT AND >= (COPD_DAT - 3 months)
		8HRC. 745D4	XaK02 XaXeg XaaXF	
		(Spirometry codes for COPD)		
10	COPDSPIR_DAT	Date of COPDSPIR_COD		Chosen record

		Read codes v2	CTV3	
11	FEV1_COD	33971 3398.-3399. 339M. 339O., 339O0 339R. - 339U. 339a. - 339b. 339e. - 339f. 339j. - 339m. 339O1 33972	3397.% (excluding X77Qv, XaCJK, 33970) 3398. 3399.% XaJ9B XaJ9C XaJ9D XaJ9E X77RZ X77Rb X77Ra XaEFy XaEFz XaZyl Xaafd	Latest <= ACHIEVEMENT_DAT
		(*Codes for FEV1*)		
12	FEV1_DAT	Date of FEV1_COD		Chosen record

		Read codes v2	CTV3	
13	XFLU_COD	14LJ. U60K4 ZV14F	XaIAA XaJ7u XaJ8X Xa5um% Xa5WJ%	Latest <= ACHIEVEMENT_DAT
		(*Flu vaccine contraindications: persisting*)		
14	XFLU_DAT	Date of XFLU_COD		Chosen record
15	TXFLU_COD	68NE. 9OX51 8I2F0 8I6D0 68NE0 9OX54 9OX56	68NE. XaZ0i XaZ0j XaZ0k Xaa9f XaadS XaadU	Latest <= ACHIEVEMENT_DAT
		(*Flu vaccine contraindications: expiring*)		
16	TXFLU_DAT	Date of TXFLU_COD		Chosen record
17	FLU_COD	*Read codes v2*	*CTV3*	Latest <=

		n47..% (Excluding n47A., n47B., n47r., n47s., n47t.) 65ED., 65E20, 65ED0, 65ED2, 65ED1, 65ED3, 65E21, 65E22	n47..% (Excluding n47A., n47B., n47r., n47s., n47t.) XaZ0d, XaZ0e, XaZfY, XaaZp, Xaac3, Xaac4, Xaac7, Xaac8	ACHIEVEMENT_DAT
		(Flu vaccination codes)		
18	FLU_DAT	Date of FLU_COD		Chosen record
19	MRC_COD	*Read codes v2*	*CTV3*	Latest <= ACHIEVEMENT_DAT
		173H. 173I. 173J. 173K. 173L.	XaIUi XaIUl XaIUm XaIUn XaIUo	
		(Codes for MRC Breathlessness Scale Score)		
20	MRC_DAT	Date of MRC_COD		Chosen record
21	COPDRVW_ COD	*Read codes v2*	*CTV3*	Latest <= ACHIEVEMENT_DAT
		66YM. 66YB0 66YB1	XaIet XaXCa XaXCb	
		(Codes for COPD review)		
22	COPDRVW_ DAT	Date of COPDRVW_COD		Chosen record
23	MRC1_COD	*Read codes v2*	*CTV3*	Earliest <= ACHIEVEMENT_DAT AND > (ACHIEVEMENT_DAT
		173J. 173K.	XaIUm XaIUn XaIUo	

		173L.		- 12 months)
		(Codes for MRC Breathlessness Scale Score ≥ 3)		
24	MRC1_DAT	Date of MRC1_COD		Chosen record
25	OXYSAT_COD	*Read codes v2*	*CTV3*	Latest <= ACHIEVEMENT_DAT
		44YA0 44YA1 44YA3 44YA5	X770D Xaa6j Xaa6l Xabhv	
		(Codes for oxygen saturation value)		
26	OXYSAT_DAT	Date of OXYSAT_COD		Chosen record
27	OXYSAT_VAL	Value of OXYSAT_COD		Chosen record

Indicator rulesets

1   Indicator COPD001:   The contractor establishes and maintains a register of patients with COPD.

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 COPD002: The percentage of patients with COPD (diagnosed on or after 1 April 2011) in whom the diagnosis has been confirmed by post bronchodilator spirometry between 3 months before and 12 months after entering on to the register.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If COPD_DAT >= 01.04.2011	Next rule	Reject
2	If COPDSPIR_DAT >= (COPD_DAT – 3 months) AND If COPDSPIR_DAT <= (COPD_DAT + 12 months)	Select	Next rule
3	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
4	If COPDEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
5	If SPEX_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
6	If COPD_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 COPDSPIR_DAT >= (COPD_DAT – 3 months) AND If COPDSPIR_DAT <= (COPD_DAT + 12 months)	Select	Reject

Rule 1: Check whether the patient has been diagnosed with COPD after or on the 01.04.2011
True: If the patient has been diagnosed on or after the 01.04.2011, then the patient is further considered
False: If the patient has been diagnosed before the 01.04.2011, then the patient is disregarded and not included in the denominator.

Rule 2: Check that the bronchodilator spirometry has been performed within 3 months prior to the COPD diagnosis and 12 months post diagnosis.
True: If the bronchodilator spirometry has been performed within 3 months prior and 12 months post COPD diagnosis, then the patient is selected.
False: If the bronchodilator spirometry has not been performed within 3 months prior or 12 months post COPD diagnosis then the patient is further considered.

Rule 3: 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 4: The aim of this rule is to identify any patient that has an accepted 'COPD Exception' Read Code' recorded. If the patient has an accepted 'COPD Exception' Read Code recorded in the last 12 months, the patient should not be included in the denominator.

Rule 5: The aim of this rule is to identify any patient that has an accepted 'Spirometry exception Read Code' recorded. If the patient has an accepted 'Spirometry exception Read 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 has been 'recently diagnosed' as a COPD patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.

3   Indicator COPD003: The percentage of patients with COPD who have had a review, undertaken by a healthcare professional, including an assessment of breathlessness using the Medical Research Council dyspnoea scale in the preceding 12 months.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If COPDRVW_DAT > (PAYMENTPERIODEND_DAT – 12 months) AND If MRC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Select	Next rule
2	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
3	If COPDEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
4	If COPD_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 COPDRVW_DAT > (PAYMENTPERIODEND_DAT – 12 months) AND If MRC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Select	Reject

Rule 1: The aim of this rule is to identify those patients who have had a COPD review and a MRC breathlessness scale score within 12 months from the end of the QOF Financial year end.
True: If the patient has a record of both a COPD review and a MRC breathlessness scale score within 12 months from the end of the QOF Financial year end they are selected.
False: If the patient has a record of either a COPD review or a MRC breathlessness scale score outside 12 months from the end of the QOF Financial year end they are further considered.

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 in the last 3 months, the patient should not be included in the denominator.

Rule 3: The aim of this rule is to identify any patient that has an accepted 'COPD Exception' Read Code recorded. If the patient has an accepted 'COPD Exception' Read Code recorded in the last 12 months, the patient should not be included in the denominator

Rule 4: The aim of this rule is to identify any patient that has been 'recently diagnosed' as a COPD patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.

4   Indicator COPD004: The percentage of patients with COPD with a record of FEV_1 in the preceding 12 months

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If FEV1_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Select	Next rule
2	If REG_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
3	If COPDEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
4	If SPEX_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
5	If COPD_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 FEV1_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Select	Reject

Rule 1: Check whether the patient has had a forced expiratory volume in 1 second within 12 months of the end of the current QOF Financial Year.
True: If the patient has had a forced expiratory volume in 1 second recorded within 12 months of the end of the current QOF Financial Year then the patient is selected.
False: If the patient has had a forced expiratory volume in 1 second recorded outside 12 months of the end of the current QOF Financial Year then the patient is further considered.

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 in the last 3 months, the patient should not be included in the denominator.

Rule 3: The aim of this rule is to identify any patient that has an accepted 'COPD Exception' Read Code recorded. If the patient has an accepted 'COPD Exception' Read Code recorded in the last 12 months, the patient should not be included in the denominator.

Rule 4: The aim of this rule is to identify any patient that has an accepted 'Spirometry exception Read Code' recorded. If the patient has an accepted 'Spirometry exception Read Code recorded in the last 12 months, the patient should not be included in the denominator.

Rule 5: The aim of this rule is to identify any patient that has been 'recently diagnosed' as a COPD patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.

5   Indicator COPD005:   The percentage of patients with COPD and Medical Research Council dyspnoea grade ≥3 at any time in the preceding 12 months, with a record of oxygen saturation value within 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 COPD register.

The aspect that is being measured is relating to a record of oxygen saturation value in those patients with an MRC Dyspnoea Scale ≥3.

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 a COPD (i.e. there is evidence in the patient's electronic health record of a COPD diagnosis code)

Numerator and Denominator

The success criteria for this indicator (**numerator**) are achieved for those patients in the denominator who have a record of oxygen saturation value 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.

For this indicator there is one exclusion.

- The indicator is looking for patients with an MRC Dyspnoea Scale ≥3 within the preceding 12 months therefore anyone whose score is outside this time period is excluded.

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 of the qualifying year (new patient). New patients may be regarded as exceptions if they fulfil the criteria of the indicator but do not yet have a record of an oxygen saturation value maybe because there hasn't been an opportunity in the qualifying year to arrange this.
- any patient that has a relevant COPD exception code recorded within the preceding 12 months.
- any patient that has been diagnosed with COPD within the last 3 months of the year (new COPD patient). Newly diagnosed patients may be regarded as exceptions if they fulfil the criteria of the indicator but do not yet a record of an oxygen saturation value maybe because there hasn't been an opportunity in the qualifying year to arrange this.

Note: For the 'new' COPD patient exception, this is only applicable for the first 'ever' diagnosis of COPD for the patient. For a subsequent diagnosis, this exception rule is not considered.

Indicator COPD005: The percentage of patients with COPD and Medical Research Council dyspnoea grade ≥3 at any time in the preceding 12 months, with a record of oxygen saturation value within the preceding 12 months.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If MRC1_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Next rule	Reject
2	If OXYSAT_DAT > (PAYMENTPERIODEND_DAT – 12 months) AND If OXYSAT_VAL ≠ Null	Select	Next rule
3	If REG_DAT > (PAYMENTPERIODEND_DAT– 3 months)	Reject	Next rule
4	If COPDEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
5	If COPD_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 OXYSAT_DAT > (PAYMENTPERIODEND_DAT – 12 months) AND If OXYSAT_VAL ≠ Null	Select	Reject

Additional Notes:

Denominator

Exclusion

Rule 1: The aim of this rule is to identify patients with an MRC Dyspnoea Scale ≥ 3 within the preceding 12 months.
True: If the patient does have an MRC Dyspnoea Scale ≥ 3 within the preceding 12 months they are passed on to the next rule.
False: If there is no record of an MRC Dyspnoea Scale ≥ 3 within the preceding 12 months the patient is rejected.

Success

Rule 2: The aim of this rule is to identify if the patient has a record of an oxygen saturation value within the preceding 12 months.
True: If the patient has a record of an oxygen saturation value within the preceding 12months they are selected into the denominator.
False: If the patient has no record of an oxygen saturation value within the preceding 12 months they are further considered.

Exceptions
It is worth remembering at this point that if a patient has a record of an oxygen saturation value within the preceding 12 months they will have already been selected into the denominator in Rule 2.

Rule 3: 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 of the qualifying year, 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 4: The aim of this rule is to identify any patient that has a valid COPD 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 5: The aim of this rule is to identify any patient that has been 'recently diagnosed' with COPD. 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 2.

Indicator COPD007: The percentage of patients with COPD who have had influenza immunisation in the preceding 1 August to 31 March.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If FLU_DAT >= FLU_COM AND If FLU_DAT <= FLU_END	Select	Next rule
2	If REG_DAT > (PAYMENTPERIODEND_DAT– 3 months)	Reject	Next rule
3	If COPDEXC_DAT > (PAYMENTPERIODEND_DAT – 12 months)	Reject	Next rule
4	If COPD_DAT > (PAYMENTPERIODEND_DAT – 3 months)	Reject	Next rule
5	If XFLU_COD ≠ Null	Reject	Next rule
6	If TXFLU_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 FLU_DAT >= FLU_COM AND If FLU_DAT <= FLU_END	Select	Reject

Rule 1: The aim of this rule is to identify those patients who have had flu vaccination recorded between the 1st August and 31st March in the current financial year (see item 10 in the notes section).
True: If the patient has had a flu vaccination within the time period then they are selected.
False: If the patient has not had a flu vaccination within the time period they are further considered.

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 in the last 3 months, the patient should not be included in the denominator.

Rule 3: The aim of this rule is to identify any patient that has an accepted 'COPD Exception' Read Code recorded. If the patient has an accepted 'COPD Exception' Read Code recorded in the last 12 months, the patient should not be included in the denominator.

Rule 4: The aim of this rule is to identify any patient that has been 'recently diagnosed' as a COPD patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.

Rule 5: Determines if the patient has a record of Flu vaccine contraindications: persisting.
True: If the patient has a recording of Flu vaccine contraindications: persisting, then the patient is disregarded and not included in the denominator.

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False: If the patient does not have a recording of Flu vaccine contraindications: persisting then the patient is further considered.

Rule 6: Determines if the patient has a record of Flu vaccine contraindications: expiring within the last 12 months from the end of the current QOF Financial Year.
True: If the patient has a recording of Flu vaccine contraindications: expiring within the 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 patient has a recording of Flu vaccine contraindications: expiring outside 12 months from the end of the QOF Financial year end, then the patient is selected.