New GMS Contract QOF Implementation

Dataset and Business Rules
-
Mental Health Indicator Set
(MH)

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	14-May-2014	Business Rules update 2014/15 (DRAFT)
28.1NI	18-Jun-2014	Version update to bring in line with other rulesets. Spellchecked and reformatted.
28.2NI	27-Jun-2014	Updates to SMEAR_COD and the inclusion of BLOODEXC_COD
29.0NI	24-Oct-2014	April 2014 Read Code Updates
30.0NI	24-Oct-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
33.0NI	07-Jan -2016	October Read Code Updates and V32.1 fixes
34.0NI	06-Sep-2016	Read code changes.

New GMS contract Q&O framework implementation

Dataset and business rules – Mental illness indicator set

<u>Notes</u>

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 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

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 status

i) Group 1 criteria

Code criteria	Qualifying diagnostic codes		Time criteria
	Read codes v2	*CTV3*	
Included	E10..%, E110.%,E111.%,E1124 E1134 E114. – E117z E11y.% (excluding E11y2) E11z., E11z0, E11zz, E12..%, E13..% (excluding E135.) E2122, Eu2..% Eu30.% Eu31.% Eu323, Eu328, Eu333 Eu32A Eu329	X00S6% (excluding Xa9B0%, E14..%) X00SL X00SM% X00SJ% XSGon E11z., E11z0, E11zz XE1ZZ, XE1Ze XaX54 XaX53 E130. E1124 E1134	*Earliest < (REF_DAT)*
	(Psychosis, schizophrenia + bipolar affective disease codes)		

ii)   Group 2 criteria

Included	Read codes v2	CTV3	Latest >= (REF_DAT – 6/12) AND < REF_DAT
	d6…%	d6…%	
	(Lithium prescription codes)		
Excluded	Read codes v2	CTV3	Latest < (REF_DAT) AND subsequent to above date
	665B.	665B.	
	Code for 'Stopped lithium'		

** N.B. Patients meeting any of the criteria to be included

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	Patients age (years) at REF_DAT		Unconditional
4	PAT_SEX	Patients sex (gender) at REF_DAT		Unconditional
5	MHEXC_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		9h9..%	XaJ4V%	
		(*Mental health exception reporting codes*)		
6	MHEXC_DAT	Date of MHEXC_COD		Chosen record
7	MH_COD	*Read codes v2*	*CTV3*	Earliest < (REF_DAT)
		E10..%, E110.%, E111.%, E1124 E1134 E114. – E117z E11y.% (excluding E11y2) E11z., E11z0, E11zz, E12..%, E13..% (excluding E135.) E2122, Eu2..% Eu30.% Eu31.% Eu323, Eu328, Eu333 Eu32A Eu329	X00S6% (excluding Xa9B0%, E14..%) X00SL X00SM% X00SJ% XSGon E11z., E11z0, E11zz XE1ZZ, XE1Ze XaX54 XaX53 E130. E1124 E1134	

		('Psychosis, schizophrenia + bipolar affective disease codes)		
8	MH_DAT	Date of MH_COD		Chosen record
9	MHP_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		8CY.. 8CG6. 8CS7. 8CG62 8CG60 8CG61 8CMG1	XaIXu XaK8p XaK8s XaK8r XaK8t Xaa8p Xaa8q	
		(*Code for Mental health care plan*)		
10	MHP_DAT	Date of MHP_COD		Chosen record
11	LIT_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		d6...%	d6...%	
		(*Code for Lithium prescription*)		
12	LIT_DAT	Date of LIT_COD		Chosen record
13	ELIT_COD	*Read codes v2*	*CTV3*	Earliest < (REF_DAT)
		d6...%	d6...%	
		(*Code for Lithium prescription*)		
14	ELIT_DAT	Date of ELIT_COD		Chosen record
15	SLIT_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)

		44W8.% 44vE. R1053	X770u% 44W80 44W81 44W82 R1053	
			(Code for serum lithium)	
16	SLIT_VAL		Value 1 of SLIT_COD	Chosen record
17	SLIT_DAT		Date of SLIT_COD	Chosen record
18	TLIT_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		44W80 44vE.	44W80	
			(Code for serum lithium therapeutic)	
19	TLIT_DAT		Date of TLIT_COD	Chosen record
20	CRE_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		44J3.% 44JC. 44JD. 44JF.	XE2q5% XaETQ, XaERX 44J30, 44J31, 44J32 44J33	
			(Codes for serum creatinine)	
21	CRE_DAT		Date of CRE_COD	Chosen record
22	TSH_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		442A.% 442K. - 442T. 442W. 442X. 442e.	XE2wy% 442A0 442A1	
			(Codes for TSH recording)	

23	TSH_DAT	Date of TSH_COD		Chosen record
24	MH2_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT) Or Latest ('first' or 'new') <= (ACHIEVEMENT_DAT)
		E10..%, E110.%, E111.%, E1124 E1134 E114. – E117z E11y.% (excluding E11y2) E11z., E11z0, E11zz, E12..%, E13..% (excluding E135.) E2122, Eu2..% Eu30.% Eu31.% Eu323, Eu328, Eu333, Eu329, Eu32A	X00S6% (excluding Xa9B0%, E14..%) X00SL X00SM% X00SJ% XSGon E11z., E11z0, E11zz XE1ZZ, XE1Ze, XaX53, XaX54 E130. E1124 E1134	
		('Psychosis, schizophrenia + bipolar affective disease codes)		
25	MH2_DAT	Date of MH2_COD		Chosen record
26	MHREM_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT) AND > = MH2_DAT
		E1005, E1015, E1025 E1035, E1055, E1075 E1106, E1116, E1146 E1156, Eu317, E1166 E1176, Eu329, Eu32A, Eu26., Eu223	E1005, E1015, E1025 E1035, E1055, E1075 E1106, E1116, E1146 E1156, Eu317, E1166 E1176, XaX51, XaX52, XaX53, XaX54	
		(Code for in remission from serious mental illness)		
27	MHREM_DAT	Date of MHREM_COD		Chosen record
28	MHREM2_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		E1005, E1015, E1025 E1035, E1055, E1075	E1005, E1015, E1025 E1035, E1055, E1075	

		E1156, Eu317, E1166 E1176 Eu329, Eu32A, Eu26., Eu223	E1156, Eu317, E1166 E1176, XaX51, XaX52, XaX53, XaX54	
		(*Code for in remission from serious mental illness*)		
29	MHREM2_DAT	Date of MHREM2_COD		Chosen record
30	ALC_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		136..% (excluding 1368.,1369.,136M., 136W.,136Y., 136b., 136e.)	1361.% (excluding 136M.) Ub0lJ%, 136..% (excluding 1368.,1369.) Ub0ly% XaXjd, XaXje, XaXjf	
		(*Alcohol consumption codes*)		
31	ALC_DAT	Date of ALC_COD		Chosen record
32	ALCEX_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		8IA7. 8IAt. 136e. 8IAF. 9k19. 8IH4.	XaNOA XaX4S XaZqd XaPty XaPKl XabYP	
		(*Alcohol consumption screening refused codes*)		
33	ALCEX_DAT	Date of ALCEX_COD		Chosen record

#		Read codes v2	CTV3	
34	BP_COD	246..% (excluding 2460., 2468. 246H., 246I., 246K., 246L., 246M., 246h., 246i., 246j., 246k., 246n.%)	X773t% (excluding XaI9f, XaI9g, X779b, X779R, X779T, X779W, XaYai, XaYg8, XaYg9, Xac5K, Xac5L, XaZvo, XaZxj) 246..% (excluding 2460., 2468., XaCFN, XaCFO,)	Latest < REF_DAT
		(BP recording codes)		
35	BP_DAT	Date of BP_COD		Chosen record
36	BPEX_COD	Read codes v2	CTV3	Latest < REF_DAT
		8I3Y.	XaJkR	
		(BP recording exception codes)		
37	BPEX_DAT	Date of BPEX_COD		Chosen record
38	NOCX_COD	Read codes v2	CTV3	Earliest < (REF_DAT)
		685H. 685I. 685K. 9O8Y. 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	
		(Hysterectomy and equivalent codes)		
39	HYST_DAT	Date of HYST_COD		Chosen record

		Read codes v2	CTV3	
40	SMEAR_COD	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	Xa8Pl% 7E2A3% XE278% XE279 XE27A XE27B 4K25. 4K26. 4K27. 4K29. 4KA1. 4KA3. 4KA4. 6856. XaKTi XE1TU 685B. 685C. 685D. X76zx XM1C9 ZV762 7E2A0	Latest < (REF_DAT)

		4K2M. 4K2K. 4K2J. 4K2L. 4K55.	XaYeu XaYc0 XaYc1 XaIVB XaagX XaagY Xaafo Xaafp XaaU6 XaaU5 Xaafk Xaafi XaaU7 Xaafj XaKd4	
		(Cervical smear codes)		
41	SMEAR_DAT	Date of SMEAR_COD		Chosen record
42	CYTEXC_COD	*Read codes v2*	*CTV3*	Latest < (REF_DAT)
		6853., 685L. 8I6K. 9O8Q.	6853. XaFs3 XaK29 9O8Q.	
		(Cervical cytology exception reporting codes)		
43	CYTEXC_DAT	Date of CYTEXC_COD		Chosen record
44	BLOODEXC_COD	*Read codes v2*	*CTV3*	Latest <= (REF_DAT)
		41M..	XaZOq	
		(Codes for blood test declined)		
45	BLOODEXC_DAT	Date of BLOODEXC_COD		Chosen record

Indicator rulesets

Indicator MH001: The contractor establishes and maintains a register of patients with schizophrenia, bipolar affective disorder and other psychoses and other patients on lithium therapy.

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 MH002: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a comprehensive care plan documented in the record, (in the preceding 15 months) agreed between individuals, their family and/or carers as appropriate.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If MH_DAT = Null	Reject	Next Rule
2	If MHREM_DAT = Null	Next Rule	Reject
3	[(If MHREM2_DAT = Null) AND (If MHP_DAT >= (REF_DAT – 15 months) AND If MHP_DAT >= MH_DAT)] OR [If MHREM2_DAT ≠ Null AND (If MHP_DAT >= (REF_DAT – 15 months) AND If MHP_DAT >= MH2_DAT)]	Select	Next rule
4	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
5	If MHEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
6	If (MH_DAT ≠ Null AND If MH_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 MHREM2_DAT = Null) AND (If MHP_DAT >= (REF_DAT – 15 months) AND If MHP_DAT >= MH_DAT)] OR [If MHREM2_DAT ≠ Null AND (If MHP_DAT >= (REF_DAT – 15 months) AND If MHP_DAT >= MH2_DAT)]	Select	Reject

Additional Notes:

The first rule for this indicator is to reject patients on the QOF MH Register for whom this indicator should not be measured.

Rule 1: The aim of this rule is to reject any patient who is on the QOF MH Register solely due to being on/having been on Lithium treatment (i.e. LIT_COD) from this indicator.
Any patient that does not have a read code defined in the MH_COD cluster (i.e. the patient is only in the QOF MH Register because of a read code in LIT_COD cluster) should not be considered for this indicator and therefore should be rejected.

After following the logic of Rule 1, any patient that has not been rejected will therefore be on the QOF MH Register because the patient has been diagnosed with a MH read code (i.e. MH_COD).

Rule 2: The aim of this rule is to reject any patient whose latest mental health diagnosis is in remission i.e. there is a date where a remission code is recorded after their latest diagnosis (but before the REF_DAT). Any patient that is in remission should not be considered for this indicator and therefore should be rejected. If a patient does not have a remission code after their latest diagnosis then they should be considered further.

Rule 3: The aim of this rule is to identify any patient who has a "care plan" documented within the preceding 15 months.

If a patient has no previous history of remission then the rule checks if their "care plan" was documented after the date of inclusion on the QOF MH register and within the preceding 15 months.

If a patient has relapsed after a period of remission then the rule checks their "care plan" has been reviewed following this remission and this was documented within the preceding 15 months.

Where a "care plan" is documented within the preceding 15 months the patient should be selected (as this is a positive result, i.e. will be included in the numerator).

Where NO "care plan" is documented within the preceding 15 months then the patient records should be further examined.

Rule 4: 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 5: The aim of this rule is to identify any patient that has an accepted "Mental Health exception read code" recorded. If the patient has an accepted "Mental Health exception read code" recorded in the last 15 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 an MH patient. If the patient has been diagnosed in the last 3 months, the patient should not be included in the denominator.

Indicator MH003: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a record of blood pressure in the preceding 15 months.

Overview

This indicator has been developed to measure the effectiveness of the provision of a clinical care component for patients with a specific set of defined mental health problems. The aspect that is being measured is that relating to recording of a blood pressure.

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 schizophrenia, bipolar affective disorder or other psychoses (i.e. there is evidence in the patient's electronic health record of a schizophrenia, bipolar affective disorder or other psychoses 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 a blood pressure in the preceding 15 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.

Exclusions

For this indicator there are two exclusions:

- Consideration has to be made for those patients on the QOF MH Register for whom this indicator should not be measured. Any patients who are on the QOF MH Register solely due to being on/having been on Lithium treatment are excluded.

- Consideration has to be made for those patients diagnosed as in remission. Any patients whose latest mental health diagnosis is in remission are excluded.

Exceptions

Patients that don't achieve the success criteria of the indicator are checked for valid exceptions.
For this indicator the exceptions are:

- Any patient that has a valid blood pressure recording exception code recorded within the preceding 15 months.

- 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 have not yet had a blood pressure recorded - maybe because there hasn't been an opportunity in the qualifying year to arrange it.

- Any patient that has a relevant mental health exception code recorded within the preceding 15 months.

- Any patient that has been diagnosed with schizophrenia, bipolar affective disorder or other psychoses within the last 3 months of the year (new diagnosis of mental health). Newly diagnosed patients may be regarded as exceptions if they fulfil the criteria of the indicator but have not yet had a blood pressure recorded - maybe because there hadn't been an opportunity in the qualifying year to arrange it.

Note: For the "new" mental health patient exception, this is only applicable for the first "ever" diagnosis of schizophrenia, bipolar affective disorder or other psychoses for the patient. For subsequent diagnosis, this exception rule is not considered.

Indicator MH003: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a record of blood pressure in the preceding 15 months.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If MH_DAT = Null	Reject	Next Rule
2	If MHREM_DAT = Null	Next Rule	Reject
3	If BP_DAT >= (REF_DAT – 15 months)	Select	Next rule
4	If BPEX_DAT >= (REF_DAT – 15 months)	Reject	Next rule
5	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
6	If MHEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
7	If MH_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 BP_DAT >= (REF_DAT – 15 months)	Select	Reject

Additional Notes:

Denominator

Exclusions

Rule 1: The aim of this rule is to reject any patient who is on the QOF MH Register solely due to being on/having been on Lithium treatment (i.e. LIT_COD) from this indicator.

Any patient that does not have a read code defined in the MH_COD cluster (i.e. the patient is only in the QOF MH Register because of a read code in LIT_COD cluster) should not be considered for this indicator and therefore should be rejected.

After following the logic of Rule 1, any patient that has not been rejected will therefore be on the QOF MH Register because the patient has been diagnosed with a valid MH read code (i.e. MH_COD).

Rule 2: The aim of this rule is to reject any patient whose latest mental health diagnosis is in remission i.e. there is a date where a remission code is recorded after their latest diagnosis (but before the REF_DAT). Any patient that is in remission should not be considered for this indicator and therefore should be rejected. If a patient does not have a remission code after their latest diagnosis then they are passed on to the next rule.

Success

Rule 3: The objective of this rule is to identify patients who have a blood pressure recorded within the preceding 15 months.

If a blood pressure has been recorded within the appropriate time frame the patient is selected into the denominator.

If the patient does not have a blood pressure recorded within the appropriate time frame they are passed on to the next rule.

Exceptions

It is worth remembering at this point that if a patient has a blood pressure recorded within the preceding 15 months they will already have been selected into the denominator in Rule 3.

Rule 4: The aim of this rule is to identify any patient that has a valid blood pressure recording exception code recorded in the preceding 15 months. If an exception code has been recorded in the last 15 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 "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. If the patient was not registered in the last 3 months they are passed on to the next rule.

Rule 6: The aim of this rule is to identify any patient that has a valid mental health exception code recorded. If this has been recorded in the preceding 15 months, the patient can be excepted and is not included in the denominator. Otherwise they are passed on to the next rule.

Rule 7: The aim of this rule is to identify any patient that has been "recently diagnosed" with schizophrenia, bipolar affective disorder or other psychoses. If the patient has been diagnosed in 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 3.

<u>Indicator MH007:</u> The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a record of alcohol consumption in the preceding 15 months.

Overview

This indicator has been developed to measure the effectiveness of the provision of a clinical care component for patients with a specific set of defined mental health problems. The aspect that is being measured is that relating to alcohol consumption.

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 schizophrenia, bipolar affective disorder or other psychoses (i.e. there is evidence in the patient's electronic health record of a schizophrenia, bipolar affective disorder or other psychoses 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 alcohol consumption screening in the preceding 15 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.

Exclusions

For this indicator there are two exclusions

- Consideration has to be made for those patients on the QOF MH Register for whom this indicator should not be measured. Any patients who are on the QOF MH Register solely due to being on/having been on Lithium treatment are excluded.

- Consideration has to be made for those patients diagnosed as in remission. Any patients whose latest mental health diagnosis is in remission are excluded.

Exceptions

Patients that don't achieve the success criteria of the indicator are checked for valid exceptions.
For this indicator the exceptions are:

- Any patient that has a valid alcohol consumption screening exception code recorded within the preceding 15 months.

- 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 have not yet had alcohol consumption screening - maybe because there hasn't been an opportunity in the qualifying year to arrange it.

- Any patient that has a relevant mental health exception code recorded within the preceding 15 months.

- Any patient that has been diagnosed with schizophrenia, bipolar affective disorder or other psychoses within the last 3 months of the year (new diagnosis of mental health). Newly diagnosed patients may be regarded as exceptions if they fulfil the criteria of the indicator but have not yet had alcohol consumption screening - maybe because there hasn't been an opportunity in the qualifying year to arrange it.

Note: For the "new" mental health patient exception, this is only applicable for the first "ever" diagnosis of schizophrenia, bipolar affective disorder or other psychoses for the patient. For subsequent diagnosis, this exception rule is not considered.

Indicator MH007: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a record of alcohol consumption in the preceding 15 months.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If MH_DAT = Null	Reject	Next Rule
2	If MHREM_DAT = Null	Next Rule	Reject
3	If ALC_DAT >= (REF_DAT – 15 months)	Select	Next rule
4	If ALCEX_DAT >= (REF_DAT – 15 months)	Reject	Next rule
5	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
6	If MHEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
7	If MH_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 ALC_DAT >= (REF_DAT – 15 months)	Select	Reject

Additional Notes:

Denominator

Exclusions

Rule 1: The aim of this rule is to reject any patient who is on the QOF MH Register solely due to being on/having been on Lithium treatment (i.e. LIT_COD) from this indicator.

Any patient that does not have a read code defined in the MH_COD cluster (i.e. the patient is only in the QOF MH Register because of a read code in LIT_COD cluster) should not be considered for this indicator and therefore should be rejected.

After following the logic of Rule 1, any patient that has not been rejected will therefore be on the QOF MH Register because the patient has been diagnosed with a valid MH read code (i.e. MH_COD).

Rule 2: The aim of this rule is to reject any patient whose latest mental health diagnosis is in remission i.e. there is a date where a remission code is recorded after their latest diagnosis (but before the REF_DAT). Any patient that is in remission should not be considered for this indicator and therefore should be rejected. If a patient does not have a remission code after their latest diagnosis then they are passed on to the next rule.

Success

Rule 3: The objective of this rule is to identify patients who have a recording of alcohol consumption screening within the preceding 15 months.

If alcohol consumption screening has been recorded within the appropriate time frame the patient is selected into the denominator.

If the patient does not have alcohol consumption screening recorded within the appropriate time frame they are passed on to the next rule.

Exceptions

It is worth remembering at this point that if a patient has a recording of alcohol consumption screening within the preceding 15 months they will already have been selected into the denominator in Rule 3.

Rule 4: The aim of this rule is to identify any patient that has a valid alcohol consumption screening exception code recorded in the preceding 15 months. If an exception code has been recorded in the last 15 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 "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. If the patient was not registered in the last 3 months they are passed on to the next rule.

Rule 6: The aim of this rule is to identify any patient that has a relevant mental health exception code recorded. If this has been recorded in the preceding 15 months, the patient can be excepted and is not included in the denominator. Otherwise they are passed on to the next rule.

Rule 7: The aim of this rule is to identify any patient that has been "recently diagnosed" with schizophrenia, bipolar affective disorder or other psychoses. If the patient has been diagnosed in 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 3.

Indicator MH008(NI): The percentage of women aged 25 or over and who have not attained the age of 65 with schizophrenia, bipolar affective disorder and other psychoses whose notes record that a cervical screening test has been performed in the preceding 5 years.

Overview

This indicator has been developed to measure the effectiveness of the provision of a clinical care component for patients with a specific set of defined mental health problems. The aspect that is being measured is that relating to recording of cervical screening.

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 schizophrenia, bipolar affective disorder or other psychoses (i.e. there is evidence in the patient's electronic health record of a schizophrenia, bipolar affective disorder or other psychoses 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 cervical screening in the preceding 5 years.

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.

Exclusions

For this indicator there are five exclusions:

- Consideration has to be made for those patients on the QOF MH Register for whom this indicator should not be measured. Any patients who are on the QOF MH Register solely due to being on/having been on Lithium treatment are excluded.

- The indicator is specifically looking at female patients. Any male patients are excluded

- The indicator is specifically looking at patients aged less than 65 years old. Any patients aged 65 and over are excluded.

- The indicator is specifically looking at patients aged 25 years and over. Any patients aged under 25 years old are excluded.

- Consideration has to be made for those patients who don't require cervical screening because they have a record of hysterectomy or equivalent. Any patients with a record of hysterectomy or equivalent are excluded.

- Consideration has to be made for those patients diagnosed as in remission. Any patients whose latest mental health diagnosis is in remission are excluded.

Exceptions

Patients that don't achieve the success criteria of the indicator are checked for valid exceptions.
For this indicator the exceptions are:

- Any patient that has a valid cervical cytology exception code recorded within the preceding 5 years.

- 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 have not yet had cervical screening recorded - maybe because there hasn't been an opportunity in the qualifying year to arrange it.

- Any patient that has a relevant mental health exception code recorded within the preceding 15 months.

- Any patient that has been diagnosed with schizophrenia, bipolar affective disorder or other psychoses within the last 3 months of the year (new diagnosis of mental health). Newly diagnosed patients may be regarded as exceptions if they fulfil the criteria of the indicator but have not yet had cervical screening recorded - maybe because there hasn't been an opportunity in the qualifying year to arrange it.

Note: For the "new" mental health patient exception, this is only applicable for the first "ever" diagnosis of schizophrenia, bipolar affective disorder or other psychoses for the patient. For subsequent diagnosis, this exception rule is not considered.

Indicator MH008: The percentage of women aged 25 or over and who have not attained the age of 65 with schizophrenia, bipolar affective disorder and other psychoses whose notes record that a cervical screening test has been performed in the preceding 5 years.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If MH_DAT = Null	Reject	Next Rule
2	If PAT_SEX ≠ 'F'	Reject	Next rule
3	If PAT_AGE >= 65	Reject	Next rule
4	If PAT_AGE < 25	Reject	Next rule
5	If NOCX_COD ≠ Null	Reject	Next rule
6	If MHREM_DAT = Null	Next Rule	Reject
7	If SMEAR_DAT >= (REF_DAT – 5 years)	Select	Next rule
8	If CYTEXC_DAT >= (REF_DAT – 5 years)	Reject	Next rule
9	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
10	If MHEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
11	If MH_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 SMEAR_DAT >= (REF_DAT – 5 years)	Select	Reject

Additional Notes:

Denominator

Exclusions

Rule 1: The aim of this rule is to reject any patient who is on the QOF MH Register solely due to being on/having been on Lithium treatment (i.e. LIT_COD) from this indicator.

Any patient that does not have a read code defined in the MH_COD cluster (i.e. the patient is only in the QOF MH Register because of a read code in LIT_COD cluster) should not be considered for this indicator and therefore should be rejected.

After following the logic of Rule 1, any patient that has not been rejected will therefore be on the QOF MH Register because the patient has been diagnosed with a valid MH read code (i.e. MH_COD).

Rule 2: The aim of this rule is to identify if the patient is female. Male patients should not be considered for this indicator. If a patient is female then they are passed on to the next rule.

Rule 3: The aim of this rule is to identify if the patient is aged 65 and over.
Any patient aged 65 and over should not be considered for this indicator and therefore should be rejected. If a patient is aged less than 65 years old then they are passed on to the next

rule.

Rule 4: The aim of this rule is to identify if the patient is aged less than 25 years old. Any patient aged less than 25 years old should not be considered for this indicator and therefore should be rejected. If a patient is aged 25 or over they are passed on to the next rule.

Rule 5: The aim of this rule is to identify if a patient has a hysterectomy or equivalent recorded anywhere in their record. Any patient with a record of hysterectomy or equivalent should not be considered for this indicator and therefore should be rejected. If a patient does not have a record of hysterectomy or equivalent then they are passed on to the next rule.

Rule 6: The aim of this rule is to reject any patient whose latest mental health diagnosis is in remission i.e. there is a date where a remission code is recorded after their latest diagnosis (but before the REF_DAT). Any patient that is in remission should not be considered for this indicator and therefore should be rejected. If a patient does not have a remission code after their latest diagnosis then they are passed on to the next rule.

Success

Rule 7: The objective of this rule is to identify patients who have a record of cervical screening within the last 5 years.

If cervical screening has been recorded within the appropriate time frame the patient is selected into the denominator.

If the patient does not have cervical screening recorded within the appropriate time frame they are passed on to the next rule.

Exceptions

It is worth remembering at this point that if a patient has a record of cervical screening within the last 5 years they will already have been selected into the denominator in Rule 7.

Rule 8: The aim of this rule is to identify any patient that has a valid cervical cytology exception code recorded in the preceding 5 years. If an exception code has been recorded in the preceding 5 years, the patient can be excepted and is not included in the denominator. Otherwise they are passed on to the next rule.

Rule 9: 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. If the patient was not registered in the last 3 months they are passed on to the next rule.

Rule 10: The aim of this rule is to identify any patient that has a relevant mental health exception code recorded. If this has been recorded in the preceding 15 months, the patient can be excepted and is not be included in the denominator. Otherwise they are passed on to the next rule.

Rule 11: The aim of this rule is to identify any patient that has been "recently diagnosed" with schizophrenia, bipolar affective disorder or other psychoses. If the patient has been diagnosed in 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 7.

Indicator MH009: The percentage of patients on lithium therapy with a record of serum creatinine and TSH in the preceding 9 months.

a) Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If LIT_DAT >= (REF_DAT – 6 months)	Next rule	Reject
2	If CRE_DAT >= (REF_DAT – 9 months) AND If TSH_DAT >= (REF_DAT – 9 months)	Select	Next rule
3	If BLOODEXC_DAT > (REF_DAT – 15 months)	Reject	Next rule
4	If REG_DAT >= (REF_DAT – 3 months)	Reject	Next rule
5	If MHEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
6	If ELIT_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 CRE_DAT >= (REF_DAT – 9 months) AND If TSH_DAT >= (REF_DAT – 9 months)	Select	Reject

Indicator MH010: The percentage of patients on lithium therapy with a record of lithium levels in the therapeutic range in the preceding 4 months.

a)   Denominator ruleset

Rule number	Rule	Action if true	Action if false
1	If LIT_DAT >= (REF_DAT – 6 months)	Next rule	Reject
2	If SLIT_DAT >= (REF_DAT – 4 months) AND If SLIT_VAL <= 1.0 AND If SLIT_VAL >= 0.4	Select	Next rule
3	If (TLIT_DAT = SLIT_DAT) AND If (TLIT_DAT >= (REF_DAT – 4 months))	Select	Next rule
4	If BLOODEXC_DAT > (REF_DAT – 15 months)	Reject	Next rule
5	If REG_DAT >= (REF_DAT – 9 months)	Reject	Next rule
6	If MHEXC_DAT >= (REF_DAT – 15 months)	Reject	Next rule
7	If ELIT_DAT >= (REF_DAT – 9 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 SLIT_DAT >= (REF_DAT – 4 months) AND If SLIT_VAL <= 1.0 AND If SLIT_VAL >= 0.4	Select	Next rule
2	If (TLIT_DAT = SLIT_DAT) AND If (TLIT_DAT >= (REF_DAT – 4 months))	Select	Reject

Additional Notes:
The first rule for this indicator is to reject patients on the QOF MH Register for whom this indicator should not be measured.

Rule 1: The aim of this rule is to reject any patient who is on the QOF MH Register not currently on Lithium treatment (i.e. LIT_COD) from this indicator.
Any patient that does not have a read code defined in the LIT_COD cluster (i.e. the patient is only in the QOF MH Register because of a read code in MH_COD cluster) should not be considered for this indicator and therefore should be rejected.

After following the logic of Rules 1, any patient that has not been rejected will therefore be considered for this indicator as the patient is on Lithium treatment within the last six months.

Rule 2: The aim of this rule is to identify any patient that has a latest recording of Lithium treatment in the last four months that has a level that falls within the national agreement levels for Lithium.

Where there is no Lithium level or where the level is not within the nationally agreed levels for Lithium, then the patient records should be further examined.

Rule 3: The aim of this rule is to identify any patient that has a latest recording of Lithium treatment in the last four months that is marked as therapeutic, i.e. has a level that falls within the local agreement levels for Lithium.

Where NO acceptable Lithium level is discovered, then the patient records should be further

examined to see if there are any "exceptions" (Rules 4 to 6) that apply before including/excluding the patient in/from the denominator.

Rule 4: The aim of this rule is to identify any patient that has an accepted blood test declined exception code recorded. If the patient has an accepted blood test declined exception code recorded in the last 15 months, the patient should not be included in the denominator.

Rule 5: 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 9 months, the patient should not be included in the denominator.

Rule 6: The aim of this rule is to identify any patient that has an accepted "Mental Health exception read code" recorded. If the patient has an accepted "Mental Health exception read code" recorded in the last 15 months, the patient should not be included in the denominator.

Rule 7: The aim of this rule is to identify any patient that has "recently commenced lithium treatment". If the patient commenced Lithium treatment in the last 9 months, the patient should not be included in the denominator.