**NHS Digital**

**Indicator Supporting Documentation**

**IAP00609 Under 75 mortality rate from cancer (NHSOF)**

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| --- | --- |
| **IAP Code** | IAP00090 |
| **Title** | Under 75 mortality rate from cancer |
| **Published by** | Public surfacing via NHS Digital Indicator Portal. |
| **Reporting period** | Annually |
| **Geographical Coverage** | England, GORs, SHAs, LAs, PCOs |
| **Reporting level(s)** | National |
| **Based on data from** | Office for National Statistics |
| **Contact Author Name** | Sunita Shier |
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| **Rating** | Assured |
| **Assurance date** | 20.09.12 |
| **Review date** | 20.09.15 |
| **Indicator set** | NHS outcomes framework |
| **Brief Description** | Introduced to the NHS Outcomes Framework in December 2012. This shared indicator with Public Health has been introduced in addition to indicators of one-and five-year survival from the three main cancers to demonstrate that the NHS can make a contribution to improving preventable as well as amenable cancer mortality. |
| **Purpose** | Part of the NHS Outcomes Framework, these data will be used by the S of S for Health to monitor progress of NHS England against its outcome goals. Primary audience is the Department of Health and NHS England, with plans to share the data with the public. |
| **Definition** |  |
| **Data Source** | **Numerator -** Office for National Statistics mortality extracts. This is a dataset of individual death records containing information on age, sex, area of residence and cause of death of the deceased. Data are based on the original causes of death recorded on the death certificate rather than the final amended causes, and on date of registration rather than date of death.  **Denominator -** Office for National Statistics mid-year population estimates.  Both these sources are existing, current products available from the Office for National Statistics. |
| **Numerator** | Number of deaths under 75 from cancer |
| **Denominator** | Resident population under 75 years |
| **Calculation** | per 100,000 European standard population. ESP is chosen to allow for international comparison.  Directly age-standardised rates |
| **Interpretation Guidelines** |  |
| **Caveats** |  |

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| **Indicator Title** Under 75 mortality rate from cancer |
| **IAP Code IAP00090** |
| Indicator Definition, including calculation, measurement units, geographical range, age and gender |
| Include any relevant detail of the statistic, such as calculation type (eg rate per 100,000 population), gender, age or geography  The definition exists  **Numerator**  Number of deaths under 75 from cancer  **Denominator**  Resident population under 75 years  **Calculation type**  Directly age-standardised rates  **Measurement unit / scale**  per 100,000 European standard population. ESP is chosen to allow for international comparison.  **Geographical range**  England*, GORs, SHAs, LAs, PCOs*  **Gender**  Males , Females and Persons  **Deprivation**  Quintiles  **Sub diagnoses**  Cancer of the liver  Cancer of the pancreas  Non-Hodgkins Lymphoma |
| Indicator Data Source(s) |
| Details of data sources, if known. Please note if this data is collected currently, or if it will require some sort of development  **Numerator**  Office for National Statistics mortality extracts. This is a dataset of individual death records containing information on age, sex, area of residence and cause of death of the deceased. Data are based on the original causes of death recorded on the death certificate rather than the final amended causes, and on date of registration rather than date of death.  **Denominator**  Office for National Statistics mid-year population estimates. |
| Indicator Data Source Availability |
| Is data publicly available (e.g. National Statistic) or is it only available as a bespoke dataset upon request. Comment on availability of raw data to customers outside the NHS/Public Sector  Both these sources are existing, current products available from the Office for National Statistics.  Annual national mortality extracts are provided by ONS to the NHS Information Centre and the Care Quality Commission.  Quarterly national mortality extracts are provided by ONS to the NHS Information Centre.  Annual district mortality extracts are provided by ONS to the Primary Care Organisations and the Public Health Observatories.  Another district level mortality extract, the Public Health Mortality File, is provided by ONS on a monthly or weekly basis to Primary Care Organisations.  Mortality extracts are not available to organisations outside the NHS.  Mid-year population estimates are publically available. |
| **Indicator Overlap** |
| List the indicator sets you have checked for overlap or if you have searched the IC Indicator library |
| For example, NHS Choices, IQI / MQI, Better Care, Better Value, NCHOD, NHS Comparators  Wide checking in developing the NHS outcomes indicators. |
| List any indicators which overlap with the proposed indicator |
| The mortality indicator is published annually on the Compendium/Indicator Portal website ([www.nchod.nhs.uk](http://www.nchod.nhs.uk), nww.nchod.nhs.uk):  Data are published by gender for England & Wales, England, Government Office Regions, Strategic Health Authorities, ONS Area Groups, Local Authorities and Primary Care Organisations. |
| What value does the proposed indicator offers over existing indicators |
| Highlight any gaps left by any current indicators  Part of the NHS Outcome indicator set. Needs to be developed as part of the set for consistency and coherence. |
| **Indicator Use** |
| Does this indicator measure a  process    outcome |
|  |

This measure is…

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| --- | --- | --- | --- | --- | --- |
| …compared against absolute evidence based standard |  | …compared against national average |  | …compared against optimum value |  |
| …comparison against self over time |  | … not compared against any other values |  |  |  |

Indicator Title/ Definition Review **(IC use only)**

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| --- | --- | --- | --- |
| *Indicator meets criteria for :*  Indicator definition self explanatory  Indicator definition in plain English, suitable for publishing to all audiences  Indicator definition with clear measurement units  Indicator definition with clear scope (geog, age, sex)  Data source available  Data source suitable  Indicator is unique  Face validity of concept and indicator use  **Information complete - proceed** |  | *Requires revision for following reasons:*  Title not confined to concept only  Use of acronyms  Definition needs more detail on:  - calculations  - data sources  - geographical coverage  - patient/population groups  Insufficient information about data source  Insufficient exploration of overlap  Insufficient information about indicator use |  |

**Application contact details** (please note all contact details will be treated confidentially)

|  |  |
| --- | --- |
| Applicant Name | Sunita Shier |
| Applicant Role | Co-ordinating analyst for NHS outcomes framework |
| Applicant Organisation | DH |
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| Applicant Email | Sunita.shier@dh.gsi.gov.uk |
| Indicator Set Name | NHS outcomes framework |
| Sponsor Name | (who should this be?) |
| Sponsor Role |  |
| Sponsor Organisation | DH |
| Acknowledgements |  |
| Other Stakeholder Name |  |
| Other Stakeholder Role |  |
| Other Stakeholder Organisation |  |
| Please list any additional Stakeholder(s) |  |

**Users of the Proposed Indicator**

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| --- | --- | --- | --- |
|  | Primary User | Secondary User | Not intended for |
| Boards (national, local) |  |  |  |
| Provider Managers |  |  |  |
| Commissioning mangers |  |  |  |
| Regulators |  |  |  |
| Clinicians |  |  |  |
| Patients |  |  |  |
| Public |  |  |  |
| Other (please specify) |  |  |  |
| Other (please specify) |  |  |  |

Indicator Applicant Review **(IC use only)**

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| *Indicator meets criteria for :*  **Information complete - proceed** |
| *Requires revision for following reasons:*  Applicant information not complete  User information not complete |
| **Rationale for indicators** |
| **Please list any relevant policies, strategies or programmes** |
| **NHS Outcomes Framework** |
|  |

High level subject area

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| --- | --- | --- | --- | --- | --- |
| Preventing people from dying prematurely |  | Enhancing quality of life for people with long term conditions |  | Helping people recover from episodes of ill health or following an injury |  |
| Ensuring people have positive experiences of care |  | Treating and caring for people in a safe environment and protecting them from avoidable harm |  | Other |  |

Evidence base for the indicator

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| --- |
| Provide a paragraph summarising the evidence, noting quality of evidence where appropriate. Do not list the relevant docs here, please extract salient messages. Indicator has been selected as part of the set of NHS Outcome indicators – evidence produced and considered for the set. |
| References |
| Extensive consultation – see transparency in outcomes – a framework for the NHS, The NHS Outcomes Framework 2012-13 <http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_131721.pdf> |
| Clinical advice |
|  |

Provide details of any clinical advice or support already given in development or preparation of indicator. Indicator Rationale Review **(IC use only)**

|  |  |  |  |
| --- | --- | --- | --- |
| Priority level linked to policy, strategy or programme  Quality of evidence  - clinical trial / cohort studies/ meta-analysis  - non-analytical studies  - best practice (clinical)  - good practice for patient experience  **Information complete - proceed** | Medium | *Requires revision for following reasons:*  Policy, strategy, programme information not complete  Evidence information not complete |  |

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| **Indicator Methodology – information sources** |
| Numerator definition Word description of the data source |
| **Numerator**  Number of deaths under 75 years from cancer |
| Numerator source Organisation and data collection |
| Office for National Statistics mortality extracts |
| Numerator construction Which data fields (specify) and values (specify codes) are combined to arrive at the count. Include any special rules. |
| For NCHOD:  Age (select infant deaths and deaths under 75 years of age):  ([AGECUNIT] > 1 OR ([AGEUNIT] = 1 AND [AGEC] < 75))  England resident (select English GORs of residence):  ([GORR] in (‘A’, ‘B’, ‘D’, ‘E’, ‘F’, ‘G’, ‘H’, ‘J’, ‘K’))  Cause of death (select original underlying cause of death):  [ICD10U] = ***C00-C97***  Counts to be aggregated by gender ([Sex]) and area/organisation ([GORR], [HROR], [CTYDR], [CTYR], [HAUTR]) as appropriate. |
| Numerator ascertainment Any known exclusions, shortfalls or collection issues which will affect the total amount of data collected. |
| Numerator counts are based on:  Year of death registration;  Underlying cause of death;  Area/organisation of residence.  Neonatal deaths excluded as they are not assigned an ICD10 code for the underlying cause of death. |
| Numerator quality of data Issues with accuracy or known variability of recording. For example, coding by untrained staff. |
|  |
| Numerator access to data Is data publicly available / published. Is it available only upon request, or even only to 'trusted' groups of people? |
| Mortality extracts are only available to the NHS: NHS IC, CQC, PHOs, PCOs, SHAs. |
| Numerator timeliness Frequency and timeliness of data. State how the publication/release of data relates to indicator production timescales. |
| Annual national mortality extracts are provided by ONS to the NHS Information Centre and the Care Quality Commission.  Annual district mortality extracts are provided by ONS to the Primary Care Organisations and the Public Health Observatories. |
| Denominator definition Word description of the data source |
| **Denominator**  Resident population under 75 years |
| Denominator source Organisation and data collection |
| Office for National Statistics mid-year population estimates |
| Denominator construction Which data fields (specify) and values (specify codes) are combined to arrive at the count. Include any special rules. |
| NA |
| Denominator ascertainment. Any known exclusions, shortfalls or collection issues which will affect the total amount of data collected. |
| NA |
| Denominator quality of data Issues with accuracy or known variability of recording. For example, coding by untrained staff. |
|  |
| Denominator access to data Is data publicly available / published. Is it available only upon request, or even only to 'trusted' groups of people? |
| Data are publically available. |
| Denominator timeliness Frequency and timeliness of data. State how the publication/release of data relates to indicator production timescales. |
| Mid-year population estimates are published annually by ONS.  Quarterly population estimates are available from ONS but are considered as experimental statistics. |

Indicator Applicant Review **(IC use only)**

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| --- | --- | --- | --- |
| Are raw data universally available for others to recreate indicator?  Are data available in a suitable timeframe and frequency?  Are data quality issues well documented and acknowledged?  Are data robust enough to support indicator and derivations?  Are data consistent over the required time?  Are construction of numerator and denominator robust and comparable with other sources  **Information complete - proceed** |  | *Requires revision for following reasons:*  Numerator info not complete  Denominator info not complete |  |

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| **Indicator methodology - statistical methods** |
| Statistical support |
| Summarise involvement of statistician involvement in developing indicator so far, and ongoing support for indicator when rolled out.  Statisticians have led the process for developing the indicators |
| Risk adjustment variables |
| Age |
| Statistical methods |
| Type of analysis (any methods used), risk adjustment (predictive power of model), special techniques (dealing with dispersion, constant risk), statistical process control  **Directly age-standardised rates.**  The directly age-standardised rate is the rate of events that would occur in a standard population if that population were to experience the age-specific rates of the subject population. Explicitly:  (expressed per 100,000 population)  where:  *wi* is the number, or proportion, of individuals in the standard population in age group *i*.  *ri* is the crude age-specific rate in the subject population in age group *i*, given by:  where:  *Oi* is the observed number of events in the subject population in age group *i*.  *ni* is the number of individuals in the subject population in age group *i*. Confidence intervals for directly standardised rates 95% confidence intervals for the age-standardised rates were calculated using a normal approximation. Standard errors are obtained using the method described by Breslow and Day,[[1]](#endnote-1) but modified to use the binomial variance for a proportion to estimate the variances of the crude age-specific rates.[[2]](#endnote-2) This method is likely to be unreliable when there are fewer than 50 cases in an  area, hence, confidence intervals for rates based on less than 50 cases should be viewed with caution. The lower and upper limits for the rates are denoted by DSRLL and DSRUL respectively.    (expressed per 100,000 population)  where:  *wi* is the number, or proportion, of individuals in the standard population in age group *i*.  *rij* is the crude age-specific rate in the subject population in age group i, in year *j*.  *nij* is the number of individuals in the subject population in age group i, in year *j*. |
| Quality assurance processes |
| Detail the quality assurance processes in place to check data, identify anomalies, and explore these further with providers.  *QA processes depend on who produces the data* |
| Test data or sample data |
| During course of pipeline application, test or sample data will be required to give proof of concept. Insert table of raw data.  *Can use the NCHOD/NHSIC Compendium mortality indicators production database to run off sample data once ICD10 definitions have been agreed.* |
| Interpretation |
| Describe how this indicator is planned to be used and what questions the indicator is planned to answer, and any known limitation  See ‘The NHS Outcomes Framework 2011-12’ document |
| Format of presentation |
| Describe published format, such as interactive website, csv file, etc. Provide table or screenshot (or mock version) of how the final presentation of data will appear. Include any interpretative text as well as figures  ***Single time period: annual*** |

Indicator Methodology Review **(IC use only)**

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| --- | --- | --- | --- |
| Transparency / reproducibility  Anomaly investigation and action  Valid and appropriate methods used  Can play of chance be assessed  Identification and action on outliers  Presentation suitable for audience  Construct validity  Interpretation  **Information complete - proceed** |  | *Requires revision for following reasons:*  Statistical methods information not complete  Test data not complete  Interpretation not complete  Presentation not complete |  |
| Notes:  Potential bias and confounding  Suitability of risk adjustment (if used)  Predictive capability of model (if used) |  |  |  |

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| **Indicator production and management** |
| Commissioner of indicator (this may be the same as the stakeholder) |
|  |
| Producer of indicator (this may be the same as the proposer) |
|  |
| Expected ‘improvement actions’ as a result of this indicator |
| State where responsibility will lie, and what actions will be expected as the result of a 'poor' rating of this indicator. |
| Have costs of collection, construction, dissemination and presentation been fully identified? NHS Outcomes Framework impact assessment |
| Funding status |
| Secured / being sought / not identified  Please add comments |
| What timescales do you envisage for developing / producing this indicator |
| Give specific dates for key stages or publication or development of indicator  To be ready/ published April 2011 |
| Risks, assumptions and impact of producing indicator |
|  |
| Risk of perverse incentive and gaming by healthcare providers |
| To what extent can organisations influence the value of the indicator in ways which may not benefit patients? |
| Risks, assumptions and impact of not producing indicator |
| Not an option as public commitment made to doing so. Part of the NHS Outcome Framework 2011-12 indicator set |

Indicator Production Review **(IC use only)**

|  |  |  |  |
| --- | --- | --- | --- |
| Action-ability  Funding capacity identified  Risks sufficiently explored  **Information complete - proceed** |  | *Requires revision for following reasons:*  Commissioner information not complete  Producer information not complete  Improvement actions not complete  Funding status not complete  Timescale info not complete  Risk assessment not complete |  |
| Notes:  Timescales – comment on the appropriate priority level for assuring this indicator  Risks – comment on any significant risks |  |  |  |

1. Breslow NE and Day NE. *Statistical Methods in Cancer Research, Volume II*: *The Design and Analysis of Cohort Studies*. Lyon: International Agency for Research on Cancer, World Health Organization, 1987: 59 [↑](#endnote-ref-1)
2. Keyfitz N. Sampling variance of age-standardised mortality rates. *Human Biology*. 1966; 38: 309-317.

   Indicator Assurance Pipeline Process

   **Methodology Review Group**

   **Applications & Recommendations**

   **14th March 2012**

   |  |  |  |  |
   | --- | --- | --- | --- |
   | **Document Author:** | *Chris Wilson* | **Current Issue Date:** | *29/03/2012* |
   | **Document Owner:** | *Chris Wilson* | **Responses expected by:** | *n/a* |
   | **Created Date:** | *29/03/2012* | **Version Number:** | *V 1.1* |

   # Introduction

   Matters to discuss:

   * **New indicators for consideration:**
     + NHS Outcomes Framework
       - Indicator 1.4vii **(IAP00090)** - Under 75 mortality rate from cancer
     + Commissioning Outcomes Framework
       - Diabetes
       - COPD
   * **Recommendations / Indicator update:**
     + NHS Outcomes Framework
       - Indicator 4.7 Patient experience of community mental health services

   **Present at meeting**: Andy Sutherland, Alyson Whitmarsh (chair), John Varlow, Chris Wilson (secretariat)

   Alison Roe, Helen Lewis, Helen Payne, Jonathon Hope *(Diabetes),* Ellen Cameron *(Diabetes),* Matt Curley *(COPD),* Chris Roebuck *(COPD),* Peter Knighton *(NOF),*

   **Apologies:** Azim Lakhani, Simone Chung

   # New indicators for consideration

   |  |  |
   | --- | --- |
   | **Indicator** | **NHS-OF 1.4.vii** – **Under 75 mortality rate from cancer** |
   | **Construction and data source** | **Numerator:** Number of deaths under 75 from all cancers.  Cancer is defined in terms of the following ICD10 codes: All ICD-10 codes for malignant Neoplasms in Chapter II – Neoplasms (C00-C97). ONS mortality data by cause.  **Denominator:** Resident population under 75 years.ONS mid-year population estimates.  **Indicator format:** Rate per 100,000 population directly age standardised to the European Standard Population (ESP). |
   | **Rationale** | Introduced to the NHS Outcomes Framework in December 2012. This shared indicator with Public Health has been introduced in addition to indicators of one-and five-year survival from the three main cancers to demonstrate that the NHS can make a contribution to improving preventable as well as amenable cancer mortality. |
   | **Ref Docs** | The NHS Outcomes Framework 2012/13 Technical Appendix<http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_131721.pdf> |
   | **Potential issues** | Indicators 1.1, 1.2 and 1.3 of the NHS OF use the same method with different ICD-10 codes.  1.1 Under 75 mortality rate from cardiovascular disease  1.2 Under 75 mortality rate from respiratory disease  1.3 Under 75 mortality rate from liver disease  The indicator under consideration here and 1.1 are also calculated for the Compendium of Population Health Indicators  ESP used as international comparisons are a key element in setting the levels of ambition for the NHS Outcomes Framework. |

   # Diabetes Audit-Based COF Indicators

   Domain 2 - Enhancing the quality of live for people with long term conditions

   The following indicators are discussed below:

   |  |  |  |  |
   | --- | --- | --- | --- |
   | No | Diabetes | NDA | HES |
   | 2.53 | Of people with newly diagnosed diabetes, the proportion who are offered [structured education] within 3 months of diagnosis | X |  |
   | 2.54 | Of people with established diabetes, the proportion who are offered [structured education] | X |  |
   | 2.55 | Of people with newly diagnosed diabetes, the proportion who start [structured education] | X |  |
   | 2.56 | Of people with established diabetes, the proportion who start [structured education] | X |  |
   | 2.57 | Of people with newly diagnosed diabetes, the proportion who complete [structured education] | X |  |
   | 2.58 | Of people with established diabetes, the proportion who complete [structured education] | X |  |
   | 2.59 | Of people with established diabetes, the proportion whose last [review] and [reinforcement] of the [structured education] was no longer than 15 months after the previous review | X |  |
   | 2.61 | The incidence of complications associated with diabetes per X people with diabetes | X |  |
   | 2.62 | The incidence rate of lower limb amputations per X people with diabetes | X |  |

   1. The National Diabetes Audit (NDA) is the only source for some of the data elements required to construct many diabetes related indicators although GPES may be able to provide much of the required information given the correct data extraction business rules.
   2. The NDA is the largest annual clinical audit in the world. It has permission from NIGB to collect patient identifiable data under Section 251 of the NHS Act 2006.

   The audit is optional, so it is not mandated but data are collected from PCTs, Hospital Trusts, Specialist Paediatric Units and GP Practices. In 2009-10, 6507 of 8357 England GP Practices took part in the audit (77.86%) and significantly improved technical data extraction methods have resulted in far greater participation in the most recent audit whose results are imminent. For example, in 2009-10, there were 2.00 million patients recorded in the NDA; the 2010-11 dataset contains 2.24 million records.

   1. NDA has no exclusions, patient of all ages and all types of diabetes (apart from gestational which is temporary) are included.
   2. NDA encompasses all Primary care and all adults from Secondary care. Paediatric units and endocrinology units treating children with diabetes no longer return data to the NDA as their data are independently collected. However, the NDA team believes that the majority of children with diabetes will have type one diabetes and thus most will have this noted in their GP record - in the most recently published audit, 20,000 children had records of diabetes in paediatric units of which 18,000 were also recorded in the GP record.

   Since the NDA is the only source for the required data, given that secondary care records for children are not included in the dataset, there are several options:

   * + 1. Use the NDA to cover primary care only, for patients of all ages, all types of diabetes (except gestational), no exclusions. This would include treatment delivered by primary or secondary care for these patients but exclude any records with no primary care match.
       2. Use the NDA and filter for adults only, exclude children’s records entirely but include records from secondary care.
       3. Use the NDA as is, accepting that child records from secondary care will not be included.

   The NDA team believes that the inclusion or otherwise of children in the secondary care dataset is not a relevant concern in view of the fact that the object of the indicator is to know and understand whether structured education is being offered and what the take up has been, i.e. whether healthcare providers are delivering what they should. Furthermore, the NDA team believes (as above) that most children receiving diabetes treatment in secondary care will be identified via their GP records instead. The team therefore recommends use of the NDA as is.

   1. The NDA takes place annually and has been completed every year since 2003-2004. Indicators can thus be reported no more frequently than on a yearly basis. Following the collection, date are validated, verified, processed and quality assured before analysis and reporting can begin. NDA 2010-2011 will be ready to commence reporting during May 2012.
   2. These indicators need to be reported at CCG level, which will be derived from GP practice registrations. Not all patients are registered with a GP and since some NDA data comes solely from secondary care, some patients will not be attributable to a CCG. The NDA team advises that three years ago, 2.8% of secondary care patient records had no GP recorded. Further investigation is needed to ascertain the spread of this.
   3. There may be issues around reporting small numbers at CCG level.

   ***Structured Education Indicators – Potential Issues***

   1. Structured education is poorly recorded in primary care e.g. NDA 2009-2010 showed only 1.8% of patients submitted to the NDA had a structured education offered Read code in their record. Read codes exist for referral, attendance and review of structured education **(see Appendix 1**) although in some instances the codes have a narrow focus and it is not necessarily clear which of these codes would constitute “structured education”.
   2. Data returned by Secondary Care includes two flags (01=Carried out , 02=Not done) for Structured Education Offered and Structured Education Attended; only 1.6% of records in the raw 2009-2010 dataset have an entry in the Education Offered field and there is no capacity in the current data collection for Structured Education Completed.

   The NDA and Clinical Indicators Teams have concerns about the completeness of data. It is suggested that the poor completion is due to the fact that there are no QOF points associated with the recording of this measure – for example, 90-95% of diabetes patients have a record of their blood sugar level because there is an incentive to record this information.

   As a consequence of the incomplete data and issues with the Read codes, the NDA team questions whether it is appropriate and meaningful to report structured education by offered, attended and completed and recommends that if included these would be included as an experimental statistic to encourage improved completion of these fields – contextual indicators may also be useful to drive this change.

   The NICE guidance considers that patients cannot attend or complete structured education unless it has first been offered, so specifies that indicators 2.55 and 2.57 would be a subset of the patients identified for 2.53 (newly diagnosed and offered structured education) and 2.56 and 2.58 would be a subset of 2.54 (patients with established diabetes and offered structured education). Because the Read codes for structured education do not support this and the data are infrequently recorded, this is not currently feasible and thus the indicators will have to use all newly or established patients in the denominator as applicable. Furthermore, it is possible that the audit data contained a patient who was not offered education during that data year (because it was offered before the start of the window) but went on to attend. This could conceivably mean that more than 100% of those offered education in that data year actually attended.

   1. NICE defined “newly diagnosed” as within 6 months. The NDA has historically recorded the year of diagnosis rather than the actual date. This has been changed for future collections but for the feasibility testing, “newly diagnosed” is defined as less than a year.

   |  |  |
   | --- | --- |
   | **Indicator** | COF 2.53 - Of people with newly diagnosed diabetes, the proportion who are offered [structured education] within 3 months of diagnosis |
   | **Construction and data source** | **Data source:** National Diabetes Audit (NDA) and GP Population Data  **Indicator definition:** the proportion of persons with newly diagnosed diabetes offered a structured education  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients newly diagnosed with diabetes offered a structured education.  **Denominator:** Patients newly diagnosed with diabetes as recorded in GP Adult Population Data and / or secondary care records. |
   | **Rationale** | The indicator is based on a NICE Quality Standard (refer to section 3, Evidence Base) and has been identified by the NICE COF Advisory Committee for use in the Commissioning Outcomes Framework.  Indicators 2.53 to 2.64 have been identified as being a key component of high quality care as defined in the NICE quality standard for diabetes.  For indicators 2.53 to 2.59, Statement 1 requires that “People with diabetes and/or their carers receive a structured educational programme that fulfils the nationally agreed criteria at the time of diagnosis, with annual review and access to on-going education. ” |
   | **Potential issues** | 1. NDA historically recorded **year** as opposed to **date** of diagnosis although the collection is being updated to record actual date. NICE defined “newly diagnosed” as within 6 months but this cannot yet be reported.  Patients to be identified if first date of diagnosis is during the audit year. 2. It is not yet possible to report offer of structured education within 3 months of diagnosis (see above), but it is possible to record whether an offer has been made. **These constraints will be irrelevant by the time COF is live.** 3. NDA is able to collect only offered or attended and does not collect the Read codes. Any requirement to split attended into started and completed would require a change to the audit and may incur costs. |

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   | --- | --- |
   | **Indicator** | COF 2.55 - Of people with newly diagnosed diabetes, the proportion who start [structured education] |
   | **Construction and data source** | **Data source:** National Diabetes Audit (NDA) and GP Population Data  **Indicator definition**: the proportion of persons with newly diagnosed diabetes who attended a structured education  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients newly diagnosed with diabetes who attended a structured education.  **Denominator:** Patients newly diagnosed with diabetes as recorded in GP Adult Population Data and / or secondary care records. |
   | **Rationale** | See 2.53 |
   | **Potential issues** | 1. As for 2.53 2. See points 7 - 9 in opening paragraph. It is not possible to report this indicator as a subset of patients offered a structured education because of the aforementioned data completeness and coding issues. Denominator therefore to be all newly diagnosed diabetes patients. 3. Read codes to not record “Started” only attended or completed.  Clarification required for which Structured Education Read codes to use |

   |  |  |
   | --- | --- |
   | **Indicator** | COF 2.57 - Of people with newly diagnosed diabetes, the proportion who complete [structured education] |
   | **Construction and data source** | **Data source:** National Diabetes Audit (NDA) and GP Population Data  **Indicator definition:** the proportion of persons with newly diagnosed diabetes who completed a structured education  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients newly diagnosed with diabetes who completed a structured education.  **Denominator:** Patients newly diagnosed with diabetes as recorded in GP Adult Population Data and / or secondary care records. |
   | **Rationale** | See 2.53 |
   | **Potential issues** | See 2.55 above |

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   | **Indicator** | COF 2.54 - Of people with established diabetes, the proportion who are offered [structured education] |
   | **Construction and data source** | **Data source:** National Diabetes Audit (NDA) and GP Population Data  **Indicator definition:** the proportion of persons with established diabetes offered a structured education.  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients with established diabetes offered a structured education.  **Denominator:** Patients with established diabetes as recorded in GP Adult Population Data and / or secondary care records. |
   | **Rationale** | See 2.53 |
   | **Potential issues** | 1. Issues with year vs date of diabetes.  Patients will be identified as having established diabetes if their first year of diagnosis is before the audit year. **The NDA will soon record date of diagnosis so this should not be a problem in the future** 2. How often should structured education be offered?  Once the patient is flagged as having attended / completed structured education, they should be removed from the denominator for “offered” and counted for indicator 2.59. 3. How are patients processed if structured education is offered but refused or they do not attend? Should the offer be made repeatedly? 4. Clarification required for which Structured Education Read codes to use |

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   | **Indicator** | COF 2.56 - Of people with established diabetes, the proportion who start [structured education] |
   | **Construction and data source** | **Data source:** National Diabetes Audit (NDA) and GP Population Data  **Indicator definition**: the proportion of persons with established diabetes who attended a structured education.  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients with established diabetes who attended a structured education.  **Denominator:** Patients with established diabetes as recorded in GP Adult Population Data and / or secondary care records. |
   | **Rationale** | See 2.53 |
   | **Potential issues** | 1. As 2.54 above points 1 to 4 2. See points 7 - 9 in opening paragraph. It is not possible to report this indicator as a subset of patients offered a structured education because of the aforementioned data completeness and coding issues. Denominator therefore to be all newly diagnosed diabetes patients. |

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   | **Indicator** | COF 2.58 - Of people with established diabetes, the proportion who complete [structured education] |
   | **Construction and data source** | **Data source**: National Diabetes Audit (NDA) and GP Population Data  **Indicator definition:** the proportion of persons with established diabetes who completed a structured education.  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients with established diabetes who completed a structured education.  **Denominator:** Patients with established diabetes as recorded in GP Adult Population Data and / or secondary care records. |
   | **Rationale** | See 2.53 |
   | **Potential issues** | 1. As 2.54 above points 1 to 4 2. See points 7 - 9 in opening paragraph. It is not possible to report this indicator as a subset of patients offered a structured education because of the aforementioned data completeness and coding issues. Denominator therefore to be all newly diagnosed diabetes patients. |

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   | **Indicator** | COF 2.59 - Of people with established diabetes, the proportion whose last [review] and [reinforcement] of the [structured education] was no longer than 15 months after the previous review |
   | **Construction and data source** | **Data source:** National Diabetes Audit (NDA) and GP Population Data  **Indicator definition:** the proportion of persons with established diabetes whose structured education is reviewed within the past 15 months.  Indicator will be reported annually. This indicator will be a percentage.  **Numerator:** The number patients with established diabetes whose structured education is reviewed within the past 15 months.  **Denominator:** Patients with established diabetes as recorded in GP Adult Population Data and / or secondary care records who have already attended or completed a structured education. |
   | **Rationale** | See 2.53 |
   | **Potential issues** | 1. Issues with year vs date of diagnosis as above 2. Include only patients who have already attended / completed structured education 3. What happens with those patients who have refused to participate in structured education? 4. Clarification required for which Structured Education Read codes to use 5. This would require linkage across data years, which doesn’t currently happen in the audit. It would therefore be a resource intensive piece of work |

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   | **Recommendations** |
   | **Commissioning Outcomes Framework (COF)**  2.53 -Of people with newly diagnosed diabetes, the proportion who are offered [structured education] within 3 months of diagnosis  2.54 - Of people with established diabetes, the proportion who are offered [structured education]  2.55 - Of people with newly diagnosed diabetes, the proportion who start [structured education]  2.56 - Of people with established diabetes, the proportion who start [structured education]  2.57 - Of people with newly diagnosed diabetes, the proportion who complete [structured education]  2.58 - Of people with established diabetes, the proportion who complete [structured education]  2.59 - Of people with established diabetes, the proportion whose last [review] and [reinforcement] of the [structured education] was no longer than 15 months after the previous review |

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   | Rec 2012/36 | Definitions in relation to what is being covered in the measurement, and what recording periods are being defined, to be made more precise within the indicator description. MRG suggested that the description could start as “of people included in the audit...” |
   | Rec 2012/37 | Further investigation is required to examine the impact on data quality that the recording levels described in point 9 of the summary of the MRG paper may have – i.e. for Secondary Care only 1.6% of records in the 2009-10 raw dataset have an entry in the Education Offered field.  Further consideration is needed with regards to what measures of data quality could support the indicators for completeness of understanding |
   | Rec 2012/38 | Consideration is to be given as to how to follow up the percentage of GP’s who don’t take part in the NDA. Additionally, the rate at which people dissent from the audit will need to be reported back. |
   | Rec 2012/39 | The position on which GP is attributable for “offers”, “starts” and “completions”, when a patient changes GP practice within the defined indicator time periods needs clarifying |

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   | No | Diabetes | NDA | HES |
   | 2.61 | Of people with newly diagnosed diabetes, the proportion who are offered [structured education] within 3 months of diagnosis | X |  |
   | 2.62 | Of people with established diabetes, the proportion who are offered [structured education] | X |  |

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   | **Indicator** | COF 2.61 - The incidence of complications associated with diabetes per X people with diabetes |
   | **Construction and data source** | **Data source:** HES, National Diabetes Audit (NDA) and GP Population Data  **Indicator definition**: Rates of complications associated with diabetes  NDA complication types are diagnoses or procedures as follow:  * Ketoacidosis * Angina * Myocardial Infarction * Cardiac Failure * Stroke * Diabetic Retinopathy treatments * Renal Failure * Amputation minor * Amputation major ICD-10 and OPCS-4 codes are provided **(see Appendix 2)**  Indicator will be reported annually (April to March). This indicator will be a rate.  **Numerator:** Number of people identified by NDA in the denominator with a HES record of NDA complications using (a) ICD-10 primary or secondary diagnosis codes (see below) or (b) OPCS-4 procedure codes  **Denominator:** Number of people with diabetes collected by the NDA from Primary and / or Secondary Care |
   | **Rationale** | The indicator is based on a NICE Quality Standard (refer to section 3, Evidence Base) and has been identified by the NICE COF Advisory Committee for use in the Commissioning Outcomes Framework.  NDA reports on complications prevalence in the NDA diabetes population annually, this is available publicly via the HSCIC website. |
   | **Potential issues** | 1. Complication    1. prevalence is defined as the number of people who have had one or more records of a specific complication over the defined time period    2. incidence is defined as the total number of times a specific complication has occurred within the defined time period Clarify whether to count people with complications irrespective of number, or count of incidents (which theoretically could return a higher numerator than denominator)  1. Complications incidence cannot be provided for renal failure, cardiac failure and angina. |

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   | **Recommendations** | **Commissioning Outcomes Framework (COF)**  2.61 - The incidence of complications associated with diabetes per X people with diabetes |
   | Rec 2012/40 | Further investigation of death rates connected to myocardial infarction is required to confirm this is not impacting on results. |
   | Rec 2012/41 | MRG recommended that an exercise take place to verify the number of instances where NDA/HES items don’t match, e.g. where missing NHS number |
   | Rec 2012/42 | MRG recommended that a review of whether there is a necessity for age standardisation take place, for instance is the complication connected to age profile, with a risk model built as appropriate. |

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   | **Indicator** | COF 2.62 - The incidence rate of lower limb amputations per X people with diabetes |
   | **Construction and data source** | **Data source:** HES, National Diabetes Audit (NDA) and GP Population Data  **Indicator definition:** Rates of complications associated with diabetes  NDA complication types are diagnoses or procedures as follow:  * Amputation major OPCS-4 codes are provided below  Indicator will be reported annually (April to March). This indicator will be a rate.  **Numerator:** Number of people identified by NDA in the denominator with a HES record of lower limb amputation using the OPCS-4 procedure codes below  **Denominator:** Number of people with diabetes collected by the NDA from Primary and / or Secondary Care |
   | **Rationale** | The indicator is based on a NICE Quality Standard (refer to section 3, Evidence Base) and has been identified by the NICE COF Advisory Committee for use in the Commissioning Outcomes Framework.  Statement 10 for indicator 2.62: People with diabetes with or at risk of foot ulceration receive regular review by a foot protection team in accordance with NICE guidance, and those with a foot problem requiring urgent medical attention are referred to and treated by a multidisciplinary foot care team within 24 hours.” |
   | **Potential issues** | NHSIC Compendium Indicator reports incidence of lower limb amputations in diabetic patients using HES data and a general population denominator – this will use the NDA diabetic population as the denominator as reported by NDA. |

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   | **Recommendations** | **Commissioning Outcomes Framework (COF)**  2.62 - The incidence rate of lower limb amputations per X people with diabetes |
   | Rec 2012/43 | Review the work previously done in relation to the compendium indicator and build a critique around why the current compendium indicator can’t be adapted for COF purposes |

   **HES or Diabetes Audit-Based COF Indicators**

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   | **No** | **Diabetes** | **NDA** | **HES** |
   | 2.60 | Readmission rates of people admitted with diabetic ketoacidosis within 12 months following discharge | X | X |
   | 2.63 | Emergency admissions: diabetic ketoacidosis in people with diabetes | X | X |
   | 2.64 | Emergency admissions: hypoglycaemia in people with diabetes |  | X |

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   | **Indicator** | COF 2.60 **HES** - Of people discharged following admission to hospital with diabetic ketoacidosis, the proportion who are readmitted within 12 months |
   | **Construction and data source** | **Data source:** Hospital Episode Statistics Admitted Patient Care Data (HES APC), GP Patient Data.  **Indicator definition:** the proportion of persons readmitted to hospital with a diagnosis of diabetic ketoacidosis following discharge (following a spell for the same cause) within the previous 12 months.  Indicator will be annual. This indicator will be a rate of the total CCG population meeting the denominator criteria.  **Numerator**  The number finished and unfinished continuous inpatient spells (CIPS), excluding transfers with emergency admission, where the first episode contains a primary diagnosis of diabetic ketoacidosis (without coma) and the patient had a previous admission within the last 12 months (discharged before financial year 1011) with a primary diagnosis of diabetic ketoacidosis. See ICD-10 code descriptions below.  **Denominator**  The number of emergency admission spell records discharged before financial year 1011, where the first episode contains a primary diagnosis of diabetic ketoacidosis (without coma) and discharge method is not death. |
   | **Rationale** | Indicators 2.53 to 2.64 have been identified as being a key component of high quality care as defined in the NICE quality standard for diabetes. In particular, statement 12 “People admitted to hospital with diabetic ketoacidosis receive educational and psychological support prior to discharge and are followed up by a specialist diabetes team.” |
   | **Potential issues** | 1. This is for all people unless requested otherwise 2. In the event that the patient has changed GP and CCG between discharge and readmission, it is recommended that results be matched to the GP Practice and CCG in the numerator rather than denominator. It would be unfair and inappropriate to record against the original GP and CCG once the patient has left their care, while the new GP is responsible for ensuring that the patient has adequate support and education to manage their long-term condition. *However*, there is some question about the reasonableness of timescales here – how quickly should a new GP ensure that this support and training are in place? |
   | **Additional Information** | **Applied filters**:  The following filters are suggested for application to both numerator and denominator, unless stated otherwise:  1. CLASSPAT = ‘1’ or ‘2’ to select ordinary and day case admissions only. Excluding regular day/night attenders, maternity and births 2. EPISTAT = ‘1’ or ‘3’ (Selects finished episodes only) 3. EPITYPE = ‘1’ (Selects general episodes only, excluding delivery and birth related episodes) 4. SEX IN (‘1’,’2’) (Selects valid SEX) 5. STARTAGE Between 0 AND 120 OR STARTAGE between 7001 AND 7007 (Valid ages) 6. ADMIMETH = 21,22,23,24 or 28 (admission method) 7. EPISTART >= 01/04/YYYY and EPISTART <= 31/03/YYYY+1 (episode start date within year) 8. EPIORDER = 1 (episode order) 9. DIAG-01 in the valid list for this indicator (primary diagnosis) NB Numerator date ranges 01-04-20XX to 31-03-20XX+1, and to qualify as a readmitted patient, there would need to be a diagnosis of diabetic ketoacidosis and a discharge date of between 02-04-20XX-1 and 31-03-20XX+1  **ICD-10 Codes E10-E14**  E10.1 Insulin-dependent diabetes mellitus with ketoacidosis  E11.1 Non-insulin-dependent diabetes mellitus with ketoacidosis  E12.1 Malnutrition-related diabetes mellitus with ketoacidosis  E13.1 Other specified diabetes mellitus with ketoacidosis  E14.1 Unspecified diabetes mellitus with ketoacidosis  A query of 2010-2011 data found 9572 records of which 1640 were readmissions within the 12 month period.  54 CCGs had no readmissions during this year. |

   **Alternatively NDA proposed methodology as follows**

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   | **Indicator** | COF 2.60 **NDA** - Of people discharged following admission to hospital with diabetic ketoacidosis, the proportion who are readmitted within 12 months |
   | **Construction and data source** | **Data source**: Hospital Episode Statistics Admitted Patient Care Data (HES APC), GP Patient Data, NDA  **Indicator definition**: the proportion of persons readmitted to hospital with a diagnosis of diabetic ketoacidosis following discharge (following a spell for the same cause) within the previous 12 months.  Indicator will be annual. This indicator will be a rate of the total CCG population meeting the denominator criteria.  **Numerator**  The number of patients with diabetes who have had more than one DKA episode (E10.1, E11.1, E13.1, E14.1)  **Denominator**  The number of patients with diabetes who have had a one or more episodes of DKA (from NDA) |
   | **Rationale** | As above |
   | **Potential issues** | 1. The NDA indicator will provide the percentage of patients with diabetes who have been admitted as in inpatient with more than 1 DKA episode within the **audit year** out of the total number of patients with diabetes who have been admitted as an inpatient with 1 or more episodes of DKA. This is not the same as reporting readmissions within 12 months of a previous admission. 2. Why exclude E12.1? |
   | **Additional Comment** | The HES proposal seems more suitable for recording across years to calculate actual readmission rates within 12 months of discharge. |

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   | **Recommendations** | **Commissioning Outcomes Framework (COF)**  2.60 - Readmission rates of people admitted with diabetic ketoacidosis within 12 months following discharge |
   | Rec 2012/44 | Feedback to NICE around clinical coding options |
   | Rec 2012/45 | Use of QOF to produce the denominator would mean that the numerator would use a filter of people aged 17 and above.  A check that QOF can provide this at CCG level is needed.  This is to be supplemented with further clarification on the definition of 17 used in QOF, and how this may impact on the denominator. |
   | Rec 2012/46 | Recommendation to use HES to calculate readmissions as NDA cannot span years. |

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   | **Indicator** | COF 2. 63 **HES** - Admission rates for diabetic ketoacidosis in people with diabetes |
   | **Construction and data source** | **Data source:** HES, QOF and GP Population Data  **Indicator definition**: Admission rates for diabetic ketoacidosis in people with diabetes  Indicator will be reported annually (April to March). This indicator will be a rate.  Numerator  The number of emergency admission spell records in adults (aged 17 or over) where the primary diagnosis code in the first episode is equal to one or more from the following ICD-10 codes which refer to diabetic ketoacidosis (without coma): E10.1, E11.1, E12.1, E13.1, E14.1. See descriptions below:  **Denominator**  The number of people registered to be diabetic aged 17 or over. Data source, QOF.  Additional data filters: ordinary admissions only, ‘valid’ sex only, closed episodes only. |
   | **Rationale** | The indicator is based on a NICE Quality Standard (refer to section 3, Evidence Base) and has been identified by the NICE COF Advisory Committee for use in the Commissioning Outcomes Framework.  NDA reports on complications prevalence in the NDA diabetes population annually, this is available publicly via the HSCIC website. |
   | **Potential issues** | 1. Specify ages – crucial to defining the denominator. QOF can only provide counts age 17 and above; DH seems to want 19+ for adults; NDA may provide more precise count. Should the source of the denominator be consistent across the diabetes indicators? |
   | **Additional Information** | 1. CLASSPAT = ‘1’ or ‘2’ to select ordinary and daycase admissions only. Excluding regular day/night attender’s, maternity and births 2. EPISTAT = ‘3’ (Selects finished episodes only) 3. EPITYPE = ‘1’ (Selects general episodes only, excluding delivery and birth related episodes) check 4. SEX IN (‘1’,’2’) (Selects valid SEX) 5. STARTAGE Between 0 AND 120 OR STARTAGE between 7001 AND 7007 (Valid ages) 2010-11 HES data produced 7989 records for admissions for adults aged 17 and over. |

   **Alternatively NDA proposed methodology as follows**

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   | **Indicator** | COF 2. 63 **NDA** - Admission rates for diabetic ketoacidosis in people with diabetes |
   | **Construction and data source** | **Data source:** Hospital Episode Statistics Admitted Patient Care Data (HES APC), GP Patient Data. NDA  **Indicator definition:** the proportion of persons admitted to hospital with a diagnosis of diabetic ketoacidosis  Indicator will be annual. This indicator will be a rate.  **Numerator:** Number of people collected by the NDA who have a HES recording of (in primary and secondary diagnosis) of diabetic ketoacidosis as follows (E10.1, E11.1, E13.1, E14.1)  **Denominator:**  Number of people with diabetes collected by the NDA from primary and secondary care |
   | **Rationale** | As above. |
   | **Potential issues** | 1. Identifying denominator counts this way is consistent with other indicators 2. Use same query filters as HES? 3. Why exclude E12.1? |

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   | **Recommendations** | **Commissioning Outcomes Framework (COF)**  2.63 - Emergency admissions: diabetic ketoacidosis in people with diabetes |
   | Rec 2012/47 | Recommendation that HES is used as the data source for indicator 2.63 |

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   | **Indicator** | COF 2. 64 **HES** - The admission rate for hypoglycaemia in people with diabetes per X people with diabetes |
   | **Construction and data source** | **Data source:** HES, QOF and GP Population Data  **Indicator definition**: The admission rate for hypoglycaemia in people with diabetes  Indicator will be reported annually (April to March). This indicator will be a rate.  **Numerator**  The number of emergency admission spell records in adults (age 17 or over) where either the primary or secondary diagnosis code is equal to one or more from the following ICD-10 codes below with a diagnosis code for hypoglycaemia, code E16.2  **Denominator**  The number of people registered to be diabetic aged 17 or over. Data source, QOF. |
   | **Rationale** | The indicator is based on a NICE Quality Standard (refer to section 3, Evidence Base) and has been identified by the NICE COF Advisory Committee for use in the Commissioning Outcomes Framework.  NDA reports on complications prevalence in the NDA diabetes population annually, this is available publicly via the HSCIC website. |
   | **Potential issues** | 1. Specify ages – crucial to defining the denominator. QOF can only provide counts age 17 and above; DH seems to want 19+ for adults; NDA can provide more precise count. Should the source of the denominator be consistent across the diabetes indicators? 2. Suggest using NDA for denominator |
   | **Additional Information** | **IDC-10 Codes**  * E10 Insulin-independent diabetes mellitus * E11 Non-insulin-dependent diabetes mellitus * E12 Malnutrition-related diabetes mellitus * E13 Other specified diabetes mellitus * E14 Unspecified diabetes mellitus * O24.0 pre-existing diabetes mellitus, insulin-dependant * O24.1 pre-existing diabetes mellitus, non-insulin-dependant * O24.2 Pre-existing malnutrition-related diabetes mellitus * O24.3 Pre-existing diabetes mellitus, unspecified * O24.4 Diabetes mellitus arising in pregnancy * O24.9 Diabetes mellitus in pregnancy, unspecified * P70.2 Neonatal diabetes mellitus 1. CLASSPAT = ‘1’ or ‘2’ to select ordinary and daycase admissions only. Excluding regular day/night attender’s, maternity and births 2. EPISTAT = ‘3’ (Selects finished episodes only) 3. EPITYPE = ‘1’ (Selects general episodes only, excluding delivery and birth related episodes) check 4. SEX IN (‘1’,’2’) (Selects valid SEX) 5. STARTAGE Between 17 AND 120 (Valid ages) 2010-11 HES data produced 8224 records |

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   | **No** | **COPD** |
   | 3.7 | Of people admitted to hospital with [an exacerbation of COPD], the proportion who are under the [care of] a [respiratory consultant] within 48h of admission until discharge |
   | 3.8 | Of those adults admitted to hospital following an exacerbation of COPD, the proportion who were readmitted within [x days] of discharge |

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   | **Indicator** | COF 3.7 Of people admitted to hospital with [an exacerbation of COPD], the proportion who are under the [care of] a [respiratory consultant] within 48h of admission until discharge |
   | **Construction and data source** | **Data source:** Hospital Episode Statistics Admitted Patient Care Data (HES APC), GP Patient Data.  **Indicator definition:** the percentage persons admitted to hospital with an exacerbation of COPD who are under the care of a respiratory consultant within two days of admission.  Indicator will be quarterly. This indicator will be a percentage of the total CCG population meeting the denominator criteria.  **Numerator**  Number of spells where the first episode contains a primary or secondary diagnosis of exacerbation of COPD, code J44.1 and an episode that has an episode start date within two days of admission with the Main Specialty code of Thoracic\Respiratory Medicine, code 340  **Denominator**  Number of spells where the first episode contains a primary or secondary diagnosis of exacerbation of COPD, code J44.1 |
   | **Rationale** | Indicator 3.7 has been identified as being a key component of high quality care as defined in the NICE quality standard for COPD, statement 10: People admitted to hospital with an exacerbation of COPD are cared for by a respiratory team, and have access to a specialist early supported-discharge scheme with appropriate community support. |
   | **Potential issues** | 1. Cannot report within 48 hours only because the data do not support this – can report more broadly “within 2 days” 2. Specify age ranges – currently the proposal assumes all patients. 3. Clarification regarding “until discharge” |
   | **Additional Information** | **Applied filters**:  The following filters are suggested for application to both numerator and denominator, unless stated otherwise:  1. MAINSPEF = ‘340’ (Respiratory consultant), applied to numerator only 2. ADMIDATE > DATEADD (DAY, -2, EPISTART) (EPISTART within 2 days of ADMIDATE), applied to numerator only 3. EPIORDER = ‘1’ selects the first episode in a spell so only those admissions with COPD exacerbation recorded against the first episode in spell are counted which means that spells where exacerbation takes place whilst in hospital are excluded 4. EPISTART >= ADMIDATE (DQ filter) 5. CLASSPAT = ‘1’ or ‘2’ to select ordinary and daycase admissions only. Excluding regular day/night attender’s, maternity and births 6. EPISTAT = ‘3’ (Selects finished episodes only) 7. EPITYPE = ‘1’ (Selects general episodes only, excluding delivery and birth related episodes) 8. SEX IN (‘1’,’2’) (Selects valid SEX) 9. (STARTAGE Between 0 AND 120 OR STARTAGE Between 7001 AND 7007) (Valid ages) **ICD-10 Codes**  J44.1  2010-11 data produced 31217 records of which 5942 were under the care of a respiratory consultant within 2 days |

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   | **Indicator** | COF 3.8 - Of those adults admitted to hospital following an exacerbation of COPD, the proportion who were readmitted within [x days] of discharge |
   | **Construction and data source** | **Data source:** Hospital Episode Statistics Admitted Patient Care Data (HES APC), GP Patient Data.  **Indicator definition:** 30 day readmissions for people who have been admitted following an exacerbation of COPD  Indicator will be quarterly. This indicator will be a percentage of the total CCG population meeting the denominator criteria.  **Numerator**  The total number of emergency admission spell records in adults over the age of 18, where the first episode contains a primary diagnosis of exacerbation of COPD (ICD-10 code J44.1, Chronic Obstructive Pulmonary Disease with exacerbation, unspecified) and the patient has a previous admission in the previous 30 days, which also has a primary diagnosis code in the first episode relating to exacerbation of COPD  **Denominator**  The number of emergency admission spell records in adults over the age of 18, where the first episode contains a primary diagnosis of exacerbation of COPD and discharge method is not death. |
   | **Rationale** | As above |
   | **Potential issues** | 1. 30 day readmission recommended as this is increasingly becoming standard rather than 28 and also as 30 would be in line with Europe and 2. Assuming adults are aged 19 and over as defined by DH. |
   | **Additional Information** | **Applied filters**:  1. CLASSPAT = ‘1’ or ‘2’ to select ordinary and daycase admissions only. Excluding regular day/night attender’s, maternity and births 2. EPISTAT = ‘3’ (Selects finished episodes only) 3. EPITYPE = ‘1’ (Selects general episodes only, excluding delivery and birth related episodes) check 4. SEX IN (‘1’,’2’) (Selects valid SEX) 5. STARTAGE *Between 0 AND 120 OR STARTAGE between 7001 AND 7007 (Valid ages) (*This came from original paperwork – indicator is adults only so should be >=19) 6. ADMISORC <> ‘51’, ‘52’ ‘53’ 2010-11 data produced 31217 admissions of which 3145 were readmissions within 30 days |

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   | **Recommendations** | **Commissioning Outcomes Framework (COF)**  3.7 - Of people admitted to hospital with [an exacerbation of COPD], the proportion who are under the [care of] a [respiratory consultant] within 48h of admission until discharge  3.8 - Of those adults admitted to hospital following an exacerbation of COPD, the proportion who were readmitted within [x days] of discharge |
   | Rec 2012/48 | Provide clarity on what is meant by “within two days” as per the indicator definition.  In addition, investigate further how a) patients who leave before 2 days have passed? b) patients who die? Are dealt with in the indicator |
   | Rec 2012/49 | Report back to NICE questions linked to data quality in which the preference of NICE is sought. This includes assurance around the use of specialist codes and whether the appropriate sub-specialities are being used. |

   # Recommendation updates

   The following indicator is presented for further consideration after previously being discussed at MRG (8th Sept 2011) and IGB (6th October 2011)

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   | **Indicator** | **NHS-OF 4.7 – Patient experience of community mental health services** |
   | **Construction and data source** | Method approved by MRG for use in CQC survey based indicators in the NHS Outcomes Framework – Sept 2011.  **Data source:** CQC’s Community mental health services survey.  Over 17,000 responses to 2010 survey – response rate of 33%.  This is a composite indicator averaging scores from several questions. Individual questions are scored according to pre-defined scoring regime that awards scores between 0-100. Therefore, the indicator will take values between 0-100.  The questions have been selected by the Mental Health policy team at DH and assured by the Patient Experience Policy Team (PEPP).  Full details of the selection and assurance are provided in document entitled ‘Mental Health D4 4.7 PEPP ASSURANCE SIGNED OFF’.  **Construction:**  Overall score of five separate questions. Data is standardised by age and sex. For each trust, an average weighted score is calculated for each of the relevant questions. Missing values are excluded from analysis. These scores are aggregated into the overall value using a simple weighted average. National domain scores are calculated by a simple average of the Trust scores. |
   | **Rationale** | It is now standard practice in healthcare systems worldwide to ask people to provide direct feedback on the quality of their experience |
   | **Additional Information** | Original submission was for the use of five questions:  Thinking about the last time you saw this NHS health worker or social care worker for your mental health condition  * Did this person **listen carefully** to you? * Did this person take **your views** into account? * Did you have **trust and confidence** in **this** person? * Did **this** person treat you with **respect and dignity**? * *Overall, how would you rate the care you have received from NHS Mental Health Services in the last 12 months?* The last question in this list is no longer going to be used for the following reasons,  * CQC will be removing this question from next year, so no comparison over time would be possible. * The DH NHS Outcomes Framework team did not wish to use an overarching question in a composite indicator. The mental health team at the department of health are proposing that question be replaced with the following three:  * Has anyone in the NHS mental health services ever asked you about your use of non-prescription drugs? * In the last 12 months, have you received support from anyone in the NHS mental health services in getting help with your physical health needs? * In the last 12 months, have you received support from anyone in the NHS mental health services in getting help with your care responsibilities (including looking after children)? The argument for the use of these replacement questions is available on request by email: [indicators@nice.org.uk](mailto:indicators@nice.org.uk) |
   | **Potential issues** | The questions forming the original indicator were selected by the DH Mental Health team with support from the Patient Experience Policy programme (PEP).  PEP has concerns over the proposed question selection:  ‘We now have 7 questions as data sources which relate to a range of different things and really question the transparency of the indicator.’  ‘This indicator now sits outside the model we had adopted for the CQC data source indicators.’ |

   |  |  |
   | --- | --- |
   | **Recommendations** | **NHS-OF 4.7 – Patient experience of community mental health services** |
   | Rec 2012/50 | It is recommended that the concerns raised in the meeting about the suitability of the 3 additional questions, and the apparent disconnect with the original 4 questions in the indicator is fed back to DH |

   **Appendi****x 1 – Read Codes**

   **Read codes – Structured Education Referral, Attendance or Completion**

   |  |  |  |  |
   | --- | --- | --- | --- |
   | **Type** | **v2** | **CTv3** | **Term Description** |
   | Referral | 679R. | 679R. | Patient offered diabetes structured education programme |
   | Referral | 8Hj0 | XaKGy | Referral to diabetes structured education programme |
   | Referral | 8Hj3. | 8Hj3. | Referral to DAFNE diabetes structured education programme |
   | Referral | 8Hj4. | 8Hj4. | Referral to DESMOND diabetes structured education programme |
   | Referral | 8Hj5. | 8Hj5. | Referral to XPERT diabetes structured education programme |
   | Referral | 8I81. | 8I81. | Did not complete diabetes structured education programme |
   | Referral | 8I82. | 8I82. | Did not complete DAFNE diabetes structured education program |
   | Referral | 8I83. | 8I83. | Did not complete DESMOND diabetes structured education programme |
   | Referral | 8I84. | 8I84. | Did not complete XPERT diabetes structured education programme |
   | Referral | 9NiA. | 9NiA. | Did not attend diabetes structured education programme |
   | Referral | 9NiC. | 9NiC. | Did not attend DAFNE diabetes structured education programme |
   | Referral | 9NiD. | 9NiD. | Did not attend DESMOND diabetes structured education programme |
   | Referral | 9NiE. | 9NiE. | Did not attend XPERT diabetes structured education programme |
   | Referral | 9OLM. | 9OLM. | Diabetes structured education programme declined |
   | Referral |  | 8Hj0 | Referral to diabetes structured education programme |
   | Referral |  | XaKSp | Patient offered diabetes structured education programme |
   | Referral |  | XaNTa | Did not attend diabetes structured education programme |
   | Referral |  | XaNTd | Did not complete diabetes structured education programme |
   | Referral |  | XaNTe | Did not complete DAFNE diabetes structured education program |
   | Referral |  | XaNTf | Did not complete DESMOND diabetes structured education programme |
   | Referral |  | XaNTg | Did not complete XPERT diabetes structured education programme |
   | Referral |  | XaNTH | Diabetes structured education programme declined |
   | Referral |  | XaNTQ | Referral to dose adjustment for normal eating diabetes structured education programme |
   | Referral |  | XaNTS | Referral to diabetes education and self management for ongoing and newly diagnosed diabetes structured programme |
   | Referral |  | XaNTT | Referral to expert patient education versus routine treatment diabetes structured education programme |
   | Referral |  | XaNU1 | Did not attend DAFNE diabetes structured education programme |
   | Referral |  | XaNU2 | Did not attend DESMOND diabetes structured education programme |
   | Referral |  | XaNU3 | Did not attend XPERT diabetes structured education programme |
   | Referral |  | XaX49 | Referral to type I diabetes structured education programme |
   |  |  |  |  |
   | Attendance | 9OLB | 9OLB | Attended diabetes structured education programme |
   | Attendance | 9OLE. | 9OLE. | Attended diabetes education and self management for ongoing and newly diagnosed structured programme |
   | Attendance | 9OLG. | 9OLG. | Attended expert patient education versus routine treatment diabetes structured education programme |
   | Attendance | 9OLH. | 9OLH. | Attended dose adjustment for normal eating diabetes structured education programme |
   | Attendance |  | XaKH0 | Attended diabetes structured education programme |
   | Attendance |  | XaN1z | Attended diabetes education and self management for ongoing and newly diagnosed structured programme |
   | Attendance |  | XaNT8 | Attended expert patient education versus routine treatment diabetes structured education programme |
   | Attendance |  | XaNTA | Attended dose adjustment for normal eating diabetes structured education programme |
   | Attendance | 9OLF. | 9OLF. | Diabetes structured education programme completed |
   | Attendance | 9OLJ. | 9OLJ. | Dose adjustment for normal eating diabetes structured education programme completed |
   | Attendance | 9OLK. | 9OLK. | Diabetes education and self management for ongoing and newly diagnosed structured programme completed |
   | Attendance | 9OLL. | 9OLL. | Expert patient education versus routine treatment diabetes structured education programme completed |
   | Attendance |  | XaNHW | Diabetes structured education programme completed |
   | Attendance |  | XaNTB | Dose adjustment for normal eating diabetes structured education programme completed |
   | Attendance |  | XaNTC | Diabetes education and self management for ongoing and newly diagnosed structured programme completed |
   | Attendance |  | XaNTD | Expert patient education versus routine treatment diabetes structured education programme completed |
   | Attendance |  | XaX5D | Diabetes structured education programme completed |
   |  |  |  |  |
   | Review | 66Af | 66Af | Patient Diabetes Education Review |
   | Review | 679L. | XaJ7D | Health education - diabetes |
   | Review | 679L0 | 679L0 | Education in self management of diabetes |
   | Review |  | XaKGs | Patient diabetes education review |
   | Review |  | XaR8L | Education in self management of diabetes |

   **Read Codes – Diabetes Diagnosis**

   |  |  |  |
   | --- | --- | --- |
   | **v2** | **CTv3** | **Diabetes Read Code Description** |
   | C10.. | C10.. | Diabetes mellitus |
   | C100. | C100. | Diabetes mellitus with no mention of complication |
   | C1000 | C1000 | Diabetes mellitus: [juvenile type, with no mention of complication] or [insulin dependent] |
   | C1001 | C1001 | Diabetes mellitus: [adult onset, with no mention of complication] or [maturity onset] or [non-insulin dependent] |
   | C100z | C100z | Diabetes mellitus NOS with no mention of complication |
   | C101. | C101. | Diabetic ketoacidosis |
   | C1010 | C1010 | Type 1 diabetes mellitus with ketoacidosis |
   | C1011 | C1011 | Type 2 diabetes mellitus with ketoacidosi |
   | C101y | C101y | Other specified diabetes mellitus with ketoacidosis specified manifestation |
   | C101z | C101z | Diabetes mellitus NOS with ketoacidosis |
   | C102. | C102. | Diabetes mellitus with hyperosmolar coma |
   | C1020 | C1020 | Diabetes mellitus, juvenile type, with hyperosmolar coma |
   | C1021 | C1021 | Diabetes mellitus, adult onset, with hyperosmolar coma |
   | C102z | C102z | Diabetes mellitus NOS with hyperosmolar coma |
   | C103. | C103. | Diabetes mellitus with ketoacidotic coma |
   | C1030 | C1030 | Type 1 diabetes mellitus with ketoacidotic coma |
   | C1031 | C1031 | Type 2 diabetes mellitus with ketoacidotic coma |
   | C10FP |  | Type 2 diabetes mellitus with ketoacidotic coma |
   | C103y | C103y | Other specified diabetes mellitus with coma |
   | C103z | C103z | Diabetes mellitus NOS with ketoacidotic coma |
   | C104. | C104. | Diabetes mellitus: [with renal manifestation] or [nephropathy] |
   | C1040 | C1040 | Diabetes mellitus, juvenile type, with renal manifestation |
   | C1041 | C1041 | Diabetes mellitus, adult onset, with renal manifestation |
   | C104y | C104y | Other specified diabetes mellitus with renal complications |
   | C104z | C104z | Diabetes mellitis with nephropathy NOS |
   | C105. | C105. | Diabetes mellitus with ophthalmic manifestation |
   | C1050 | C1050 | Diabetes mellitus, juvenile type, with ophthalmic manifestation |
   | C1051 | C1051 | Diabetes mellitus, adult onset, with ophthalmic manifestation |
   | C105y | C105y | Other specified diabetes mellitus with ophthalmic complications |
   | C105z | C105z | Diabetes mellitus NOS with ophthalmic manifestation |
   | C1060 | C1060 | Diabetes mellitus, juvenile type, with neurological manifestation |
   | C1061 | C1061 | Diabetes mellitus, adult onset, with neurological manifestation |
   | C106y | C106y | Other specified diabetes mellitus with neurological complications |
   | C106z | C106z | Diabetes mellitus NOS with neurological manifestation |
   | C107. | C107. | Diabetes mellitus with: [gangrene] or [peripheral circulatory disorder] |
   | C1070 | C1070 | Diabetes mellitus, juvenile type, with peripheral circulatory disorder |
   | C1071 | C1071 | Diabetes mellitus, adult onset, with peripheral circulatory disorder |
   | C1072 | C1072 | Diabetes mellitus, adult with gangrene |
   | C1073 | C1073 | IDDM with peripheral circulatory disorder |
   | C1074 | C1074 | NIDDM with peripheral circulatory disorder |
   | C107y | C107y | Other specified diabetes mellitus with peripheral circulatory complications |
   | C107z | C107z | Diabetes mellitus NOS with peripheral circulatory disorder |
   | C1080 | C1080 | Type I diabetes mellitus with renal complications |
   | C10E0 |  | Type 1 diabetes mellitus with renal complications |
   | C1081 | C1081 | Type I diabetes mellitus with ophthalmic complications |
   | C10E1 |  | Type 1 diabetes mellitus with ophthalmic complications |
   | C1082 | C1082 | Type I diabetes mellitus with neurological complications |
   | C10E2 |  | Type 1 diabetes mellitus with neurological complications |
   | C1083 | C1083 | Type I diabetes mellitus with multiple complications |
   | C10E3 |  | Type 1 diabetes mellitus with multiple complications |
   | C1085 | C1085 | Type I diabetes mellitus with ulcer |
   | C1086 | C1086 | Type I diabetes mellitus with gangrene |
   | C1087 | C1087 | Type I diabetes mellitus with retinopathy |
   | C1088 | C1088 | Type I diabetes mellitus - poor control |
   | C1088 | C1088 | Type I diabetes mellitus - poor control |
   | C1089 | C1089 | Type I diabetes mellitus maturity onset |
   | C108y | C108y | Other specified diabetes mellitus with multiple complications |
   | C108z | C108z | Unspecified diabetes mellitus with multiple complications |
   | C1090 | C1090 | Type II diabetes mellitus with renal complications |
   | C1091 | C1091 | Type II diabetes mellitus with ophthalmic complications |
   | C1092 | C1092 | Type II diabetes mellitus with neurological complications |
   | C10F2 |  | Type 2 diabetes mellitus with neurological complications |
   | C1093 | C1093 | Type II diabetes mellitus with multiple complications |
   | C10F3 |  | Type 2 diabetes mellitus with multiple complications |
   | C1094 | C1094 | Type II diabetes mellitus with ulcer |
   | C1095 | C1095 | Type II diabetes mellitus with gangrene |
   | C1096 | C1096 | Type II diabetes mellitus with retinopathy |
   | C1097 | C1097 | Type II diabetes mellitus - poor control |
   | C1097 | C1097 | Type II diabetes mellitus - poor control |
   | C10A. | C10A. | Malnutrition-related diabetes mellitus |
   | C10A0 | C10A0 | Malnutrition-related diabetes mellitus with coma |
   | C10A1 | C10A1 | Malnutrition-related diabetes mellitus with ketoacidosis |
   | C10A2 | C10A2 | Malnutrition-related diabetes mellitus with renal complications |
   | C10A3 | C10A3 | Malnutrition-related diabetes mellitus with ophthalmic complications |
   | C10A4 | C10A4 | Malnutrition-related diabetes mellitus with neurological complications |
   | C10A5 | C10A5 | Malnutrition-related diabetes mellitus with peripheral circulatory complications |
   | C10A6 | C10A6 | Malnutrition-related diabetes mellitus with multiple complications |
   | C10A7 | C10A7 | Malnutrition-related diabetes mellitus without complications |
   | C10B0 | C10B0 | Steroid-induced diabetes mellitus without complication |
   | C10C. | C10C. | Diabetes mellitus autosomal dominant |
   | C10D. | C10D. | Diabetes mellitus autosomal dominant type 2 |
   | C10E. | C10E. | Type I diabetes mellitus |
   | C10E4 | C10E4 | Unstable type I diabetes mellitus |
   | C10EA | C10EA | Type I diabetes mellitus without complication |
   | C10EB | C10EB | Type 1 diabetes mellitus with mononeuropathy |
   | C10EC | C10EC | Type I diabetes mellitus with polyneuropathy |
   | C10ED | C10ED | Type I diabetes mellitus with nephropathy |
   | C10EE | C10EE | Type I diabetes mellitus with hypoglycaemic coma |
   | C10EF | C10EF | Type I diabetes mellitus with diabetic cataract |
   | C10EG | C10EG | Type I diabetes mellitus with peripheral angiopathy |
   | C10EH | C10EH | Type I diabetes mellitus with arthropathy |
   | C10EJ | C10EJ | Type I diabetes mellitus with neuropathic arthropathy |
   | C10EK | C10EK | Type 1 diabetes mellitus with persistent proteinuria |
   | C10EL | C10EL | Type 1 diabetes mellitus with persistent microalbuminuria |
   | C10EP | C10EP | Type 1 diabetes mellitus with exudative maculopathy |
   | C10EQ | C10EQ | Type 1 diabetes mellitus with gastroparesis |
   | C10ER | C10ER | Latent autoimmune diabetes mellitus in adult |
   | C10F. | C10F. | Type II diabetes mellitus |
   | C10F9 | C10F9 | Type II diabetes mellitus without complication |
   | C10FA | C10FA | Type II diabetes mellitus with mononeuropathy |
   | C10FB | C10FB | Type II diabetes mellitus with polyneuropathy |
   | C10FC | C10FC | Type II diabetes mellitus with nephropathy |
   | C10FD | C10FD | Type II diabetes mellitus with hypoglycaemic coma |
   | C10FE | C10FE | Type II diabetes mellitus with diabetic cataract |
   | C10FF | C10FF | Type II diabetes mellitus with peripheral angiopathy |
   | C10FG | C10FG | Type II diabetes mellitus with arthropathy |
   | C10FH | C10FH | Type II diabetes mellitus with neuropathic arthropathy |
   | C10FJ | C10FJ | Insulin treated Type 2 diabetes mellitus |
   | C10FL | C10FL | Type 2 diabetes mellitus with persistent proteinuria |
   | C10FM | C10FM | Type 2 diabetes mellitus with persistent microalbuminuria |
   | C10FQ | C10FQ | Type 2 diabetes mellitus with exudative maculopathy |
   | C10FR | C10FR | Type 2 diabetes mellitus with gastroparesis |
   | C10FS | C10FS | Maternally inherited diabetes mellitus |
   | C10G. | C10G. | Secondary pancreatic diabetes mellitus |
   | C10G0 | C10G0 | Secondary pancreatic diabetes mellitus without complication |
   | C10H. | C10H. | Diabetes mellitus induced by non-steroid drugs |
   | C10H0 | C10H0 | Diabetes mellitus induced by non-steroid drugs without complication |
   | C10J. | C10J. | Insulin autoimmune syndrome |
   | C10J0 | C10J0 | Insulin autoimmune syndrome without complication |
   | C10L0 | C10L0 | Fibrocalculous pancreatopathy without complication |
   | C10N. | C10N. | Secondary diabetes mellitus |
   | C10N0 | C10N0 | Secondary diabetes mellitus without complication |
   | C10y. | C10y. | Diabetes mellitus with other specified manifestation |
   | C10y0 | C10y0 | Diabetes mellitus, juvenile type, with other specified manifestation |
   | C10y1 | C10y1 | Diabetes mellitus, adult onset, with other specified manifestation |
   | C10yy | C10yy | Other specified diabetes mellitus with other specified complications |
   | C10yz | C10yz | Diabetes mellitus NOS with other specified manifestation |
   | C10z. | C10z. | Diabetes mellitus with unspecified complication |
   | C10z0 | C10z0 | Diabetes mellitus, juvenile type, with unspecified complication |
   | C10z1 | C10z1 | Diabetes mellitus, adult onset, with unspecified complication |
   | C10zy | C10zy | Other specified diabetes mellitus with unspecified complications |
   | C10zz | C10zz | Diabetes mellitus NOS with unspecified complication |
   |  | XaOPu | Latent autoimmune diabetes mellitus in adult |
   |  | XaOPt | Maternally inherited diabetes mellitus |
   |  | XaJUH | Insulin autoimmune syndrome |
   |  | XaJlN | Insulin autoimmune syndrome without complication |
   | C108. | X40J4 | Type I diabetes mellitus |
   | C1084 | Xa4g7 | Unstable type I diabetes mellitus |
   |  | X40JY | Insulin-dependent diabetes mellitus secretory diarrhoea syndrome |
   | C108D | XaF04 | Type I diabetes mellitus with nephropathy |
   |  | XaIzM | Type 1 diabetes mellitus with persistent proteinuria |
   |  | XaIzN | Type 1 diabetes mellitus with persistent microalbuminuria |
   | C108F | XaFm8 | Type I diabetes mellitus with diabetic cataract |
   |  | XaJSr | Type 1 diabetes mellitus with exudative maculopathy |
   | C108B | XaEnn | Type I diabetes mellitus with mononeuropathy |
   | C108C | XaEno | Type I diabetes mellitus with polyneuropathy |
   |  | L1805 | Pre-existing diabetes mellitus, insulin-dependent |
   | C108A | XaELP | Type I diabetes mellitus without complication |
   | C108E | XaFWG | Type I diabetes mellitus with hypoglycaemic coma |
   | C108G | XaFmK | Type I diabetes mellitus with peripheral angiopathy |
   | C108H | XaFmL | Type I diabetes mellitus with arthropathy |
   | C108J | XaFmM | Type I diabetes mellitus with neuropathic arthropathy |
   | C109. | X40J5 | Type II diabetes mellitus |
   | C109C | XaF05 | Type II diabetes mellitus with nephropathy |
   |  | XaIzQ | Type 2 diabetes mellitus with persistent proteinuria |
   |  | XaIzR | Type 2 diabetes mellitus with persistent microalbuminuria |
   | C109E | XaFmA | Type II diabetes mellitus with diabetic cataract |
   |  | XaJQp | Type 2 diabetes mellitus with exudative maculopathy |
   | C109A | XaEnp | Type II diabetes mellitus with mononeuropathy |
   | C109B | XaEnq | Type II diabetes mellitus with polyneuropathy |
   |  | L1806 | Pre-existing diabetes mellitus, non-insulin-dependent |
   | C1099 | XaELQ | Type II diabetes mellitus without complication |
   | C109D | XaFWI | Type II diabetes mellitus with hypoglycaemic coma |
   | C109F | XaFn7 | Type II diabetes mellitus with peripheral angiopathy |
   | C109G | XaFn8 | Type II diabetes mellitus with arthropathy |
   | C109H | XaFn9 | Type II diabetes mellitus with neuropathic arthropathy |
   | C109J | X40J6 | Insulin treated Type 2 diabetes mellitus |
   |  | X40J7 | Malnutrition-related diabetes mellitus |
   |  | X40J8 | Malnutrition-related diabetes mellitus - fibrocalculous |
   |  | X40J9 | Malnutrition-related diabetes mellitus - protein-deficient |
   | C10AX | Cyu21 | Malnutrition-related diabetes mellitus with other specified complications |
   | C10AW | Cyu22 | Malnutrition-related diabetes mellitus with unspecified complications |
   |  | L1807 | Pre-existing malnutrition-related diabetes mellitus |
   |  | X40JA | Secondary diabetes mellitus |
   |  | X40JB | Secondary pancreatic diabetes mellitus |
   |  | XSETI | Fibrocalculous pancreatic diabetes |
   |  | XaJlP | Fibrocalculous pancreatopathy without complication |
   |  | XaJlL | Secondary pancreatic diabetes mellitus without complication |
   |  | X40JC | Secondary endocrine diabetes mellitus |
   |  | XSETK | Drug-induced diabetes mellitus |
   |  | XaJUI | Diabetes mellitus induced by non-steroid drugs |
   |  | XaJlM | Diabetes mellitus induced by non-steroid drugs without complication |
   | C10B. | C11y0 | Steroid-induced diabetes |
   |  | XaJlR | Secondary diabetes mellitus without complication |
   |  | Q441. | Neonatal diabetes mellitus |
   |  | X40JF | Transitory neonatal diabetes mellitus |
   |  | Xa08a | Small for gestation neonatal diabetes mellitus |
   |  | X40JG | Genetic syndromes of diabetes mellitus |
   |  | X40JI | Diabetes mellitus autosomal dominant |
   |  | X40JJ | Diabetes mellitus autosomal dominant type 2 |
   |  | X40JK | Polyglandular autoimmune syndrome - type II |
   |  | X40JO | Congenital lipoatrophic diabetes |
   |  | X40JS | Hyperproinsulinemia |
   |  | XSETH | Maturity onset diabetes mellitus in young |
   |  | 66AJ1 | Brittle diabetes |
   |  | X40Ja | Abnormal metabolic state in diabetes mellitus |
   |  | Xa3ee | Diabetes with ketoacidosis - no coma |
   |  | XaCJ2 | Diabetic hyperosmolar non-ketotic state |
   | C109K | XaIrf | Hyperosmolar non-ketotic state in type 2 diabetes mellitus |
   |  | X40Jb | Diabetic severe hyperglycaemia |
   |  | X40Jc | Poor glycaemic control |
   |  | 66AJ0 | Chronic hyperglycaemia |
   |  | X40Je | Acute hyperglycaemia |
   |  | X40JZ | Diabetes-deafness syndrome maternally transmitted |
   |  | XSETp | Diabetes mellitus due to insulin receptor antibodies |
   |  | XE12G | Diabetes + eye manifestation (& [cataract] or [retinopathy]) |
   |  | Cyu20 | Other specified diabetes mellitus |
   |  | Cyu23 | Unspecified diabetes mellitus with renal complications |
   |  | Lyu29 | Pre-existing diabetes mellitus, unspecified |
   |  | XE10E | Diabetes mellitus, juvenile type, with no mention of complication |
   |  | XE10F | Diabetes mellitus, adult onset, with no mention of complication |
   |  | XE10G | Diabetes mellitus with renal manifestation |
   | C106. | XE10H | Diabetes mellitus with neurological manifestation |
   |  | XE10I | Diabetes mellitus with peripheral circulatory disorder |
   |  | XE12K | Diabetes: [peripheral circulatory disease] or [gangrene] |
   |  | XE12M | Diabetes with other complications |
   |  | XM1Qx | Diabetes mellitus with gangrene |
   |  | XM1Xk | Unstable diabetes |
   |  | XE128 | Diabetes mellitus (& [ketoacidosis]) |
   |  | XE12A | Diabetes mellitus: [adult onset] or [noninsulin dependent] |
   |  | XE12C | Diabetes mellitus: [juvenile] or [insulin dependent] |
   |  | XaKyW | Type 1 diabetes mellitus with gastroparesis |
   |  | XaKyX | Type 2 diabetes mellitus with gastroparesis |
   | C10N1 | C10N1 | Cystic fibrosis related diabetes mellitus |
   | C10M0 |  | Lipoatrophic diabetes mellitus without complication |
   | C10M. |  | Lipoatrophic diabetes mellitus |
   | C10L. |  | Fibrocalculous pancreatopathy |
   | C10E5 |  | Type 1 diabetes mellitus with ulcer |
   | C10E6 |  | Type 1 diabetes mellitus with gangrene |
   | C10E7 |  | Type 1 diabetes mellitus with retinopathy |
   | C10E8 |  | Type 1 diabetes mellitus - poor control |
   | C10E9 |  | Type 1 diabetes mellitus maturity onset |
   | C10EM |  | Type 1 diabetes mellitus with ketoacidosis |
   | C10EN |  | Type 1 diabetes mellitus with ketoacidotic coma |
   | C10F0 |  | Type 2 diabetes mellitus with renal complications |
   | C10F1 |  | Type 2 diabetes mellitus with ophthalmic complications |
   | C10F4 |  | Type 2 diabetes mellitus with ulcer |
   | C10F5 |  | Type 2 diabetes mellitus with gangrene |
   | C10F6 |  | Type 2 diabetes mellitus with retinopathy |
   | C10F7 |  | Type 2 diabetes mellitus - poor control |
   | C10FK |  | Hyperosmolar non-ketotic state in type 2 diab mell |
   | C10FN |  | Type 2 diabetes mellitus with ketoacidosis |
   | C10K. |  | Type A insulin resistance |
   | C10K0 |  | Type A insulin resistance without complication |
   |  | XaMzI | Cystic fibrosis related diabetes mellitus |

   **Appendix 2 – Complications Codes**

   **NDA Complications – Diagnosis: ICD 10 Codes**

   |  |  |  |
   | --- | --- | --- |
   | **Codes** | **Complication type** | **Description** |
   | I20.0 | Angina | Unstable angina |
   | I20.1 | Angina | Angina pectoris with documented spasm |
   | I20.8 | Angina | Other forms of angina pectoris |
   | I20.9 | Angina | Angina pectoris, unspecified |
   | E10.1 | DKA | Insulin-dependent diabetes mellitus with ketoacidosis |
   | E11.1 | DKA | Non-insulin-dependent diabetes mellitus with ketoacidosis |
   | E13.1 | DKA | Other specified diabetes mellitus with ketoacidosis |
   | E14.1 | DKA | Unspecified diabetes mellitus with ketoacidosis |
   | I50.0 | Heart Failure | Congestive heart failure |
   | I50.1 | Heart Failure | Left ventricular failure |
   | I50.9 | Heart Failure | Heart failure, unspecified |
   | I21.0 | MI | Acute transmural myocardial infarction of anterior wall |
   | I21.1 | MI | Acute transmural myocardial infarction of inferior wall |
   | I21.2 | MI | Acute transmural myocardial infarction of other sites |
   | I21.3 | MI | Acute transmural myocardial infarction of unspecified site |
   | I21.4 | MI | Acute subendocardial myocardial infarction |
   | I21.9 | MI | Acute myocardial infarction, unspecified |
   | I22.0 | MI | Subsequent myocardial infarction of anterior wall |
   | I22.1 | MI | Subsequent myocardial infarction of inferior wall |
   | I22.8 | MI | Subsequent myocardial infarction of other sites |
   | I22.9 | MI | Subsequent myocardial infarction of unspecified site |
   | N18.0 | Renal Failure | End-stage renal disease |
   | Z49.0 | Renal Failure | Preparatory care for dialysis |
   | Z49.1 | Renal Failure | Extracorporeal dialysis |
   | Z49.2 | Renal Failure | Other dialysis |
   | Z99.2 | Renal Failure | Dependence on renal dialysis |
   | I61.0 | Stroke | Intracerebral haemorrhage in hemisphere, subcortical |
   | I61.1 | Stroke | Intracerebral haemorrhage in hemisphere, cortical |
   | I61.2 | Stroke | Intracerebral haemorrhage in hemisphere, unspecified |
   | I61.3 | Stroke | Intracerebral haemorrhage in brain stem |
   | I61.4 | Stroke | Intracerebral haemorrhage in cerebellum |
   | I61.5 | Stroke | Intracerebral haemorrhage, intraventricular |
   | I61.6 | Stroke | Intracerebral haemorrhage, multiple localized |
   | I61.8 | Stroke | Other intracerebral haemorrhage |
   | I61.9 | Stroke | Intracerebral haemorrhage, unspecified |
   | I63.0 | Stroke | Cerebral infarct due to thrombosis of precerebral arteries |
   | I63.1 | Stroke | Cerebral infarction due to embolism of precerebral arteries |
   | I63.2 | Stroke | Cereb infarct due unsp occlusion or stenos precerebrl arts |
   | I63.3 | Stroke | Cerebral infarction due to thrombosis of cerebral arteries |
   | I63.4 | Stroke | Cerebral infarction due to embolism of cerebral arteries |
   | I63.5 | Stroke | Cerebrl infarct due unspec occlusion or stenos cerebrl arts |
   | I63.6 | Stroke | Cereb infarct due cerebral venous thrombosis, nonpyogenic |
   | I63.8 | Stroke | Other cerebral infarction |
   | I63.9 | Stroke | Cerebral infarction, unspecified |
   | I64.X | Stroke | Stroke, not specified as haemorrhage or infarction |
   | I67.9 | Stroke | Cerebrovascular disease, unspecified |

   **NDA Complications – Procedures: OPCS4 Codes**

   |  |  |  |
   | --- | --- | --- |
   | **Codes** | **Procedure type** | **Description** |
   | X09.3 | Major Amputation | Amputation of leg, Amputation of leg above knee |
   | X09.4 | Major Amputation | Amputation of leg, Amputation of leg through knee |
   | X09.5 | Major Amputation | Amputation of leg, Amputation of leg below knee |
   | X09.8 | Major Amputation | Other specified amputation of leg |
   | X09.9 | Major Amputation | Unspecified amputation of leg |
   | X10.1 | Minor Amputation | Amputation of foot, Amputation of foot through ankle |
   | X10.2 | Minor Amputation | Amputation of foot, Disarticulation of tarsal bones |
   | X10.3 | Minor Amputation | Amputation of foot, Disarticulation of metatarsal bones |
   | X10.4 | Minor Amputation | Amputation of foot, Amputation through metatarsal bones |
   | X10.8 | Minor Amputation | Amputation of foot, Other specified |
   | X10.9 | Minor Amputation | Amputation of foot, Unspecified |
   | X11.1 | Minor Amputation | Amputation of toe, Amputation of great toe |
   | X11.2 | Minor Amputation | Amputation of toe, Amputation of phalanx of toe |
   | X11.8 | Minor Amputation | Amputation of toe, Other specified |
   | X11.9 | Minor Amputation | Amputation of toe, Unspecified |
   | M01.1 | Renal Failure | Transplantation of kidney, Autotransplantation of kidney |
   | M01.2 | Renal Failure | Transplantation of kidney, Allotransplantation of kidney from live donor |
   | M01.3 | Renal Failure | Transplantation of kidney, Allotransplantation of kidney from cadaver |
   | M01.4 | Renal Failure | Allotransplantation of kidney from cadaver heart beating |
   | M01.5 | Renal Failure | Allotransplantation of kidney from cadaver heart non-beating |
   | M01.8 | Renal Failure | Transplantation of kidney, Other specified |
   | M01.9 | Renal Failure | Transplantation of kidney, Unspecified |
   | X40.1 | Renal Failure | Compensation for renal failure, Renal dialysis |
   | X40.2 | Renal Failure | Compensation for renal failure, Peritoneal dialysis |
   | X40.3 | Renal Failure | Compensation for renal failure, Haemodialysis nec |
   | X40.4 | Renal Failure | Hemofiltration |
   | X40.5 | Renal Failure | Automated peritoneal dialysis |
   | X40.6 | Renal Failure | Continuous ambulatory peritoneal dialysis |
   | X40.7 | Renal Failure | Hemoperfusion |
   | X40.8 | Renal Failure | Compensation for renal failure, Other specified |
   | X40.9 | Renal Failure | Compensation for renal failure, Unspecified |
   | C82.1 | Retinopathy Treatments | Destruction of lesion of retina, Cauterisation of lesion of retina |
   | C82.5 | Retinopathy Treatments | Panretinal laser photocoagulation to lesion of retina NEC |
   | C82.6 | Retinopathy Treatments | Laser photocoagulation to lesion of retina NEC |

   [↑](#endnote-ref-2)