**NHS Digital**

**Indicator Supporting Documentation**

**IAP00074 Under 75 mortality from liver disease (CCGOIS)**

Indicator Assurance Service

**Methodology Review Group**

**Applications for consideration**

**21st February 2013**

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| **Document Author:** | *Gavin Harrison* |
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**0. Document Control**

***Version History***

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| **Version** | **Date** | **Changed By** | **Summary of Changes** |
| V 0.1 | 16/02/2013 |  | Initial Draft |
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***Approvals***

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| **Name** | **Title** | **Date** | **Version** | **Signature** |
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***Distribution***

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| **Version** | **Date** | **Distribution List** |
|  |  | HSCIC: John Varlow, Andy Sutherland, Heather Dawe; Alyson Whitmarsh, Julie Henderson, Jonathan Hope, Azim Lakhani  Cc:, Susie King, Sheila Rolph, Simone Chung  UHB: Daniel Ray  NICE: Daniel Sutcliffe  ISB: Gerry Firkins |

1. **Introduction**

Indicators to discuss:

**CCG Outcome Indicator Set**

5a Patient Safety incidents reported (Update)

1.3 Cardiac Rehab completed (Update)

1.7 **(IAP00074)** Under 75 mortality from Liver Disease (New)

**NHS Outcomes Framework Indicators**

3a Emergency admissions for acute conditions that should not usually require hospital

admission (Update)

2.3i Unplanned hospitalisation for chronic ambulatory care sensitive cases (Update)

3.1 Patient reported outcomes measures (PROMS) for elective procedures (Update)

3.3 Proportion of people who recover from major trauma (New)

1. **Indicators For Consideration**

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| **Initial Indicator Title** | **5a Patient Safety Incidents** | IAS Ref Code: | IAP00140 |
| Indicator Set | CCGOIS |  |  |

**Previous Discussions:**

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| Introduction |
| **Attribution Method**  The attribution method apportions a number of incidents to a CCG based upon the overall inpatient activity at a provider (2010-11 HES data) that has been commissioned by the CCG.  The method has been tested using a dummy indicator on known HES data, where a comparison can be made, as the provider can be accurately matched to a CCG via the GP Practice code in HES. When tested using this known data, there was a correlation of 0.75, i.e. in 75 out of 100 cases the activity will be correctly matched to the commissioning CCG. Based on initial analysis by the Clinical Indicators team, there is evidence that use of this attribution method is inappropriate where there are fewer than 300 results, as the correlation dwindles.  The graph below shows the correlation between the direct provider-to-CCG volumes (available in HES) and the attributed volumes. The dummy indicator used is a crude mortality rate indicator, summarised below;  Denominator: The number of provider spells in financial year 2010/11.  Numerator: The number of provider spells that end in a discharge coded as death in financial year 2010/11.  **Graph showing correlation between direct provider to CCG volumes and attributed volumes (from HES)**  The examples used in the MRG reports use a CCG based in the North of England with full year 2010-11 figures for the incidents relevant to the indicator at provider-level.  **Attribution Method Potential Issues**  Using the attribution method assumes a correlation between provider-to-CCG activity and the number of Patient Safety/HCAI/VTE issues, which may or may not be valid.  Use of this attribution method could mask statistically significant variation at CCG-level by inappropriately allocating each CCG a proportion of cases based purely upon the number of patients sent to the provider in question. It would therefore be inappropriate to use this method to hold CCGs to account. The results should be viewed in the context of the provider and not as an individual figure in isolation.  It is recommended the word ‘Estimated’ be included in the indicator title.  Indicators constructed using this proxy attribution method should not be used in the allocation of payments or quality premium.  This method was presented to the NICE COF Advisory Committee in September and they did not support the use of these indicators. |

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| Indicator Details - Initial MRG Submission |  |
| Date of Initial Discussion: | 26/10/12 |
| Rationale / usefulness  Evidence and action ability of indicator [take this directly from the application if possible] | “Patient safety incidents are an unintended or unexpected incident which could have, or did, lead to harm for one or more patients receiving NHS-funded healthcare.”  (<http://www.nrls.npsa.nhs.uk/report-a-patient-safety-incident/healthcare-staff-reporting/>)  It is impossible to eliminate entirely adverse events in healthcare but the need to learn from the events is understood. Work is on-going to improve data collection to support the reduction in these incidents.  This is based upon the NHS Outcomes Framework indicator of the same number and name. It seeks an improved readiness of the NHS to report harm and to learn from it.  The IC was asked by DH to provide an attribution method to allocate provider-level data to CCGs. |
| Data source | Organisation Patient Safety Incident workbook, attributed to CCGs via a proxy attribution method.  These data have historically been reported to the National Patient Safety Agency (NPSA) by the National Reporting and Learning System (NRLS). However, this this is in transition to Imperial College, London to which NRLS will transfer following the abolition of the NPSA.  <http://www.nrls.npsa.nhs.uk/patient-safety-data/organisation-patient-safety-incident-reports/directory/> |
| Construction  Summary of construction, including the numerator, denominator, statistical method(s), presence of risk adjustment variables (age, sex, casemix etc), specific codes and filters.  For more complex indicators, summarise here and supply detail in an appendix | ***Summary description of the calculation:***  The indicator is a raw count of the number of reported Patient Safety incidents attributed to CCGs via the proxy attribution method, explained previously.  The example below uses a CCG based in the North of England with full year 2010-11 figures for Patient Safety incidents at provider-level. The top 6 providers make up 99% of the overall CCG activity, with a further 90 providers making up the remaining 1%.  In the example, Provider 1 has had 6716 incidents during the time period and 18.46% of its total activity is commissioned by the CCG, so 1240 incidents are attributed to the CCG (6716 x 18.46%).  CCG 1 – North of England  Table showing example of numbers patient safety incidents during period  The case below is a Mental Health provider which has 4073 admissions recorded in HES but which reported 11391 Patient Safety incidents for 2010-11. This highlights an issue with the attribution method as incidents can happen in any setting but the attribution method only uses inpatient activity. Other types of activity would need to be sourced from other collections e.g. MHMDS. It also highlights the issue that the attribution method assumes a correlation between provider-to-CCG inpatient activity and the number of Patient Safety incidents, which may or may not be valid.  Table showing an example of number of patient safety incidents in a mental health provider  ***Statistical Methods / Risk adjustment variables:***  Risk adjustment is not necessary for this indicator.  ***Other (Quality assurance/interpretation/known limitations):***  DH would prefer a single figure to be reported, however our recommendation to the NICE Committee was that this would be inappropriate, as these are attributed figures. |
| Potential Issues  Highlight any of the following that apply  -data source(s) do not collect 100% of events  -data source(s) organisation or geographic coverage shortfalls  -codes or filters not matching the policy question  -data source(s) definitions not meeting policy question  -data source(s) quality problems or inconsistency of reporting  -statistical methods not appropriate for test or audience  -risk adjustment not considered  -long term security of the data source(s)  -timing of data availability for use in indicator  presentation of data likely to mislead or give false confidence in findings | * It is only mandatory for providers to report incidents with a *severe degree of harm or death;* the reporting of patient safety incidents in general is voluntary and under-reporting is known to be common. There are major concerns regarding the level of completeness in the National Reporting and Learning System (NRLS) dataset currently available, particularly because NRLS has traditionally focussed upon learning from patient safety incidents and was never intended to be a reporting or data collection mechanism. The data in NRLS is not a complete count of all cases where a patient is harmed during contact with the NHS. * Secondary care submissions from providers is currently the only data used in the indicator, as the attribution method is based on inpatient provider spells only. PCT-level data is available but we are unsure as to whether the attribution method should be applied. * Patient Safety incidents occurring in acute trusts could happen in a number of different settings, including admitted patients (who *are* reported on HES), outpatients, pharmacy, diagnostic tests and administration. The published data does not specify the location or service, only the degree of harm and category of incident. * Frequency of reporting will need further consideration, as the provider-level data is currently reported every six months. The attribution method currently uses annual inpatient admission data, which is provider spell-based and not person-based. * Potential issues relating to the attribution method issues explained previously. |

MRG Recommendations, Comments & Updates:

**Update:** In their December information packs for CCGs and Local Authorities, DH outlined their method to represent CCG level patient experience without attributing provider level data. For each CCG, this shows their five main providers with the number of admissions and the patient experience scores (examples shown at the end of this indicator update).

A similar method could used to represent patient safety figures at CCG level. The following information provides MRG with an update on the attribution method and the recommendation made previously. Given the suggestion from DH, we are seeking MRG’s advice on which of the two options should be progressed.

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| Ref code  **2012/265**  Made: 26/10/12 | MRG suggested that further research be carried out on whether it is better to use bed days rather than admissions for attributing patient safety incidence. |
| Update:  Made: 21/02/13 | The use of length of stay or bed days provides a similar correlation between the direct provider-to-CCG rate (for the dummy indicator, available in HES) and the attributed rates as the use of admissions.  LOS (discharge date minus admission date, chart below) provides a correlation of 0.72. The bed days definition used is very similar to LOS but assigns an arbitrary figure of 0.5 bed days for any admission where the patient was discharged on the same day. Using this method provides a correlation of 0.73. Both of which, are lower than the previous discussed method of using number of admissions.  Graph showing length of stay as a correlation for provider to CCG rate |

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| Further Rec:  **2012/266**  Made: 26/10/12 | The attribution method suggested apportions the number of patient safety incidents to CCGs based on overall inpatient activity at provider level. MRG recommended the need for contextual information to show levels of activity including other health care settings e.g. outpatients |
| Update:  Made: 21/02/13 | **HES – Indicative Outpatient figures**  The figures below are indicative as they utilise the Provider Spells mapping tables that are currently still being developed by the HES team.  For the majority of providers, outpatient attended appointments far exceeded that of inpatient admissions, as you’d expect. This ranged from double to more than 10 times the amount, suggesting that outpatient activity would have a different affect on patient safety incidents for each provider.   * 261 providers where outpatient attendances double (or more than double) inpatient admissions. * 34 providers with no outpatient attendances recorded. * 3 providers with lower outpatient attendances than inpatient admissions.   The chart below shows the range of the proportion of inpatient admissions to outpatient attendances across providers.    **NRLS**  The NRLS reported patient safety incidents for a further 71 PCT’s in 2010/11 where there is no inpatient or outpatient activity in HES and so these incidents could not be attributed. |

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| Further Rec:  **2012/267**  Made: 26/10/12 | It was commented that although there was a linear correlation in the graph provided (showing comparison between direct provider to CCG volumes available in HES and the proposed attribution method), the size of the range also indicated considerable uncertainty  MRG suggested further thought was required on providing a measure of uncertainty / confidence interval to accompany any figures quoted if the attribution methodology suggested is to be used. |
| Update:  Made: 21/02/13 | We have investigated the use of a confidence interval around the regression slope (chart below) and also individual confidence intervals on the actual and attributed rates.  Graph showing comparison between direct provider to CCG volumes from HES  The example below uses the CCG level actual and attributed rates rate for the dummy indicator using LOS. The confidence intervals are slightly wider around the attributed rates.  Table showing CCG level actual and attributed rates using length of stay |

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| Further Rec:  **2012/268**  Made: 26/10/12 | MRG asked if there was any base research available on whether particular groups are affected with regards to patient safety.  It was also commented that the quality statement should indicate whether risk adjustment has been considered, although it was suggested risk adjustment was not necessary in this instance. |
| Update:  Made: 21/02/13 | There are no age breakdowns in NRLS data so it cannot be risk adjusted.  The NRLS data includes an array of patient safety incidents that can occur in any group. There are approximately 300k patient safety incidents each quarter and, of those, around 25% (~80k) are classified as ‘Patient Accident’. The remaining incidents are made up of the following types:   * Medication * Treatment/procedure * Implementation of care and ongoing monitoring/review * Access, admission, transfer, discharge (including missing patient) * Documentation (including records, identification) * Infrastructure (including staffing, facilities, environment) * Clinical assessment (including diagnosis, scans, tests, assessments) * Other * Disruptive, aggressive behaviour * Self-harming behaviour * Consent, communication, confidentiality * Medical device/equipment * Infection Control Incident * Patient Abuse (by staff/third party |

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| Further Rec:  **2012/269**  Made: 26/10/12 | The data source for the indicator should be reviewed when upcoming changes to the HPA data collections come online which are believed to provide direct CCG level data. |
| Update:  Made: 21/02/13 | HPA hold no plans to provide the overall ‘Patient Safety Incidents’ figure at CCG level, although other individual patient safety items such as MRSA and *C. difficile* will be reported.  The NRLS do not hold any GP Practice data and so cannot provide at CCG level in the foreseeable future. |

**Example of Patient Experience data presented in DH CCG and Local Authority Information Packs**

<http://www.commissioningboard.nhs.uk/la-ccg-data/#data>

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| 4b, 4.1, 4.2, 4.3 Patient experience of hospital care |
| Composite experience scores (out of 100) at the CCG's main 5 providers |
| The table below shows the composite score based on people who reported that their experience was  "very good" or "fairly good" in various patient surveys.  **NHS Bradford City CCG** |

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| **Providers (ordered by number of admissions) for this CCG** | **Number of admissions / spells (Acute 2010/11)** | **4b Inpatient overall experience** | **4.1 Outpatient Overall experience** | **4.2 Inpatient responsiveness to needs** | **4.3 A&E Over all experience** |
| Bradford Teaching Hospitals NHS FT | 18,292 | 74 | 78 | 67 | 77 |
| Leeds Teaching Hospitals NHS Trust | 811 | 74 | 81 | 65 | 79 |
| Ramsay Healthcare UK Operations Ltd | 457 | NA | NA | NA | NA |
| Airedale NHS FT | 127 | 77 | 82 | 68 | 84 |
| Care UK | 118 | NA | NA | NA | NA |
| **CCG weighted average** |  | **74** | **78** | **67** | **77** |
| **England average** |  | **76** | **80** | **67** | **80** |

**Leeds North CCG**

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| **Providers (ordered by number of admissions) for this CCG** | **Number of admissions / spells (Acute 2010/11)** | **4b Inpatient overall experience** | **4.1 Outpatient Overall experience** | **4.2 Inpatient responsiveness to needs** | **4.3 A&E Over all experience** |
| Leeds Teaching Hospitals NHS Trust | 30,965 | 74 | 81 | 65 | 79 |
| Harrogate & District NHS FT | 6,569 | 80 | 80 | 72 | 82 |
| York Teaching Hospital NHS FT | 571 | 78 | 82 | 71 | 85 |
| Spire Healthcare | 478 | NA | NA | NA | NA |
| Bradford Teaching Hospitals NHS FT | 294 | 74 | 78 | 67 | 77 |
| **CCG weighted average** |  | **74** | **78** | **67** | **77** |
| **England average** |  | **76** | **80** | **67** | **80** |

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| **Initial Indicator Title** | **Cardiac rehabilitation completion** | IAS Ref Code: | IAP00305 |
| Indicator Set | CCG OIS |  |  |

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| Introduction |
| [Brief background on indicators being considered, especially if they form part of a programme of indicators. Provide any general information such as ; urgency of approval / broad timescales; history and direction of any indicator programmes involved e.g. General news about NHS Outcomes Framework; Level of IC’s involvement, e.g. is it commissioned to produce or surface the data ]  The indicator has been identified as one which supports the NHS Outcomes Framework for use in the CCG OIS. |

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| Indicator Details - Initial MRG Submission |  |
| Date of Initial Discussion: | **17/01/13** |
| Rationale / usefulness  Evidence and action ability of indicator [take this directly from the application if possible] | There is a wealth of evidence to support the fact that cardiac rehabilitation improves outcomes for many people with heart disease, enabling them to remain active for longer and manage their condition more effectively. Cardiac rehabilitation is a cost effective way to help people with heart disease to live longer, healthier lives. People value it and derive significant benefit from it, particularly in terms of improving their quality of life. The NHS has a responsibility to ensure that those who are eligible and can benefit from cardiac rehabilitation are able to do so. Indeed, the Coronary Heart Disease (CHD) National Service Framework (NSF) (2000) included a separate chapter on cardiac rehabilitation to make it clear that it forms an intrinsic part of the cardiac pathway for eligible patients.  (Edited information taken from: [Commissioning a cardiac rehabilitation service](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_117504) by Professor Roger Boyle CBE, National Director for Heart Disease and Stroke) |
| Data source | National Audit of Cardiac Rehabilitation (NACR)  <http://www.cardiacrehabilitation.org.uk/nacr/>  <http://www.ic.nhs.uk/rehab> |
| Construction  Summary of construction, including the numerator, denominator, statistical method(s), presence of risk adjustment variables (age, sex, casemix etc), specific codes and filters.  For more complex indicators, summarise here and supply detail in an appendix | ***Summary description of the calculation:***  The NACR is established and reports annually. There is a similar indicator reported of people with specified conditions who “took part in” cardiac rehabilitation, although this is only published at regional level.  The 2012 audit (using data for April 2010 to March 2011) reported that 44% of people who had an acute myocardial infarction (AMI or MI), percutaneous coronary intervention (PCI, also known as angioplasty) or revascularisation procedures, which include coronary artery bypass graft (CABG) took part in cardiac rehabilitation in England. These are the people in the NACR.  Individual anonymised patient level hospital episode statistics (HES) data was provided by the HSCIC about the number of people who had an MI, PCI and CABG in any diagnostic or treatment category. The England NSF for CHD has a target of 85% of people who have had an MI, PCI or CABG to take part in cardiac rehabilitation.  The NHS Commissioning Board published technical guidance suggesting the indicator is measured as the number of patients. SDS suggest that a percentage is used, as with other similar indicators, so that it is possible to make comparisons.  **The proposed indicator is the percentage of patients with coronary heart disease who completed cardiac rehabilitation.** Completion is defined as the end of the cardiac rehabilitation delivery phase (Phase 3) and second assessment, as collected by the NACR. The denominator would be everyone in the NACR.  The Service Specification for Cardiac Rehabilitation Services defines in-scope patients as: “The cohort of in-scope patients for cardiac rehabilitation shall include, but not be limited to, patients with:  • acute myocardial infarction (AMI)  • revascularisation procedures, which include coronary artery bypass graft (CABG), percutaneous coronary intervention (PCI) and primary PCI (PPCI)  • stable heart failure (excluding NYHA 4)  • other specialised interventions such as cardiac transplant, ventricular assist devices (VADs), implantable cardiac defibrillators (ICDs) and cardiac resynchronisation therapy (CRT).”  A full list of codes covering the above patient groups can be found at Annex 1 of the [Service Specification for Cardiac Rehabilitation Services](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_118401.doc) (pp 61-72).  GP practice code and postcode are both collected as part of the audit dataset. It is possible to aggregate practice codes and to report at CCG level. Where there is no practice code for a patient (or it is not valid), they can be assigned to a CCG using their home postcode.  ***Calculation type:*** Percentage.  ***Denominator:*** Everyone in the NACR.  ***Numerator:*** The number of people who complete cardiac rehabilitation, defined as the end of the cardiac rehabilitation delivery phase (Phase 3) and second assessment.  ***Statistical Methods / Risk adjustment variables:***  Standardisation: N/A.  ***Other (Quality assurance/interpretation/known limitations):***  Reporting period: Annual.  Available at CCG reporting level: Yes. |
| Potential Issues  Highlight any of the following that apply  -data source(s) do not collect 100% of events  -data source(s) organisation or geographic coverage shortfalls  -codes or filters not matching the policy question  -data source(s) definitions not meeting policy question  -data source(s) quality problems or inconsistency of reporting  -statistical methods not appropriate for test or audience  -risk adjustment not considered  -long term security of the data source(s)  -timing of data availability for use in indicator  presentation of data likely to mislead or give false confidence in findings | The NACR is not mandatory, but it is part of the British Association for Cardiovascular Prevention and Rehabilitation (BACPR) standards. It is an established audit and it is expected that all provider units in England (and Wales and Northern Ireland) take part, giving 100% coverage of cardiac rehabilitation.  Note that the NACR only includes people in contact with cardiac rehabilitation services in some way. If people are not referred, they will not be included in the audit. |
| Supporting Documents  Provide links to any additional documentation used to support discussion at MRG | NACR [2012 Annual Report](http://www.cardiacrehabilitation.org.uk/nacr/docs/2012.pdf)  NHS Commissioning Board [The CCG outcomes indicator set 2013/14 – Technical guidance](http://www.commissioningboard.nhs.uk/files/2012/12/ccg-ois-tech-guide.pdf) (p7) |
| Additional Information / Sample Data : | Sample Data**:**  Table 18. Numbers and percentages of people who have had an MI, PCI or CABG attending  cardiac rehabilitation in 2010-11 (NACR [2012 Annual Report](http://www.cardiacrehabilitation.org.uk/nacr/docs/2012.pdf), p19)  Final column from tables 19 to 21 (pp20-22).In 2010-11, approximately 21% of patients referred to cardiac rehabilitation did not take part as recorded in NACR (this statistic is for England, Wales and Northern Ireland). (Table 6, p9)  The main reasons for not taking part in Phase III cardiac rehabilitation in 2010-11 were:   * not interested/refused, * physical incapacity, * rehabilitation not appropriate, * too far to travel * ongoing investigation.   (from Table 7, p9) |

Table 18. Numbers and percentages of people who have had an MI, PCI or CABG attending

cardiac rehabilitation in 2010-11 (NACR [2012 Annual Report](http://www.cardiacrehabilitation.org.uk/nacr/docs/2012.pdf), p19)

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| England | No. of patients (HES data) | Receiving cardiac rehabilitation | % uptake | % uptake by SHA (lowest – highest) |
| MI | 71,361 | 31,197 | 43.7% | 37% - 56% |
| PCI | 29,015 | 9,584 | 33.0% | 14% - 46% |
| CABG | 12,965 | 9,638 | 74.3% | 56% - 91% |
| Total | 113,341 | 50,419 | 44.5% |  |

MRG Recommendations, Comments & Updates:

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| **Indicator Title** | **Cardiac rehabilitation completion** | IAS Ref Code: | IAP00305 |
| Indicator Set | CCG OIS |  |  |

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| Ref code  **IAP00305-1**  Made: 17/01/13 | MRG commented that from a quality monitoring perspective a useful exercise would be to test the criteria for the denominator (i.e. eligibility criteria) by running them through GPES/HES to get sense of number of people in the system who may benefit from rehabilitation (some of whom not referred)  Completeness would show the service is less high quality than expected from the audit. |
| Update:  Made: 15/02/13 | The number of eligible patients undergoing hospital treatment (calculated from HES) for one of three types of admission was included in the original submission. For England, these were:  MI 43.7%  PCI 33.0%  CABG 74.3%  Total 44.5% (from NACR Report, 2012).  This suggests that more than 55% of people that could benefit from cardiac rehabilitation were not starting a programme. It is unlikely to be able to achieve 100% of people attending cardiac rehabilitation; it is generally thought that approximately 15% of potential patients (in one of the three categories above) would be lost for one of a variety of reasons before starting a programme.  We agree that the current indicator as proposed does not capture the total number of potential patients.  (It is not possible to run a query though GPES at the present time. However, it is likely that most patients suffering an MI would be admitted to hospital and, therefore, be included in HES.) |

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| Ref code  **IAP00305-2**  Made: 17/01/13 | MRG suggested that there may be scope to develop other indicators (not necessarily in CCGOIS) to provide context.  As well as an indicator measuring completion, another possible indicator could be in regards to Initiation of cardiac rehabilitation, with a denominator being everyone who is eligible. |
| Update:  Made: 15/02/13 | We agree that this could be useful context, subject to agreeing the eligibility criteria, data source and data linkage resources which would be required to support this. |
| Ref code  **IAP00305-3**  Made: 17/01/13 | MRG sought further clarification on what the “completion” rate actually means, in particular the circumstances where rehabilitation is started and not finished and reasons for not completing. More widely MRG asked for further consideration of what the indicator trying to say and what is it being used for.  The question was raised as to whether including those who die in the denominator is appropriate in regards to the rationale behind what indicator is wanting to measure.  MRG recommended that people who can’t have cardiac rehabilitation for whatever reason they (theoretically) should be excluded from the denominator. Additionally those people who don’t start the phase iii rehabilitation should also be excluded.  MRG recommended that it would be useful for the indicator to return to the group with a more detailed description of the numerator and denominator and exclusions (including whether people who die are included or excluded). |
| Update:  Made: 15/02/13 | Some patients were referred inappropriately and so did not begin a cardiac rehabilitation programme. Others died, moved away, were on holiday at the time of illness and returned home or returned to work, meaning they were not able to attend a programme.  SDS suggest the indicator should be:  Denominator – the number of people who started a cardiac rehabilitation programme;  Numerator – the number of people who completed a cardiac rehabilitation programme.  Completion will be measured one year after the start; this is consistent with advice that people will complete their cardiac rehabilitation a full year after they start it.  It is possible that patients may die while on a cardiac rehabilitation programme. By restricting entry to programmes to those fit enough to undergo them, any deaths should not be due to heart problems. |

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| Ref code  **IAP00305-4**  Made: 17/01/13 | MRG commented that the denominator would not capture those eligible for the programme unless they were referred, which will not only affect the quality of the indicator but could also create a perverse incentive not to refer. |
| Update:  Made: 15/02/13 | We note this concern, however, the indicator will be reported at CCG level, whereas the referrals and the programmes are both carried out independently. The referrals are most likely to be made by the acute hospital teams following an admission for one of various types. The programmes are likely to be carried out by a dedicated cardiac rehabilitation team (which may be within the same organisation as the referrer). |

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| Ref code  **IAP00305-5**  Made: 17/01/13 | It was commented that some Trusts do not commission a second assessment and only capture details of phase 1 & phase 2 rehabilitation (patients go to another setting to complete their rehabilitation). MRG commented that there would likely be a similar pattern in other trusts and the risk of excluding trusts that don’t do second assessments should be fed back to the applicant. |
| Update:  Made: 15/02/13 | We have reported MRG’s concerns back to the NACR team in Clinical Audit and noted that precise definitions are required to ensure that all providers of cardiac rehabilitation are measuring the same thing.  We understand that patients going to another setting to receive their phase 3 cardiac rehabilitation should not be an issue, as they will be counted in the programme where they do receive their phase 3 cardiac rehabilitation.  If providers of cardiac rehabilitation are not carrying out an assessment at the end of their programme, then they will not be able to give any feedback about the success or otherwise of the programme as well as not being included in the numerator of this indicator. Both of these are likely to be of concern to CCGs. |

Additional Information / Sample Data (provided 15/02/13) :

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|  | 2010-11 | 2010-11 | 2010-11 | 2011-12 | 2011-12 | 2011-12 |
| CCG Name | Number starting CR | Number ending CR | % | Number starting CR | Number ending CR | % |
| CCG A | 114 | 85 | 74.6% | 142 | 117 | 82.4% |
| CCG B | 140 | 136 | 97.1% | 196 | 184 | 93.9% |
| CCG C | 40 | 32 | 80.0% | 63 | 48 | 76.2% |
| CCG D | 109 | 60 | 55.0% | 129 | 95 | 73.6% |
| CCG E | 144 | 131 | 91.0% | 186 | 159 | 85.5% |
| CCG F | 230 | 23 | 10.0% | 290 | 15 | 5.2% |
| CCG G | 200 | 157 | 78.5% | 237 | 190 | 80.2% |
| CCG H | 11 | 11 | 100.0% | 9 | 8 | 88.9% |
| CCG I | 3 | 3 | 100.0% | 2 | 1 | 50.0% |
| CCG J | 160 | 139 | 86.9% | 183 | 165 | 90.2% |
| CCG K | 1 |  | 0.0% |  |  |  |
| CCG L | 98 | 73 | 74.5% | 341 | 205 | 60.1% |
| CCG M | 365 | 284 | 77.8% | 490 | 418 | 85.3% |
| CCG N | 547 | 460 | 84.1% | 668 | 527 | 78.9% |
| CCG O | 312 | 247 | 79.2% | 65 | 37 | 56.9% |
| CCG P | 358 | 304 | 84.9% | 527 | 490 | 93.0% |
| CCG Q | 137 | 122 | 89.1% | 11 | 7 | 63.6% |
| CCG R | 245 | 242 | 98.8% | 365 | 361 | 98.9% |
| CCG S | 339 | 200 | 59.0% | 373 | 198 | 53.1% |
| CCG T | 116 | 84 | 72.4% | 321 | 193 | 60.1% |
|  |  |  |  |  |  |  |
| Total CCGs | 21540 | 17286 | 80.3% | 27374 | 21621 | 79.0% |
|  |  |  |  |  |  |  |
| CCG not known/not applicable | 6805 | 5393 | 79.3% | 8855 | 6804 | 76.8% |
| Grand Total | 28345 | 22679 | 80.0% | 36229 | 28425 | 78.5% |

CCGs were allocated on the practice code where this was given and then on the LSOA code. Eight CCGs had no data at all over the two years, while several others had no data in one year and very small amounts of data in the other year (as CCG K above). It is likely that some of these will be included in the CCG not known group, meaning the data exists but it wasn’t possible to allocate a CCG based on the available information at the time. This group also includes data for Wales, Northern Ireland and elsewhere.

Data is also presented for why people did not complete a cardiac rehabilitation programme, for those people who started a programme, but only where this is given in the data.

Table showing **Reason for not completing Cardiac Rehabilitation**

|  |  |  |
| --- | --- | --- |
| **Where CCG known** |  |  |
|  |  |  |
| Row Labels | 2010-11 | 2011-12 |
| 1. DNA unknown reason | 1137 | 1356 |
| 2. Returned to work | 310 | 358 |
| 3. Left this area | 35 | 42 |
| 4. Achieved aims | 284 | 306 |
| 5. Planned / emergency intervention | 57 | 62 |
| 6. Too ill | 334 | 414 |
| 7. Died | 35 | 32 |
| 8. Other | 752 | 794 |
| 9. Unknown | 106 | 141 |
| Total | 3050 | 3505 |

DNA refers to ‘did not attend.’

|  |  |  |  |
| --- | --- | --- | --- |
| **Initial Indicator Title** | **Under 75 mortality from Liver Disease** | IAS Ref Code: | **IAP00074** |
| Indicator Set | CCG OIS |  |  |

|  |
| --- |
| Introduction |
| This indicator has been identified as one that supports the NHS Outcomes Framework for use in the Clinical Commissioning Outcomes Indicator Set.  The indicator definition was published in the Technical Guidance 2013/14 to the CCG Outcomes Indicator Set.  This indicator is based on NHSOF1.3 (Under 75 mortality from liver disease), the indicator definition for NHSOF1.3 was published in the technical appendix to the NHS Outcomes Framework 2013/14.  It is hoped that the first data will be published on the HSCIC Indicator Portal in the March 2013 release of the CCG Outcome Indicator Set. |

|  |  |
| --- | --- |
| Indicator Details - Initial MRG Submission |  |
| Date of Initial Discussion: | 21/02/13 |
| Rationale / usefulness  Evidence and action ability of indicator [take this directly from the application if possible] | This indicator would allow the breakdown of under 75 mortality from liver disease to CCG level. This could aid CCGs in effective management and treatment of liver disease along with early identification of risk factors. |
| Data source | Denominator: Unconstrained GP registered population counts by single year of age and sex from NHAIS (Exeter system). Taken on January 1st of that calendar year.  Numerator: Death registration in the calendar year for all England deaths from liver disease classified by underlying cause of death (ICD-10 K70-K77, B15-B19, C22, I81, I85, T86.4) based on the GP registration from the Primary Care Mortality Database (PCMD).  For the population standard the England population from the most appropriate ONS mid-year population estimate will be used. These are subject to change and will be rebased against the 2011 census. |
| Construction  Summary of construction, including the numerator, denominator, statistical method(s), presence of risk adjustment variables (age, sex, casemix etc), specific codes and filters.  For more complex indicators, summarise here and supply detail in an appendix | ***Summary description of the calculation:***  The directly age and sex standardised mortality rate from liver disease for people aged under 75 in the respective calendar year per 100,000 CCG population.  formula for calculation for directly age and sex standardised mortality rate  where:  ***Oi*** is the observed number of events in the local or subject population in age group ***i***;  ***ni*** is the number of individuals in the local or subject denominator population in age group ***i***, or the population × period at risk (e.g. 'person-years');  ***wi*** is the number (or proportion) of individuals in the reference or standard population in age group ***i***.  The standard population used for the direct method is the England population in appropriate ONS mid-year population estimates. The age groups used are: (19-39, 40-59, 60-74)  Confidence Intervals  95% confidence intervals are calculated using Dobson's[[1]](#footnote-1) and Byar's[[2]](#footnote-2) methods. Byar’s method is recommended for larger counts and the exact method based on the Poisson distribution for small counts; where Byar’s method is not quite as accurate. As follows.  where:  ***O*** is the total number of observed deaths in the subject population  ***Calculation type:*** Directly age and sex standardised rate  ***Denominator:*** Unconstrained GP registered population counts by single year of age and sex.  ***Numerator:*** Death registration in the calendar year for all England deaths from liver disease classified by underlying cause of death (ICD-10 K70-K77, B15-B19, C22, I81, I85 and T86.4) based on the GP registration from the Primary Care Mortality Database(PCMD).  See table below for filters suggested for application to the numerator  ***Statistical Methods / Risk adjustment variables:***  Rate per 100,000 population directly standardised by age and sex using the England population (from the most recent ONS mid-year population estimates) for the population standard. The indicator will be published with 95% confidence intervals recognising the existence of natural variants between the CCG populations.  ***Other (Quality assurance/interpretation/known limitations):*** |

**The following filters are suggested for application to the numerator (table below)**

|  |  |  |
| --- | --- | --- |
| **1.** | **Field Name** | **Date\_of\_Birth** |
|  | Conditions | Is not null and is not after the date of death. |
|  | Rationale | Used in calculations to derive age at death. |
| 2. | Field Name | Date\_of\_Death |
|  | Conditions | Is not null and does not precede the date of birth . |
|  | Rationale | Used in calculations to derive age at death. |
| **3.** | Field Name | Age at death |
|  | Conditions | Derived age field to select only those aged 0-74 year. Calculated using Date\_of\_Death and Date\_of\_Birth. |
|  | Rationale | Selects only those aged under 75 years at the time of death. |
| **4.** | Field Name | Date\_of\_Registration |
|  | Conditions | Between 1 January and 31 December inclusive. |
|  | Rationale | Selects only those deaths registered during the relevant calendar year. |
| **5.** | Field Name | Sex |
|  | Conditions | Is equal to 1 or 2 and is not null |
|  | Rationale | Excludes the small number of records where sex was unknown (?) or unspecified (?).  Valid sex field is required when directly standardising by age and sex. |
| **6.** | Field Names | GP\_Practice\_Code, Dec\_Usual\_Address\_Postcode and PCT\_of\_Residence |
|  | Conditions | GP\_Practice\_Code is valid and is in England and allocated to a CCG (GP code is not for a practice in Wales, Scotland or Northern Ireland)  Or  GP\_Practice\_Code is null or <>V81xxx and Dec\_Usual\_Address\_Postcode is in England  OR  PCT\_of\_Residence is in England and maps directly to a CCG. |
|  | Rationale | Selects people registered with a GP in England, or if not registered with a GP, selects people whose usual home address was in England.  Excludes people not registered with a GP in England or normally resident outside England. |
| **7.** | Field Names | Underlying\_Cause\_Of\_Death |
|  | Conditions | ICD-10 K70-K77, B15-B19, C22, I81, I85, T86.4 |
|  | Rationale | Selects those whose underlying cause of death was coded on the death certificate as liver disease. |

|  |  |
| --- | --- |
| Potential Issues  Highlight any of the following that apply  -data source(s) do not collect 100% of events  -data source(s) organisation or geographic coverage shortfalls  -codes or filters not matching the policy question  -data source(s) definitions not meeting policy question  -data source(s) quality problems or inconsistency of reporting  -statistical methods not appropriate for test or audience  -risk adjustment not considered  -long term security of the data source(s)  -timing of data availability for use in indicator  presentation of data likely to mislead or give false confidence in findings | 1. Use of data for those under 19 years of age   There are concerns around whether there are enough deaths for 2011 in under 19 years to be included in this indicator. It is suggested that at a CCG level there are not enough cases to make this a viable indicator for under 19 years old.  From previous recommendations from MRG’s for CCG 1.8 (08/11/12 Rec 2012/302) it was recommended for CCG1.8 (Emergency admissions for alcoholic liver disease) that children (0-18 years) should be removed from the indicator due to small numbers. The combination of small numbers and an additional 12 million persons in the denominator inappropriately distorted the standardised figures.   1. Age bands   Due to issues with small number, quinary age bands may not be appropriate, therefore wider age bands are suggested. This approach was also recommended CCG 1.8. Proposed age bands are therefore 19-39, 40-59, 60-74. The table below summarises the distribution of deaths across CCGs.  **Count of CCGs, by number of deaths and age band**  Although the suggested age bands may seem quite wide, from the frequency table it shows even for a wide band of 20 years at 19-39 years there are 35 CCG’s that report as ‘0’ deaths. Although this is an ideal situation for the CCGs, a high number of CCG’s reporting no deaths could have an impact on the standardisation.   1. Change of title   Due to the above suggestions of alterations to the indictor, if these are implemented they will need to be reflected with a change of title. Suggested is either;  ‘Mortality from Liver Disease ages 19-74’  or  ‘Adult under 75 mortality rate from Liver Disease’ with a definition that adult is defined as being aged 19 and above. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number of deaths** | **Under 19** | **19-39** | **40-59** | **60-74** | **19-74** |
| **0** | 195 | 35 | 0 | 0 | 0 |
| **1-5** | 17 | 155 | 11 | 8 | 1 |
| **6-15** | 0 | 22 | 91 | 95 | 21 |
| **16-25** | 0 | 0 | 67 | 74 | 36 |
| **25-35** | 0 | 0 | 30 | 22 | 60 |
| **36+** | 0 | 0 | 13 | 13 | 94 |
| **total** | 212 | 212 | 212 | 212 | 212 |
| **Total deaths** | 20 | 571 | 4068 | 3982 | 8621 |

**Revisions for indicators (NHS OF 3a) Emergency admissions for acute conditions that should not usually require hospital admission and (NHS OF 2.3i) Unplanned hospitalisation for chronic ambulatory care sensitive conditions were circulated for comment 31st January 2013. Updates to comments received are provided below.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Initial Indicator Title** | **NHS OF 3a Emergency admissions for acute conditions that should not usually require hospital admission** | IAS Ref Code: | IAP00032 |
| Indicator Set | NHS Outcomes Framework |  |  |

**Proposed Revisions** (circulated by email on 31 January 2013):

|  |  |
| --- | --- |
| Revision Date: | 25/01/2013 |
| General Comments / Reasoning: | The previous definition for this indicator was assured by MRG for the NHS Outcomes Framework 2011/12.  **The following change to the previous definition of the indicator is now proposed:**  **- inclusion of children 0 to 18 years, reported in the age bands: 0-4, 5-9, 10-14, 15-18**  Definition: Emergency admissions to hospital of persons (all ages rather than only adults as in the previous definition) with acute conditions (ear/nose/throat infections, kidney/urinary tract infections, heart failure, among others) that usually could have been avoided through better management in primary care.  The indicator is defined as the number of emergency admissions for acute conditions (ear/nose/throat infections, kidney/urinary tract infections, heart failure, among others) for all ages as a proportion of the number of persons in England of all ages in the respective quarter of the financial year and in the financial year.  This indicator is part of domain 3 of the NHS Outcomes Framework – this domain reflects the importance of helping people to recover from episodes of ill health or following injury. It can be seen as having two complementary objectives:   * preventing conditions from becoming more serious (wherever possible), and * helping people to recover effectively.   Progress in preventing conditions from becoming more serious will be measured using this indicator. It looks at conditions that should usually be managed without the patient having to be admitted to hospital.  Where an individual has been admitted for one of these conditions, it may indicate that they have deteriorated more than should have been allowed by the adequate provision of healthcare in primary care or as an outpatient in hospital.  The definition for this indicator is based on:   * the NHS Comparators indicator Emergency admissions for 19 ambulatory care sensitive conditions (all ages), which is based on an indicator recommended by the OECD; * the NCHOD indicator: Emergency hospital admissions: acute conditions usually managed in primary care (all ages); * with some additions and removals guided by published research, particularly a paper by Sarah Purdy and colleagues from the University of Bristol (see reference 6).   These definitions **do not** exclude children. Since the list of conditions did not exclude conditions for children, then children (ages 0 to 18 years) should be included in the indicator. The indicator age breakdowns will then be also reported for the age groups 0-4, 5-9, 10-14, 15-18. Having breakdowns for children is useful for users working in children healthcare and complies with the recommendations of the Children and Young People’s Health Outcomes Forum:  The Forum therefore recommends that, with immediate effect, all data about children and young people are presented in 5 year age bands through childhood and the teenage years. This will allow relevant international comparisons of key outcomes as well as national or local comparisons of outcomes at significant transition points, such as joining secondary school and transition to adult life.  The Forum also recommends that incremental improvements are made to data collection, to allow data to be analysed by gender and socio-economic status at population level, in order to ensure equity for health outcomes is addressed.  (Source: Children And Young People’s Health Outcomes Strategy, Report Of The Children And Young People’s Health Outcomes Forum (p. 27). Accessed: [http://www.ayph.org.uk/publications/286\_CYP%20outcomes%20framework-report.pdf)](http://www.ayph.org.uk/publications/286_CYP%20outcomes%20framework-report.pdf)  Extensive clinical advice on the conditions to include in the initial definition for this indicator was sought from LSHTM via research directorate. Sarah Purdy at LSHTM provided extensive advice based on her previous research on the definition for this indicator. Advice was also obtained from Kate Drysdale, a clinical adviser to the Medical Director in DH.  Professor Keith Willet (Consultant Trauma and Orthopaedic Surgeon at the Oxford Radcliffe Hospitals, Professor of Orthopaedic Trauma Surgery at the University of Oxford, National Clinical Director for Trauma Care and Director for Domain 3 in the NHS Commissioning Board) and Dr Martin McShane (Director - Domain 2 - NHS Commissioning Board) have defended the need to include children in the indicator because:   * The definitions of the indicators that are the basis for the NHS OF were developed for all ages. For example, the Caminal et al. (2004) and Purdy et al. (2010) studies use a delphi method to define the list of conditions for all age groups. * Conditions for children are still included in the indicator (e.g. measles, mumps, whooping cough); * Conditions already included such as ear, nose and throat infections, kidney/urinary tract infections, dental conditions, vaccine preventable such influenza, pneumonia, measles, mumps are conditions that may also affect children. |
| Revisions: |  |
| Indicator Title | NHSOF: 3a - Emergency admissions for acute conditions that should not usually require hospital admission (to remain the same as before) |
| Data source | To remain the same. |
| Construction | To remain the same but including children in the following age bands:   * 0-4, 5-9, 10-14, 15-18 |
| Updated Potential Issues | The rate of emergency admissions for acute conditions that should not usually require hospital admission increases when children (0-18 years) are included - see table 1 for data for all ages (including children) and for adults only (ages 19 and above).  In this indicator, children (22.6% of the total population) accounted for 30.1% and 28.8% of emergency admissions in the respective reporting years - see table2.  Table 1: 3a - Emergency admissions for acute conditions that should not usually require hospital admission (England) - ISR per 100,000 admissions (2010/11, 2011/12)  Table showing data for emergency admissions for acute conditions that do not usually require hospital admission  Legend:  ISR – indirectly standardised rate  LL- lower limit  UL – upper limit  Table 2: Emergency admissions for indicator 3a and population for children (0-18 years, adults 19-64 years and older people (65 and above)  Table showing data for emergency admissions for indicator 3a and population for children adults and older people  It is aimed to publish the indicator including children in the March 2013 publication of the NHS Outcomes Framework. |

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| --- | --- | --- | --- |
| **Initial Indicator Title** | **2.3i Unplanned hospitalisation for chronic ambulatory care sensitive conditions** | IAS Ref Code: | IAP00029 |
| Indicator Set | NHS Outcomes Framework |  |  |

**Proposed Revisions (circulated by email on 31 January 2013):**

|  |  |
| --- | --- |
| Revision Date: | 25/01/13 |
| General Comments / Reasoning: | The previous definition for this indicator was assured by MRG for the NHS Outcomes Framework 2011/12.  **The following change to the previous definition of the indicator is now proposed:**  **inclusion of children 0 to 18 years, reported in the age bands:**  **0-4, 5-9, 10-14, 15-18**  This indicator relates to unplanned hospitalisation for persons of all ages. Since the list of conditions did not exclude conditions for children, then children (ages 0 to 18 years) should be included in the indicator. The indicator age breakdowns will then be also reported for the age groups 0-4, 5-9, 10-14, 15-18. Having breakdowns for children is useful for users working in children healthcare and complies with the recommendations of the Children and Young People’s Health Outcomes Forum:  “The Forum therefore recommends that, with immediate effect, all data about children and young people are presented in 5 year age bands through childhood and the teenage years. This will allow relevant international comparisons of key outcomes as well as national or local comparisons of outcomes at significant transition points, such as joining secondary school and transition to adult life. The Forum also recommends that incremental improvements are made to data collection, to allow data to be analysed by gender and socio-economic status at population level, in order to ensure equity for health outcomes is addressed”. (Source: Children And Young People’s Health Outcomes Strategy, Report Of The Children And Young People’s Health Outcomes Forum (p. 27). Accessed: http://www.ayph.org.uk/publications/286\_CYP%20outcomes%20framework-report.pdf) |
| Revisions: |  |
| Indicator Title | To remain the same. |
| Data source | To remain the same. |
| Construction | To remain the same but to include children 0 to 18 years, reported in the age bands: 0-4, 5-9, 10-14, 15-18. |
| Updated Potential Issues | Including children in this indicator only causes a small rise in the number of admissions but a substantial rise in the denominator (overall population). This is primarily due to admissions from the five codes in 2.3ii (J45 and J46 Asthma, E10 Diabetes and G40 and G41 Epilepsy). The remainder of codes in 2.3i are conditions which are not typically associated with children, such as viral hepatitis, hypertensive heart disease, emphysema or vascular dementia.  Children make up 22.62% of the population but only 9.38% of the admissions in 2011/12 for indicator 2.3i (see table 4 below). |

**Table 3:** 2.3i - Unplanned hospitalisation for chronic ambulatory care conditions (England) - ISR per 100,000 admissions (2010/11, 2011/12)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Adults / All** | **ISR** | **ISR LL 95%** | **ISR UL 95%** | **Denominator** | **Numerator** | **Total Increase** | **Admissions (numerator) Increase** |
| 2010/11 | Adults Only | 957.52 | 954.51 | 960.53 | 40,514,022 | 389,344 |  |  |
| 2010/11 | Including Children | 823.78 | 821.32 | 826.24 | 52,234,045 | 432,326 | 11,720,023 | 42,982 |
| 2011/12 | Adults Only | 937.47 | 934.51 | 940.44 | 41,094,724 | 385,251 |  |  |
| 2011/12 | Including Children | 800.49 | 798.09 | 802.90 | 53,107,169 | 425,119 | 12,012,445 | 39,868 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**Table 4: Unplanned hospitalisation** for indicator 2.3i and population for children (0-18 years, adults 19-64 years and older people (65 and above)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  | **Children 0-18** | **Adults 19-64** | **Older people (65+)** | **Total** |
| **Population** | Total Population | 12,012,445 | 32,365,057 | 8,729,667 | 53,107,169 |
| **Population** | Percentage | 22.62% | 60.94% | 16.44% |  |
| **2010/11** | Admissions | 42,982 | 143,321 | 246,023 | 432,326 |
| **2010/11** | Percentage | 9.94% | 33.15% | 56.91% |  |
| **2011/12** | Admissions | 39,868 | 137,747 | 247,504 | 425,119 |
| **2011/12** | Percentage | 9.38% | 32.40% | 58.22% |  |

**MRG Recommendations Comments & Updates since revision (NHS OF 2.3i & 3a)**

|  |  |
| --- | --- |
| Ref code: **2012/75**  Made: 19/04/12 | MRG queried the use of quarter data as use of the standard and whether this would provide issues relating to numbers being too small. A suggestion was put forward as to whether the method used in SHMI could be used – i.e. one year’s rolling data updated quarterly. There was a suggestion that this could mean seasonal issues based on the type of illness, but this was countered by the view that it would provide national commonality. Further investigation of the best approach is to be considered. |
| Update:  Made: 14/02/13 | There are no issues with publishing at a quarterly level as there are no small numbers except for the breakdown by condition. |

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| --- | --- |
| **Comment**  Made: Feb 2013 | Are the values quoted in tables 1 and 3 actually per 100,000 population, rather than per 100,000 admissions, as described in the table header? |
| Update:  Made: 14/02/13 | As per the specification for indicators 2.3.i and 3a a standardised admission ratio (SAR) is calculated (based on admissions) and converted into a rate (ISR) by multiplying the SAR by the overall event rate of patients in England (based on population) in the most recent financial year.  The actual indicator is the ISR although our data files contain both figures (SAR and ISR).  Further more detailed information on the calculations for 2.3.i and 3a can be found on the indicator portal:  **2.3.i**  <https://indicators.ic.nhs.uk/download/Outcomes%20Framework/Specification/NHSOF_2.3.i_I00708_S_V4.pdf>  **3a**  <https://indicators.ic.nhs.uk/download/Outcomes%20Framework/Specification/NHSOF_3a_I00711_S_V4.pdf> |

|  |  |
| --- | --- |
| **Comment**  Made: Feb 2013 | Is there any intention to disaggregate below national level, and if so, has the potential variation due to small numbers of cases (for some conditions) been considered? |
| Update:  Made: 14/02/13 | Figures are already being published for various disaggregation’s. The only breakdown where small numbers are currently being suppressed is by condition for both indicators. As the proposal is to include children in the already existing indicator the numerator values can only remain the same or go up. Therefore this is not an issue. |

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| --- | --- |
| **Comment**  Made: Feb 2013 | Is the intention to produce a new separate indicator for children for each one rather than combine into all people? |
| Update:  Made: 14/02/13 | No, the proposal is to include children in the already existing indicator. |

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| **Comment**  Made: Feb 2013 | If the intention is to combine then users will need to be aware of the significant changes in the indicator values. |
| Update:  Made: 14/02/13 | A ‘Methodological Changes’ document has already been drafted for this indicator, which will explain the details of the change as well as the impact of the change (inclusion of children) on the indicator value. |

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| **Comment**  Made: Feb 2013 | Are the age groups to be used for standardisation only? |
| Update:  Made: 14/02/13 | The age bands (0-4, 5-9, 10-14, 15-18, 19-24, 25-29, …, 80-84, 85+) are used for standardisation but we also publish the indicator by age bands (same as above) at national level. |

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| **Comment**  Made: Feb 2013 | Do we expect quarterly data to be an issue for children in quinary age groups? |
| Update:  Made: 14/02/13 | No, there is no issue. Please see the numerator numbers by quarter by age band for 2011/12 in the tables below.  Table showing data for numerator numbers |

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| **Comment**  Made: Feb 2013 | Annex A (pg44) needs to be updated to include NHS OF indicators 2.3.ii and 3.2 as well. If children are to be included in 2.3i and 3a, then there is likely to be overlap with 2.3.ii and 3.2 and the implications of this will need to be discussed with DH. |
| Update:  Made: 14/02/13 | It is correct that there is overlap between the proposed indicator 2.3.i (including children) and the current indicator 2.3.ii as well as the proposed indicator 3a (including children) and current indicator 3.2. This has been explored as part of our initial analysis (please see details in attached Excel file - **2 3i 2 3ii 3a 3 2 common Diag01 codes.xls**).  The numerator value for **2.3.i** does not increase much when children are included and the rise is primarily due to admissions against the five ICD-10 codes in 2.3.ii, (2 asthma codes: J45 and J46; diabetes E10; and epilepsy G40 and G41).  It is known that the remaining conditions in 2.3.i are not those that children should reasonably be expected to suffer from, such as viral hepatitis, hypertensive heart disease, emphysema or vascular dementia. As stated in the original MRG papers for indicator 2.3.i children made up over 20% of the population, but accounted for only around 10% of emergency admissions in 2010/11 and 2011/12. Based on this we already expressed our concerns when looking at our initial data analysis.  On the other hand, the conditions reported in **3a** (largely ear, nose and throat infections, kidney / urinary tract infections, heart failure, ulcers, coughs, pneumonia, measles, mumps) are conditions that may also affect children (20% of the population).  In this indicator, children accounted for around 30% of emergency admissions in the respective reporting years.  Based on this in our opinion there is a good case for including children in indicator 3a but less so in indicator 2.3.i.  However, it is believed the Department of Health (DH) is looking into combining the four emergency admissions indicators into composite indicator(s) in the near future. This would perhaps address the problem of overlap of conditions. |

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| **Comment**  Made: Feb 2013 | The mix of conditions is likely to vary between children and adults. Has there been any analysis of this, even at higher levels of ICD grouping? Should there be substantial differences, not addressed by risk adjustment for age, then we may need to check against our risk adjustment criteria in the appraisal template and consider risk adjustment for diagnosis, particularly for sub-national analyses. |
| Update:  Made: 14/02/13 | This is a valid point. However, risk adjustment by condition would be difficult because of an issue with small numbers – particularly for direct standardisation. Again, this could be re-visited when looking at composite indicator (s) for all emergency admissions. |

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| **Initial Indicator Title** | **3.1 Patient-reported outcome measures (PROMs) for elective procedures** | IAS Ref Code: | IAP00033 |
| Indicator Set | NHS OF |  |  |

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| --- | --- |
| Indicator Details - Initial MRG Submission |  |
| Date of Initial Discussion: | 14/07/11 |
| Rationale / usefulness | The indicator is part of domain 3 of the set – this domain reflects the importance of helping people to recover from episodes of ill health or following injury. This can be seen as two complementary objectives: preventing conditions from becoming more serious (wherever possible), and helping people to recover effectively. The PROMs indicator was included in the set to ensure it covered elective procedures, not just emergency ones. |
| Data source | HSCIC’s PROMs data publication and dataset which is part of the HES dataset. |
| Construction | ***Summary description of the calculation:***  Patient reported improvement in health status following elective procedures, currently covering groin hernia, hip replacement, knee replacement and varicose veins.  PROMs data are published monthly with an approximate 5 month lag.  As PROMs data are generated from the information gathered in the PROMs questionnaires, they do not rely on a numerator/denominator relationship:  1. All patients receiving one of the relevant Procedures from an NHS-funded Provider are eligible to participate and should be invited to complete PROMs questionnaires.  2. The responses to the pre- and post-operative PROMs questionnaires are converted into pre- and post-operative health status measurements by the application of scoring algorithms, where appropriate. The difference between the pre- and postoperative health status scores is a measure of the outcome of the procedure.  The PROMs indicators will be reported separately for the four separate conditions for the purposes of the NHS OF. In the future, as more PROMs are developed another approach may need to be considered. |
| Potential Issues | 1. Due to the voluntary nature of PROMs questionnaires the amount of data collected is affected by participation and response rates. The participation rate is the proportion of eligible patients completing and returning pre-operative PROMs questionnaires. The response rate is the proportion of patients completing and returning the post-operative PROMs questionnaires. Currently participation and response rates are approximately 69% and 75% respectively. 2. As PROMs are developed for more procedures an alternative reporting approach will need to be considered. 3. Case-mix adjustment methodology is currently being reviewed as part of the PROMs expansion. The outcome of this review will need to be considered from an indicator methodology perspective. |

**Proposed Revisions:**

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| Revision Date: | 11/02/2013 |
| General Comments / Reasoning: | The current definition of this indicator was approved by MRG for the NHS Outcomes Framework 2012/13. Currently the indicator value is defined as the EQ‐5D index casemix adjusted **average** health gain reported separately for: groin hernia; hip replacement; knee replacement and varicose veins.  Further to the currently published **average** health gain it is proposed to provide an estimate of the **total** health gain from the elective procedures measured by adding the following:   1. The number of individuals receiving the procedures (= eligible episodes) **multiplied** by the assessed **average** risk-adjusted improvement in health status (to be published as main indicator). 2. The number of patients receiving the elective procedures corresponding to the PROMs included in the indicator (as a contextual indicator). |
| Revisions: |  |
| Indicator Title | * 1. **Total health gain as assessed by patients for elective procedures**   I - Hip replacement, ii – Knee replacement, iii – Groin hernia, iv – Varicose veins  No changes are proposed to the current title, however NHS OF currently reports the **average** health gain instead of the **total** health gain. Therefore the new proposed calculation intends to bring the actual indicator value in line with the title of the indicator. |
| Data source | The data for this indicator is sourced from the HSCIC’s PROMs data publication and dataset which is part of the HES dataset. The number of eligible procedures is part of this dataset. |
| Construction | The number of individuals receiving the procedures is to be multiplied by the assessed average risk-adjusted improvement in health status.  Example:  Table showing data for total health gain |
| Updated Potential Issues | * The proposed indicator (eligible episodes for procedure \* **average** health gain = **total** health gain) would distort the outcomes in favour of those CCGs that had higher volumes of episodes (irrespective of whether the patients completed pre- or post-operative questionnaires or not) * Difficulty of comparison between providers * Publishing total risk adjusted health gain is not consistent with what is published by the PROMs team.  Also, given the difficulties around the result depending on factors such as linkage and completion rates, it is possible that it may be even more difficult for users to interpret compared to the current measure. |

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| **Initial Indicator Title** | **3.3 Proportion of people who recover from major trauma** | IAS Ref Code: | IAP00299 |
| Indicator Set | NHS OF |  |  |

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| Introduction |
| This indicator measures the **casemix adjusted odds ratio of survival** for England for male and female patients. It includes patients surviving in hospital following major trauma with an **injury severity score (ISS) of >8** and fulfilling **TARN (Trauma Audit and Research Network) eligibility criteria**, which are:   * trauma admissions longer than 3 days or * admissions into an intensive care area or * after transfer for further care or * patients who die from their injuries (currently before they leave hospital after treatment of the injuries - future work will give a definitive 30 day outcome)   Isolated closed fragility fractures, simple facial fractures and spinal strains (except femoral shaft) are excluded.  The probability of survival (**Ps**) for all cases fulfilling the above criteria in the latest financial year is calculated using the coefficients derived from a logistic regression model (TARN model).  The model was build using dependent variables age, injury severity score (ISS), Gender and conscious level as measured by the Glasgow Coma Scale (GCS). The outcome variable was the event of survival 30 days after admission or the event of discharge from hospital before that date alive (good) or the event of death before 30 days (bad).  Please seethe **TARN Procedures Manual** chapter 2.1 for further details on **TARN inclusion criteria**,chapter 3.1 on definition and calculation of **ISS** and p. 51 for a brief explanation of the **Glasgow Coma Scale (GCS)**.  To be able to compare survival rates between different hospitals probabilities of survival are combined in the Comparative Outcome Analysis (**W)**. **W** is the difference between actual and predicted survival rates (see **Construction** below for further details).  Further **Ws** is calculated, which is the directly standardised W value with respect to injury severity mix (=survival band). This is done in order to produce a more accurate comparison between different hospitals.  A positive value of Ws indicates that a hospital has more survivors than predicted. The higher the value of Ws the better the hospital is performing.  It is proposed to publish the **Ws** value as the indicator value.  Possible breakdowns for this indicator are:   * + Trauma network (collaboration between the providers commissioned to deliver trauma care services in a geographical area)   + Age   + Gender   + Deprivation via postcode or area   Breakdowns for Disability, Religion or belief, Sexual orientation and Socio-economic group (NSSEC) will not be available as data are not collected. Data for ethnicity is poor so a breakdown by ethnic group is not feasible at this point. |

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| Indicator Details - Initial MRG Submission |  |
| Date of Initial Discussion: | 21/02/13 |
| Rationale / usefulness  Evidence and action ability of indicator [take this directly from the application if possible] | Indicator 3.3 aims to measure the effectiveness of a patients’ recovery from major trauma. Major trauma means multiple, serious injuries that could result in death or serious disability. These might include serious head injuries, severe gunshot wounds or road traffic accidents. As trauma is the main cause of death in the first four decades of life and a leading cause of disability it is recognised that, while emergency care has improved, treatment for victims of major injury could be improved and coordinating trauma services is now a priority for the NHS.  One of the aims of trauma systems is to increase survival and reduce mortality from serious injury. The focus of domain 3 in the NHS Outcomes Framework is on helping people to recover from episodes of ill health or following injury. To be consistent with other indicators in domain 3, this indicator, which measures recovery from trauma, will focus on survival. However, the research evidence below focuses on the inverse event – death, rather than survival.  The Victoria State Trauma System (VSTS) in Australia (on which the NHS England trauma networks are modelled) and international research favour an Adjusted Odds Ratio for simplicity and public comprehension. This is set at 1.0 at baseline and annual changes in comparative mortality are demonstrated against that.  The VSTS uses reduction in odds ratio of death based on age, mechanism of injury and ISS. This demonstrated a significant reduction in deaths between 2001-2 and 2005-6 (adjusted odds ratio 0.62, 95% CI 0.48 – 0.8).  Prior work in the UK has adjusted on GCS (Glasgow Coma Score), ISS (injury severity score) and age and shown no improvement over time in the absence of system change. The London Trauma networks, which went live in 2010 two years ahead of the rest of NHS England, reported a reduction in the odds ratio of death with 58 more unexpected survivors in the first year.  The clinical governance and performance management of all NHS major trauma centres (MTCs) and their funding are dependent on the national clinical audit TARN (Trauma Audit Research Network) to which all MTCs are required to return data.  TARN acts as the monitor of key performance indicators that are reported to commissioners and is the method by which the additional MTC income to cover the costs of the enhanced specifications is approved. This reporting of compliance with these KPIs is the basis of the PbR Best Practice Tariff uplift. This ensures high levels of data completeness. TARN also undertakes separate data completion and data quality checks against SUS. |
| Data source | Trauma Audit Research Network (TARN). TARN maintain a database by collecting data from all participating hospital trusts that receive severely injured patients.  The TARN database is the largest trauma database in Europe with more than 200,000 cases including over 22,000 paediatric patients. |
| Construction  Summary of construction, including the numerator, denominator, statistical method(s), presence of risk adjustment variables (age, sex, casemix etc), specific codes and filters.  For more complex indicators, summarise here and supply detail in an appendix | The probability of survival (Ps) of each injured patient is calculated using a multiple logistic regression model (TARN model) with the following dependent variables:   * Age * Gender * Glasgow Coma Scale (GCS) * ISS   The Injury Severity Score (ISS) is used as a continuous variable and is transformed using fractional polynomials.  The second order fractional polynomial model for ISS is expressed as:  formula for calculation of injury severity score  where loge is the natural logarithm.  The outcome prediction model (coefficients) is detailed below:  b = b0 + b1....6 GCS + b7,8 ISS + b9,10 Gender + b11....18 Age + b19....26 Age × Gender  Where: GCS = Glasgow Coma Scale score ISS = Injury Severity Score b0……..b26 **are coefficients derived from regression analysis applied to data from TARN 2005 - 2011**.  b0 = constant 4.9146 b1 = 0 and applies when the GCS = 13 - 15 b2 -1.27734 and applies when the GCS = 9 - 12 b3 = -1.68936 and applies when the GCS = 6 – 8 b4 = -2.52661 and applies when the GCS = 4 - 5 b5 = -3.62339 and applies when the GCS = 3 b6 = -2.31186 and applies when Intubated b7 = -3.000163  b8 = -2.74522 b9 = 0 and applies when gender = male b10 = -0.024416 and applies when gender = female b11 = -0.045908 and applies when Age = 0 – 5 b12= 0.549181 and applies when Age = 6 - 10 b13 = 0.210467 and applies when Age = 11 – 15 b14 = 0 and applies when Age = 16 - 44 b15 = -0.557926 and applies when Age = 45 – 54 b16 = -0.995816 and applies when Age = 55 - 64 b17 = -1.74081 and applies when Age = 65 – 74 b18 = -3.01315 and applies when Age = > 74 b19 = -0.26133 and applies when Age = 0 – 5 and gender = female b20 = 0.099246 and applies when Age = 6 – 10 and gender = female b21 = -0.23219 and applies when Age = 11 – 15 and gender = female b22 = 0 and applies when Age = 16 - 44 and gender = female (or male) b23= 0.003235 and applies when Age = 45 - 54 and gender = female b24 = -0.085054 and applies when Age = 55 - 64 and gender = female b25 = 0.081554 and applies when Age = 65 - 74 and gender = female b26 = 0.299887 and applies when Age >74 and gender = female  The constant e = 2.718282 (the base of Napierian logarithms).  The probability of survival (Ps) is expressed as:  The sum of **Ps** for all patients = predicted number of survivors.  Once the predicted number of survivors is known **W** can be calculated.  W is the difference between the predicted number of survivors (given by summing the predicted survival probabilities for each patient) and the actual number of survivors, divided by the total number of patients divided by 100.  This is the number of excess survivors per 100 patients, compared with the predictions.  **W** is expressed as:  A positive value of W indicates that the hospital has more survivors than predicted, and so its performance is above the standard in the prediction data base.  The W value is then adjusted to allow for different mixes of patients at each hospital to form **Ws**. The survival band used in the standardisation is the number of patients that fall into each ‘probability of survival’ category, e.g. 190 patients have a probability of survival of between 95 and 100%.  This is done using direct standardisation (see attached article ‘**Standardised Comparison of Performance Indicators in Trauma**’ for further information on the standardisation method used).  **Ws** is expressed as:  **Ws** = W \* fraction of patients in the TARN database in each survival band  Example - Rate of Survival Breakdown at Hospital A  rrrrrrrrrrrr  The value of the indicator for hospital A would be -1.04. This means that there was 1 additional death out of every 100 patients.  This is the Ws calculated for each  two-year period: 09/10 and 11/12.  ***Calculation type:***  The probability of survival (**Ps**) is calculated using coefficients derived from the TARN model (logistic regression model).  **W** is then calculated as the difference between actual and predicted survival rates  **Ws** is calculated using direct standardisation by survival band.  The odds of survival over time will be sourced fully calculated from TARN.  ***Denominator:***  All trauma patients identified using the TARN eligibility criteria.  ***Numerator:***  The difference between the number of actual and predicted survivors.  ***Statistical Methods / Risk adjustment variables:***  Logistic regression model to generate coefficients that are applied to patient data submitted to TARN.  Direct standardisation using survival band to calculate adjusted difference (Ws).  ***Other (Quality assurance/interpretation/known limitations):*** |
| Potential Issues  Highlight any of the following that apply  -data source(s) do not collect 100% of events  -data source(s) organisation or geographic coverage shortfalls  -codes or filters not matching the policy question  -data source(s) definitions not meeting policy question  -data source(s) quality problems or inconsistency of reporting  -statistical methods not appropriate for test or audience  -risk adjustment not considered  -long term security of the data source(s)  -timing of data availability for use in indicator  presentation of data likely to mislead or give false confidence in findings | **Data quality and completeness of data – only between 50% and 100% of eligible cases are submitted by trusts.**    However, this is improving because trauma care is now commissioned formally, trauma has a higher profile and trusts know their quality assurance depends on the returns.  The Major Trauma Centres (MTCs) are incentivized by a best practice tariff. Prior to this membership of TARN and employing staff to submit data was very much optional.  **Title (recovery from major trauma) is not matching indicator calculation (adjusted odds of survival).**  Please note that the DH is currently working on a methodology for how to include the extend of ‘recovery’ in the indicator calculation. A DH-funded pilot on collecting cost-utility data for trauma patients is planned for 2013/14. Until then it is proposed to use adjusted survival rates as calculated by TARN.  **Previously there were issues with coverage as not all hospitals were members of TARN.**  However, TARN membership has improved year on year and is currently almost 100%.  **How has TARN dealt with duplicates in the data submissions?**  All duplicates are removed from the data using the NHS number and the date of injury.  **For some hospitals data completeness is over 100%. What does it mean?**  As mentioned before data completeness in TARN is assessed using HES number of patients in ICD-10 chapters S and T, who meet TARN in- or exclusion criteria (please see attached document **ICD10 codes for TARN** for further details). Data completeness is >100% when the hospital submits more patients meeting the TARN criteria than those listed on their HES submission.  There are 2 potential reasons for this – 1) the ICD-10 coding is completed at the hospital. Subsequently, and from other sources, patients may well be identified as trauma patients that fulfil the TARN inclusion criteria and therefore the numbers are greater than those identified in HES. 2) the HES dataset is only available for the previous year – 2011 data is available in April 2012 – and with the changes to the systems of trauma care certain patients will be treated at different hospitals – major trauma centres rather than trauma units and so the numbers of patients will be larger than expected as indicated by the HES dataset the previous year (> 100%). |
| Supporting Documents  Provide links to any additional documentation used to support discussion at MRG | **TARN Procedures Manual** on TARN web site accessed on 13th February 2013:  <https://www.tarn.ac.uk/content/downloads/53/Procedures%20Dec%202012.pdf>  **ICD10 codes for TARN inclusion/exclusion** on TARN web site accessed on 13th February 2013:  <https://www.tarn.ac.uk/content/downloads/53/ICD10%20codes%20-%20updated%20October%202012.pdf>  Information on the latest TARN model:  <https://www.tarn.ac.uk/Content.aspx?ca=4&c=3065>  Accessed on 12th February 2013.  Hollis S, Yates D, Woodford M, Foster, P. **Standardized Comparison of Performance Indicators in Trauma: A New Approach to Case-Mix Variation**. J Trauma. 1995 May; 38(5): 763-66.  [Bouamra O](http://www.ncbi.nlm.nih.gov/pubmed?term=Bouamra%20O%5BAuthor%5D&cauthor=true&cauthor_uid=16967011), [Wrotchford A](http://www.ncbi.nlm.nih.gov/pubmed?term=Wrotchford%20A%5BAuthor%5D&cauthor=true&cauthor_uid=16967011), [Hollis S](http://www.ncbi.nlm.nih.gov/pubmed?term=Hollis%20S%5BAuthor%5D&cauthor=true&cauthor_uid=16967011), [Vail A](http://www.ncbi.nlm.nih.gov/pubmed?term=Vail%20A%5BAuthor%5D&cauthor=true&cauthor_uid=16967011), [Woodford M](http://www.ncbi.nlm.nih.gov/pubmed?term=Woodford%20M%5BAuthor%5D&cauthor=true&cauthor_uid=16967011), [Lecky F](http://www.ncbi.nlm.nih.gov/pubmed?term=Lecky%20F%5BAuthor%5D&cauthor=true&cauthor_uid=16967011). **A new approach to outcome prediction in trauma: A comparison with the TRISS model**. [J Trauma.](http://www.ncbi.nlm.nih.gov/pubmed/16967011) 2006 Sep; 61(3): 701-10.  Cameron PA, Gabbe BJ et al. **A state-wide system of trauma care in Victoria: effect on patient survival**. MJA 2008 Vol 189; 10. Accessed: <http://www.ncbi.nlm.nih.gov/pubmed/19012550>  Patel HC, Bouamra O, Woodford M et al. **Trends in head injury outcome from 1989 to 2003 and the effect of neurosurgical care: an observational study**. Lancet 2005; 366: 1538–44 Celso et al. A systematic review and meta-analysis comparing outcome of severely injured patients treated in trauma centres following the establishment of trauma systems. [J Trauma.](http://www.ncbi.nlm.nih.gov/pubmed/16508498) 2006 Feb; 60 (2): 371-8 Lansink K. and Leenan L.P. **Do designated trauma systems improve outcome?** [Curr Opin Crit Care.](http://www.ncbi.nlm.nih.gov/pubmed/17975391) 2007 Dec; 13 (6): 686-90. |
| Additional Information / Sample Data : | For adjusted survival rates & data completeness for financial year 2011/2012 – please see Excel file **3.3\_Survivalrate\_15Jan13.xls**  The value proposed to be published as the indicator value for 3.3 is the **Ws** value (highlighted in orange). |

**Annex A: Conditions included in indicators - NHS Comparators, NCHOD and the Outcomes Framework**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **NHS Comparators** | **OF indicators** | **OF indicators** | **NCHOD** | **NCHOD** |
| Group name | ICD10 codes | Description | *Managing Emergency Admissions (19 Ambulatory Care Conditions)* | *2.3i: Unplanned hospitalisation for chronic ambulatory care sensitive conditions* | *3a: Emergency admissions for acute conditions that should not usually require hospital admission* | *Emergency hospital admissions: chronic conditions usually managed in primary care* | *Emergency hospital admissions: acute conditions usually managed in primary care* |
| Influenza and pneumonia | J10 | Influenza due to identified influenza virus |  |  |  |  |  |
|  | J11 | Influenza, virus not identified |  |  |  |  |  |
|  | J13 | Pneumonia due to Streptococcus pneumoniae |  |  |  |  |  |
|  | J13X | Pneumonia due to Streptococcus pneumoniae |  |  |  |  |  |
|  | J14 | Pneumonia due to Haemophilus influenzae |  |  |  |  |  |
|  | J15.3 | Pneumonia due to streptococcus, group B |  |  |  |  |  |
|  | J15.4 | Pneumonia due to other streptococci |  |  |  |  |  |
|  | J15.7 | Pneumonia due to Mycoplasma pneumoniae |  |  |  |  |  |
|  | J15.9 | Bacterial pneumonia, unspecified |  |  |  |  |  |
|  | J16.8 | Pneumonia due to other specified infectious organisms |  |  |  |  |  |
|  | J18.1 | Lobar pneumonia, unspecified |  |  |  |  |  |
|  | J18.8 | Other pneumonia, organism unspecified |  |  |  |  |  |
| Other vaccine preventable | A35 | Other tetanus |  |  |  |  |  |
|  | A36 | Diphtheria |  |  |  |  |  |
|  | A37 | Whooping cough |  |  |  |  |  |
|  | A80 | Acute poliomyelitis |  |  |  |  |  |
|  | B05 | Measles |  |  |  |  |  |
|  | B06 | Rubella [German measles] |  |  |  |  |  |
|  | B16.1 | Acute hep B with delta-agent (coinfectn) without hep coma |  |  |  |  |  |
|  | B16.9 | Acute hep B without delta-agent and without hepat coma |  |  |  |  |  |
|  | B18.0 | Chronic viral hepatitis B with delta-agent |  |  |  |  |  |
|  | B18.1 | Chronic viral hepatitis B without delta-agent |  |  |  |  |  |
|  | B26 | Mumps |  |  |  |  |  |
|  | G00.0 | Haemophilus meningitis |  |  |  |  |  |
|  | M01.4 | Rubella arthritis |  |  |  |  |  |
| Asthma | J45 | Asthma |  |  |  |  |  |
|  | J46 | Status asthmaticus |  |  |  |  |  |
|  | J46X | Status asthmaticus |  |  |  |  |  |
| Congestive heart failure | I11.0 | Hypertensive heart disease with (congestive) heart failure |  |  |  |  |  |
|  | I48X | Atrial fibrillation and flutter |  |  |  |  |  |
|  | I50 | Heart failure |  |  |  |  |  |
|  | J81 | Pulmonary oedema |  |  |  |  |  |
|  | J81X | Pulmonary oedema |  |  |  |  |  |
| Diabetes complications | E10.0-E10.8 | Insulin-dependent diabetes mellitus |  |  |  |  |  |
|  | E10.9 | Insulin-dependent diabetes mellitus without complications |  |  |  |  |  |
| (This covers Diabetes A-C in the ICD9 list) | E11.0-E11.8 | Non-insulin-dependent diabetes mellitus |  |  |  |  |  |
|  | E11.9 | Non-insulin-dependent diabetes mellitus without complications |  |  |  |  |  |
|  | E12.0-E12.8 | Malnutrition-related diabetes mellitus |  |  |  |  |  |
|  | E12.9 | Malnutrition-related diabetes mellitus without complications |  |  |  |  |  |
|  | E13.0-E13.8 | Other specified diabetes mellitus |  |  |  |  |  |
|  | E13.9 | Other specified diabetes mellitus without complications |  |  |  |  |  |
|  | E14.0-E14.8 | Unspecified diabetes mellitus |  |  |  |  |  |
|  | E14.9 | Unspecified diabetes mellitus without complications |  |  |  |  |  |
| Chronic obstructive pulmonary disease | J20 | Acute bronchitis |  |  |  |  |  |
|  | J41 | Simple and mucopurulent chronic bronchitis |  |  |  |  |  |
|  | J42 | Unspecified chronic bronchitis |  |  |  |  |  |
|  | J42X | Unspecified chronic bronchitis |  |  |  |  |  |
|  | J43 | Emphysema |  |  |  |  |  |
|  | J44 | Other chronic obstructive pulmonary disease |  |  |  |  |  |
|  | J47 | Bronchiectasis |  |  |  |  |  |
|  | J47X | Bronchiectasis |  |  |  |  |  |
| Angina | I20 | Angina pectoris |  |  |  |  |  |
|  | I24.0 | Coronary thrombosis not resulting in myocardial infarction |  |  |  |  |  |
|  | I24.8 | Other forms of acute ischaemic heart disease |  |  |  |  |  |
|  | I24.9 | Acute ischaemic heart disease, unspecified |  |  |  |  |  |
|  | I25 | Chronic ischaemic heart disease |  |  |  |  |  |
| Iron deficiency anaemia | D50.1 | Sideropenic dysphagia |  |  |  |  |  |
|  | D50.8 | Other iron deficiency anaemias |  |  |  |  |  |
|  | D50.9 | Iron deficiency anaemia, unspecified |  |  |  |  |  |
|  | D51 | Vitamin B12 deficiency anaemia |  |  |  |  |  |
|  | D52 | Folate deficiency anaemia |  |  |  |  |  |
| Hypertension | I10 | Essential (primary) hypertension |  |  |  |  |  |
|  | I10X | Essential (primary) hypertension |  |  |  |  |  |
|  | I11.9 | Hypertensive heart disease without (congestive) heart failure |  |  |  |  |  |
|  | I13.0 | Hypertensive heart and renal disease with (congestive) heart failure |  |  |  |  |  |
| Nutritional deficiencies | E40 | Kwashiorkor |  |  |  |  |  |
|  | E41 | Nutritional marasmus |  |  |  |  |  |
|  | E42 | Marasmic kwashiorkor |  |  |  |  |  |
|  | E43 | Unspecified severe protein-energy malnutrition |  |  |  |  |  |
|  | E55.0 | Rickets, active |  |  |  |  |  |
|  | E64.3 | Sequelae of rickets |  |  |  |  |  |
| Dehydration and gastroenteritis | E86 | Volume depletion |  |  |  |  |  |
|  | K52 | Other noninfective gastroenteritis and colitis |  |  |  |  |  |
|  | K52.2 | Allergic and dietetic gastroenteritis and colitis |  |  |  |  |  |
|  | K52.8 | Other specified noninfective gastroenteritis and colitis |  |  |  |  |  |
|  | K52.9 | Noninfective gastroenteritis and colitis, unspecified |  |  |  |  |  |
| Pyelonephritis | N10 | Acute tubulo-interstitial nephritis |  |  |  |  |  |
|  | N11 | Chronic tubulo-interstitial nephritis |  |  |  |  |  |
|  | N12 | Tubulo-interstitial nephritis not spec as acute or chronic |  |  |  |  |  |
|  | N13.6 | Pyonephrosis |  |  |  |  |  |
| Perforated/bleeding ulcer | K25.0-K25.2, K25.4-K25.6 | Gastric ulcer |  |  |  |  |  |
|  | K26.0-K26.2, K26.4-K26.6 | Duodenal ulcer |  |  |  |  |  |
|  | K27.0-K27.2, K27.4-K27.6 | Peptic ulcer, site unspecified |  |  |  |  |  |
|  | K28.0-K28.2, K28.4-K28.6 | Gastrojejunal ulcer |  |  |  |  |  |
|  | K20 | Oesophagitis |  |  |  |  |  |
|  | K21 | Gastro-oesophageal reflux disease |  |  |  |  |  |
| Cellulitis | L01 | Impetigo |  |  |  |  |  |
|  | L02 | Cutaneous abscess, furuncle and carbuncle |  |  |  |  |  |
|  | L03 | Cellulitis |  |  |  |  |  |
|  | L04 | Acute lymphadenitis |  |  |  |  |  |
|  | L08.0 | Pyoderma |  |  |  |  |  |
|  | L08.8 | Other spec local infections of skin and subcutaneous tissue |  |  |  |  |  |
|  | L08.9 | Local infection of skin and subcutaneous tissue, unspecified |  |  |  |  |  |
|  | L88 | Pyoderma gangrenosum |  |  |  |  |  |
|  | L98.0 | Pyogenic granuloma |  |  |  |  |  |
| Pelvic inflammatory disease | N70 | Salpingitis and oophoritis |  |  |  |  |  |
|  | N73 | Other female pelvic inflammatory diseases |  |  |  |  |  |
|  | N74 | Female pelvic inflammatory disorders in diseases EC |  |  |  |  |  |
| Ear, nose and throat infections | H66 | Suppurative and unspecified otitis media |  |  |  |  |  |
|  | H67 | Otitis media in diseases classified elsewhere |  |  |  |  |  |
|  | J02 | Acute pharyngitis |  |  |  |  |  |
|  | J03 | Acute tonsillitis |  |  |  |  |  |
|  | J04 | Acute laryngitis |  |  |  |  |  |
|  | J06 | Acute upper respiratory infections multiple and unsp sites |  |  |  |  |  |
|  | J31.2 | Chronic pharyngitis |  |  |  |  |  |
| Dental conditions | A69.0 | Necrotizing ulcerative stomatitis |  |  |  |  |  |
|  | K02 | Dental caries |  |  |  |  |  |
|  | K03 | Other diseases of hard tissues of teeth |  |  |  |  |  |
|  | K04 | Diseases of pulp and periapical tissues |  |  |  |  |  |
|  | K05 | Gingivitis and periodontal diseases |  |  |  |  |  |
|  | K06 | Other disorders of gingiva and edentulous alveolar ridge |  |  |  |  |  |
|  | K08 | Other disorders of teeth and supporting structures |  |  |  |  |  |
|  | K09.8 | Other cysts of oral region, not elsewhere classified |  |  |  |  |  |
|  | K09.9 | Cyst of oral region, unspecified |  |  |  |  |  |
|  | K12 | Stomatitis and related lesions |  |  |  |  |  |
|  | K13 | Other diseases of lip and oral mucosa |  |  |  |  |  |
| Convulsions and epilepsy | G40 | Epilepsy |  |  |  |  |  |
|  | G41 | Status epilepticus |  |  |  |  |  |
|  | R56 | Convulsions, not elsewhere classified |  |  |  |  |  |
|  | O15 | Eclampsia |  |  |  |  |  |
| Gangrene | R02 | Gangrene, not elsewhere classified |  |  |  |  |  |
| Mental and behavioural disorders | F00 | Dementia in alzheimers |  |  |  |  |  |
|  | F01 | Vascular dementia |  |  |  |  |  |
|  | F02 | Dementia in other diseases |  |  |  |  |  |
|  | F03 | Unspecified dementia |  |  |  |  |  |
| Kidney / urinary tract infections | N15.9 | Renal tubulo-interstitial disease, unspecified; |  |  |  |  |  |
|  | N39.0 | Urinary tract infection, site not specified; |  |  |  |  |  |
|  | N30.0 | Acute cystitis. |  |  |  |  |  |
|  | N30.8 | Other cystitis |  |  |  |  |  |
|  | N30.9 | Cystitis, unspecified |  |  |  |  |  |
| Intestinal infectious diseases | A02.0 | Salmonella enteritis |  |  |  |  |  |
|  | A04 | Other bacterial intestinal infections |  |  |  |  |  |
|  | A05.9 | Bacterial foodborne intoxication, unspecified |  |  |  |  |  |
|  | A07.2 | Cryptosporidiosis |  |  |  |  |  |
|  | A08 | Viral and other specified intestinal infections |  |  |  |  |  |
|  | A09 | Diarrhoea and gastroenteritis of presumed infectious origin |  |  |  |  |  |
| Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified | I89.1 | Lymphangitis |  |  |  |  |  |
| Extrapyramidal and movement disorders | G25.3 | Myoclonus |  |  |  |  |  |

**Annex B: NHS Outcomes Framework indicators Definition of Ambulatory Care Sensitive conditions**

**1.0 Background**

1.1 The NHS Outcomes Framework was published in Dec 2010 with a group of 51 indicators. As part of this suite of indicators, there are two that look at unplanned hospitalisation for conditions that should be managed in the community. These indicators are:

* ***Unplanned hospitalisation for chronic ambulatory care sensitive conditions***
* ***Emergency admissions for acute conditions that should not usually require hospital admission***

1.2 Both these indicators will look at ambulatory care sensitive conditions with an aim to monitor those conditions for which hospital admission could be prevented by interventions in the community.

1.3 This paper follows on from a discussion held with clinical colleagues around appropriate definitions, and builds on the work set out in the paper of 16th May 2011.

**2.0 Developing a definition of ambulatory care sensitive conditions**

2.1 During discussions it was agreed that the most appropriate way forward was to build on the definition of ambulatory care sensitive conditions as used in the NHS Comparators indicator “Emergency admissions for 19 ambulatory care sensitive conditions”, with some additions and removals as deemed appropriate for the purpose of the indicator. The definitions and codes used are outlined in this paper.

2.2 Decisions have been made to include conditions for two reasons – either the condition itself should be treated in the community/primary care, or management of the condition outside hospital should prevent the condition escalating so that an emergency admission is required. Therefore – in some of these cases the indicator is not saying that should an acute exacerbation occur should not be treated in hospital, rather that early management should prevent an acute exacerbation.

2.3 This indicator will benefit from periodic review as advances are made in way conditions are treated.

2.4 There has been effort made to ensure consistency with other definitions – namely the conditions set out in the NCHOD indicators “Acute/Chronic conditions usually managed in primary care”, and those set out in the NHS Institute population “Directory of Ambulatory Emergency Care for Adults”. Some conditions may appear in the directory, but not in the definition set out below. This is because ambulatory emergency care needs to be distinguished from the ambulatory care sensitive conditions. The latter refers to conditions in which improved preventative healthcare or improved long-term condition management results in a decreased risk of an acute event occurring. With the Directory of Ambulatory Emergency Care for Adults, the 49 scenarios relate to where the acute event has developed and delivery of that acute care is feasible for a significant proportion of cases without an overnight stay in hospital. Thus, there are overlaps in the conditions mentioned but they represent differing points in the patient journey.

**3.0 Amendments to NHS Comparators definition**

The list of conditions to be included are outlined below, and changes to the current NHS

Comparators definition are highlighted. Those classed as “chronic” are marked blue, and those classed as “acute” are marked in red.

**3.1 Influenza, pneumonia and other vaccine preventable:**

The following codes were removed from the existing NHS Comparators definition. Each of these had between 2 and 11 emergency admissions for adults in 2009-10):

A35 – Other tetanus

A80 – Acute poliomyelitis

G00.0 - Haemophilus meningitis

All the conditions below are considered acute except for B18.0 and B18.1.

|  |  |  |
| --- | --- | --- |
| **ICD-10 Code** | **Condition** | **Emergency admissions for adults in 2009-10** |
| J10 | Influenza due to identified influenza virus | 3,154 |
| J11 | Influenza, virus not identified | 920 |
| J13X | Pneumonia due to Streptococcus pneumoniae | 2,051 |
| J14 | Pneumonia due to Haemophilus influenzae | 505 |
| J15.3 | Pneumonia due to streptococcus, group B | 38 |
| J15.4 | Pneumonia due to other streptococci | 377 |
| J15.7 | Pneumonia due to Mycoplasma pneumoniae | 432 |
| J15.9 | Bacterial pneumonia, unspecified | 259 |
| J16.8 | Pneumonia due to other specified infectious organisms | 49 |
| J18.1 | Lobar pneumonia, unspecified | 63,376 |
| J18.8 | Other pneumonia, organism unspecified | 472 |
| A36 | Diphtheria | \* |
| A37 | Whooping cough | - |
| B05 | Measles | 25 |
| B06 | Rubella [German measles] | \* |
| B16.1 | Acute hep B with delta-agent (coinfectn) without hep coma | \* |
| B16.9 | Acute hep B without delta-agent and without hepat coma | 170 |
| B18.0 | Chronic viral hepatitis B with delta-agent | \* |
| B18.1 | Chronic viral hepatitis B without delta-agent | 61 |
| B26 | Mumps | 206 |
| M01.4 | Rubella arthritis | - |
|  |  | **Total 72,105** |

Additional notes for definition:

In any diagnosis field

Exclude people with a secondary diagnosis of D57 (Sickle-cell disorders)

**3.2 Asthma**

No changes have been made to the NHS Comparators definition. All the conditions are considered chronic.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| J45 | Asthma | 31,793 |
| J46X | Status asthmaticus | 3,379 |
|  |  | **Total 35,172** |

Additional notes for definition:

Principal diagnosis only

**3.3 Congestive heart failure**

Hypertensive heart and renal disease with (congestive) heart failure (ICD-10 code I13.0) has been added into the existing NHS Comparators definition. All the conditions are considered chronic.

|  |  |  |
| --- | --- | --- |
| **ICD-10 Code** | **Condition** | **Emergency admissions for adults in 2009-10** |
| I11.0 | Hypertensive heart disease with (congestive) heart failure | 420 |
| I50 | Heart failure | 8 |
| J81X | Pulmonary oedema | 2,391 |
| I13.0 | Hypertensive heart and renal disease with (congestive) heart failure | 59 |
|  |  | **Total 2,878** |

Additional notes for definition:

Principal diagnosis only

Exclude operative procedures with ICD-10 codes of K0, K1, K2, K3, K4, K50, K52, K55, K56, K57, K60, K61, K66, K67, K68, K69, K71

**3.4 Diabetes**

Diabetes conditions coded 0.9 - “without complications” – have been added to the NHS Comparators definition (an additional 12,000 emergency admissions). All the conditions are considered chronic.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| E10 | Insulin-dependent diabetes mellitus | 13,153 |
| E11 | Non-insulin-dependent diabetes mellitus | 16,363 |
| E12 | Malnutrition-related diabetes mellitus | \* |
| E13 | Other specified diabetes mellitus | 255 |
| E14 | Unspecified diabetes mellitus | 958 |
|  |  | **Total ~30,700** |

Additional notes for definition:

In any diagnosis field

**3.5 Chronic obstructive pulmonary disease**

No changes have been made to the NHS Comparators definition. All the conditions are considered chronic.

|  |  |  |
| --- | --- | --- |
| **ICD-10 Code** | **Condition** | **Emergency admissions for adults in 2009-10** |
| J20 | Acute bronchitis | 1,029 |
| J41 | Simple and mucopurulent chronic bronchitis | 14 |
| J42X | Unspecified chronic bronchitis | 139 |
| J43 | Emphysema | 2,950 |
| J44 | Other chronic obstructive pulmonary disease | 99,852 |
| J47X | Bronchiectasis | 4,681 |
|  |  | **Total 108,665** |

Additional notes for definition:

Principal diagnosis only;

ICD-10: J20 only with second diagnosis of J41, J42, J43, J44, J47

**3.6 Angina**

Chronic ischaemic heart disease (ICD-10 code I25) has been added on to the NHS Comparators definition.

These conditions could be split into chronic and acute, with I24 codes classed as acute, and I20 and I25 classed as chronic.

|  |  |  |
| --- | --- | --- |
| **ICD-10 Code** | **Condition** | **Emergency admissions for adults in 2009-10** |
| I20 | Angina pectoris | 63,031 |
| I24.0 | Coronary thrombosis not resulting in myocardial infarction | 143 |
| I24.8 | Other forms of acute ischaemic heart disease | 974 |
| I24.9 | Acute ischaemic heart disease, unspecified | 339 |
| I25 | Chronic ischaemic heart disease | 16,418 |
|  |  | **Total 80,905** |

Additional notes for definition:

Principal diagnosis only;

Exclude cases with operative procedure ICD-10 codes of A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, V, W, X0, X1, X2, X4, X5

**3.7 Iron deficiency anaemia**

The following codes were added to the existing NHS Comparators definition:

D51 – Vitamin B12 deficiency anaemia

D52 – Folate deficiency anaemia

All the conditions are considered chronic.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| D50.1 | Sideropenic dysphagia | - |
| D50.8 | Other iron deficiency anaemias | 4,895 |
| D50.9 | Iron deficiency anaemia, unspecified | 6,892 |
| D51 | Vitamin B12 deficiency anaemia | 376 |
| D52 | Folate deficiency anaemia | 602 |
|  |  | **Total 12,765** |

Additional notes for definition:

Principal diagnosis only

**3.8 Hypertension**

No changes have been made to the NHS Comparators definition.

All the conditions are considered chronic.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| I10X | Essential (primary) hypertension | 6,070 |
| I11.9 | Hypertensive heart disease without (congestive) heart failure | 138 |
|  |  | **Total 6,208** |

Additional notes for definition:

Principal diagnosis only

Exclude cases with procedure code of K0, K1, K2, K3, K4, K50, K52, K55, K56, K57, K60, K61, K66, K67, K68, K69, K71

**3.9 Nutritional deficiencies**

This category will be removed due to extremely small numbers involved (~90 in 2009-10)

**3.10 Dehydration and gastroenteritis**

The following codes were added to the existing NHS Comparators definition:

A02.0 Salmonella enteritis

A04Other bacterial intestinal infections

A05.9Bacterial foodborne intoxication, unspecified

A07.2Cryptosporidiosis

A08 Viral and other specified intestinal infections

A09 Diarrhoea and gastroenteritis of presumed infectious origin

K52.0Gastroenteritis and colitis due to radiation

K52.1Toxic gastroenteritis and colitis

All the conditions are considered acute.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| E86 | Volume depletion | 9,358 |
| K52 | Other noninfective gastroenteritis and colitis | 54,054 |
| A02.0 | Salmonella enteritis | 285 |
| A04 | Other bacterial intestinal infections | 5,762 |
| A05.9 | Bacterial foodborne intoxication, unspecified | 109 |
| A07.2 | Cryptosporidiosis | 51 |
| A08 | Viral and other specified intestinal infections | 8,064 |
| A09 | Diarrhoea and gastroenteritis of presumed infectious origin | 2,719 |
|  |  | **Total 80,402** |

Additional notes for definition:

Principal diagnosis only

**3.11 Pyelonephritis and kidney/urinary tract infections**

The following codes were added to the existing NHS Comparators definition, widening the group to include kidney and urinary tract infections:

N15.9 Renal tubulo-interstitial disease, unspecified;

N39.0 Urinary tract infection, site not specified;

N30.0 Acute cystitis

N30.8 Other cystitis

N30.9 Cystitis, unspecified

All the conditions are considered acute. N11 refers to Chronic tubulo-interstitial nephritis. However, the numbers involved are considered too small to move under chronic conditions as a separate category.

|  |  |  |
| --- | --- | --- |
| **ICD-10 Code** | **Condition** | **Emergency admissions for adults in 2009-10** |
| N10 | Acute tubulo-interstitial nephritis | 2,049 |
| N11 | Chronic tubulo-interstitial nephritis | 521 |
| N12 | Tubulo-interstitial nephritis not spec as acute or chronic | 9,320 |
| N13.6 | Pyonephrosis | 531 |
| N15.9 | Renal tubulo-interstitial disease, unspecified; | 83 |
| N39.0 | Urinary tract infection, site not specified; | 109,075 |
| N30.0 | Acute cystitis | 81 |
| N30.8 | Other cystitis | 89 |
| N30.9 | Cystitis, unspecified | 482 |
|  |  | **Total 122,231** |

Additional notes for definition:

Principal diagnosis only

**3.12 Perforated/bleeding ulcer**

The following codes were added to the existing NHS Comparators definition:

K20X Oesophagitis

K21 Gastro-oesophageal reflux disease

All the conditions are considered acute.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| K25.0-K25.2, K25.4-K25.6 | Gastric ulcer | 1,774 |
| K26.0-K26.2, K26.4-K26.6 | Duodenal ulcer | 3,534 |
| K27.0-K27.2, K27.4-K27.6 | Peptic ulcer, site unspecified | 214 |
| K28.0-K28.2, K28.4-K28.6 | Gastrojejunal ulcer | 35 |
| K20 | Oesophagitis | 1,808 |
| K21 | Gastro-oesophageal reflux disease | 8,251 |
|  |  | **Total 15,616** |

Additional notes for definition:

Principal diagnosis only

**3.13 Cellulitis**

The following codes were added to the existing NHS Comparators definition:

I89.1 - Lymphangitis

L01 – Impetigo

L02 – Cutaneous abscess, furuncle and carbuncle

All the conditions are considered acute.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| L03 | Cellulitis | 52,432 |
| L04 | Acute lymphadenitis | 282 |
| L08.0 | Pyoderma | 53 |
| L08.8 | Other spec local infections of skin and subcutaneous tissue | 286 |
| L08.9 | Local infection of skin and subcutaneous tissue, unspecified | 2,131 |
| L88 | Pyoderma gangrenosum | 115 |
| L98.0 | Pyogenic granuloma | 141 |
| I89.1 | Lymphangitis | 87 |
| L01 | Impetigo | 104 |
| L02 | Cutaneous abscess, furuncle and carbuncle | 23,700 |
|  |  | **Total 79,331** |

Additional notes for definition:

Principal diagnosis only

Exclude cases with operative procedure ICD-10 codes of A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S1, S2, S3, S41, S42, S43, S44, S45, S48, S49, T, V, W, X0, X1, X2, X4, X5

S47 is allowed if by itself

**3.14 Pelvic inflammatory disease**

This category will be removed due to small numbers involved.

**3.15 Ear, nose and throat infections**

The following codes were added to the existing NHS Comparators definition:

J04.0 – Acute laryngitis

We also considered adding J31.0 (Chronic rhinitis) and J31.1 (Chronic nasopharyngitis), however the numbers were considered too small for these conditions to be included.

All the conditions are considered acute – chronic pharyngitis is considered too small to move under chronic conditions as a separate category.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| H66 | Suppurative and unspecified otitis media | 878 |
| H67 | Otitis media in diseases classified elsewhere | - |
| J02 | Acute pharyngitis | 2,579 |
| J03 | Acute tonsillitis | 8,129 |
| J06 | Acute upper respiratory infections multiple and unsp sites | 4,068 |
| J31.2 | Chronic pharyngitis | 13 |
| J04.0 | Acute laryngitis | 296 |
|  |  | **Total 15,963** |

Additional notes for definition:

Principal diagnosis only

**3.16 Dental conditions**

No changes have been made to the NHS Comparators definition. All the conditions are considered acute.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| A69.0 | Necrotizing ulcerative stomatitis | \* |
| K02 | Dental caries | 464 |
| K03 | Other diseases of hard tissues of teeth | 10 |
| K04 | Diseases of pulp and periapical tissues | 3,567 |
| K05 | Gingivitis and periodontal diseases | 283 |
| K06 | Other disorders of gingiva and edentulous alveolar ridge | 193 |
| K08 | Other disorders of teeth and supporting structures | 404 |
| K09.8 | Other cysts of oral region, not elsewhere classified | 8 |
| K09.9 | Cyst of oral region, unspecified | \* |
| K12 | Stomatitis and related lesions | 1,463 |
| K13 | Other diseases of lip and oral mucosa | 694 |
|  |  | **Total** 7,092 |

Additional notes for definition:

Principal diagnosis only

**3.17 Convulsions and epilepsy**

The following codes were added to the existing NHS Comparators definition:

G25.3Myoclonus

Epilepsy and status epilepticus are considered chronic. All other conditions are classed as acute.

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| G40 | Epilepsy | 27,167 |
| G41 | Status epilepticus | 1,677 |
| R56 | Convulsions, not elsewhere classified | 22,273 |
| O15 | Eclampsia | 12 |
| G25.3 | Myoclonus | 189 |
|  |  | **Total 51,318** |

Additional notes for definition:

Principal diagnosis only

**3.18 Gangrene**

This category will be removed due to small numbers involved.

**4.0 Additional categories**

**4.1 Dementia**

In addition to the amendments made to the existing NHS Comparators definition, it was also strongly felt that emergency admissions for Dementia should be included as a chronic ambulatory care sensitive condition. This condition is considered chronic. The ICD-10 codes are as follows:

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| F00 | Dementia in alzheimers | 600 |
| F01 | Vascular dementia | 4,017 |
| F02 | Dementia in other diseases | 83 |
| F03 | Unspecified dementia | 5,073 |
|  |  | **Total 9,773** |

**4.2 Atrial fibrillation and flutter**

This was picked up through a literature review of existing definitions of ACS conditions, and is also included in the NHS Institute’s Directory of Ambulatory Emergency Care for Adults

|  |  |  |
| --- | --- | --- |
| ICD-10 Code | Condition | Emergency admissions for adults in 2009-10 |
| I48X | Atrial fibrillation and flutter | 56,694 |

**4.3 Acute headache**

This was picked up through a literature review of existing definitions of ACS conditions, and is also included in the NHS Institute’s Directory of Ambulatory Emergency Care for Adults. However, following advice from the National Clinical Lead for Neurology, it was decided not to be included in the list of conditions.

**5.0 Summary of conditions used in the indicator definitions**

**5.1 Unplanned hospitalisation for chronic ambulatory care sensitive conditions**

* Chronic hepatitis B
* Asthma
* Congestive heart failure
* Diabetes
* Chronic obstructive pulmonary disease
* Angina
* Iron deficiency anaemia
* Hypertension
* Epilepsy
* Dementia

**5.2 Emergency admissions for acute conditions that should not usually require hospital admission**

* Influenza, pneumonia and other vaccine preventable
* Acute ischaemic heart disease
* Dehydration and gastroenteritis
* Kidney/urinary tract infections
* Perforated/bleeding ulcer
* Cellulitis
* Ear, nose and throat infections
* Dental conditions
* Convulsions
* Atrial fibrillation and flutter

Indicator Governance Board Meeting – 28th June 2013

Indicator for Appraisal

CCGOIS - Under 75 mortality from Liver Disease

Record of Assurance provided by **Indicator Governance Board**

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator Title** | **Under 75 mortality from Liver Disease** | IAS Ref Code: | **IAP00074** |
| Indicator Set | CCG Outcome Indicator Set |  |  |

|  |  |
| --- | --- |
| Construction Summary | ***Denominator:*** Unconstrained GP registered population counts by single year of age and sex.  ***Numerator:*** Death registration in the calendar year for all England deaths from liver disease classified by underlying cause of death (ICD-10 K70-K77, B15-B19, C22, I81, I85 and T86.4) based on the GP registration from the Primary Care Mortality Database (PCMD). |

|  |  |  |  |
| --- | --- | --- | --- |
| Initial IGB discussion | 28/06/13 | Further discussed |  |

**Strategic Considerations & Implications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Applicant / Sponsor Organisation | NHS England  \*Costing for assurance appraisal included in development cost | Assurance process funded? | **Yes**    **No** |  |

|  |  |
| --- | --- |
| Indicator rationale | This indicator would allow the breakdown of under 75 mortality from liver disease to CCG level. This could aid CCGs in effective management and treatment of liver disease along with early identification of risk factors.  The intended audience for the indicator is Clinical Commissioning Groups, the Department of Health, NHS England, Provider Managers, Commissioning Managers, Clinicians, Patients and the Public. |
| Basis for rationale  [Details of quality statement, policy etc.] | This indicator is based on NHS Outcome Framework indicator 1.3 (Under 75 mortality from liver disease), the definition of which was published in the technical appendix to the NHS Outcomes Framework 2013/14. The indicator was selected for use in the NHSOF to enable the Secretary of State to monitor deaths from this major disease at high level.  It is expected that Clinical Commissioning Groups will use this to identify how improvements in care and the desired reduction in deaths and alcohol related admissions will be delivered. |
| Risks & assumptions | See above - the indicator should be appraised with reference to the equivalent NHSOF indicator (assurance ref: IAP00019)   1. HSCIC Clinical Indicators development team conducted extensive checking to ensure that the PCMD data are fit for purpose in terms of coverage, data quality, and suitability for use in a CCG level indicator. This included comparison with ONS figures. 2. All deaths occurring in England and Wales must be registered. This includes deaths of those whose usual country of residence is elsewhere although these individuals are not included in ONS geographical breakdowns and would similarly not be included in the PCMD. 3. The PCMD includes home postcode so supports the allocation of non-registered patients to their CCG of residence, enabling these to be included in the indicator. |
| IG Considerations [e.g. release of under-lying data, intermediaries access to data, data ownership impact on production] | *Data Source(s):*   * Primary Care Mortality Database (PCMD) * GP registered population counts (National Health Application & Infrastructure Services (NHAIS); commonly known as ‘Exeter’ System) * GP Practice to CCG mapping file. Where no GP Practice code is recorded, the CCG of responsibility is derived using the home postcode of the individual and a mapping file of postcode to lower super output area (LSOA) and to CCG. * ONS mid year population estimates (for England population counts used in the standardisation model) * PCMD extracts are subject to agreement with ONS * Mid-year population estimates are publically available. * GP registered population counts are available internally (SYOA) and also released on the HSCIC indicator Portal by gender and five year age bands. * Where the indicator is calculated from a numerator of 0, 1 or 2 the value is suppressed to ensure an individual’s identity is not at risk of being disclosed. If there is only one value suppressed in this way, the rate based upon the next lowest numerator is also suppressed; this reduces the risk of the first suppressed number being identifiable in isolation. |
| Potential impacts on other business areas [inc outstanding generic issues] | * A similar indicator exists in NHS Outcomes Framework * A similar indicator is also published in the Compendium of Population Health Indicators (NCHOD) - Mortality from chronic liver disease including cirrhosis: directly standardised rate, <75 years, 3-year average, MFP * However, while these indicators are directly age standardised to the European Standard Population to facilitate international comparisons, this indicator is directly standardised by age and sex to the England population. * In addition, mortality rates might be different for coterminous CCG/ LAs due to different data sources. For the CCG indicator mortality is derived from the PCMD, whereas for LAs from ONS mortality statistics. * There are commonalities in methodology used in the development of the following indicators in the NHS Outcome Framework and the CCG Outcome Indicator Set:   + Under 75 mortality from liver disease   + Under 75 mortality rates from cardiovascular disease   + Under 75 mortality rates from respiratory disease |
| Implementation Method  [inc production funding] | NHS England has commissioned HSCIC to produce and disseminate the CCGOIS indicators; this is funded via the Grant In Aid funding to HSCIC  Dissemination and presentation of the CCGOIS will be via a number of routes:   * The calculated indicator, numerator and denominator for CCGs will be supplied by messaging to the Calculating Quality Reporting Service (CQRS) for use by CCGs as part of their management information *– this is to be confirmed by NHS England* * The indicators and their underlying data will be made publically available via the HSCIC website. * The data will also be provided to the NHS England for use in their internal Intelligence Tool.   This indicator makes use of an existing data collection, so there are no additional data collection cost implications or burden. |

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| **Record of MRG Discussion** |  |
| Discussion dates: | 21/02/13 |
| By: | HSCIC - Andy Sutherland, Azim Lakhani, Jonathan Hope, Heather Dawe, Paul Iggulden |
| Summary of MRG discussions: | Indicator considered by MRG as *NHSOF* indicator (assurance ref: IAP00017) Mar/Apr 2011  Points assured (for NHSOF):   * Reasoning behind selection of ICD10 codes * Consistency with other domain indicators (mortality rates for CVD and Respiratory disease) * Population choice and appropriate standardisation   Summary of discussion (for NHSOF):   * The ICD10 codes used in the NHSOF indicator do not match with equivalent NCHOD indicators, principally because the use of higher level ICD10 codes is deemed better for international comparisons - coding differences between countries being more exaggerated the lower the level of ICD10 codes at which data is reported. The higher level the group of codes, the higher likelihood of capturing all the relevant deaths. The same principle also operates to some degree for sub-national comparisons. * Additionally MRG concurred that for local disaggregation: small numbers of deaths in the lower level codes will cause problems when disaggregated to local level and; * High level aggregates are also more readily accessible /understandable to a wider audience than long technical listings. * In response to the MRG recommendation that he ICD10 codes should only be for conditions that the health service can have an impact on, an update was provided confirming that the indicator relate to both conditions that the NHS can have an impact on and those that Public Health can have an impact on. * However in response to discussion that the selection of each code should be driven by evidence that death due to the condition is potentially avoidable, the applicant reported that a decision had been taken that ‘avoidability’ was not going to be the criterion for inclusion of these ICD10 codes, rather that SofS wants to monitor deaths from this major disease at high level. * When geographical disaggregations are required direct standardisation should be used where possible to allow for such comparisons to be made. A UK/England population to be used for this standardisation as hypothetical European Standard Population may not be reflective of the age/gender structure of the England population.   Additional points assured (for use in CCGOIS):   * Potential small numbers * Use of data for those under 19 years of age * Appropriateness of quinary age bands   Summary of discussion (for CCGOIS):   * Concerns were raised to MRG around whether there are enough annual deaths in under 19 years to be included in this indicator. * It was noted that the combination of small numbers and an additional 12 million persons in the denominator will distort the standardised figures. * MRG further commented that the underlying rationale for this indicator was to capture deaths related to alcohol and as such would suggest a further reason not to include the under 19 age band. * It was noted that MRG had previously recommended that children (0-18 years) should be removed from the indicator CCG 1.8 - Emergency admissions for alcoholic liver disease, due to small numbers (rec. ref 2012/302) * Additionally due to the issue of potential small numbers, MRG considered whether quinary age bands are appropriate. The group recommended that the use of wider age bands be further considered (as per indicator CCG 1.8), in order to reduce the likelihood the standardisation being impacted by of a high number of CCG’s reporting no deaths. * However MRG also took into account the argument put forward to maintain continuity with the existing methodology used in the equivalent NHSOF indicator (which measures under 75 mortality), and continuity with the other domain mortality (cardiovascular and respiratory) disease indicators in the CCG Outcome Indicator Set which currently also measure under 75 mortality * As such MRG recommended that at the very least a quality statement regarding the small numbers issue in the 0-19 age band would be required. The quality statement published alongside the indicator has been updated accordingly. |

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| *Outcome of MRG consideration:* | 1. **No significant issues identified** |  |  |
|  | 1. **No significant issues on basis of completion of outstanding actions** |  |  |
|  | 1. **Some concerns expressed as caveats or limitations** |  |  |
|  | 1. **Significant reservations** |  |  |
|  | 1. **Unresolved issues** |  |  |

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| MRG statement of recommendation: | Indicator recommended for consideration by IGB, on the basis that at the very least a quality statement regarding the small numbers in the 0-19 age band is required, and that the recommendation to exclude the under 19 age band and review age bandings is taken on board for future iterations of the indicator. |

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| **Additional Assurance Details** |  |
| Peer Reviewers: | No peer review undertaken at present |
| Peer Review summary: | n/a |
| Range of input  [Have relevant business areas contributed e.g. clinical assurance?] |  |

IGB – Additional Recommendations:

[Add new section as necessary]

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| **Recommendations & Updates** | Made: xx/xx/xx |
| Comments & Recommendations  [List additional comments and recommendations raised by IGB] | [To be completed following IGB discussion] |

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| Action required: | **IGB Update Not Required** |  | **Further Update IGB** |  | **Refer To MRG** |  |  |

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| Update:  Made: xx/xx/xx |  |

Review:

**Review**

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| Review Timescale |  |
| **1 year** |  |
| **3 years** |  |
| **Other:** |  |

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| Rationale | [Issues to consider – Changes to process, policy data source, coding definitions HES definitions ]  Review in 1 year follow up basis of MRG recommendation to further consider the option to exclude 0-18 year olds, and to align with the review of the equivalent NHSOF indicator which will also require review next year (on the basis that it has been three years since last considered. |

IGB Sign-off:

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| **Indicator Assurance Process Output** |  |  |  |
| *Final Appraisal Status* | 1. **Assured** |  |  |
|  | 1. **Assured with Comments** |  |  |
|  | 1. **Failed Assurance** |  |  |

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| Basis of Sign-off  [Detail caveats and limitations ] |  |
| Sign-off Date |  |

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1. Dobson A et al. Confidence intervals for weighted sums of Poisson parameters. Stat Med 1991;10:457-62 [↑](#footnote-ref-1)
2. Breslow NE, 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: 69. [↑](#footnote-ref-2)