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Introduction

The National Diabetes Inpatient Audit (NaDIA) is part of the National Diabetes Audit (NDA) portfolio within the National Clinical Audit and Patient Outcomes Programme (NCAPOP), commissioned by the Healthcare Quality Improvement Partnership (HQIP) and funded by NHS England.

The 2018 NaDIA report is the eighth annual audit of diabetes inpatient care in England and Wales\(^1\). The audit is open to participation from hospitals with medical, surgical, gynaecology wards or intensive care units. NaDIA is a “snapshot” audit which collects information on inpatient care at a specified time. This report covers hospital characteristics during September and October 2018.

2018 was a designated NaDIA Quality Improvement Collaborative (QIC) year. To reduce the burden on QIC participants, the NaDIA 2018 collection has undertaken the Hospital Characteristics (HC) survey only. The Bedside Audit (BA) and Patient Experience (PE) surveys will be repeated for NaDIA 2019.


Relevance

The audit sets out to measure the quality of diabetes care provided to people with diabetes while they are admitted to hospital. In the 2018 QIC year, the audit concentrated on the following questions relating to hospital characteristics:

- Have staffing levels for inpatient diabetes teams increased since 2015?
- Has take-up of care improvement initiatives and healthcare technologies for diabetes care increased since 2013?
- What additional transformation funding has been provided for inpatient diabetes teams in 2018?

The report will be of interest to the public, especially to people with diabetes. Health planners and policy makers, as well as acute NHS Trusts, Clinical Commissioning Groups (CCGs), Local Health Boards (LHBs), Sustainability and Transformation Partnerships (STPs), Clinical Networks (CNs; formerly Strategic Clinical Networks or SCNs) and other providers and commissioners of specialist diabetes services will also make use of the information in this report.

Timeliness and Punctuality

Sites participated in the audit between 26 September and 19 October 2018, with all surveys returned by 19 October 2018. The national level report was published on 9 May 2019. The time lag to the publication of the main report is less than seven months after organisations completed the survey.

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\(^1\) Organisations in Wales did not participate in 2010.

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Accuracy and Reliability

A patient was included in the audit if they had been admitted to a hospital bed for 24 hours or more. Patients on an Obstetric or Paediatric ward were excluded from this audit. Mental Health wards were also excluded due to the high prevalence of long stay patients. Other exclusions include:

- Patients who were hyperglycaemic but not yet formally diagnosed with diabetes
- Accident and Emergency
- Day case ward
- Day surgery unit patients
- Observation ward (if patients had been admitted for less than 24 hours)
- Surgical short stay unit (if patients had been admitted for less than 24 hours)
- Palliative care centres
- Community Hospitals.

Participation in the audit is voluntary, but encouraged, for all hospitals with inpatient beds meeting the audit criteria. 185 NaDIA sites participated in NaDIA 2018, where a NaDIA site may represent a single hospital, multiple hospitals or an entire NHS Trust/Local Health Board. There are 211 sites known to be eligible for NaDIA, inferred from past NaDIA participation, meaning that participation in NaDIA 2018 is approximately 90 per cent.

The data returned to NHS Digital underwent data cleaning and mapping of responses to previous audit questions in order to enable as much comparison as possible to earlier audit years. As part of this process a number of organisations were given the opportunity to correct or confirm responses that had been flagged as uncharacteristic. A survey was not required to have every question completed in order to be included in the audit analysis, and completion rates varied between the different questions in the survey.

NaDIA 2018 outputs have the following known limitations:

- Only Hospital Characteristics survey data is available for the 2018 report. The Bedside Audit (BA) and Patient Experience (PE) surveys will be repeated for NaDIA 2019.

- 21 NaDIA sites that participated in NaDIA 2017 did not participate in NaDIA 2018, representing around one tenth of all NaDIA sites (208 NaDIA sites participated in NaDIA 2017). An analysis of the impact of the 21 non-participants has been included alongside each analysis in the NaDIA 2018 report.

- The number of inpatients with diabetes in each hospital was not collected in 2018. The calculations of staffing levels in 2018 used – where available – the number of inpatients with diabetes reported by the organisation in 2017.

Further information on data collection, analysis and methodology is available in the Methodology document, published as part of the NaDIA 2018 publication suite: http://digital.nhs.uk/pubs/nadia2018.
Coherence and Comparability

Comparability over time

This report is the eighth NaDIA snapshot, which is undertaken on an annual basis. The audit took place previously in 2010-2013, 2015-2017. There was no audit collection in 2014, so no NaDIA data is available for that year. Sites in Wales did not take part in the 2010 audit.

The 2018 audit did not include a Bedside Audit or Patient Experience survey. This means data collected in these areas in previous audit years cannot be compared to the information collected in 2018. In the Hospital Characteristics collection, some questions in the audit have changed over time. Comparisons have been made where there was enough consistency in the questions for a comparison to be meaningful, with variation in the question between audit years noted in the report.

Occasionally historic results in the latest report will differ from results in previous reports. This may be due to methodological changes or the resolution of newly-identified data quality issues. Following publication of the NaDIA 2017 report it was found that the HC form for Ysbyty Ystrad Fawr Hospital (7A6AV) had been excluded from the analysis in error. 7A6AV’s 2017 HC form has now been included for NaDIA 2018, resulting in small changes to the 2017 national figures.

Comparability with other sources

The new NaDIA-Harms continuous audit collects four of the same inpatient harms as the NaDIA snapshot audit:

- hypoglycaemia requiring rescue treatment
- diabetic ketoacidosis (DKA)
- hyperglycaemic hyperosmolar state (HHS)
- new diabetic foot ulceration (DFU)

Counts of the number of patient harms collected in NaDIA-Harms between 1 May 2018 and 31 October 2018 are published in the first NaDIA-Harms report. The last NaDIA snapshot data on patient harms was collected in September 2017 and published in the 2017 NaDIA report.

However, direct comparison of the number of harms in the snapshot and continuous NaDIA collections is not possible from the published data due to differences in the way the data is collected and analysed:

The NaDIA-Harms continuous audit collects instances of patient harms that occurred from 1 May 2018 onwards, with the first NaDIA-Harms report focusing on the first six months of data collection.

Patient harms in the NaDIA snapshot are reported as a proportion of inpatients experiencing the harm during their hospital stay (diabetic ketoacidosis (DKA), hyperglycaemic hyperosmolar state (HHS), new diabetic foot ulceration (DFU)) or in the previous seven days of their hospital stay (hypoglycaemia requiring rescue treatment). The actual number of harms is not reported, nor is there any adjustment to account for different lengths of hospital stay. Consequently, direct comparison with counts of harms in NaDIA-Harms is not possible from the published outputs.

Direct comparison between the collections would be possible using standardisation to adjust for the methodology and collection periods, though this has not been pursued for the first
NaDIA-Harms report. Provisional analysis suggests that, when adjusted appropriately, more patient harms are reported to the NaDIA snapshot than to the NaDIA-Harms continuous collection. This is to be expected in this early stage of the NaDIA-Harms collection and, though planned for future reports, direct comparisons between collections would not be useful at this point.

No other data source provides equivalent information about the inpatient care of people with diabetes in England and Wales. Most NaDIA data items are unique to the NaDIA collection. Other similar (but not directly comparable) data sources include:

- The core National Diabetes Audit (NDA) collects data on patient demographics, care processes and treatment targets amongst those registered with participating GP practices and secondary care organisations in England and Wales. The majority of core NDA data is from primary care. 98.3 per cent of general practices in England and Wales have participated in the latest published core NDA (2017-2018 NDA, covering 1 January 2017 to 31 March 2018).

- National Diabetes Foot Care Audit (NDFA) submitters include community as well as hospital-based services, meaning that NDFA care structures data cannot be directly compared with the hospital characteristics information on inpatient foot care services collected in NaDIA. Different periods of coverage and current low participation rates in the early years of the NDFA are additional reasons why comparison between NDFA and NaDIA is not robust.

Patient identifiers are not collected in NaDIA, so direct linkage to other data sources is not possible.
Accessibility and Clarity

The main report is presented in both PowerPoint and PDF formats on the NHS Digital website, with supporting data accompanying the report as Excel spreadsheets. A CSV of data from England organisations at NaDIA site level is available on the NHS Digital website and through data.gov.uk. All the above reports are available on the NHS Digital website at: http://digital.nhs.uk/pubs/nadia2018.

Further information about the audit may be found at: http://digital.nhs.uk/nadia.


The NaDIA patient information leaflet is available at: https://digital.nhs.uk/binaries/content/assets/legacy/pdf/c/9/2017nadia_patient_leaflet_v4.pdf

More information on the methodology used to create the report can be found in the Methodology document and the ‘overview’ sections present throughout the body of the main report.

Assessment of User Needs and Perceptions

The NaDIA advisory group (consisting of patient representatives, healthcare professionals, administrators, researchers and analysts, including representation from Diabetes UK and NHS Digital) provide advice on the content of the reports as well as the direction and development of the audit.

The wider National Diabetes Audit (NDA) team has an active role in the National Cardiovascular Intelligence Network (NCVIN) workshops to gain a better understanding of how Clinical Commissioning Groups (CCGs) and localities use the data and how we can improve the NDA programme’s publications and supporting information. These workshops are conducted quarterly and are co-ordinated by Public Health England (PHE) and bring together epidemiologists, analysts, clinicians and patient representatives.

NHS Digital is keen to gain a better understanding of the users of this publication and of their needs. Your feedback is welcome and may be sent to enquiries@nhsdigital.nhs.uk (please include ‘National Diabetes Inpatient Audit’ in the subject line).

Alternatively, you can call our contact centre on 0300 303 5678

Or write to:

NHS Digital,
1 Trevelyan Square,
Boar Lane,
Leeds,
LS1 6AE.
Performance, Cost and Respondent Burden

The survey questionnaires are reviewed and amended prior to the running of each audit in order to ensure the necessary information is collected with the least burden on audit participants (organisations and patients).

As part of reducing the burden on QIC NaDIA participants, the audit consisted of only the Hospital Characteristics collection in 2018.

The audit team acknowledges that participation in the audit involves costs in both time and organisation for the patients and providers that take part, and thanks them for their efforts. The audit continues to look at ways in which to reduce respondent burden and increase ease of participation, and welcomes comments and suggestions (see contact details above).

Confidentiality, Transparency and Security

Audit information is held securely and with restricted access. No patient identifiable information (e.g. NHS number, date of birth) is collected by the audit. Audit data may be released to researchers with formal research approval for work related to the improvement of care for people with diabetes: http://digital.nhs.uk/DARS.

A Patient Information Leaflet for NaDIA is available from the NHS Digital website. All patients may choose not to take part at the time the audit is conducted.

It is expected that, through the audit collection, all organisations will continue to follow existing NHS codes of practice in regard to patient confidentiality, information security management, record management and other legal obligations.

A risk assessment has been carried out on the audit publication to identify risks to patient confidentiality. No suppression has been applied to this publication because all outputs are at national level and/or relate to counts of organisations or staffing levels.

As part of the government transparency agenda, NHS Digital provides hospital level data taken from the audit, in CSV format, both as part of the audit publication available through the NHS Digital website, and also through the UK open data portal, data.gov.uk.
Information and technology for better health and care

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