DATA QUALITY PROCEDURE

PROCEDURE SUMMARY
This policy has been produced to provide clear guidance of the controls and procedures that must be followed by all staff within the Trust in relation to all aspects of Data Quality.

The Trust monitors the implementation of and compliance with this procedure in the following ways:
Data quality standards will be monitored monthly throughout the Trust via a number of agreed mechanisms, as detailed in the Procedure attaching to this Policy.

SCOPE

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The Director responsible for monitoring and reviewing this procedure is The Executive Chief Finance Officer.
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1.0 INTRODUCTION

1.1 The Department of Health has for a number of years placed requirements on NHS organisations to ensure that the data they hold is of good quality and have required Trusts to have in place processes and procedures to provide assurances to both themselves and to users that their information/data is of a consistently high quality.

1.2 Good quality data is and always has been a key part of providing and improving high quality services through informed decision making, regardless of whether those decisions affect an individual or the whole of the health and social care system.

1.3 The Trust is continually working to achieve the highest standards of data quality across all systems in the Trust, whether they be manual or electronic data systems.

1.4 The purpose of this procedure, in conjunction with the Data Quality Policy which accompanies it, is to provide clear guidance to staff working for or on behalf of the Trust about their responsibilities in relation to data quality and about the controls and procedures that must be followed by all staff within the Trust in relation to data quality.

2.0 RESPONSIBILITIES AND ACCOUNTABILITY

2.1 The recording of good quality data is a fundamental requirement for the effective, efficient and economical running of the Trust. The following section outlines the key jobs/departments/committees with a role in data quality, as well as the responsibilities of all staff working for or on behalf of the Trust.

2.2 Data Quality Executive Lead
The role with overarching responsibility for data quality across the Trust is the Executive Chief Finance Officer. They will have Board level responsibility for ensuring that high standards of data quality are set, monitored and delivered across the Trust.

2.3 Data Quality Operational Lead
The role with operational responsibility for ensuring data quality across the Trust is the Associate Director of Business Analysis and Reporting. They will have operational responsibility for ensuring that high standards of data quality are set, monitored and delivered across the Trust. This will include the
development and implementation of effective procedures relating to data quality.

2.4 **ITT & Business Analysis and Reporting Directorate**

2.4.1 The ITT & Business Analysis and Reporting Directorate (incorporating the functions of information management, system administration – PAS, clinical coding, interfacing and IT), in conjunction with the Performance Department (performance targets) are responsible for providing expert advice, strategic direction, interpreting the requirements of the Data Dictionary and Data Manual, monitoring and disseminating changes notified via ISNs or other official channels.

2.4.2 The Systems and IG / Performance Departments will ensure that all systems support robust data collection, enabling production of exception reporting to monitor data quality and, working closely with operational services to improve data quality and act on any issues in a timely manner.

2.4.3 The Systems and IG Department will ensure the development and delivery of training to improve data quality within electronic systems.

2.4.4 The Performance Department will ensure the development of Key Performance Indicators (KPIs) to monitor data quality incorporating these within the Trust’s performance monitoring framework.

2.4.5 Through a raft of functions, data quality is monitored, highlighted and addressed in line with national and local standards. Data quality issues can be raised through this department, to the Associate Director of Systems and IG.

2.5 **Senior / Department / Team / Ward Managers** – it is the responsibility of every manager to ensure that:

2.5.1 Trust policies and procedures relating to data quality are easily available for all staff to access;

2.5.2 Appropriate local protocols relating to data quality are developed if necessary;

2.5.3 Staff are aware of their responsibilities in relation to data quality including inputting requirements and checking mechanisms;

2.5.4 Staff are provided with adequate guidance and training on the processes and systems relating to data quality involved in their duties;

2.5.5 Staff input accurate and complete data in a timely manner;

2.5.6 Data quality is routinely monitored and remedial action taken to address any shortfalls;

2.5.7 Errors are monitored and addressed, escalating appropriately.

2.6 **All Staff** – All staff have a responsibility to:

2.6.1 Ensure they are aware of and comply with all policies and procedures (corporate and local) relating to data quality in the Trust;

2.6.2 Maintain high levels of confidentiality and information security, complying with relevant Acts such as the Data Protection Act 2018 and Computer Misuse Act etc;

2.6.3 Undertake relevant training relating to data quality appropriate to their role;
2.6.4 Ensure the quality of their work in relation to record keeping, ensuring that information entered onto electronic or paper record systems is full, accurate, relevant, clear and timely (see section 3.0 for further information);

2.6.5 Validate the information they are recording and correct any omissions / errors;

2.6.6 Regularly check accuracy of demographic information with service users and update where necessary;

2.6.7 In the interests of continually improving data quality across the Trust, monitor data quality issues within all spheres of role and take corrective action where appropriate / escalate if necessary.

2.7 Third Parties

2.7.1 It is sometimes necessary for third parties to carry out work on behalf of the Trust. It is important that any personnel from a third party that undertake work on site agree to comply with information security and management standards set out by the Trust and in the Data Protection Act 2018.

2.7.2 Contracts containing information security clauses must exist with all third party companies for short term access. Staff employed by other NHS bodies are also regarded as third party and must sign a written confidentiality agreement before access to information is given.

2.8 Finance and Performance Committee

The Finance and Performance Committee, reporting to the Board, has responsibility for setting standards and monitoring data quality across the Trust and for ensuring any necessary remedial actions are taken to ensure compliance with required standards. It is also responsible for overseeing the continual development of data quality across the Trust.

3.0 DATA QUALITY

3.1 What is data quality? The definition of data quality is an assessment of data’s fitness to serve its purpose that it must be “fit for purpose” both in terms of the provision of individual patient care and in terms of organisational information requirements for performance monitoring, business planning etc.

3.2 The Trust recognises the importance of high quality information and data in ensuring the delivery of safe, effective and efficient health services. It is critical that all decisions whether clinical, managerial or financial are based on good quality information which is of the highest standard.

3.2.1 Accurate

It is essential that data recorded onto systems is correct and accurately reflects the situation (e.g. the care/treatment the service user has received). This is essential in ensuring it is fit for purpose as well as for compliance with the Data Protection Act 2018. In order to ensure that service user demographic data remains accurate, all staff should regularly review this with service users and make any updates to the system. Similarly, it is essential that managers inform the Informatics Team of any service changes which would require a change to the
systems (e.g. staff/service coding changes, introduction of new services). The Information Team have responsibility for ensuring that that reference tables (e.g. GPs, postcodes etc.) are updated regularly.

3.2.2 **Consistent**

It is essential that data captured on electronic systems and in paper records (e.g. case notes) accurately reflect each other. It is also essential that consistent information is collected and recorded within services, as detailed in local system operating procedures. Data fields must be consistent and, where there is a change/addition to the information needing to be collected within a particular service or Trust-wide, system changes to the data fields requiring completion will be made wherever possible to ensure consistency of data collection.

3.2.3 **Complete**

It is essential that all data fields within national and internal data sets be completed. Use of default codes will only be acceptable where absolutely necessary and not as a substitute for real data where this is available. If it is necessary to bypass a data field in order to register a service user, the missing data must be entered as soon as possible. The Information Team review the data on a daily basis to identify missing information and highlight this to the responsible clinician. Wherever possible, systems will be constructed in such a way that the capturing of mandatory data will be imperative in order to proceed.

3.2.4 **Timely**

In order to ensure the safe and effective care / treatment of service users and real time performance monitoring, it is essential that data is recorded in a timely manner. Thus data should be recorded as soon as is practicably possible, but within a maximum of 24 hours of an event occurring for community services and within a maximum of 2 hours of an event occurring for in-patient services unless there are exceptional circumstances that delay recording. All admissions, transfers and discharges must be recorded immediately as they happen or at the soonest possible opportunity (and not longer than the standards outlined above). This up-to-date entry of interventions and contacts guarantees that all clinical professionals have access to the latest known information about service users which is critical in the provision of high quality safe care. It also ensures that national data returns and reports produced for corporate purposes such as performance reports accurately reflect the up to date position.

3.2.5 **Valid**

All data held on the Trust’s electronic systems must be valid (i.e. hold the correct content for use). For example, in instances where codes are used, they should comply with national standards or map to national values. As a safeguard, electronic systems will where possible be programmed to accept valid codes only.
3.3 The common principles which will underpin data quality within the Trust are:

- Data will be collected only once wherever possible, as close as possible to the point of origin; and will be shared appropriately with other professionals / staff who need it thereafter.
- Information will be accurate, consistent, complete, timely and valid.
- Systems will, wherever possible, have data validation mechanisms built into the collection screens.
- Information will be accessible to those who need it, preferably at the point of need.
- Validation/audit processes will be undertaken on a regular basis, with errors being checked and corrected.
- All of the above are clearly subject to the requirements of the Data Protection Act, Computer Misuse Act, Caldicott Guardian requirements and other confidentiality standards (see section 5.0 below).

4.0 NATIONAL DATA QUALITY STANDARDS

4.1 The NHS Data Model and Dictionary, maintained by NHS digital, give common definitions across the NHS and support the sharing, exchange and comparison of information across the NHS and social care. The Trust will ensure that its systems support compliance with the national standards and that compliance is monitored regularly (see section 8.0 below).

4.2 Changes to the NHS data standards are published as ISNs. The Systems Manager is responsible for updating the Data Model and Dictionary in the Trust and for informing the relevant staff of changes and their implications on Trust procedures.

4.3 These national standards are not only a way of supporting the collection of data on a consistent basis throughout the NHS but are also a way of ensuring that the information can be used for commissioning purposes, preparation of national performance tables and data returns to the Department of Health. They also support the flow and quality of information used in different parts of the NHS so that health care professionals are presented with relevant information where and when it is required. This is critical to the success of the Electronic Patient Record – the linking of all records about a patient, collected in different parts of the NHS, to be available to a health / social care professional whether the patient attends for treatment.

4.4 These national standards are also vital in delivery of the Department of Health’s Information Strategy “The Power of Information: putting all of us in control of the health and care information we need” (May 2012)

4.5 The Trust is required to make a number of national data returns to NHS digital on a regular basis in accordance with the NHS Data Model and Dictionary, as detailed in the accompanying Policy. The Associate Director of Business Analysis and Reporting is responsible for ensuring that these returns are submitted on an accurate and timely basis. All staff across the Trust hold responsibility for ensuring that the content of the data returns is accurate and comprehensive.
5.0 COMMUNICATION OF INFORMATION, SECURITY AND CONFIDENTIALITY

5.1 There should be documented procedures for the receipt and dissemination of information across departments and the organisation about system changes, data standards and data collection.

5.2 In line with national standards, a patient’s NHS number will be included when patient based information is exchanged. It is particularly important to use the NHS number in clinical correspondence (both internally and externally). The NHS number should be recorded on systems to increase the linkage between systems and thus facilitate the communication between systems and organisations for the Electronic Patient Record.

5.3 Data quality has significant links with information security and data protection. Accurate, timely and relevant data is a requirement of the Data Protection Act and data should be protected from loss, damage or misuse.

5.4 In handling / exchanging any data, all staff must be aware of and abide by the following:

5.4.1 The requirements of the Data Protection Act 2018, Computer Misuse Act and Caldicott Report.
5.4.2 Policies, procedures and protocols governing the disclosure and sharing of data, both internally and externally.
5.4.3 What constitutes an incident in terms of information security and procedures for reporting and investigating security breaches.
5.4.4 Responsibilities and requirements to use individual user identifiers and passwords on systems, and that sharing of passwords is not acceptable.
5.4.5 Key contact points within the Trust, including the Caldicott Guardian, the Senior Information Risk Officer (SIRO) and the Information Governance Manager.
5.4.6 The requirements for effective and safe transmission of information.
5.4.7 The use and purpose of the NHS Number to safeguard patient confidentiality.

5.5 Further detailed information in relation to the above is included in the following Trust policies and procedures:
- Information Governance and Security (CPG50)
- Data Protection and Confidentiality (CPG59)

6.0 LOCAL PROTOCOLS

6.1 There should be local written procedures available in all relevant locations within the Trust and on the intranet to assist staff in collecting and recording patient / other information to the standards required. These procedures must be kept up to date to reflect any changes in data collection content / processes etc and where appropriate also contain information relating to national data definitions.
6.2 Staff must ensure that they are aware of the existence and content of Trust-wide and local procedures as well as training guides relevant to their roles and responsibilities; and ensure that they adhere to these at all times.

6.3 These local written procedures for data collection must be comprehensive, up-to-date and regularly reviewed. Responsibility for regularly reviewing local written procedures must be allocated to a specific individual/s.

6.4 Therefore, every system processing patient information should have an up to date user guide that should be developed and maintained by the Head of Information and Performance, emphasising the need for good quality data and information security.

6.5 The following guides are currently available and can be found on the Trust intranet:
- Diary Sheet User Guide
- Administration Guidance
- ECPA User Guide
- Mobius User Guides

7.0 DATA QUALITY STANDARDS

7.1 Validation
Validation encompasses the processes that are required to ensure that the information being recorded is of good quality.

- All data items held on the Trust’s records systems will be valid
- Where codes are used, these will comply with national standards or will map to national values
- Wherever possible computer systems will be programmed to only accept valid entries
- Systems will have warning/notifications, where possible to identify at inputting any validation errors.

It is imperative that regular validation processes are undertaken on data being recorded to assess its completeness, accuracy, relevance, accessibility and timeliness. Such processes may include checking for incomplete data, validating reports on targets, ensuring that national definitions and coding standards are adopted and NHS number is used and validated.

Validation Methods should be accomplished using some or all of the following methods:

- Bulk reporting which involves a large single process of data analysis to identify all areas where quality issues exist and correct them
- Regular spot checks which involve data analysis on a random selection of records against source material if available. The number of records examined and the frequency of these checks should be agreed by the Trust
- Bulk reporting as an initial data quality tool, this will quickly highlight any areas of concern; however, further investigation will be required to identify more specific issues
Spot checks as part of a clinical supervision to ensure accurate and comprehensive recording
An external audit should be undertaken annually in addition to internal audits.

These processes deal with data that is being added to continuously and can also be used on historical data to improve quality.

### 7.2 Completeness
- Although all mandatory data items must always be completed, information relevant to the care of the patient will be recorded where the system is capable of holding this
- Use of default codes will only be used where appropriate, and not as a substitute for real data
- If it is necessary to bypass a data item in order to process a patient, the missing data will be obtained and entered as soon as possible
- The NHS number will be used in all references to patients, including on all communications within the NHS and to patients themselves, as the one unique identifier to patient identity.

### 7.3 Consistency
- Data items will be internally consistent
- Patients with multiple care episodes will have consistent dates
- Treatment and diagnoses will be consistent for ages and/or gender

### 7.4 Coverage
- Data will reflect all the work done by the Trust with the patient wherever this takes place.

### 7.5 Accuracy
- Data recorded will accurately reflect what actually happened to a patient.
- All reference tables, such as GPs and postcodes will be validated and updated by the system supplier quarterly.
- Every opportunity will be taken to check a patient’s demographic details with the patient themselves. Inaccurate demographics may result in important letters being mislaid, or the incorrect identification of a patient.
- Staff will explain to patients the importance of consistently identifying themselves when they use the NHS services, in order that previous records can be found and safer more effective care provided.
- Accredited external sources of information e.g. NHS Personal Demographic Service (PDS), will be used to assist with the validation of patient records, particularly the NHS number.
- Regular validation processes will be undertaken on patient data to assess its accuracy e.g. checks for logical errors, incomplete or inconsistent data.
- Regular audit of clinical coding will be undertaken, both internally and externally
- System users must have up to date written departmental procedures available which include procedures for the collection, validation and entry of data. The procedures will be available to staff in all appropriate locations and will not be dated in accordance with changes to guidelines and data definitions.
7.6 Timeliness
- Recording of timely data is beneficial to the treatment of the patient.
- Electronic recording makes information available to all staff treating the patient, even if they do not have access to the paper notes.
- All data will be recorded within 24 hours of the activity taking place, which will enable that data to be included in the statutory returns.
- The accurate recording of data items must not supersede or delay urgent treatment of the patient.
- Staff safety can be enhanced, as checks of risk assessments/alerts can be carried out prior to a home visit.

8.0 ERROR CORRECTION

8.1 Errors can impact reference costing, performance management, clinical reporting and not least patient care.

8.2 All staff must endeavour as is reasonably practical to ensure that all data collected manually and held on electronic systems are accurate, complete, relevant and timely to allow the meaningful interpretation for clinical and/or managerial purposes.

8.3 Whilst it may be said that the Trust’s main electronic patient records system has very stringent methods for data entry, human errors are inevitable. To this end we need to ensure that where errors are discovered they are corrected within three working days of being notified of the error. Assistance may be sourced from the clinical system training team should the errors be due to a lack of training or outside of the user’s access rights.

8.4 Where due to circumstances beyond the staff member/trust’s control it is not possible to resolve errors within three working days, a report on this must be logged within the department with a copy sent to the Information Team, in these circumstances the error must be corrected within 2 months.

9.0 TRAINING

9.1 The Caldicott Guardian Review in 2013 recommended that all regulatory, professional and educational bodies should ensure that sound record keeping and the importance of data quality are part of continuous professional development and assessed as part of any revalidation process.

9.2 The Trust similarly recognises the importance of development related to record keeping and data quality.

9.3 As such, all staff must undertake training appropriate to their role in terms of data quality to ensure that they collect and record (and if necessary correct) data in a consistent, accurate and timely manner. If necessary, they will also receive training on validating information with patients to ensure patient confidentiality and fullness of information especially when collecting sensitive data items. Clinical coding training will be provided depending on the job role.
9.4 Staff will not be allowed to use Trust systems until they have received an appropriate level of induction training on the relevant system/s. Staff may have their password disabled if they do not use a system for a length of time or have not undertaken updating training within appropriate timescales.

9.5 Training will be evaluated by use of feedback forms (or verbal feedback if on-the-job training) to monitor the effectiveness of the training available; thus enabling any additional training to be provided to individuals if necessary and also, more generally, adaptation of programmes to meet staff need.

9.6 The outcomes of data validation processes (see section 10.0 below) will also be used to inform the content of training programmes to ensure that common errors identified in data recording are eliminated at both individual, group and ultimately organisation level.

10.0 DATA VALIDATION/ QUALITY ASSURANCE PROCESSES

10.1 The accuracy of data is key to high quality information. The Francis Inquiry Report indicated that “vigilant auditing at local level of the data put into the system” was the only practical way of ensuring reasonable accuracy. It was recommended that such auditing should therefore be continued and, where possible, be improved across Trusts.

10.2 The Trust has in place a number of mechanisms to validate and ensure the accuracy of data held / submitted for national returns. These are as follows:

10.2.1 Staff have been instructed (via this procedure, their line managers and training) to ensure the accuracy of their data and there is therefore an individual responsibility on every member of staff to undertake cross-checking mechanisms that the data being recorded is accurate. There are a number of data sources against which accuracy could be checked including:
   - patient health record;
   - asking the service user;
   - other external sources.

10.2.2 To supplement this, automated mechanisms will be built into systems wherever possible to enhance the likelihood of accurate and full data (eg requiring mandatory fields to be completed before a screen can be saved, only allowing valid codes to be entered into a field etc). The Trust will ensure that these systems are maintained and cannot be overridden by operational staff.

10.2.3 Systems administering patient or clinical data will have built in validation routines based on national standards (or local standards that map to the national standards) wherever possible. These will enable errors to be detected at source.
10.2.4 The Information Department will run reports on a weekly basis by service which highlight:

- Missing / incomplete information (eg reference number, address)
- Apparently invalid/incorrect information (eg outstanding appointments that are in the past, dates of birth, ethnicity code, referral received date prior to episode start date)
- Apparently pending information (eg records awaiting decision to be recorded, outstanding contact / appointments)

10.2.5 These will be sent to Service Directors/Managers for checking immediately and any necessary remedial action taken (see paragraph 10.2.8 below). They are also summarised statistically and RAG rated to enable Services to assess their level of data quality, to enable benchmarking to take place across the Trust and improvement actions to be taken where necessary.

10.2.6 There are procedures in place for regular auditing of clinical coding, based upon national standards, and actions are taken to correct errors / omissions where necessary.

10.2.7 It is a legal requirement under the Data Protection Act 2018 that, once omissions / errors have been identified, they are corrected in the core systems in which they are collected, this includes informing organisations we have shared such data with. Clearly, the earlier they can be identified and corrected, the less the likelihood of associated risks occurring; this supports the importance of undertaking regular validation.

10.2.8 Where errors / omissions in data are identified, these should be corrected by local services.

10.3 These internal monitoring reports will also be used to improve processes, pro forma documentation and identify training needs across the Trust.

10.4 The completeness and timeliness of data input on a variety of specified data items is a national NHSI target. Compliance with these targets is reported to local services, to Senior Management Teams, the Executive Team, the Finance and Performance Committee and the Trust Board on a monthly basis, with remedial action being taken where necessary.

10.5 The Trust will undertake on a continual basis analysis of data for a range of purposes. Through undertaking this analysis, it will assure itself of the quality of the information / data being produced. Any concerns will be escalated to the Information Team.

10.6 There are audit trails built into systems linking data item input to individual staff. This enables identification of any issues in terms of data quality which would require addressing with an individual member of staff. Where it is identified that there are issues relating to an individual’s data input, these will be discussed with the member of staff and appropriate training etc provided to enable the required standards to be met. Should concerns continue following
training and support, these will be dealt with under the appropriate human resources policy.

10.8 The Trust will also use benchmarking and data quality reports from external sources to monitor and improve data quality. External sources may include but are not limited to those organisations to which the Trust provides data / returns such as:
- Commissioners
- NHS England
- Department of Health
- NHS Digital
- Secondary Uses Service (SUS)

10.9 The Information Team will also compare central returns and reports with previous submissions and investigate any significant changes, taking corrective action if necessary.

10.10 In addition to these processes for validating and ensuring the quality of data recorded by the Trust, analysis is regularly undertaken to ensure that the Trust is able to provide from the content of its electronic records systems the information required internally and externally (e.g. national data collections, commissioner reporting requirements). The outcome of this process is developed into an Information Assurance Framework (IAF), which details any actions to be taken to ensure the data needs of the organisation and external bodies are met. This framework is also informed by the results of the internal audit programme of data quality. This process is led by the Business Analysis and Reporting Department and any actions arising monitored by the Performance and Finance Scrutiny Committee.

### 11.0 IMPROVEMENT PROGRAMME

11.1 It is the responsibility of all Trust staff to work towards the continual improvement of data quality across the Trust.

11.2 The Trust will set standards and target areas for short and long term improvements in terms of data quality, and will provide appropriate guidance and training to achieve these. These standards and targets will be progressively increased to ensure continuous improvement, with a view to ultimate achievement of 100% accuracy / timeliness.

11.3 Progress will be monitored by the Finance and Performance Committee.