

NHS ADULT INPATIENT SURVEY 2019: SAMPLING ERRORS REPORT

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Updates

Before using this document, please check that you have the latest version, as small amendments are made from time to time (the date of the last update is on the front page). In the unlikely event that there are any major changes, we will email all trust contacts and contractors directly to inform them of the change.

This document is available from the Survey Coordination Centre for Existing Methods' [website](#).

Questions and comments

If you have any questions or concerns regarding this document, please contact the [Survey Coordination Centre for Existing Methods](#).

Introduction

Sample files for all 143 trusts participating in the Adult Inpatient Survey 2019 (IP19) were submitted to the Survey Coordination Centre for Existing Methods (SCCEM) for inspection to check that samples had been drawn correctly. Sample data checks of this kind were first introduced for the 2006 Inpatient Survey, and were found to aid trusts in avoiding common errors prior to fieldwork commencing. Such mistakes may lead to delays in the survey process and / or poor data quality.

This report gives a summary of mistakes made and errors found during the course of the SCCEM's checks of trust sample data. It is important to note that this report only gives details of the errors found by the SCCEM; many samples may have contained further errors which would have been identified and corrected during checks by approved contractors.

This document outlines the following types of errors:

- **Major errors** – errors that require the sample to be redrawn, commonly where ineligible patients have been included or eligible patients have been excluded.
- **Minor errors** – errors that do not require the sample to be redrawn, but instead require amendments to be made to the sample data;
- **Section 251 breaches** – these are failures to adhere to the stated processes which give the survey approval for the common law duty of confidentiality to be put aside;
- **Historical errors** – errors relating to a trust's previous survey sample when checking the 2019 sample.

Trusts and contractors should use this document to become familiar with previous errors in order to minimise the chance of similar errors occurring in future survey years.

This research was carried out in accordance with the international standard for organisations conducting social research (accreditation to ISO20252:2012; certificate number GB08/74322).

Frequency of Errors

The SCCEM detected two major errors, 24 minor errors, three historical errors and four Section 251 breaches (see Figure 1). The number of incidences of each type has decreased from the previous survey (Figure 2).

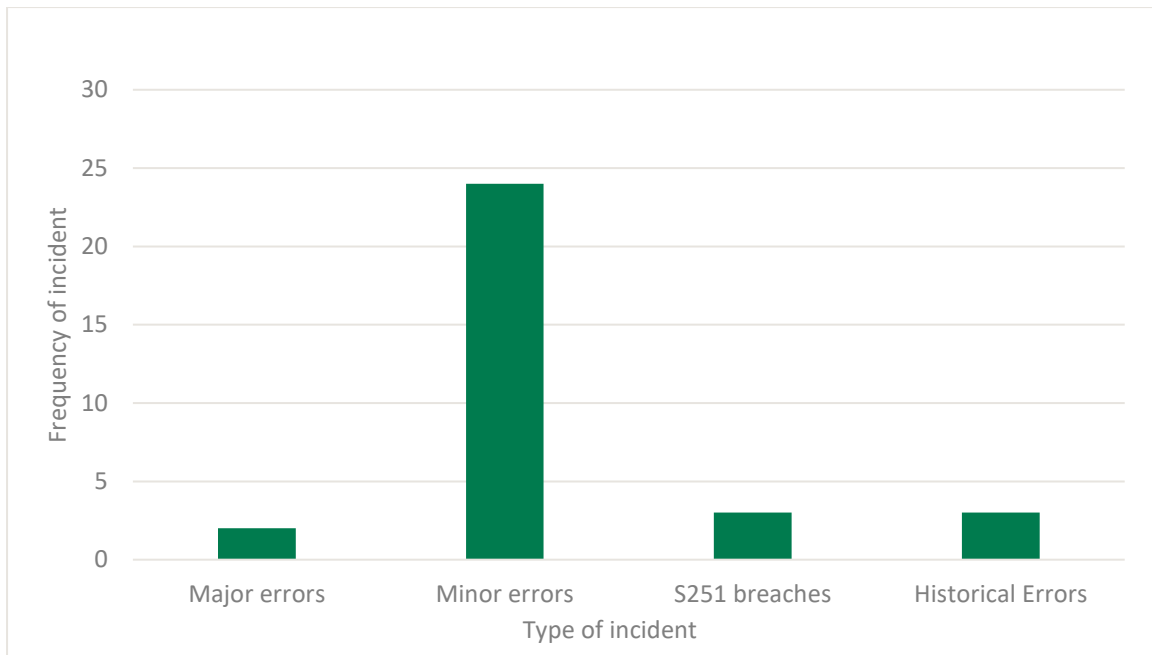


Figure 1: Frequency of errors / breaches in the IP19 survey

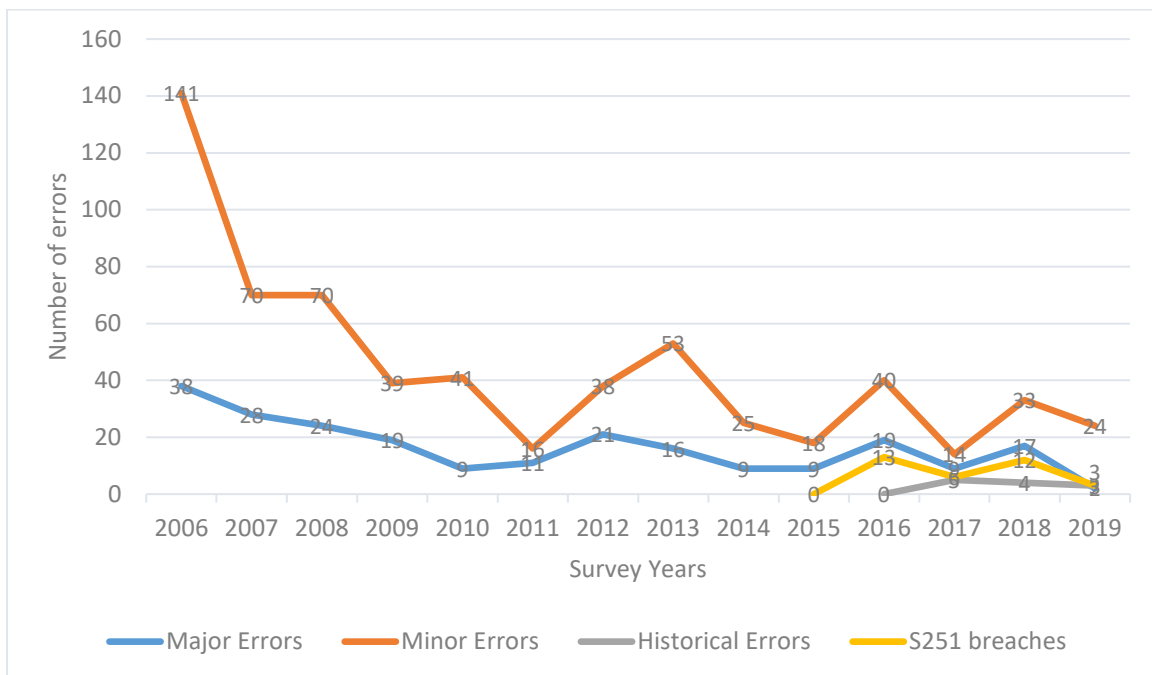


Figure 2: Frequency of errors across each iteration of the Inpatient Survey

Please note:

- Only in-house trusts were checked by the Survey Coordination Centre in the 2011 survey.
- Historical errors were not included in the sampling errors report prior to the 2016 survey.
- Section 251 breaches were not recorded prior to the 2015 survey.

Major Errors

Two major errors were made during sampling for IP19 that resulted in the two trusts having to redraw their samples. One trust made a clerical error in drawing the sample and another included ineligible patients.

Sampling methods

Trusts are required to draw a sample of consecutively discharged patients, starting from 31st July and working earlier until the required sample size is reached. One trust submitted a sample with no discharge dates from 16th July to 1st July, but did have discharge dates from 31st July to 17th July and from 30th June to 17th June. The exact cause of the error is unknown but is likely due to a clerical error such as data being mis-sorted. The sample file had to be re-drawn.

Including ineligible patients

The Adult Inpatient Survey does not include obstetrics / maternity service users. This means excluding the following codes:

- Admission method code (AMC) of 31 (Admitted ante-partum)
- Admission method code (AMC) of 82 (Maternity-related)
- Treatment function code (TFC) of 501 (Obstetrics)
- TFC 502 (Gynaecology) if their inpatient stay was pregnancy related
- ICD-10 chapter code of XV (pregnancy, childbirth and the puerperium) if their inpatient stay was pregnancy related

One trust included 25 ineligible patients with a Treatment Function Code (TFC) of 501 which relates to 'Obstetrics', an ineligible patient group. The trust was asked to redraw their sample.

Minor errors

Errors are considered to be minor if the trust's sample is comprised of eligible patients and if data can be corrected without the need for the sample to be redrawn.

In total, there were 24 minor errors that were identified during the sample checking process by the SCCEM. The vast majority of these were in relation to invalid Clinical Commissioning Group (CCG) codes.

CCG codes

The SCCEM issued contractors with a list of invalid CCG codes and their corresponding new codes as a result of CCG mergers since 2017. Despite this, the SCCEM identified 17 trusts with outdated CCG coding.

As these errors were simple to rectify, the SCCEM requested that the contractor or in-house trust amended the invalid codes without the need for the sample file to be submitted to the SCCEM again.

Treatment Centre Admission

Three trusts indicated that all the patients in their sample had been treated at a Treatment Centre in 2019 whereas the number in 2018 was zero. In all cases this was due to a coding error and as such the contractors / in-house trusts were asked to rectify the coding in the sample files without the need to resubmit.

ICD-10 codes

Incorrect coding in relation to ICD-10 chapter codes was supplied by two trusts. One trust had one patient with an ICD-10 code of 0, which was later confirmed should have been code IX. Another trust had included three ineligible chapter codes. The trust confirmed that all patients were eligible and the chapter codes were amended to different codes.

An additional trust had no ICD-10 data for any of their patients: the chapter codes had erroneously been included in the column for ICD-11 codes¹. The contractor was asked to move the codes over to the correct column without the need to resubmit the correct file to the SCCEM.

Admission Method Codes

One trust had some incorrect codes for Admission Method. This was spotted by the SCCEM as there was a shift in the aggregated codes of emergency vs. planned vs. transferred admissions. The sample was showing zero patients who were transferred whereas in the previous year's submission this was 22%. The trust explained that the mapping from local codes to national codes for the data extract needed adjusting. This was rectified in the sample file by the contractor without the trust needing to resubmit.

Section 251 breaches

Approval for the survey was sought and gained under Section 251 of the NHS Act 2006. This approval allows the common law duty of confidentiality to be put aside in order to allow for the processing of patient identifiable data without consent. Any breaches of the terms and conditions of Section 251 approval are immediately communicated to the Care Quality Commission (CQC), who in turn, notify the Confidentiality Advisory Group (CAG). Three S251 breaches occurred during the sample submission and checking process in 2019; two errors were highlighted during fieldwork as a result of patients calling with queries to the Freephone helplines:

¹ At the survey launch, it was thought that some trusts would have moved over to using ICD-11 coding and so a column for this was included in the Sample Construction Spreadsheet.

- There was a clerical error made by one trust that affected 200 records in the sample whereby the address line had shifted by one row. This meant that these patients would have received an envelope with another patient's title, first name and surname.
- Another trust made an error that affected every patient in their sample: due to a 'lookup' function error, patients received mailings with an incorrect first name. This is something that could have been picked up by the trust or contractor if a spot check of first names against titles was done.

The above errors can only be identified by trusts or contractors as the SCCEM does not have permission under the CAG approval to receive name and address information. An additional check will be put in place for future surveys to minimise the chances of these types of errors occurring. A checkbox will be included on the sample declaration form against which trusts will need to confirm that they have checked a number of records in the sample file against the trust's system records.

One further trust committed a breach under the rules of S251:

- A trust included a patient's day and month of birth on their sample declaration form as proof that the one patient born in 2003 was aged 16 at the time of drawing the sample. The survey only has permission for patients' years of birth to be sampled, thus this constituted a breach.

While another trust didn't commit a breach under S251, they did perform a process error breaching the sampling instructions provided to contractors and trusts:

- One trust uploaded the sample file before their contractor has got back to them to confirm that their sample declaration form has been approved.

Historical errors

When checking samples, the SCCEM compares submitted sample data against the previous two years' data for each trust. Having this comparison is a good guide to whether a sample has been drawn correctly to spot any as historical data shows what is 'normal' for the trust, assuming no major changes have taken place in the interim that could affect the trust's inpatient population (such as a merger). Occasionally, the previous year's data profile will be out of sync which suggests a historical error has been made. Three historical errors were identified during this year's sample checking:

- One trust excluded patients in 2018 that did not have a procedure code. This happened in the process of excluding obstetrics patients in that these patients were also inadvertently excluded. This mainly excluded medical patients and those admitted as an emergency. The issue was caused by the SQL database not distinguishing between NULL and blank values which was not an issue in the 2019 sampling.
- An historical error was identified due to the trust needing to sample back to a week earlier in July this year compared to previous years. The trust explained that this year they excluded patients with no bed recorded whereas previously they did not.

- The period of time over which the sample was drawn from was an indicator of a sampling error at another trust. The sample period was a week shorter in 2019 than in 2018. The trust explained that in previous years the head of quality had made a decision to selectively remove patients who had a sensitive diagnosis. Following a staff change and a review of the process, the exclusion criteria was applied as per the sampling instructions.