

Accident and Emergency Department (A&E) Survey 2014

Sampling Errors Report

1 Introduction

For the 2014 A&E Survey, trusts were asked to submit their sample to the Co-ordination Centre for final quality control checks before any questionnaires were mailed out. This sample checking procedure was first introduced for the 2006 Adult Inpatient Survey and was found to be useful for identifying sampling errors and avoiding the common mistakes that can result in delays to the survey process. This document describes the errors made in sampling and the recommendations made by the Co-ordination Centre to correct these. Errors are divided into major (those breaking patient confidentiality or requiring re-sampling) or minor (those that could be corrected by the trust before final data submission).

This document should be used by trusts and contractors to become familiar with past errors and to prevent these from recurring. If further assistance is required, please contact the Co-ordination Centre on ae.cc@PickerEurope.ac.uk or 01865 208127.

1.1 All errors

Errors are divided into major (those requiring the sample to be redrawn) and minor (those that could be corrected using the same sample). It is important to note that these are only the errors caught by the Co-ordination Centre; many trusts had errors in their samples caught earlier by their contractors.

There were nine major errors noted in the sample checking phase, spread across eight trusts. As a result of major errors, the Co-ordination Centre advised six trusts to re-sample. This does not compare favourably to the 2012 Emergency Department Survey, when there were six major errors spread across five trusts.

The number of minor errors has decreased – in the 2012 Emergency Department Survey, 24 minor errors were identified spread across 19 trusts; whereas in 2014 this fell to 14 minor errors in total, involving 12 trusts.

1.2 Major errors

An error is classified as major if patient confidentiality is broken or if the error requires the trust to redraw their sample, or to remove and replace patients in their sample. If major errors are not corrected, the trust's survey data cannot be included in Care Quality Commission published results, or be used by CQC in its regulation, monitoring and inspection of NHS acute trusts in England. In the case of errors breaking patient confidentiality, the sample cannot be checked by the Co-ordination Centre and must be re-submitted. The Co-ordination Centre will also report this to CQC, who are obliged to report this to the Confidentiality Advisory Group.

There were nine major errors noted in the sample checking phase, spread across eight trusts. Of these major errors, all were identified before the samples had been approved. The following sections discuss the major errors by type of error.

Problems with population profiles in the sample

To ensure the quality of the data it is important that the sampling population is representative of the population the trust normally deals with. Furthermore, people with different characteristics tend to answer the questions in different ways. For example, older respondents tend to report more positive experiences than younger respondents, and women tend to report less positive experiences than men. It is, therefore, very important that different age and gender groups are represented in the sample and that the sampling population is representative of the patient casemix of the trust.

Four trusts had to re-draw their samples after it was noticed that the age distribution in the sample was very different from the age distribution in the same trust in 2012 and also when compared with the picture for all trusts. In addition, the trusts were asked to compare their sampling population with the patients' age distribution in the sampling month, which also appeared to be different. Since the trusts could not explain these discrepancies, they were asked to re-draw their samples. Additionally, one of these trusts also had an unusual gender ratio of 42.1%:58.9% which was especially unexpected since in 2012 they had a gender ratio of 47.2%:52.8%. After the samples were re-drawn, the queries were resolved.

Inclusion of patient identifiable data

The guidance emphasises the importance of anonymising the sample submitted to the Co-ordination Centre by removing all patient identifiable data (such as names, addresses and dates of birth). However, one sample was submitted without being fully anonymised: the information on the date of birth was provided to the Co-ordination centre. The inclusion of patient identifiable data breaks data protection and confidentiality requirements, meaning that the sample cannot be checked. The trust was asked to anonymise and resubmit their sample.

Another trust also submitted a file with patient identifiable data to the Co-ordination Centre. However, the file was deleted before it was opened, so the Co-ordination Centre was not aware of the specific type of patient identifiable data that was submitted. The issue was communicated to CQC and the trust had to re-submit their data without the patient identifiable information.

Sample submitted without Demographic Batch Service (DBS) checks

The guidance emphasises the importance of DBS checks to ensure that any deceased patients are excluded from the sample. This is done for ethical purposes since receiving a questionnaire addressed to a deceased relative may be distressing for grieving relatives. However, one sample was submitted without DBS checks. The trust was instructed that Co-ordination centre cannot approve any samples without the DBS checks being carried out prior to sample submission and advised to resolve their DBS issues before sending in another sample.

Problems with selecting the service users for sampling

According to the guidance, the trusts are asked to select one month for sampling and then compile a list service users who attended the Accident & Emergency department throughout that month, from the first to the last day of the month. One trust submitted a sample that only included attendances that took place between the 1st and the 15th of the sampling month. They were asked to re-draw their sample.

1.3 Minor errors

During sample checking for the 2014 A&E Survey, 14 minor errors were identified, spread across 12 trusts. Errors are considered to be minor if re-sampling or replacement of patients is not necessary. Trusts were normally asked to re-submit their corrected samples in order to ensure that additional changes or errors had not been accidentally made during the correction of the original errors. On several occasions, where only minor changes needed to be made (e.g. correcting several GPPC codes or correcting the format of the time of attendance for one record), trusts were asked to correct the errors in their records, and once these corrections were confirmed, the samples were approved. The following sections discuss these minor errors by the field containing the error.

Patient Record Number (PRN)

The guidance stipulates that the PRNs for each trust should be in the format 'AE14<NNN><XXXX>', where NNN is the trust's 3-digit trust code and XXXX is the sequence of numbers 0001, 0002,..., 0850. The majority of trusts correctly applied this new format. However, two trusts submitted samples with the PRN in an incorrect format. One trust submitted the sample using code EME instead of AE14 at the start of the PRN. Another trust submitted a sample where the XXXX sequence of numbers started with 1 instead of 0. Both trusts were asked to re-submit their samples.

NHS Site Code

Trusts participating in the 2014 A&E Survey were required to provide the NHS site code for all patients in their sample. As with the new format of the PRN, the majority of trusts supplied this information correctly. On one occasion, a trust had missing site codes for some of the records. They were asked to resubmit the sample with the codes added. On another occasion, a trust provided a site code that was found to be invalid by the Co-ordination Centre. After an investigation, the trust agreed that the code was invalid and re-submitted the original sample with the correct codes.

Ethnic Category

As in 2012, there has been some confusion with the use of Z codes and blanks in the ethnic category field. In the Guidance, the trusts were instructed to use the Z code only when a person had been asked for their ethnic category and had declined either because of refusal or genuine inability to choose. A blank or full-stop should be used to indicate where ethnic category is "not known" i.e. where the patient had not been asked or the patient was not in a condition to be asked, e.g. unconscious. One trust made a mistake and used Z codes and blanks incorrectly. They were asked to resubmit their sample once the problem was corrected. Another trust used code 99 in the ethnicity category field. The trust confirmed that these were used when the ethnicity code was unknown and they were also asked to correct these mistakes.

General Practice Code

For the 2014 A&E Survey it was requested that General Practice Code (GPPC) be included in trust's sample files. Six minor errors were identified relating to GPPC, the highest number of errors for any field.

For one trust, the 'GPPC' field for a number of records was coded as NULL in the submitted sample. The trust was informed of the error and asked to use their own records to confirm whether this was known but had been coded as NULL on purpose. The trust confirmed that they did not

have the GPPC information for these patients. They were asked to code the patients with an 'Unknown GP practice' code.

Additionally, five trusts included in their sample a small number of codes that were not in the most recently published list of GPPCs and/or were in the incorrect format for a GPPC code. When this was queried, the trusts confirmed that this was due to a data entry error. The trusts were asked to correct the errors

Time of Attendance

As set out in the guidance document, the sample file should contain four fields for recording the time, day, month and year of attendance at the A&E Department for each patient. This was generally unproblematic. However, one sample was submitted that included the time of attendance in an incorrect format. This trust was informed of the error and asked to ensure this was amended on their file.

Other sources of minor errors

After the sample was initially approved, one trust decided to carry out local deceased checks following the standard DBS checks. The check returned 25 deceased patients. The trust was asked to top up the sample with 25 additional patients and checked again.

2 Additional queries

A number of additional queries were raised by the Co-ordination Centre during the sample checking process. Whilst these queries did not suggest obvious issues in sampling, they were still raised with trusts. These queries related primarily to the following:

- Age distribution differing notably from national data or trust's data from the 2012 Emergency Department Survey;
- No patients aged 16;
- A large number of patients aged over 95;
- Gender ratio differing significantly from 50:50 or being exactly 50:50;
- Ethnicity coding differing significantly from that in 2012;
- Site codes that were not recorded in the Co-ordination Centre's data dictionary but were confirmed to be valid by the trust;
- Odd distribution of time of attendance or day of the week of attendance;
- Scottish, Welsh or Irish PCT codes used.

Additionally, five samples with fewer than 850 respondents were submitted to the Co-ordination Centre for checking. Trusts were asked to explain the reasons for having fewer than 850 respondents in their sample. Common reasons included DBS checks returning too many deceased patients or patients being excluded from the sample because they were current inpatients. On all occasions, CQC was informed about the samples with fewer than 850 respondents and asked to confirm if they were happy for the trust to proceed with a smaller sample. When this decision was made, the trust's response rate in 2012 was taken into account. The minimal number of respondents where the trust was allowed to carry on with the survey using the current sample was 838.
