

# GUIDANCE ON DATA CLEANING FOR THE NHS ADULT INPATIENTS SURVEY 2011

THE CO-ORDINATION CENTRE FOR THE  
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## Questions and comments

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# 1 Inpatient Survey 2011 – data cleaning

## 1.1 Introduction

Once fieldwork for the 2011 national inpatient survey has been completed, participating trusts and contractors will be required to submit data to the Co-ordination Centre in a **raw ('uncleaned')** format. Following this, data for all trusts in the survey will be collated and the full dataset will be cleaned together to ensure that cleaning taking place on data pertaining to different trusts is comparable.

This document provides a description and specification of the processes that will be used by the Co-ordination Centre to clean and standardise data submitted by contractors and trusts as part of the 2011 national survey of inpatients. By following the guidance contained in this document, it should be possible to recreate this cleaning process.

If you have any comments or queries regarding this document please contact the Co-ordination Centre on **01865 208 127**, or e-mail us at [acute.data@pickereurope.ac.uk](mailto:acute.data@pickereurope.ac.uk).

## 1.2 The core and extended questionnaires

For the 2011 national inpatient survey, all trusts have the option to use either the 85 item 'core' questionnaire or to use an extended questionnaire with further questions available from the 'question bank' for the survey. The Co-ordination Centre only requires data to be submitted for the 85 core items, and so all cleaning undertaken by ourselves will involve only these 85 core items. As such, this document looks only at the cleaning required for the core survey. Nonetheless, the rules and principles of data cleaning described here can be applied to data from an extended questionnaire.

## 1.3 Definitions

Definitions of terms commonly used in this document, as they apply to the National Survey of Adult Inpatients 2011 are as follows:

**Raw/uncleaned data:** 'Raw' or 'uncleaned' data is data that has been entered verbatim from completed questionnaires without any editing taking place to remove contradictory or inappropriate responses; thus, all responses ticked on the questionnaire should be included in the data entry spreadsheet<sup>1</sup> (see [Section 2: Submitting raw \('uncleaned'\) data](#), for detailed guidance on submitting raw data). The requirement for raw/uncleaned data does **not**, however, preclude the checking of data for errors resulting from problems with data entry or similar. Ensuring high data quality is paramount and errors resulting from data entry problems can and should be corrected by checking against the appropriate completed questionnaire.

**Data cleaning:** The Co-ordination Centre uses the term 'data cleaning' to refer to all editing processes undertaken upon survey data once the survey has been completed and the data has been entered and collated.

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<sup>1</sup> Except where: a) multiple responses have been ticked - set these to missing (The **exceptions** to this are for the 'tick all that apply' questions **Q79** and **Q80** where respondents may tick more than one response option) b) year of birth has been entered in incorrect format - if the patient's *intended* response is unambiguous from the questionnaire, then enter this.

**Routing questions:** These are items on the questionnaire which instruct respondents to either continue on to the next question or to skip past irrelevant questions depending on their response to the routing question. For the 2011 national survey of inpatients, the routing questions in the core questionnaire are **Q1, Q2, Q14, Q16, Q17, Q48, Q51, Q56, Q60, Q64, Q71 and Q79**.

**Filtered questions:** Items on the questionnaire that are not intended to be answered by all respondents are referred to as 'filtered' questions. Whether individual respondents are expected to answer filtered questions depends on their responses to preceding routing questions. For the 2011 national survey of inpatients, the filtered questions in the core questionnaire are **Q2 – Q11<sup>1</sup>, Q15, Q17 – Q18, Q49, Q52 – Q58<sup>2</sup>, Q61 – Q62, Q65 – Q67, Q72 and Q80**.

**Non-filtered questions:** these are items in the questionnaire which are not subject to any routing/filtering and which should therefore be answered by all respondents. For the 2011 national survey of inpatients, the non-filtered questions are **Q1, Q12 – Q14, Q16, Q19 – Q48, Q50 – Q51, Q59 – Q60, Q63 – Q64, Q68 – Q71, Q73 – Q79 and Q81-Q85**

**Out-of-range data:** This refers to instances where data within a variable has a value that is not permissible. For categorical data – as in the case of the majority of variables in this survey – this would mean a value not allowed in the data, for example, a value of '3' being entered in a variable with only two response categories (1 or 2). For scalar data – eg year of birth – data is considered to be out-of-range if it specifies a value that is not possible (for instance, year of birth as 983 or 2983). Out-of-range responses entered into the dataset should not be automatically (eg, algorithmically) removed prior to submitting the data to the Co-ordination Centre (see [Section 2: Submitting raw \('uncleaned'\) data](#)).

**Non-specific response:** This is a loose term for response options that can be considered as not being applicable to the respondent in terms of directly answering the specific question to which they are linked. Most commonly, these are responses such as "don't know/can't remember", which indicate a failure to recall the issue in question. Likewise, responses that indicate the question is not applicable to the respondent are considered 'non-specific' – for example, responses such as "I did not have any food" or "I did not use any bathrooms". A full listing of such responses for the 2011 inpatient survey can be found in [Appendix B: Non-specific responses](#).

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<sup>1</sup> The range Q2-Q11 includes two separate sets of filtered questions; Q2-Q5 and Q6-Q11.

<sup>2</sup> The range Q52-Q58 includes two separate sets of filtered questions; Q52–Q58, and Q57.

## 2 Submitting raw ('uncleaned') data

For the 2011 national inpatient survey, trusts and contractors are required to submit raw ('uncleaned') data to the Co-ordination Centre. For clarification, raw data is created as follows:

- i) All responses should be entered into the dataset, regardless of whether or not the respondent was meant to respond to the question (eg, where patients answer questions that they have been directed to skip past, these responses should still be entered)
- ii) Where a respondent has ticked more than one response category on a question, this should be set to 'missing' in the data. The **exceptions** to this are for the 'multiple response' questions, **Q79** and **Q80**, where respondents may tick more than one response option (i.e. 'tick all that apply')
- iii) Where a respondent has crossed out a response, this should not be entered in the data. Where a respondent has crossed out a response and instead ticked a second response option, this second choice should be entered into the data
- iv) Where a respondent has given their response inconsistently with the formatting of the questionnaire but where their intended response is nonetheless unambiguous on inspection of the completed questionnaire, then the respondent's *intended* response should be entered. For example, where a patient has written their *date* of birth in the boxes for **Q83**, but written their *year* of birth in at the side of this, then the respondent's year of birth should be entered.
- v) For the year of birth question, unrealistic responses should still be entered *except* following **iv)** above. For example, if a respondent enters '2011' in the year of birth box, this should still be entered unless the respondent has unambiguously indicated their actual year of birth to the side
- vi) Once the data has been entered, no responses should be removed or changed in any way *except* where responses are known to have been entered incorrectly or where inspection of the questionnaire indicates that the patient's intended response has not been captured. This includes 'out-of-range' responses, which must **not** be *automatically* removed from the dataset. Responses in the dataset should only be changed before submission to the Co-ordination Centre where they are found to have been entered inconsistently with the respondent's intended response.

## 3 Editing/cleaning data after submission

### 3.1 Approach and rationale

The aim of the Co-ordination Centre in cleaning the data submitted to us is to ensure an optimal balance between data quality and completeness. Thus, we seek to remove responses that are known to be erroneous or inappropriate but do this in a relatively permissive way so as to enable as many responses as possible to contribute to the overall survey results.

### 3.2 Filters

Some of the questions included in the survey are only relevant to a subset of respondents, and in these cases filter instructions on the questionnaire are used to route respondents past questions that are not applicable to them. For example, people who tick “no” to **Q60** (“On the day you left hospital, was your discharge delayed for any reason?”) are instructed to skip all further questions on delayed discharge (e.g. **Q61** and **Q62**).

It is necessary to clean the data to remove inappropriate responses where filter instructions have been incorrectly followed. In such cases, participants’ responses to questions that were not relevant to them are deleted from the dataset. Responses are only deleted where respondents have answered ‘filtered’ questions despite ticking an earlier response on a routing question instructing them to skip these questions (eg a respondent ticking “No” to **Q60** but then answering the two questions about delayed discharge as in the example above). Responses to ‘filtered’ questions are not removed where the response to the routing question is missing. For example, **Q2-Q5** are filtered by the response to **Q1** (e.g. if **Q1=2**), but if a respondent does not answer **Q1**, or if the **Q1** response is missing for any reason, then responses to **Q2-Q5** should not be removed.

[Figure 1](#) (overleaf) shows a summary of all routing questions, and the filtered questions they relate to, that are included in the 2011 national inpatient survey. Please note that these instructions should be followed sequentially in order to be consistent with the procedures applied by the Co-ordination Centre.

**Figure 1 - List of routing/filtering instructions**

| ROUTING QUESTION       | RESPONSE VALUES                  | FILTERED QUESTIONS |
|------------------------|----------------------------------|--------------------|
| <i>if</i> Q1 = 2       | <i>then delete responses to:</i> | <b>Q2 – Q5</b>     |
| <i>if</i> Q2 = 1       | <i>then delete responses to:</i> | <b>Q6 – Q11</b>    |
| <i>if</i> Q2 = 2       | <i>then delete responses to:</i> | <b>Q3 – Q5</b>     |
| <i>if</i> Q14 = 2      | <i>then delete responses to:</i> | <b>Q15</b>         |
| <i>if</i> Q16 = 1 OR 4 | <i>then delete responses to:</i> | <b>Q17 – Q18</b>   |
| <i>if</i> Q17 = 2      | <i>then delete responses to:</i> | <b>Q18</b>         |
| <i>if</i> Q48 = 2      | <i>then delete responses to:</i> | <b>Q49</b>         |
| <i>if</i> Q51 = 2      | <i>then delete responses to:</i> | <b>Q52 – Q58</b>   |
| <i>if</i> Q56 = 2      | <i>then delete responses to:</i> | <b>Q57</b>         |
| <i>if</i> Q60 = 2      | <i>then delete responses to:</i> | <b>Q61 – Q62</b>   |
| <i>if</i> Q64 = 5      | <i>then delete responses to:</i> | <b>Q65 – Q67</b>   |
| <i>if</i> Q71 = 2 OR 3 | <i>then delete responses to:</i> | <b>Q72</b>         |
| <i>if</i> Q79 = 7      | <i>then delete responses to:</i> | <b>Q80</b>         |

*Please note that these instructions should be followed sequentially in the order shown above.*

Please note that **Q1** should not be considered a routing question in the traditional sense – for example, responses to **Q6-Q11** – the questions on planned admissions – must not be automatically removed if **Q1=1**. It should be noted from the questionnaire that even though patients responding “emergency or urgent” to **Q1** are identifying themselves as emergency admissions, they may subsequently report not having been to an Emergency Department as part of their admission – eg if **Q2=2** – and that in such cases they are then asked to continue from **Q6**. Thus, not all respondents ticking **Q1=1** will be expected to skip **Q6-Q11**.

A worked example of the cleaning process for removing unexpected responses to filtered questions is included in [Appendix A: Example of cleaning](#).

### 3.3 Dealing with multiple response questions

For most questions, each column corresponds to one survey question. However, there are some exceptions to this rule. For multiple response questions **Q79** and **Q80** that gives the instruction ‘Tick all that apply’, each response option is treated as a separate question.



## Example

Q79. Do you have any of the following long-standing conditions? (Tick ALL that apply)

- 1  Deafness or severe hearing impairment
- 2  Blindness or partially sighted
- 3  A long-standing physical condition
- 4  A learning disability
- 5  A mental health condition
- 6  A long-standing illness, such as cancer, HIV, diabetes, chronic heart disease, or epilepsy
- 7  No, I do not have a long-standing condition

Responses to each part of this question are coded: **1 if the box is ticked**  
**0 if the box is not ticked<sup>1</sup>**

Q79 takes up seven columns in the data file, labelled as follows:

| Column headings          | Q79_1 | Q79_2 | Q79_3 | Q79_4 | Q79_5 | Q79_6 | Q79_7 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| Codings for this example | 1     | 0     | 0     | 0     | 1     | 0     | 0     |

However, the last response to each of these questions is an exclusive option. If a respondent ticks option 7 to **Q79** (“I do not have a long-standing condition”), options 1-6 should not have also been ticked; if any of these options have been ticked, they should be recoded from ‘1’ to ‘0’ when cleaning the data. The same applies for **Q80**; if response option 8 (“No difficulty with any of these”) is ticked, options 1-7 should not have also been ticked; if they have been ticked they should be recoded from ‘1’ to ‘0’

<sup>1</sup> Please note: if a respondent does not answer any part of a multiple response question, (ie does not tick any of the response options) then it should be left blank or coded as a full stop (.)

## Example

**Q79.** Do you have any of the following long-standing conditions? (Tick ALL that apply)

- 1  I have deafness or severe hearing impairment
- 2  I have blindness or are partially sighted
- 3  I have a long-standing physical condition
- 4  I have a learning disability
- 5  I have a mental health condition
- 6  I have a long-standing illness
- 7  I do not have a long-standing condition

**BEFORE CLEANING:** Q79 is coded as follows:

| Column headings          | Q79_1 | Q79_2 | Q79_3 | Q79_4 | Q79_5 | Q79_6 | Q79_7 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| Codings for this example | 1     | 0     | 0     | 0     | 1     | 0     | 1     |

**AFTER CLEANING:** Q79 is coded as follows:

| Column headings          | Q79_1 | Q79_2 | Q79_3 | Q79_4 | Q79_5 | Q79_6 | Q79_7 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| Codings for this example | 0     | 0     | 0     | 0     | 0     | 0     | 1     |

When the data is cleaned, the responses to Q79\_1 and Q79\_5 are re-coded as '0' because option 7 ("I do not have a long-standing condition") has also been ticked.

## 3.4 Dealing with demographics

Basic demographic information, including age, sex, and ethnicity of patients are included in the sample section of the data, but the 'About You' section at the end of the questionnaire also asks respondents to provide this information. In a minority of cases, the information provided from the sample frame and by the respondents does not correspond – for example, the sample may identify an individual as male only for them to report being female (e.g. **Q82=2**).

Because of this, and because questions about demographics tend to produce relatively high item non-response rates, it is not appropriate to rely on either source of data alone.

Where responses to demographic questions are present, it is assumed these are more likely to be accurate than sample frame information (since it is assumed that respondents are best placed to

know their own sex, age, and ethnic group)<sup>1</sup>. Where responses to demographic questions are missing, however, sample data are used in their place.

For demographic analysis on groups of cases, then, it is necessary to use some combination of the information supplied in the sample frame and by the respondents. To do this, we first copy all valid responses to survey demographic questions into a new variable. Where responses are missing we then copy in the relevant sample information (note that for a very small number of patients demographic information may be missing in both the sample and response sections; in such cases data must necessarily be left missing in the new variable)<sup>2</sup>.

Certain demographic variables require special consideration during data cleaning:

### Age (Q83)

A common error when completing year of birth questions on forms is for respondents to accidentally write in the current year – thus responses to **Q83** of '2011' will be set to missing during cleaning. Out-of-range responses will also be set to missing<sup>3</sup>. For the 2011 national inpatient survey, out-of range responses are defined as **Q83≤1891 OR 83≥2011**.

## 3.5 Usability and eligibility

Sometimes questionnaires are returned with only a very small number of questions completed. For the inpatient survey 2011, questionnaires containing fewer than five responses are considered 'unusable' – we will delete all responses pertaining to such cases and outcome codes of 1 ('returned useable questionnaire') relating to these cases will be changed to 6 ('questionnaire not returned'). Please note that the number of responses per questionnaire will be counted after all other cleaning, and that all responses remaining at this stage will be counted (including responses to the demographic questions and so on)<sup>4</sup>. This should only affect a very limited number of cases, and so should not have a significant impact on response rates.

Outcome codes for respondents will also be changed if the respondents are believed to be under the age of sixteen and therefore ineligible for participation. Since the sample files for the survey

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<sup>1</sup> Please note though that respondents will *not* be considered ineligible for the survey solely on the basis of their response to the year of birth question indicating that they are under the age of sixteen. This is because of the difficulty of inferring the source of errors when year of birth from sample and response sections are mismatched – in other words, because we cannot be *certain* whether this mismatch occurs [*see overleaf*] due to an error in the sample file, an error in the patient's completion of the questionnaire form, or an error in data entry.

<sup>2</sup> Please note that whilst a combination of sample and response information is used for demographic analysis on groups of cases, **only the sample information is used to calculate response rates by demographic groups**. Unlike subgroup analysis of variables which is only carried out for respondents, response rates are calculated using all patients in the sample. Because response rates vary between groups with differing demographic variables, using response and sample data to calculate response rates would create a systematic source of bias in that we are only able to amend information for the *respondents*. Therefore, only the sample information should be used to calculate response rates by demographic groups.

<sup>3</sup> The majority of out-of range responses present in data relating to year of birth questions result from errors in data entry (for example, not keying one of the digits – so '1983' may become 983, 183, 193, or 198). In such cases it is important that the responses be checked against the completed questionnaire forms, and data corrected if necessary, **prior** to submission of data to the Co-ordination Centre.

<sup>4</sup> Please note that the multiple choice questions, Q79 and Q80 are only counted once. So for example, even if Q79\_1 and Q79\_4 are ticked, this would count as only one response for the purpose of determining if a questionnaire is usable.

are checked by the Co-ordination Centre prior to mailing, this is unlikely to affect more than a handful of cases throughout the survey, as patients coded as being aged under 16 will be identified and removed from the sample before the start of the survey. Sample members will not, however, be removed from the sample if data on their year of birth is missing from the sampling frame. If sample information on a respondent's year of birth is missing, though, and their response to **Q83** indicates that they are under 16 (specifically, if **Q83>1995**) then the outcome code for that patient should be recoded from 1 ('returned completed questionnaire') to 5 ('ineligible for participation in the survey'). This should only be done where sample information is missing. If sample information indicates a patient is aged 16 or over, but this is contradicted by the patient's response, then the patient's survey outcome should remain as 1. This is to avoid removing legitimate responses because of an overly conservative approach to assessing eligibility; in other words, where the patient's age is uncertain (because sample and response information contradict each other, and in different instances either of these may be accurate or inaccurate) the benefit of the doubt is given in any assessment of eligibility.

### 3.6 Missing responses

It is useful to be able to see the numbers of respondents who have missed each question for whatever reason. Responses are considered to be missing when a respondent is expected to answer a question but no response is present. For non-filtered questions, responses are expected from all respondents – thus any instance of missing data constitutes a missing response. For filtered questions, only respondents who have answered a previous routing question instructing them to go on to that filtered question or set of filtered questions are expected to give answers. Where respondents to the survey have missed a routing question, they are not expected to answer subsequent 'filtered' questions; thus only where respondents were explicitly instructed to answer filtered questions should such blank cells be coded as missing responses.

The Co-ordination Centre codes missing responses in the data with the value 999<sup>1</sup>. For results to be consistent with those produced by the Co-ordination Centre, missing responses should be presented but should not be included in the base number of respondents for percentages.

### 3.7 Non-specific responses

As well as excluding missing responses from results, the Co-ordination Centre also removes non-specific responses from base numbers for percentages. The rationale for this is to facilitate easy comparison between institutions by presenting only results from those patients who felt able to give an evaluative response to questions. For a full listing of 'non-specific' responses in the 2011 national inpatient survey, please see [Appendix B: Non-specific responses](#).

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<sup>1</sup> This is an arbitrary value chosen because it is 'out-of-range' for all other questions on the survey.

## 4 Appendix A: Example of cleaning

### 4.1 Incorrectly followed routing

**Figure 2: Example 'raw'/uncleaned' data**

| Record                | Outcome                              | Q1   | Q2  | Q3   | Q4  | Q5  |
|-----------------------|--------------------------------------|--|---|--|---|---|
| Patient Record Number | Outcome of sending questionnaire (N) | Was your most recent hospital stay planned in advance or an emergency? | When you arrived at the hospital, did you go to the A&E Department (the Emergency Department / Casualty / Medical or Surgical Admissions Unit)? | While you were in the A&E Department, how much information about your condition or treatment was given to you? | Were you given enough privacy when being examined or treated in the A&E Department? | Following arrival at the hospital, how long did you wait to before being admitted to a bed on a ward? |
| A                     | 6                                    |  |   |  |   |   |
| B                     | 1                                    | 2  | .   | .  | .   | .   |
| C                     | 1                                    | 1  | 1   | 1  | 2   | 1   |
| D                     | 4                                    |  |   |  |   |   |
| E                     | 1                                    | 2  | 2   | .  | .   | .   |
| F                     | 6                                    |  |   |  |   |   |
| G                     | 1                                    | 2  | 1   | 2  | 1   | 1   |
| H                     | 1                                    | 3  | 2   | 1  | 1   | 1   |

[Figure 2](#) shows hypothetical raw/uncleaned data for eight sample members, five of whom have responded to the survey. It can be seen from this data that some of the respondents have followed filter instructions from routing questions incorrectly:

Respondents 'E' and 'G' have reported that their admission to hospital was planned or from a waiting list (**Q1=2**), but have both responded to filtered questions ('E' has answered the first question after the filter (**Q2**) before skipping the remaining questions, whilst 'G' has answered **Q2, Q3, Q4** and **Q5**).

Following the cleaning instructions above will remove these inappropriate responses. Firstly, the filter instructions specify that:

|           |               |                                  |                |
|-----------|---------------|----------------------------------|----------------|
| <i>if</i> | <b>Q1 = 2</b> | <i>then delete responses to:</i> | <b>Q2 – Q5</b> |
|-----------|---------------|----------------------------------|----------------|

In accordance with this, all responses for **Q2, Q3, Q4** and **Q5** must be removed in cases where the respondent has ticked **Q1=2** ('waiting list or planned in advance'). Looking in column **Q1** we can see that three respondents, 'B', 'E' and 'G', have ticked **Q1=2**, so any responses they gave to questions two through to five should be removed. This will lead to one response being removed for patient 'E' (**Q2**) and four responses being removed for respondent 'G' (**Q2, Q3, Q4, and Q5**), who have for whatever reason followed the routing instructions incorrectly and continued to answer the section on emergency care.

[Figure 3](#) (below) shows how the data would look following cleaning by the co-ordination centre to remove responses to filtered questions that should have been skipped – cells where responses have been removed are shaded.

**Figure 3: Data from Figure 3 following cleaning**

| <b>Record</b>         | <b>Outcome</b>                       | <b>Q1</b>  | <b>Q2</b>   | <b>Q3</b>  | <b>Q4</b>   | <b>Q5</b>   |
|-----------------------|--------------------------------------|--|---|--|---|---|
| Patient Record Number | Outcome of sending questionnaire (N) | Was your most recent hospital stay planned in advance or an emergency? | When you arrived at the hospital, did you go to the A&E Department (the Emergency Department / Casualty / Medical or Surgical Admissions Unit)? | While you were in the A&E Department, how much information about your condition or treatment was given to you? | Were you given enough privacy when being examined or treated in the A&E Department? | Following arrival at the hospital, how long did you wait to before being admitted to a bed on a ward? |
| A                     | 6                                    |  |   |  |   |   |
| B                     | 1                                    | 2  | .   | .  | .   | .   |
| C                     | 1                                    | 1  | 1   | 1  | 2   | 1   |
| D                     | 4                                    |  |   |  |   |   |
| E                     | 1                                    | 2  | .   | .  | .   | .   |
| F                     | 6                                    |  |   |  |   |   |
| G                     | 1                                    | 2  | .   | .  | .   | .   |
| H                     | 1                                    | 3  | 2   | 1  | 1   | 1   |

## 5 Appendix B: Non-specific responses

The following table lists all 'non-specific responses' included in the 2011 inpatient survey. Please note that this table also includes items from the question bank which are not included in the minimal 'core' questionnaire. Numbers in the final column indicate the response options that should be considered non-specific. Where the 'non-specific responses' column contains only a dash, the relevant question has no such response options.

| CORE | BANK | Question   | Non-specific responses |
|------|------|--|------------------------|
| Q1   | A1   | Was your most recent hospital stay planned in advance or an emergency?   | -                      |
|      | A2   | Did you travel to the hospital by ambulance?   | -                      |
|      | A3   | Were the ambulance crew reassuring?  | 4                      |
|      | A4   | Did the ambulance crew explain your care and treatment in a way you could understand?  | 4                      |
|      | A5   | Did the ambulance crew do everything they could to help control your pain?   | 4, 5                   |
|      | A6   | Overall, did the ambulance crew treat you with respect and dignity?  | 4                      |
|      | A7   | Once you had arrived at hospital, how long did you wait with the ambulance crew before your care was handed over to the A&E staff?   | 8                      |
|      | A8   | How well do you think the ambulance service and A&E staff worked together?   | 5                      |
|      | A9   | Overall, how would you rate the care you received from the ambulance service?  | -                      |
| Q2   | A10  | When you arrived at the hospital, did you go to A&E (Emergency Department / Casualty / Medical or Surgical Admissions unit)?         | -                      |
|      | A11  | How organised was the care you received in the A&E department?   | -                      |
|      | A12  | For most of the time, were you waiting in...?  | 5                      |
| Q3   | A13  | While you were in the A&E Department, how much information about your condition or treatment was given to you?                       | 5                      |
| Q4   | A14  | Were you given enough privacy when being examined or treated in the A&E Department?  | 4                      |
|      | A15  | When you had important questions to ask doctors and nurses in the A&E Department, did you get answers that you could understand?     | 4                      |
|      | A16  | While you were in the A&E Department, did you have confidence and trust in the doctors and nurses examining and treating you?        | -                      |
|      | A17  | While you were in the A&E Department, did doctors and nurses talk in front of you as if you weren't there?                           | -                      |
|      | A18  | While you were in the A&E Department, did a doctor or nurse explain your condition and treatment in a way you could understand?      | 4                      |
|      | A19  | If you had any worries or fears about your condition or treatment, did a doctor or nurse discuss them with you?                      | 4                      |
|      | A20  | Did you see any posters or leaflets in the A&E Department asking patients and visitors to wash their hands or to use hand-wash gels? | 3                      |
|      | A21  | Were hand-wash gels available for patients and visitors to use?  | 4                      |
|      | A22  | In your opinion, how clean was the A&E Department?   | 5                      |
|      | A23  | How clean were the toilets in the A&E Department?  | 5                      |
|      | A24  | Overall, did you feel you were treated with respect and dignity while you were in the A&E Department?                                | -                      |
|      | A25  | How would you rate the courtesy of the A&E Department staff?   | 6                      |

| CORE | BANK | Question  | Non-specific responses |
|------|------|---|------------------------|
| Q5   | A26  | Following arrival at the hospital, how long did you wait before being admitted to a bed on a ward?  | 6                      |
| Q6   | A27  | When you were referred to see a specialist, were you offered a choice of hospital for your <b>first hospital appointment</b> ?                            | 4                      |
|      | A28  | Were you given a choice about which hospital you were <b>admitted to</b> ?  | 4                      |
|      | A29  | Overall, did you get enough information about the different hospitals to make your choice?  | 4                      |
|      | A30  | Was the information about different hospitals easy to understand?   | -                      |
| Q7   | A31  | Who referred you to see a specialist?   | 5                      |
| Q8   | A32  | Overall, from the time you first talked to this health professional about being referred to a hospital, how long did you wait to be admitted to hospital? | 6                      |
| Q9   | A33  | How do you feel about the length of time you were on the waiting list before your admission to hospital?  | -                      |
|      | A34  | When you were told you would be going into hospital, were you given enough notice of your date of admission?  | 3                      |
| Q10  | A35  | Were you given a choice of <b>admission dates</b> ?   | 3                      |
| Q11  | A36  | Was your admission date changed by the hospital?  | -                      |
|      | A37  | Before being admitted to hospital, were you given any printed information about <b>the hospital</b> ?   | -                      |
|      | A38  | Before being admitted to hospital, were you given any printed information about <b>your condition or treatment</b> ?                                      | -                      |
|      | A39  | Before you arrived at the hospital, were you told where you would have to go to be admitted?  | 5                      |
|      | A40  | Once you arrived at the hospital, was it easy to find your way to the main reception?   | 4, 5                   |
|      | A41  | Was it easy to find your way to the ward?   | 4, 5                   |
|      | A42  | Before you arrived at the hospital, did you know if a bed was definitely available for you?   | 5                      |
|      | A43  | Was it possible to find a convenient place to park in the hospital car park?  | 3, 4                   |
|      | A44  | How organised was the <b>admission process</b> ?  | -                      |
| Q12  | A45  | From the time you arrived at the hospital, did you feel that you had to wait a long time to get to a bed on a ward?                                       | -                      |
|      | A46  | Did a member of staff explain why you had to wait?  | -                      |
|      | A47  | How would you rate the courtesy of the staff who admitted you?  | 6                      |
| Q13  | B1   | While in hospital, did you ever stay in a critical care area (Intensive Care Unit, High Dependency Unit or Coronary Care Unit)?                           | 3                      |
| Q14  | B2   | When you were <b>first</b> admitted to a bed on a ward, did you share a sleeping area, for example a room or bay, with patients of the opposite sex?      | -                      |
| Q15  | B3   | When you were <b>first</b> admitted, did you mind sharing a sleeping area, for example a room or bay, with patients of the opposite sex?                  | -                      |
| Q16  | B4   | During your stay in hospital, how many wards did you stay in?   | 4                      |
|      | B5   | Did you mind being moved from one room or ward to another?  | -                      |
| Q17  | B6   | <b>After you moved</b> to another ward (or wards), did you ever share a sleeping area, for example a room or bay, with patients of the opposite sex?      | -                      |
| Q18  | B7   | <b>After you moved</b> , did you mind sharing a sleeping area, for example a room or bay, with patients of the opposite sex?                              | -                      |



| CORE | BANK | Question   | Non-specific responses |
|------|------|--|------------------------|
| Q19  | B8   | While staying in the hospital, did you ever use the same bathroom or shower area as patients of the opposite sex?          | 4, 5                   |
|      | B9   | When you needed to use a toilet or bathroom, was there a suitable one located close by?                                    | 3, 4                   |
|      | B10  | For <b>most</b> of your stay, what type of room or ward were you in?   | -                      |
|      | B11  | When you reached the ward, did you get enough information about ward routines, such as timetables and rules?               | 4                      |
|      | B12  | Were you given enough privacy while you were on the ward?  | -                      |
|      | B13  | Were you ever bothered by noise <b>during the day</b> from <b>other patients</b> ?   | -                      |
|      | B14  | Were you ever bothered by noise <b>during the day</b> from <b>hospital staff</b> ?   | -                      |
| Q20  | B15  | Were you ever bothered by noise <b>at night</b> from <b>other patients</b> ?   | -                      |
| Q21  | B16  | Were you ever bothered by noise <b>at night</b> from <b>hospital staff</b> ?   | -                      |
| Q22  | B17  | In your opinion, how clean was the hospital room or ward that <b>you</b> were in?  | -                      |
| Q23  | B18  | How clean were the toilets and bathrooms that <b>you</b> used in hospital?   | 5                      |
|      | B19  | How would you rate the courtesy of the <b>cleaning staff</b> ?   | 6                      |
| Q24  | B20  | Did you feel threatened during your stay in hospital by other patients or visitors?  | -                      |
| Q25  | B21  | Did you have somewhere to keep your personal belongings whilst on the ward?  | 4, 5                   |
|      | B22  | Did staff wear name badges?  | 4                      |
|      | B23  | Did the staff treating and examining you introduce themselves?   | 4                      |
|      | B24  | Did you find it easy to find your way around the hospital?   | 4                      |
|      | B25  | If you needed help from a hospital porter to get around the hospital did you get it?                                       | 4                      |
|      | B26  | How would you rate the courtesy of the <b>hospital porters</b> ?   | 6                      |
|      | B27  | Were the visiting times convenient for your friends and family?  | 4, 5                   |
|      | B28  | Were your visitors given enough information about visiting (e.g. visiting hours and rules)?                                | 4, 5                   |
| Q26  | B29  | Did you see any posters or leaflets on the ward asking patients and visitors to wash their hands or to use hand-wash gels? | 3                      |
| Q27  | B30  | Were hand-wash gels available for patients and visitors to use?  | 4                      |
|      | B31  | Were you ever bothered by other patients' visitors?  | -                      |
| Q28  | B32  | How would you rate the hospital food?  | 5                      |
|      | B33  | Was the hospital food appetising?  | -                      |
|      | B34  | Was there healthy food on the hospital menu?   | 4                      |
|      | B35  | How much food were you given?  | -                      |
| Q29  | B36  | Were you offered a choice of food?   | -                      |
|      | B37  | Did you get the food you ordered?  | 4                      |
|      | B38  | Do you have any special dietary requirements (e.g. vegetarian, diabetic, food allergies)?                                  | 3                      |
|      | B39  | Was the hospital food suitable for your dietary needs?   | 4                      |
|      | B40  | Were you ever unable to eat during mealtimes (e.g. because you were away from the ward, recovery from surgery etc)?        | 3                      |
|      | B41  | Were you offered a replacement meal at another time?   | 4, 5, 6                |
| Q30  | B42  | Did you get enough help from staff to eat your meals?  | 4                      |
|      | B43  | How would you rate the courtesy of the <b>catering staff</b> ?   | 6                      |
|      | C1   | Was there one doctor in overall charge of your care?   | 3                      |
| Q31  | C2   | When you had important questions to ask a doctor, did you get answers that you could understand?                           | 4                      |

| CORE       | BANK | Question  | Non-specific responses |
|------------|------|---|------------------------|
|            | C3   | If you had any worries or fears about your condition or treatment, did a doctor discuss them with you?                                | 4                      |
| <b>Q32</b> | C4   | Did you have confidence and trust in the doctors treating you?  | -                      |
| <b>Q33</b> | C5   | Did doctors talk in front of you as if you weren't there?   | -                      |
|            | C6   | If you ever needed to talk to a doctor, did you get the opportunity to do so?   | 4                      |
|            | C7   | How would you rate the courtesy of your doctors?  | -                      |
|            | C8   | Did you ever think that doctors were deliberately not telling you certain things that you wanted to know?                             | -                      |
|            | C9   | In your opinion, did the doctors who treated you know enough about your condition or treatment?                                       | 5                      |
| <b>Q34</b> | C10  | As far as you know, did doctors wash or clean their hands between touching patients?  | 4                      |
| <b>Q35</b> | D1   | When you had important questions to ask a nurse, did you get answers that you could understand?                                       | 4                      |
|            | D2   | If you had any worries or fears about your condition or treatment, did a nurse discuss them with you?                                 | 4                      |
| <b>Q36</b> | D3   | Did you have confidence and trust in the nurses treating you?   | -                      |
| <b>Q37</b> | D4   | Did nurses talk in front of you as if you weren't there?  | -                      |
| <b>Q38</b> | D5   | In your opinion, were there enough nurses on duty to care for you in hospital?  | -                      |
|            | D6   | If you ever needed to talk to a nurse, did you get the opportunity to do so?  | 4                      |
|            | D7   | How would you rate the courtesy of your nurses?   | -                      |
|            | D8   | Did you ever think that nurses were deliberately not telling you certain things that you wanted to know?                              | -                      |
|            | D9   | In your opinion, did the nurses who treated you know enough about your condition or treatment?  | 5                      |
| <b>Q39</b> | D10  | As far as you know, did nurses wash or clean their hands between touching patients?   | 4                      |
| <b>Q40</b> | E1   | Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you? | -                      |
| <b>Q41</b> | E2   | Were you involved as much as you wanted to be in decisions about your care and treatment?   | -                      |
| <b>Q42</b> | E3   | How much information about your condition or treatment was given to you?  | -                      |
|            | E4   | While you were in hospital, were you told your diagnosis (explanation of what was wrong with you)?                                    | 6                      |
|            | E5   | Was your diagnosis explained to you in a way that you could understand?   | -                      |
| <b>Q43</b> | E6   | If your family or someone else close to you wanted to talk to a doctor, did they have enough opportunity to do so?                    | 4, 5, 6                |
| <b>Q44</b> | E7   | Did you find someone on the hospital staff to talk to about your worries and fears?   | 4                      |
| <b>Q45</b> | E8   | Do you feel you got enough emotional support from hospital staff during your stay?  | 4                      |
|            | E9   | Did you have to wear a hospital gown at any point during your stay in hospital?   | 3                      |
|            | E10  | Did you have to spend time in an area with other patients while wearing the gown?   | 4                      |

| CORE | BANK | Question   | Non-specific responses |
|------|------|--|------------------------|
| Q46  | E11  | Were you given enough privacy when discussing your condition or treatment?   | -                      |
| Q47  | E12  | Were you given enough privacy when being examined or treated?  | -                      |
| Q48  | E13  | Were you ever in any pain?   | -                      |
|      | E14  | When you had pain, was it usually severe, moderate, or mild?   | -                      |
|      | E15  | During your stay in hospital, how much of the time were you in pain?   | -                      |
|      | E16  | Did you ever request pain medicine?  | -                      |
|      | E17  | How many minutes after you requested pain relief medication did it usually take before you got it?   | -                      |
|      | E18  | While you were in hospital, were you given any medicine to help with your pain (such as tablets, a spray, or pump) which you could decide when to take without having to ask hospital staff? | -                      |
| Q49  | E19  | Do you think the hospital staff did everything they could to help control your pain?   | -                      |
|      | E20  | Overall, how much pain relief medication did you get?  | -                      |
|      | E21  | When you needed help from staff getting to the bathroom or toilet, did you get it in time?   | 4                      |
| Q50  | E22  | How many minutes after you used the call button did it usually take before you got the help you needed?  | 6                      |
|      | E23  | During your stay in hospital, did you have any tests, x-rays, or scans other than blood or urine tests?  | -                      |
|      | E24  | Did you feel you could refuse any tests that you did not agree with or did not want?   | 5                      |
|      | E25  | Were you told in advance when your tests, x-rays, or scans were going to take place?   | -                      |
|      | E26  | Were your scheduled tests, x-rays or scans performed on time?  | 4                      |
|      | E27  | Did a member of staff explain why the scheduled tests were not performed on time?  | -                      |
|      | E28  | Did a doctor or nurse explain the results of the tests in a way that you could understand?   | 4                      |
|      | E29  | Before you received any treatments (e.g. an injection, dressing, physiotherapy) did a member of staff explain what would happen?   | 4,5                    |
|      | E30  | Before you received any treatments (e.g.: an injection, dressing, physiotherapy) did a member of staff explain any <b>risks and/or benefits</b> in a way you could understand?               | 4                      |
|      | E31  | Did you feel you could refuse any treatment that you did not agree with or did not want?   | 4                      |
|      | E32  | Were medical students present when you were being examined or treated?   | -                      |
|      | E33  | Were you asked for permission for medical students to be present when you were being treated or examined?  | -                      |
|      | E34  | Were you upset because medical students were present?  | -                      |
| Q51  | F1   | During your stay in hospital, did you have an operation or procedure?  | -                      |
| Q52  | F2   | Beforehand, did a member of staff explain the risks and benefits of the operation or procedure in a way you could understand?  | 4                      |
| Q53  | F3   | Beforehand, did a member of staff explain what would be done during the operation or procedure?  | 4                      |
| Q54  | F4   | Beforehand, did a member of staff answer your questions about the operation or procedure in a way you could understand?  | 4                      |
| Q55  | F5   | Beforehand, were you told how you could expect to feel after you had the operation or procedure?   | -                      |

| CORE | BANK | Question  | Non-specific responses |
|------|------|---|------------------------|
|      | F6   | Did you have <b>enough time</b> to discuss your operation or procedure with the consultant?   | -                      |
| Q56  | F7   | Before the operation or procedure, were you given an anaesthetic or medication to put you to sleep or control your pain?  | -                      |
| Q57  | F8   | Before the operation or procedure, did the anaesthetist or another member of staff explain how he or she would put you to sleep or control your pain in a way you could understand?           | -                      |
| Q58  | F9   | After the operation or procedure, did a member of staff explain how the operation or procedure had gone in a way you could understand?  | -                      |
| Q59  | G1   | Did you feel you were involved in decisions about your discharge from hospital?   | 4                      |
|      | G2   | Were your family or someone close to you given enough notice about your discharge?  | 4                      |
| Q60  | G3   | On the day you left hospital, was your discharge delayed for any reason?  | -                      |
| Q61  | G4   | What was the <b>MAIN</b> reason for the delay?  | -                      |
| Q62  | G5   | How long was the delay?   | -                      |
|      | G6   | Did a member of staff tell you how long the delay would be?   | -                      |
|      | G7   | Did a member of staff explain the reason for the delay?   | -                      |
|      | G8   | Where did you spend your time waiting to be discharged from hospital?   | -                      |
|      | G9   | Before you left hospital, did the doctors and nurses spend enough time explaining about your health and care after you arrive home?   | -                      |
| Q63  | G10  | Before you left hospital, were you given any written or printed information about what you should or should not do after leaving hospital?  | -                      |
| Q64  | G11  | Did a member of staff explain the <b>purpose</b> of the medicines you were to take at home in a way you could understand?   | 4,5                    |
| Q65  | G12  | Did a member of staff tell you about medication <b>side effects</b> to watch for when you went home?  | 4                      |
| Q66  | G13  | Were you told how to <b>take</b> your medication in a way you could understand?   | 4                      |
| Q67  | G14  | Were you given clear written or printed information about your medicines?   | 4                      |
| Q68  | G15  | Did a member of staff tell you about any danger signals you should watch for after you went home?   | 4                      |
|      | G16  | Did hospital staff take your family or home situation into account when planning your discharge?  | 4,5                    |
| Q69  | G17  | Did the doctors or nurses give your family or someone close to you all the information they needed to help care for you?  | 4, 5                   |
|      | G18  | Did hospital staff tell you when you could resume your usual activities, such as when to go back to work or drive a car?  | 4                      |
| Q70  | G19  | Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?   | 3                      |
|      | G20  | Did hospital staff discuss with you whether you would need any health or social care services after leaving hospital? (e.g. district nurse, care assistant, physiotherapist or social worker) | 3                      |
|      | G21  | Do you feel that you received enough information from the hospital on how to manage your condition after your discharge?  | 4                      |
|      | G22  | Did hospital staff give you information about <b>voluntary and support groups</b> for people who have a similar condition in your local area?   | 4,5                    |
|      | G23  | Did hospital staff give you information about any <b>government assistance</b> , such as benefits, tax breaks or home care, for people in your situation or with your condition?              | 4, 5                   |

| CORE | BANK | Question  | Non-specific responses |
|------|------|---|------------------------|
|      | G24  | After leaving hospital, do you think you received enough care and assistance from health and social services?       | 4, 5                   |
| Q71  | G25  | Did you receive copies of letters sent between hospital doctors and your family doctor (GP)?                        | 3                      |
| Q72  | G26  | Were the letters written in a way that you could understand?  | 4                      |
| Q73  | H1   | Overall, did you feel you were treated with respect and dignity while you were in the hospital?                     | -                      |
| Q74  | H2   | How would you rate how well the doctors and nurses worked together?   | -                      |
|      | H3   | Overall, were you treated with kindness and understanding while you were in the hospital?                           | -                      |
| Q75  | H4   | Overall, how would you rate the care you received?  | -                      |
|      | H5   | Are you confident that the hospital is keeping your personal information / health records secure and confidential?  | -                      |
|      | H6   | Would you recommend this hospital to your family and friends?   | -                      |
| Q76  | H7   | During your hospital stay, were you ever asked to give your views on the quality of your care?                      | 3                      |
| Q77  | H8   | While in hospital, did you ever see any posters or leaflets explaining how to complain about the care you received? | 3                      |
|      | H9   | Did you want to complain about the care you received in hospital?   | -                      |
|      | H10  | Did the hospital staff give you the information you needed to do this?  | -                      |
|      | H11  | During your hospital stay, do you feel that you were treated unfairly for any of the reasons below?                 | 9                      |
| Q78  | J1   | Who was the main person or people that filled in this question?   | -                      |
|      | J2   | <b>Mobility</b>   | -                      |
|      | J3   | <b>Self-Care</b>  | -                      |
|      | J4   | <b>Usual Activities</b> (e.g. work, study, housework, family or leisure activities)                                 | -                      |
|      | J5   | <b>Pain / Discomfort</b>  | -                      |
|      | J6   | <b>Anxiety / Depression</b>   | -                      |
| Q79  | J7_1 | I have a long-standing condition involving deafness or hearing impairment   | -                      |
| Q79  | J7_2 | I have a long-standing condition involving blindness or are partially sighted                                       | -                      |
| Q79  | J7_3 | I have a long-standing physical condition   | -                      |
| Q79  | J7_4 | I have a long-standing condition involving a learning disability  | -                      |
| Q79  | J7_5 | I have a long-standing mental health condition  | -                      |
| Q79  | J7_6 | I have a long-standing condition involving an illness such as cancer, HIV, diabetes, CHD, or epilepsy               | -                      |
| Q79  | J7_7 | I do not have a long-standing condition   | -                      |
| Q80  | J8_1 | This condition causes me difficulty with everyday activities that people of my age can usually do                   | -                      |
| Q80  | J8_2 | This condition causes me difficulty at work, in education, or training  | -                      |
| Q80  | J8_3 | This condition causes me difficulty with access to buildings, streets, or transport vehicles                        | -                      |
| Q80  | J8_4 | This condition causes me difficulty with reading or writing   | -                      |
| Q80  | J8_5 | This condition causes me difficulty with people's attitudes to me because of my condition                           | -                      |
| Q80  | J8_6 | This condition causes me difficulty with communicating, mixing with others, or socializing                          | -                      |
| Q80  | J8_7 | This condition causes me difficulty with other activities   | -                      |
| Q80  | J8_8 | This condition does not cause me difficulty with any of these   | -                      |

| CORE | BANK | Question   | Non-specific responses |
|------|------|--|------------------------|
| Q81  | J9   | What is your ethnic group  | -                      |
| Q82  | J10  | Are you male or female?  | -                      |
| Q83  | J11  | What was your <b>year</b> of birth?  | -                      |
| Q84  | J12  | Which of the following best describes your religion?                                 | -                      |
|      | J13  | Were your religious beliefs respected by the hospital staff?                         | 4                      |
|      | J14  | Were you able to practice your religious beliefs in the way you want to in hospital? | 4                      |
| Q85  | J15  | Which of the following best describes how you think of yourself?                     | -                      |
|      | J16  | How old were you when you left full time education?                                  | -                      |

## 6 Submitting data

Data may be submitted to the Co-ordination Centre either by e-mail or by post (with the data on a CD or floppy disk). There is no requirement for the anonymised dataset to be password protected. Data should be submitted to the following address:

By e-mail: [Acute.Data@PickerEurope.ac.uk](mailto:Acute.Data@PickerEurope.ac.uk)

**or**

By post: Co-ordination Centre for the Adult Inpatient Survey 2011  
Picker Institute Europe  
Buxton Court  
3 West Way  
Oxford  
OX2 0JB