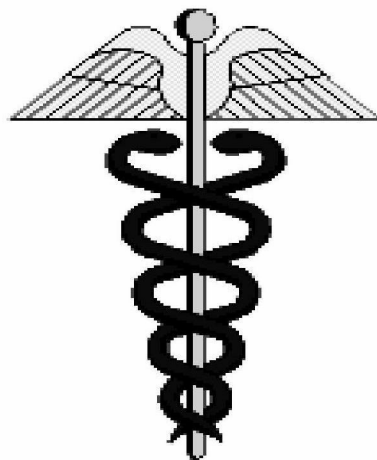


HES EXTRACT PACK

Hospital Episode Statistics



www.doh.gov.uk/hes/



Dear Customer,

Request for Hospital Episode Statistics (HES) Extract Data

Thank you for your request for HES extract data.

Please find attached the HES Extract Pack, which outlines the procedure for obtaining an extract of HES data.

The process is as follows:

- A. Please complete the forms in Appendix A and B (C and D if required). It is essential that all the required information be written down on the forms (unless stated otherwise). Where possible, **please type** the information.
- B. Send a copy of the **Appendixes** with any additional relevant information. (**two copies of each** if sensitive data item(s) is chosen (see page 13 & 14) to:

Sheikh Rahman
 Security and Confidentiality Analyst (SCA)
 SD2HES
 Room 431B
 Skipton House
 80 London Road
 London SE1 6LH

Tel: (020) 7972-5534

Fax: (020) 7972-5662

E-mail: **Code A**

- C. i) If it is deemed that Security & Confidentiality Advisory Group (S&CAG) approval is not required, and SD2HES are content for the extract to be produced, then IBM Global Services (IBM GS - SD2HES's database service provider) will be authorised to proceed with the extract.
- ii) If it is deemed that S&CAG approval is required, then your application will be submitted to them. If S&CAG approve, IBM GS will be asked to proceed with the extract.
- D. IBM GS will then contact you with a specification and (if applicable) total costing for you to agree.

S&CAG meetings are held every 6-8 weeks. Please check the latest meeting dates with the SCA. Completed forms need to be sent to the SCA **at least two weeks before** the day of the meeting. If you are unsure as to whether or not your request requires S&CAG approval, or have any other query please feel free to contact the SCA on 020 7972 5534.

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1.0 OBTAINING AN EXTRACTS FROM THE HES DATABASE

1.1 Introduction

1.1.1 The Hospital Episode Statistics (HES) database contains approximately 12 million records for each data year (1 April to 31 March) detailing in-patient treatment provided by NHS hospitals in England. There are no records for outpatients or regular day and night attendees - but day cases *are* included. Data for NHS hospitals in Northern Ireland, Scotland and Wales is collected separately by the appropriate sections within the Northern Ireland, Scottish and Welsh Offices.

1.1.2 Each HES record contains over 50 items of information that is collected directly by hospital providers - included are diagnoses and surgical procedure codes, various dates, the location of treatment and details relating to the patient. In addition, the central database provides a number of derived items. For full details of the data fields held in HES, please view the HES Data Dictionary on the Internet at:

http://tap.ccta.gov.uk/doh/hes_dd.nsf

If you do not have ready access to the Internet, please contact us (see below) for an alternative way of obtaining the field details.

1.1.3 Extracts can be provided for the years 1989-90 onwards, within a time scale dependant upon the size of the extract, how many data-years are involved, the complexity of the processing and the current workload. In addition, there may be a need to obtain approval for fields that are sensitive, therefore, when planning a programme of research or analysis for which HES data is required, early contact with the Department is strongly recommended (Guidelines and relevant forms for specifying your extract are attached at **Appendix A**)

1.1.4 Please note that with the implementation of the new Data Protection Act 1998, commercial organisations cannot currently be granted extracts of HES data except for "wider NHS uses".

1.2 Security and Confidentiality Advisory Group (S&CAG) and the SD2HES Non-Disclosure Agreement (NDA)

1.2.1 As HES comprises a sub-set of individual patient records, all datasets derived from HES must be kept securely, and handled with due regard to patient confidentiality. A standard non-disclosure agreement form is attached as **Appendix B**, which needs to be completed for **all** extract applications.

1.2.2 If you have specified an extract which contains fields which could either individually, or in combination with other specified fields, potentially identify a patient or consultant, then your application will additionally require approval from the Department's S&CAG before it can be processed.

The Advisory Group meets every 6 to 8 weeks and completed forms must reach the Security & Confidentiality Analyst (SCA) at least **two weeks before** the date of the next meeting (late receipt will delay consideration of your application until the following meeting).

If your request is approved, SD2HES will authorise IBM Global Services (IBM GS) to proceed with producing your extract. Further information regarding S&CAG can be found at:

www.doh.gov.uk/nwcs/main.htm

1.3 Data Destruction

1.3.1 Organisations will be authorised (by the Department) to hold and process information for a prescribed period only, after which time the data must be completely erased from the system and/or media it was processed or stored upon and any related computer printouts be irretrievably destroyed.

1.3.2 Organisations must successfully erase data from a computer system or its media, it is insufficient to simply delete files which are no longer required. A commercially available electronic shredder, or secure, reputable incineration service, must be used to ensure that the redundant data files cannot be unerased or otherwise recovered.

1.3.3 The non-disclosure agreement includes an undertaking to destroy the data as soon as work on it has been completed, and to inform the Department that this has been done. In your letter to confirm such final actions have been taken, you must identify details of the security product used to destroy the data and confirm that the action has been successful.

1.4 Charges

1.4.1 In most cases, a charge will be made by IBM GS, on the Department's behalf, to recover the costs of processing the HES extract request. The cost will depend on the size and complexity of your specification. As a rough guide simple extracts with 1 year's data cost a few hundred pounds, whilst more complicated ones cost couple of thousand pounds. Please note that unsuccessful requests for a HES Extract will not be charged.

1.5 Further Information

1.5.1 Further background information can be found at our website at:

www.doh.gov.uk/hes/

1.5.2 If you have any specific queries regarding the above, please contact the Security and Confidentiality Analyst (SCA):

Sheikh Rahman
SCA
SD2HES
Room 431B
Skipton House
80 London Road
London SE1 6LH

Tel: (020) 7972 5534

Fax: (020) 7972 5662

E-mail:

Code A

2.0 SPECIFYING YOUR EXTRACT

Background

2.1 Consultant Episodes

2.1.1 It is important to bear in mind that each record details a continuous period of care (episode) administered within a particular Consultant Specialty at a single Hospital Provider. Therefore if, during a spell of treatment, a patient is transferred to another consultant and/or to a different Provider, a new record is generated. This means that not all stays in hospital will be accounted for by a single HES record, and in about 8% of cases the spell of treatment will indeed generate more than one record.

Furthermore, it is not unusual for a patient to undergo two or more separate spells of in-patient treatment during a HES data year; each spell will result in a separate record, or records. These details are important because currently there is no linkage within the database between records that form part of the same stay in hospital, or relate to the same patient. This means that a simple count of HES records will not produce a figure for the number of spells of treatment, nor the number of individuals treated.

2.2 Data Volume

2.2.1 The total volume occupied by each data year is between 3 and 4 gigabytes but extracts are usually smaller than this because most users will only require a selection of records and do not want a copy of every field.

Defining the Selection Criteria and Record Content

2.3 The Filter

2.3.1 The selection criteria are defined by reference to the contents of one or more fields in the dataset. A search and extract algorithm, known as the filter, must therefore be defined at an early stage. The field(s) interrogated by the filter may also form part of the dataset to be extracted. The HES Data Dictionary, as mentioned in 1.1.2 provides detailed field definitions, but there are a few general principles which you may wish to bear in mind:

i) EPISTAT

Episode Status (hence EPISTAT) indicates whether the patient was still undergoing treatment on the last day of the HES data year (31/3/****). Such cases, of which there are about 250,000 per data year, give rise to what is termed an unfinished record, and EPISTAT will contain the code 1. The large majority of records - i.e. those detailing episodes which ended *within* the year - have EPISTAT=3 (the code 2 is no longer used). In most cases it is inappropriate to extract unfinished records - they do not, for instance, contain any useful clinical data such as a diagnosis which is only added when the episode is finished. Therefore, the first instruction in the filter will usually be "select if EPISTAT=3".

ii) CLASSPAT

There are two main patient classifications. Ordinary admissions are coded CLASSPAT=1 and for Day cases, CLASSPAT=2. The only other classification possible within the HES dataset is CLASSPAT=5 (mothers using delivery facilities only - there are very few of these and in most Department of Health analyses they are grouped with CLASSPAT = 1). Clearly, by setting a filter on CLASSPAT it is possible to generate a dataset comprising either Day cases or Ordinary admissions only.

iii) EPIORDER

The HES record detailing the first episode within a spell of treatment (the "admission episode") will have an Episode Order (EPIORDER) code of 01 (as explained above, 92% of all hospital stays consist of just a single episode). In some cases it will be appropriate to extract only these records, normally when analysing an attribute of admission, such as waiting time or admission method.

2.4 Other Filters

2.4.1 Other aspects of the filter will be more specific to the individual extract, but may include reference to a range of **diagnostic codes** (either the primary diagnosis exclusively or including the contents of the secondary diagnosis fields as well), or **operative/surgical procedures**. The **area of treatment** (specified either as a list of Providers, Health Authorities or Regions), or alternatively the **area of residence** of the patients (see postcode derived items) may also be relevant. The **age of the patient** (see STARTAGE and ENDAGE) is another factor. Finally, a filter based on EPITYPE may be used to eliminate (or exclusively select) **birth** and/or **delivery** records.

2.4.2 By careful choice of the filter parameters it is possible, in many cases, to reduce the size of the extract quite considerably, thus making its storage and use cheaper and more efficient.

2.5 Selecting the Fields

2.5.1 The HES Data Dictionary (see 1.1.2) provides definitions of all the fields held on the HES database. Please note that the naming of a field as part of the filter definition (2.2.1 and 2.3.1) will not in itself be interpreted as an instruction to extract the field. Therefore, any field used in the filter which is also required as part of the extract must be selected by ticking the appropriate box on the 'Fields to be extracted' on page 12.

As many of the fields stored in the database are derived from the contents of others (e.g. EPIDUR), it is technically possible to omit these from the extract in order to reduce storage space, and then re-derive them during subsequent processing. However, this introduces the possibility that subtle differences in the derivation algorithms may lead to a discrepancy between the Departments data and that re-processed by third parties. In order to prevent such an occurrence, the safest option is clearly to request the derived fields as part of the original extract.

2.5.2 Other fields contain very similar information (for instance, in 97% of cases STARTAGE and ENDAGE will be the same) and so it is not always necessary to ask for both. Also, because some fields are clearly related to others, inclusion of the "relatives" may seem appropriate, but this can be wasteful. For instance, for every Operation field there is an OPERDATE field giving the date on which the operation took place. But is it necessary to know this date for the purposes of the study?

2.5.6 Finally, the contents of a small group of fields (principally DOB and HOMEADD) will require the approval of S&CAG for their release. This is because patient confidentiality may be put at risk (see 1.2).

2.6 Maternity and Psychiatric Census Records

2.6.1 Additional information is collected about maternity events, and also for certain categories of psychiatric patients. Extracting these items will, of course, increase the volume of data and therefore the cost of providing it. Customers wishing to make use of maternity or psychiatric data are advised to discuss their requirements with the Department before proceeding further.

2.7 Output

2.7.1 IBM GS are able to supply output in a wide variety of formats and on all common media. Other options can be discussed directly with IBM GS following agreement to the release of the data.

3.0 LOW NUMBERS & THE IDENTIFICATION OF INDIVIDUALS

3.1 PURCODE

PURCODE contains code types for the organisation paying for or commissioning the patient's treatment. There are four main purchasers on the system: Health Authorities, GP fund holders, Private patients and the Department of Health.

Although PURCODE on its own is not sensitive when grouped, the purchaser type, 'GP fund holder', may include a GP Practice that is operated by an individual GP who could then be identified. For this reason it is deemed sensitive.

Although GP fund holders no longer exist, some are still recorded on the HES database.

The Data Custodian must ensure that the analysis they are working on would not be released/published showing individual GP fundholder codes.

3.2 CURRWARD, RESLADST, WARD 81/91 & POSTCODE SECTOR

The fields CURRWARD, RESLADST, WARD 81/91 AND POSTCODE SECTOR could generate low level numbers.

Low level analyses might facilitate identification of individual GP practices or hospital consultant teams. This is because where the numbers of episodes in a particular specialty in a single hospital provider are small, it could indicate that there is only one consultant in that specialty. Local knowledge could then enable identification. **If you intend to release or publish HES data that include low numbers then you would need to do the following:**

i) Low Cell Values

Values between 1 and 5 must be suppressed. And if only one cell requires cell suppression, suppress at least one other component cell (the next smallest) to avoid calculation of suppressed value from the totals. You should replace these values with '-' and add a note, '-' (dash) in this table means a figure between 1 and 5'. Zeros (0) should not be suppressed. You can set up a spreadsheet formula, or macro, to make these changes.

ii) Higher Level Aggregation

An alternative to blanking out values between 1 and 5 will be to consider a higher level of aggregation for one or more items - e.g. move from Provider to HA of treatment, or diagnosis at 4 digit level to the 3 digit level, or group using age bands (or make existing age bands coarser). This will certainly be the best choice if a large number of cells are affected by the suppression rule.

iii) Anonymisation

Also consider providing the data at the requested low level if necessary for purpose but anonymising the level of aggregation i.e. replace identifying codes or labels with arbitrary reference numbers.

AN EXAMPLE OF APPENDIX C

It is our experience that applicants do not always understand the requirements of this form. We hope that the selected examples below will clarify what you need to say when completing the attached Appendix C for your application.

<p>1. Please justify the need for the restricted field(s)</p>	<p>HOMEADD – Using HOMEADD, DOB and SEX, we will be able to track patients over time, link separate spells to patients and therefore study re-admission rates.</p> <p>NEWNHSNO – Needed to identify multiple episodes for a single patient, to prevent 'double-counting' of oral cancer patient admissions. Encrypted data is adequate, as it is not needed to actually identify an individual.</p>
<p>3. Do you wish to publish any results using HES data? If so, please describe how you will ensure that patient anonymity will be maintained.</p>	<p><i>Example 1</i> - No sharing of information beyond anonymised publication in scientific journals.</p> <p><i>Example 2</i> - Data will be published in aggregate form to prevent patient identification.</p>
<p>10. Provide details of Data Protection Registration (to confirm that the organisation is registered for retention and analysis of the data requested).</p>	<p>Registration number: S1208197</p> <p>Expiry date: 10 June 2010</p>
<p>11. Describe any previous applications(s) to use or access HES data: e.g. data of application, name of application, title.</p>	<p>ET7782 AG/4/100</p>
<p>12. Describe the method of data destruction you will employ when you have completed your work using the HES data (see 1.3, page 5).</p>	<p><i>Example 1</i> - Norton's Disc Doctor will be used to wipe the relevant hard disc areas.</p> <p><i>Example 2</i> - Any electronic data will be electronically shredded using proprietary 'data-shredding' software.</p> <p>Any physical media (e.g. CD) will be physically destroyed (shredded and burned).</p>
<p>13. Describe the physical security arrangements for the location where the information is to be:</p> <p>a. processed; and</p> <p>b. stored (if these are different)</p>	<p><i>Example 1</i> - The data will be stored on a password protected standalone computer that is in a lockable room occupied by three research staff who will be engaged on the project.</p> <p>This room which is locked at night and during the day when it is left unattended is on a corridor in the second floor of the main building of the <i>organisation</i>. The building is alarmed and there are security patrols covering the area.</p>

	<p><i>Example 2</i> – The data will be held on a Unix workstation in a lockable room occupied by two research staff who will be engaged on the project.</p> <p>This room is on the ground floor of the building, access to which is restricted by electronic security pass.</p>
<p>14. Identify the type of system and application to be used for information processing including version numbers where known e.g. Desktop PC, Laptop PC, MS Access database etc</p>	<p>Desktop PC using MS Access database (Access 97) and SPSS (Version 9).</p>
<p>15. Confirm if the computer system will be connected to a LAN or WAN network, or be otherwise accessible remotely by another means such as a dial-up modem.</p> <p>If so, please confirm which networks these are and what they are used for.</p>	<p><i>Example 1</i> – The computer will be stand-alone and will not be networked or have a dial-up connection.</p> <p><i>Example 2</i> - Novell NetWare 5.1 LAN. Server specific to staff only. LAN used for research purposes as part of the Institution's academic work. Access to specific data area restricted to the principle investigator. Data will not be visible or accessible to any other staff.</p>
<p>16. Confirm that there will be appropriate security access and/or firewall controls implemented on:</p> <p>a. this system; and</p> <p>b. any LAN or WAN to which it is connected</p> <p>Please attach a description of all appropriate safeguards and how they have been implemented.</p>	<p><i>Example 1</i> – a. The PC used will not be networked and will be running Windows 2000, I will ensure that that I am the only individual able to log on.</p> <p><i>Example 2</i> – a. There will be a hard drive password installed on the machine.</p> <p><i>Example 1</i> – b. Hard copy will be in a locked fireproof safe.</p> <p><i>Example 2</i> – b. There is a firewall in place to prevent outside access to the <i>organisation's</i> network.</p> <p><i>Example 3</i> – b. LAN is separated from the rest of the <i>organisation</i> by a firewall. Network access (via unique user IDs) is under password control.</p>
<p>20. Confirm that there are arrangements implemented to routinely monitor and audit access to this system for potential misuse or abuse.</p>	<p><i>Example 1</i> - As the data will be held on a password protected stand-alone machine, it cannot be accessed remotely from other sites hence there will be no need of auditing.</p> <p><i>Example 2</i>- Access to LAN is monitored by the Unit's Computing officer. Access to confidential data sets within the ORACLE database is audited on a project by project basis.</p>

APPENDIX A

HES NON-DISCLOSURE AGREEMENT FORM

(Please either type or write in black ink, as this form will be photocopied)

Please tick as appropriate

An update of an earlier extract

New application

Date of request: 23.09.02

(A) Details of Data Custodian:			
Name (please type or print):	Richard Baker		
Status/position:	Professor		
Organisation:	Clinical Governance Research & Development Unit Department of General Practice & Primary Health Care, University of Leicester		
Address:	Address where data to be held (if different):		
Department of General Practice & Primary HealthCare, University of Leicester, Leicester General Hospital, Gwendolen Rd, Leicester, LE5 4PW	As opposite		
Telephone: 0116 258 4873	Mobile:	Code A	
Fax: 0116 258 4982	Email:		
Declaration:			
I, the Data Custodian named above, will ensure that any results published using HES data will adhere to the HES protocol on low numbers mentioned in page 9. I have read, understood, and will follow the guidelines mentioned in point 1-8 in page 13.			
Signature:	Date: 23.09.02		

(B) Details of Contact Person (if not Data Custodian)				
Name:	As above	Address (if different)	Signature	Date
Tel:				
Fax:				
Email:				

APPENDIX A *continued*

(C) Name	Organisation (if different)	Signature	Date
Paul Sinfield			
David Jones			
Peter Goldblatt	ONS		

Please contact the HES section in the event of any problems with the above.

1. Assistants of the Data Custodian who wish to access the HES data supplied must sign and date box B/C to acknowledge acceptance of the terms and conditions prior to being allowed access to the data. The HES section may request a copy of the up-to-date list at any time. The Data Custodian should take disciplinary action against any assistant breaching the common law duty of confidence with regard to this data.
2. Please **keep a copy** of all the documents for your own records.
3. After the work for the purpose outlined in box E has been completed, the data must be destroyed according to the conditions described in 1.3 (page 5). Prior written agreement from the Security & Confidentiality Analyst (SCA) must be obtained for any extension to the purpose or time span. You will be sent a letter approximately a month before the end of the data retention period. This letter will give you the opportunity to either extend the data retention period or confirm that the data is destroyed.
4. The data must not be copied or transferred to any third party without the written consent of the SCA.
5. The Department of Health has the right to refuse permission to publish information arising from HES data on the grounds of data protection. Any reports, papers or statistical tables that are published or released to other organisations must not identify individuals or enable individuals to be identified.
6. Prior notice of intention to publish HES data should be given to the SCA and where feasible a copy of the published work should be provided. Any published work containing HES data must acknowledge as the source: "*Hospital Episode Statistics (Department of Health)*".
7. The data must be stored with proper safeguards to prevent unauthorised access. Please note: **This condition is subject to unannounced site inspections by Department of Health** staff to ensure that measures are satisfactory.
8. The SCA must be informed as soon as possible if custodianship of the data should change. The new Data Custodian must give assurances in writing that the terms of this document will continue to be followed. The Data Custodian **must** also report to the SCA any changes in the organisation, personnel having access to the HES data, or systems on which the data would be held.

APPENDIX A *continued***Conditions of release**

<p>(D) How long do you wish to retain the data? If longer than 12 months, please justify your reasons below (the maximum data retention period is 3 years and then a review is required).</p>	<p>.....3...years</p>
<p>A police or other formal inquiry may take place after the completion of the audit. It would then be necessary to retain data in order to deal with specific questions from such inquiries. It could prove necessary to justify the findings during legal proceedings.</p>	

<p>(E) The HES data supplied will be used only for the following purpose(s) – Please include details of your research/work:</p>
<p>The Chief Medical Officer has commissioned a clinical audit of deaths at Gosport War Memorial Hospital, because there are unresolved concerns about deaths of patients at the hospital. The audit will determine whether there was indeed and excess of deaths compared with the numbers that would have been expected during the years in question, and will describe the patterns associated with any such excess.</p> <p>The project is not a research study, but is being conducted specifically for the purpose of clarifying events at the hospital. The numbers of deaths by speciality in different age sex groups at the hospital will be compared with the numbers of deaths at selected, matched control hospitals. The names of the people who died in Gosport War Memorial Hospital will be required in order to facilitate further investigation of individual cases through record review or other means.</p> <p>The period in question dates from 1988, the year in which a clinical assistant was appointed to work at the hospital.</p>

APPENDIX B**HES EXTRACT SPECIFICATION FORM**

(Please either type or write in black ink, as this form will be photocopied)

Data years (please tick):

1989/90 1990/91 1991/92 1992/93 1993/94 1994/95

1995/96 1996/97 1997/98 1998/99 1999/00 2000/01

2001/02 (When available)

Filter details *(See 2.3.1 to 2.4.2)*

EPISTAT=3; CLASSPAT=1 OR 2.

Also, filters to select specific community hospitals. These will include Gosport War Memorial Hospital and a matched sample of approximately 10-20 comparison hospitals.

APPENDIX B *continued*Fields to be extracted (please tick):

Please note that the fields below are of the **General Table**, for **Augmented Care, Maternity and Psychiatric A** fields please refer to the Data Dictionary and write down the selected fields in Other Details on page 17.

Data Dictionary: http://tap.ccta.gov.uk/doh/hes_dd.nsf

ADMIDATE <input type="checkbox"/> (Date of admission)	DIAG_6 <input type="checkbox"/> (Diagnosis)	HOMEADD <input type="checkbox"/> (Postcode of patient)
ADMIMETH <input type="checkbox"/> (Method of admission)	DIAG_7 <input type="checkbox"/> (Diagnosis)	HOTEL ⁽⁶⁾ <input type="checkbox"/> (Cost per day)
ADMINCAT ⁽⁵⁾ <input type="checkbox"/> (Admission category)	DISDATE <input type="checkbox"/> (Date of Discharge)	HRGLATE ⁽¹⁰⁾ <input type="checkbox"/> (Description of healthcare resource group)
ADMISORC <input type="checkbox"/> (Source of admission)	DISDEST <input type="checkbox"/> (Destination of discharge)	HRGORIG ⁽¹⁰⁾ <input type="checkbox"/> (Healthcare resource group original value)
ADMISTAT ⁽³⁾ <input type="checkbox"/> (Psychiatric patient status)	DISMETH <input type="checkbox"/> (Method of discharge)	INTMANIG ⁽⁴⁾ <input type="checkbox"/> (Intended management)
AIDSIND ⁽⁴⁾ <input type="checkbox"/> (AIDS flag)	DOB <input type="checkbox"/> (Date of Birth)	LEGLCAT ⁽⁵⁾ <input type="checkbox"/> (Legal category)
BEDYEAR <input type="checkbox"/> (Bed days within year)	ELECDATE <input type="checkbox"/> (Date of decision to admit)	LOPATID ⁽⁴⁾ <input type="checkbox"/> (Local patient identifier)
CARERSI ⁽⁴⁾ <input type="checkbox"/> (Carer support indicator)	ELECDUR <input type="checkbox"/> (Waiting time)	MAINSPEF <input type="checkbox"/> (Main speciality)
CATEGORY <input type="checkbox"/> (Administrative & legal status of patient)	ENDAGE <input type="checkbox"/> (Age at the end of episode)	MARSTAT <input type="checkbox"/> (Marital status)
CAUSE <input type="checkbox"/> (External cause of injury or poisoning)	EPIDUR <input type="checkbox"/> (Episode duration)	NEOCARE ⁽³⁾ <input type="checkbox"/> (neonatal level of care)
CLASSPAT <input type="checkbox"/> (Patient classification)	EPIEND <input type="checkbox"/> (Date episode ended)	NEODUR <input type="checkbox"/> (Baby's age in days)
CONSULT⁽⁴⁾ <input type="checkbox"/> (Consultant code)	EPIKEY* <input checked="" type="checkbox"/> (System record identifier)	NEWNHSNO ⁽⁴⁾ <input type="checkbox"/> (NHS number)
CURWARD <input type="checkbox"/> +RESLADST (Current electrol ward)	EPIORDER <input type="checkbox"/> (Episode order)	NUMACP <input type="checkbox"/> (No. of augmented care periods within episodes)
DETNCAT ⁽⁵⁾ <input type="checkbox"/> (Detention category)	EPISTART <input type="checkbox"/> (Date episode started)	OPER_1 <input type="checkbox"/> (Contains information about patient's operation)
DHATREAT\HA <input type="checkbox"/> (District of treatment)	EPISTAT <input type="checkbox"/> (Status of episode)	OPER_2 <input type="checkbox"/> (Contains information about patient's operation)
DHACOMP\HA <input type="checkbox"/> (DHA comparison)	EPITYPE <input type="checkbox"/> (Type of episode)	OPER_3 <input type="checkbox"/> (Contains information about patient's operation)
DIAG_1 <input type="checkbox"/> (Diagnosis)	ETHNOS ⁽¹⁾ <input type="checkbox"/> (Ethnic origin)	OPER_4 <input type="checkbox"/> (Contains information about patient's operation)
DIAG_2 <input type="checkbox"/> (Diagnosis)	GPPRAC ⁽⁴⁾ <input type="checkbox"/> (Code of GP practice)	OP_DTE_1 <input type="checkbox"/> (Date of operation)
DIAG_3 <input type="checkbox"/> (Diagnosis)	GPPRACHA ⁽⁵⁾ <input type="checkbox"/> (Health Authority of GP practice)	OP_DTE_2 <input type="checkbox"/> (Date of operation)
DIAG_4 <input type="checkbox"/> (Diagnosis)	GPPRACRO ⁽⁵⁾ <input type="checkbox"/> (Regional Office of GP practice)	OP_DTE_3 <input type="checkbox"/> (Date of operation)
DIAG_5 <input type="checkbox"/> (Diagnosis)	GROSS_A ⁽¹¹⁾ <input type="checkbox"/> (Clinical grossing)	OP_DTE_4 <input type="checkbox"/> (Date of operation)
	GROSS_B <input type="checkbox"/> (Clinical grossing)	PCGCODE ⁽⁵⁾ <input type="checkbox"/>

(Diagnosis)

(Combined coverage & clinical grossing) (Primary care group code)

PTO

APPENDIX B *continued*Fields to be extracted (please tick):

Please note that the fields below are of the **General Table**, for **Augmented Care, Maternity and Psychiatric A** fields please refer to the Data Dictionary and write down the selected fields in Other Details (below).

Data Dictionary: http://tap.ccta.gov.uk/doh/hes_dd.nsf

PCGORIG ⁽⁵⁾ <input type="checkbox"/> (Method of origination of PCG code)	RESCTY <input type="checkbox"/> (County of residence)	SPELDUR <input type="checkbox"/> (Duration of spell)
PREOPDUR <input type="checkbox"/> (Pre operation duration)	RESHA\HA <input type="checkbox"/> (District HA of residence)	SPELEND <input type="checkbox"/> (End of Spell)
PROCEDURE ⁽⁷⁾ <input type="checkbox"/> (provider code)	RESGOR <input type="checkbox"/> (Government office region)	STARTAGE <input type="checkbox"/> (Age of admission)
PRODMUT ⁽⁷⁾ <input type="checkbox"/> (Hospital Provider)	RESRHA\RO <input type="checkbox"/> (RHA/RO of residence)	SUBSPEF\TRET <input type="checkbox"/> (Specialty of second consultant in a case of shared care)
POSOPDUR <input type="checkbox"/> (Post operation duration)	RESLADST <input type="checkbox"/> (Local Authority District)	TOTCOST ⁽⁶⁾ <input type="checkbox"/> (Total cost)
PROVSPNO ⁽⁴⁾ <input type="checkbox"/> (Hospital provider spell number)	RHATREAT\RO <input type="checkbox"/> (RHA/RO of treatment)	TREAT ⁽⁶⁾ <input type="checkbox"/> (Cost of treatment)
PURCODE ⁽⁹⁾ <input type="checkbox"/> (Purchaser code)	SAMPLED <input type="checkbox"/> (Selected for sample)	VIND ⁽²⁾ <input type="checkbox"/> (V code indicator)
RECTYPE <input type="checkbox"/> (Record type)	SEX ⁽⁸⁾ <input type="checkbox"/> (Sex of patient)	WARD 81 <input type="checkbox"/> (Patient's electoral ward in 1981)
REFERRER⁽⁴⁾ <input type="checkbox"/> (Person referring patient – encrypted)	SITETRET <input type="checkbox"/> (Site code of treatment)	WARD 91 <input type="checkbox"/> (Patient's electoral ward in 1991)
REGGMP⁽⁴⁾ <input type="checkbox"/> (Patient's GMP –encrypted)	SPELBGN <input type="checkbox"/> (Beginning of spell)	WARDSTRT <input type="checkbox"/> (Ward type at start of episode)

⁽¹⁾ From 1995-96 onwards.⁽²⁾ Up to 1995-96, then replaced by ADMISTAT and NEOCARE.⁽³⁾ From 1996-97 onwards.⁽⁴⁾ From 1997-98 onwards.⁽⁵⁾ From 2000-01 onwards⁽⁶⁾ These fields are used for economic modelling, they provide relative rather than absolute costs.⁽⁷⁾ PRODMUT identifies an individual hospital provider by using the first 3 characters of PROCEDURE. Applicants will need to determine whether PRODMUT or PROCEDURE is essential to their purpose.⁽⁸⁾ The field SEX will be sensitive when combined with DOB and HOMEADD.⁽⁹⁾ Please refer to 3.1 in page 9.⁽¹⁰⁾ 1995-96 onwards⁽¹¹⁾ Not available for 2000/01 Fields in bold are sensitive and will need S&CAG approval.

Other details

APPENDIX C

HES DATA SECURITY FORM

(Please either type or write in black ink, as this form will be photocopied)

1. Please justify the need for the restricted field(s)	We need to identify patients who have died in order to facilitate investigation of reasons for death.
2. Estimate the number of records that would be contained within the extract (optional).	Not known.
3. Do you wish to publish any results using HES data? If so, please describe how you will ensure that patient anonymity will be maintained (please see page 9 for guidance).	A report of the audit will be published, but the names of individual deceased patients will not be mentioned. However, subject to the findings of the audit, the names of people whose deaths are regarded as suspicious would have to be notified to the relevant authorities, including the police.
4. If the research/work involves contact with patients or gaining access to patient's health records held by a physician, then please provide the approval of appropriate Ethics Committee.	This is a health service audit rather than a research study. The Chair of the responsible LREC has been approached.
5. Name(s) of any other organisations involved and whether NHS, Academic, Commercial or other. If there is a third party involved then please ensure Appendix D is completed by the third party.	Dr Peter Goldblatt, Office for National Statistics
6. Contract between above organisations (if applicable). Summary of contractual relationship to be attached.	The contract consists of the project proposal and letter of commission from the Chief Medical Officer.
7. a. Describe what other (person identifiable) data are held by the organisation, which might interact with the data requested to allow person identification.	None
b. Will you be linking these data with that of HES data? If so, for what purpose?	No
8. Please provide a copy of the organisation's data security policy.	To obtain
9. Provide written confirmation that the organisation's data security policy is fully implemented, complies with BS7799 The Code of Practice for Information Security Management, and will be adhered to in relation to all HES data.	To obtain
10. Provide details of Data Protection Registration (to confirm that the organisation is registered for retention and analysis of the data requested).	To obtain.
11. Describe any previous applications(s) to	None

use or access HES data: e.g. data of application, name of application, title.	
12. Describe the method of data destruction you will employ when you have completed your work using the HES data (see 1.3, page 5).	

APPENDIX C *continued*

13. Describe the physical security arrangements for the location where the information is to be: a. processed; and b. stored (if these are different)	The data will be held on a workstation in a lockable room occupied by Professor Baker. The room is on the first floor of a building at Leicester General Hospital, in a section that is locked outside working hours and subject to security patrols.
14. Identify the type of system and application to be used for information processing including version numbers where known e.g. Desktop PC, Laptop PC, MS Access database etc	Details to be completed
15. Confirm if the computer system will be connected to a LAN or WAN network, or be otherwise accessible remotely by another means such as a dial-up modem. If so, please confirm which networks these are and what they are used for.	
16. Confirm that there will be appropriate security access and/or firewall controls implemented on: a. this system; and b. any LAN or WAN to which it is connected Please attach a description of all appropriate safeguards and how they have been implemented.	
17. Confirm that the information will not be shared with other organisations, or if information sharing is envisaged a full description of the proposed arrangement and intended security measures must be provided.	
18. Is there a system level security policy for this system? If yes, please supply a reference copy.	
19. Has the system ever been the subject of a security risk review? If so (a) when was this and (b) have all necessary recommendations	

been implemented.	
20. Confirm that there are arrangements implemented to routinely monitor and audit access to this system for potential misuse or abuse.	

APPENDIX C *continued*

21. Please provide details of Caldicott Guardian (or equivalent).	Name: Status/position: Address: (if different to Data Custodian) Tel: Fax: Email:
22. Please provide the name and contact details of your organisation's IT Security Officer (i.e. the member of staff with specific responsibility for information security and the resolution of any security breaches). Please ask the IT Security Officer to sign to confirm that arrangements have been inspected and are fit for purpose.	Name: Status/position: Address: (if different to Data Custodian) Tel: Fax: Email: Signature: Date:

If any of the answers above are incomplete or if further reviews/improvements are planned then these should be identified along with target dates for completion.

APPENDIX D

HES DATA SECURITY FORM – Third Party

For completion by a third party only

(Please either type or write in black ink, as this form will be photocopied)

1. Name(s) of the organisation and address. Please state whether NHS, Academic, Commercial or other.	Organisation: Address:
2. a. Describe what other (person identifiable) data are held by the organisation, which might interact with the data requested to allow person identification. b. Will you be linking these data with that of HES data? If so, for what purpose?	
3. Please provide a copy of the organisation's data security policy.	
4. Provide written confirmation that the organisation's data security policy is fully implemented, complies with BS7799 The Code of Practice for Information Security Management, and will be adhered to in relation to all HES data.	
5. Provide details of Data Protection Registration (to confirm that the organisation is registered for retention and analysis of the data requested).	
6. Describe the method of data destruction you will employ when you have completed your work using the HES data (see 1.3, page 5).	
7. Describe the physical security arrangements for the location where the information is to be: a. processed; and	

b. stored (if these are different)	
8. Identify the type of system and application to be used for information processing including version numbers where known e.g. Desktop PC, Laptop PC, MS Access database etc	

APPENDIX D *continued*

9. Confirm if the computer system will be connected to a LAN or WAN network, or be otherwise accessible remotely by another means such as a dial-up modem. If so, please confirm which networks these are and what they are used for.	
10. Confirm if the computer system will be connected to a LAN or WAN network, or be otherwise accessible remotely by another means such as a dial-up modem. If so, please confirm which networks these are and what they are used for.	
11. Confirm that there will be appropriate security access and/or firewall controls implemented on: a. this system; and b. any LAN or WAN to which it is connected Please attach a description of all appropriate safeguards and how they have been implemented.	
12. Confirm that the information will not be shared with another organisation that is not explicit party to this agreement.	
13. Is there a system level security policy for this system? If yes, please supply a reference copy.	
14. Has the system ever been the subject of a security risk review? If so (a) when was this and (b) have all necessary recommendations been implemented.	
15. Confirm that there are arrangements implemented to routinely monitor and audit access to this system for potential misuse or abuse.	
16. Please provide the name and contact details of your organisation's IT Security Officer (i.e. the member of staff with specific responsibility for information security and the	Name: Status/position: Tel:

<p>resolution of any security breaches).</p> <p>Please ask the IT Security Officer to sign to confirm that arrangements have been inspected, fit for purpose and is compatible with NHS standards.</p>	<p>Fax:</p> <p>Email:</p> <p>Signature:</p> <p>Date:</p>
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If any of the answers above are incomplete or if further reviews/improvements are planned then these should be identified along with target dates for completion.

CHECKLIST

Please provide a copy of **Appendixes** with any additional relevant information. (**two copies** of each if sensitive data item(s) is chosen). Before sending off the pack please check that you have:

- 1.0 Completed **Appendix A**
- 2.0 Completed **Appendix B**
 - ◆ Contains **restricted field(s)**? If **yes** continue:
- 3.0 Completed **Appendix C**
 - 3.1 Provided justification for the use of the **restricted data** (see box 1)
 - 3.2 Enclosed a copy of the **organisation's security policy** (see box 8)
 - 3.3 Enclosed details of **Data Protection Registration** (see box 10)
 - 3.4 Obtained the **endorsement of local IT Security Officer** (see box 22)
- ◆ **A Third Party** involved? If **yes** continue:
- 4.0 Ensured completion of **Appendix D**
 - 4.1 Enclosed a copy of the **organisation's security policy** (see box 3)
 - 4.2 Enclosed details of **Data Protection Registration** (see box 5)
 - 4.3 Obtained the **endorsement of local IT Security Officer** (see box 16)

Please note that providing the above information in full will help us to process your application promptly.



Dear Customer,

Your Comments

We hope our instructions helped you to specify your extract quite easily. In order to help us tailor the pack towards your needs we would appreciate your comments on the questions below.

Your comments will be treated confidentially.

1. If you would like to be kept updated with HES (i.e. be sent latest Extract Pack, news on fields) then please provide below e-mail address that you would like the information to be sent to.

2. Please state below areas that you feel could be improved or state any other information that you feel should be included in the pack.

Please e-mail back to:

Code A

Thank you