Hospital Inpatient System

The Hospital Inpatient System (HIS) provides information on admitted patient care delivered by Health and Social Care Hospitals in Northern Ireland. This is used to provide wide ranging analysis for the Health and Social Care Boards, Government and many other organisations and individuals who have an interest in health and healthcare administration.

Background

The HIS is a patient level administrative data source and each record relates to an individual consultant episode. During a single hospital admission a patient may be transferred from the care of one consultant to another generating an additional consultant episode, thus episode based data is not equivalent to admission based data as each admission may be made up of one or more consultant episodes.

The HIS records information on patients admitted to acute hospitals as inpatients or day cases. It does not hold information on patients attending hospital as outpatients or who attended an Accident and Emergency Department and were not admitted, nor does it hold details of patients admitted under any psychiatric or mental health specialties. Also, the Hospital Inpatient System does not hold details of patients treated in the Primary Care setting.

Please note that HIS data relates to all episodes within the Acute Programme of Care (PoC 1). Activity recorded under Maternity & Child Health, Elderly Care, Mental Health and Learning Disability (PoC 2, 4, 5 & 6) is excluded. Additionally from 2008/09 Independent Sector activity carried out within HSC Hospitals is excluded.

The information can be used to answer a wide range of questions about topics such as:

- Diagnoses
- Operations (including day case surgery)
- HSC Trusts
- Length of stay
- Waiting time
- Admission method
- Patients’ age and gender

Making the Data Available

HIS collects over half a million records each year, but because these relate to individual admitted patients, it is not possible to allow direct access to them. However, many questions can be answered by summarising the data. For example, "How many coronary artery bypass grafts were performed in Northern Ireland Health Service Hospitals last year; what was the average number of days spent in hospital?"

As the data is of general interest, HIS publishes tables that can be downloaded free of charge from this site. For data breakdowns beyond the scope of the tables available, or if you require data presented in a different format, please contact us at the following email address: statistics@dhsspsni.gov.uk
Please exercise care when comparing HIS figures for different years as fluctuations in the data can occur for a number of reasons e.g. organisational changes, reviews of best practice within the medical community, the adoption of new coding schemes and data quality problems that are often year specific. These variations can lead to false assumptions about trends. We advise users of time series data to carefully explore the relevant issues before drawing any conclusions about the reasons for year-on-year changes.

**Data Tables**

Details of all the data tables that are currently freely available from this website are given below:-

**Acute Programme of Care Headline Figures**
This table gives overview totals for the year, broken down by admission type (emergency, planned etc.) and age bands. It also gives information about the more commonly recorded diagnoses and procedures/interventions.

**Acute Programme of Care Primary Diagnosis Summary**
The primary diagnosis, recorded using ICD-10, is the main condition treated or investigating during the episode of care. This table groups together broadly associated diagnosis codes into chapters and blocks. The codes in each chapter/block are at a 3-character level that consists of a letter followed by two numbers, such as A00, and are accompanied by a complete description of the diagnosis group.

Please note that the same diagnosis will be included in two groupings: in the chapter and then in the sub-chapter groupings known as blocks. For example, ICD-10 code ‘A00 – Cholera’ appears within the chapter grouping ‘I – Certain infectious and parasitic diseases (A00-B99)’ and in the block ‘A00-A09 – Intestinal infectious diseases’.

**Acute Programme of Care Total Operations Summary**
Each episode has 4 procedure and intervention fields. The main procedure or intervention need not be the first, e.g. where major surgery is preceded by a biopsy, but it should be the one that is the most resource intensive. Procedures and interventions are recorded using OPCS-4. During 2006-07, the version of OPCS used to record procedures and interventions in HIS changed from OPCS-4.2 to OPCS-4.3. Further revisions were made in 2007-08 with the introduction of version 4.4 and again in 2009/10 bringing us up to version 4.5. All codes that were in OPCS-4.2, 4.3 & 4.4 remain in OPCS-4.5, new codes were added to reflect changing clinical practice.

The total operations table provides an aggregate summary of codes from all the procedure and intervention fields including the main procedure or intervention. The codes are grouped together into chapters and blocks in line with the chapter summary of OPCS-4.5. The codes in each chapter/block are at a 3-character level that consists of a letter followed by two numbers, such as A12, and are accompanied by a complete description of the operation group.

Please note that the same procedure and interventions will be included in two groupings: in the chapter and then in the sub-chapter groupings known as blocks. For example, OPCS-4.5 code ‘A02 – Excision of lesion of tissue of brain’ appears within the chapter grouping ‘A – Nervous System (A01-A84)’ and in the block ‘A1 – Tissue of brain (A01-A10)’.
Acute Programme of Care Healthcare Resource Groups (HRGs)
The HRG table contains data and descriptions relating to episodes grouped according to HRG version 3.5 (and HRG version 4 from 2006-07). The following abbreviations are used in this table:

- AMI Acute Myocardial Infarction
- cc Complications and Comorbidities
- CNS Central Nervous System
- ENT Ear, Nose and Throat
- IBD Inflammatory Bowel Disease
- TBSA Total Body Surface Area
- w With
- w/o Without
- <18 Patient under 18 years (example).

Acute Programme of Care Specialty Summary
Specialty reflects the specialty of the consultant with prime responsibility for the patient. The specialties, recognised by the Royal Colleges and Faculties, reflect broad ranges of skills and expertise, and provide a quick summary of areas of treatment. The specialty codes consist of three numbers, and are followed by a description.

Note: Due to reasons of confidentiality, some small numbers (1 – 5) in the tables detailed above have been suppressed and replaced with an asterisk (*). Where it was possible to identify suppressed numbers from the total or subtotal, this has been recalculated excluding the suppressed figure in order to protect patient confidentiality. This is in line with Hospital Information Branch Policy.

Table Column Definitions
This section contains descriptions of the column headers found in the data tables that are currently freely available from this website.

HIS records describe episodes (periods) of continuous admitted patient care under the same consultant. In cases where responsibility for a patient’s care is transferred to a second, or subsequent, consultant there will be two or more HIS records relating to the patient’s stay (spell) in hospital. This explains why the total number of Finished Consultant Episodes shown in each table is higher than the total number of admissions. The prefix ‘Finished’ indicates that only those episodes that ended during or before the final day of each financial year (31st March) are included in the figures provided for that year. However, episodes that began in a previous year (i.e. prior to 1st April) and ended in the year under consideration are included.

General Columns
You can find the general columns listed below in all the tables, except the total operations summary table.

Finished Episodes
A count of the number of episodes of continuous admitted patient care that ended in the financial year under consideration.
Admissions
The number of deaths and discharges has been used to approximate admissions. The figures quoted represent the percentage of finished episodes that were the last episode in a patient’s stay (spell) in hospital. This included patients who were admitted in previous years. All ‘discharge episodes’ also carry information on the date of admission, the method of admissions and the source of admission as where the spell consists of more than one episode the information relating to the admission is carried forward.

Male
The percentage of finished episodes for male patients.

Emergency
The percentage of discharge episodes with an emergency admission method.

Waiting List
The percentage of discharge episodes with an elective admission method indicating that the admission was from a waiting list. Planned admissions are not included.

Episode Duration
The mean (average) and median (middle in ranking) of the duration of inpatient episodes in days.

Age 0-14
The percentage of episodes relating to patients who were up to 14 years of age (inclusive) when the episode began.

Age 15-59
The percentage of episodes relating to patients who were between the ages of 15 and 59 years (inclusive) when the episode began.

Age 60-74
The percentage of episodes relating to patients who were between the ages of 60 and 74 years (inclusive) when the episode began.

Age 75+
The percentage of episodes relating to patients who were 75 years of age or older when the episode began.

Day Cases
The count of episodes relating to day cases. Day cases are elective inpatients who have been admitted for treatment just for the day. They are therefore always single episode spells with a duration of zero days. The intention is for treatment to be concluded in one day. If, unexpectedly, the patient is kept overnight, it must be re-classified as an ordinary admission.

% Day Cases
The percentage of elective episodes that relate to day cases.

Bed Days
The sum of all the days that inpatients in the group occupied beds during an episode which ended during the financial year under consideration.
**Total Operations Summary Table**

The total operations table does not contain the columns Finished Episodes, Admissions, Emergency, Waiting List, Episode Duration or Bed Days but does have the following additional columns:

**All Operations**
An episode will be counted if any of the procedures or interventions recorded falls within the group. If a procedure or intervention is repeated within an episode, the episode will be counted as many times as the procedure or intervention occurs.

**Main Operations**
The number of episodes in which the main procedure and intervention code was recorded. There are 4 procedure fields in the Hospital Inpatient System; the first field is expected to contain the code for the main procedure or intervention, which is usually the most resource intensive.

**% Main Operations**
The percentage of all operations in the group that were the main procedure or intervention recorded for the episode.