Eurostat – Hospital patients

Main surgical operations and procedures performed in hospitals (by ICD-9-CM)

Data should cover all medical procedures covered by ICD-9-CM. Data refer to procedures performed in hospitals (HP.1), either on in-patients or on day cases. Only the main procedure performed on a patient during a hospital stay or day case treatment should normally be reported.

The data refer to all procedures performed during the year (unless otherwise indicated).

Country specific notes

Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom, Croatia, former Yugoslav Republic of Macedonia, Turkey, Iceland, Norway, Switzerland.

Belgium


Notes updated: 2008

Bulgaria

Source: National Centre for Health Information at the Ministry of Health.

Notes updated: 2008

Czech Republic

No data available.

Notes updated: 2008

Denmark

Source: The National Patient Register.

The mapping method used to generate the data is text based. Haemodialysis is not classified as an operation in the Danish classification system, but as a treatment. Due to this classification and because it would disturb the number of total operations, haemodialysis is left out in the data.

Notes updated: 2008

Germany

Number of procedures – all operations: number of in-patients in hospitals undergoing surgical procedures and stay over at least one night. Included are cases of death, excluded are day cases. It is the number of all procedures according to OPS-301. This includes e.g. diagnostic procedures as well.

Number of procedures – caesarean sections: number of deliveries with caesarean section in hospitals.

Notes updated: 2008

**Estonia**

Source: National Institute for Health Development, Department of Health Statistics, annual reporting provided by all health care services providers.

Data are from annual reports of all public and private health care providers. All providers are covered, only military forces excluded.

Since 2005 all day care procedures performed at hospitals are included in the table (and day care provided by hospitals' out-patient clinics included as well)

Day care data show some fluctuation over the time because of adjustments made by health care providers defining (and separating) day care cases from other outpatient cases.

Operations are registered by main procedure, but under operations all endoscopic procedures (not persons) are registered.

Ultrasound, angiography, computerised tomography procedures (not persons) are registered. 2003 classification of surgical procedures has been changed, NCSP is used since 2003. Old classification was less detailed. Main differences are listed below.

1997-2002 backbone traumas are included into operations of nervous system.
1997-2002 does not include endoscopies and minor surgical procedures (like lumbar puncture for removal of dye, control of epistaxis by anterior nasal packing, rhinoscopy).
1997-2004 day surgery does not include endoscopies, diagnostic ultrasound, contrast arteriography and angiography.
1997-2004 computerised axial tomography is excluded due to lack of data to distinguish the type of care (whether procedure was carried out as in-patient, out-patient or as day care procedure)

Notes updated: 2008

**Ireland**

Source: Hospital In-patient Enquiry (HIPE) data set, which records data on discharges from all publicly funded acute hospitals.

HIPE data cover all in-patients and day cases receiving curative and rehabilitative care in publicly funded acute hospitals in the State, and does not include private hospitals. It is estimated that 10% of all hospital activity in Ireland is undertaken in private hospitals.

A day case is defined as a patient who is formally admitted with the intention of discharging the patient on the same day, and where the patient is in fact discharged as scheduled (i.e. excluding deaths and emergency transfers) on the same day. Patients who are admitted or discharged as emergencies on the same day are considered in-patients.

Data for 1995 to 2004 were classified using ICD-9-CM. All HIPE discharges from 2005 are now coded using ICD-10-AM (The Australian Modification of ICD-10 incorporating the Australian Classification of Health Interventions).

From 2006 the HIPE system includes data on daycase patients admitted for dialysis in dedicated dialysis units. These episodes were previously excluded from HIPE. This has resulted in a substantial increase in the number of daycase procedures in the Operations on the
Cardiovascular System and Haemodialysis categories. Note also that in 2006, batch coding was introduced to facilitate more complete coding of radiotherapy. This has resulted in an increase in the number of daycases in the Miscellaneous Diagnostic & Therapeutic Procedures category.

The introduction of ICD-10-AM coding in Ireland in 2005 and the adoption of the Australian Coding Standards (ACS) has resulted in significant changes in the coding practices for procedures. This means that for certain categories of procedures comparison with previous years is not possible. In particular, the Australian Coding Standard 0042 'Procedures normally not coded' has resulted in a large decrease in the total number of procedures recorded, and significant differences within some categories. This standard advises that "certain procedures should not be coded as they are usually routine in nature, performed for most patients and / or can occur multiple times during an episode. Most importantly, the resources used to perform these procedures are often reflected in the diagnosis or in an associated procedures." This coding standard has, in particular, resulted in a significant decrease in the numbers of cardiovascular procedures, obstetric procedures and miscellaneous diagnostic and therapeutic procedures.

Notes updated: 2008

Greece
No methodological notes available.
Notes updated: 2006

Spain
Source: Ministry of Health. National Discharge Database.
The source is valid for all reference years for in-patients and for 2004 and 2005 for day cases. 1997-2003 day cases reported by the Autonomous Communities (Regional Health Services). National database covers general public hospitals (75-80% of total discharges). Long term and psychiatric hospitals are excluded. Partial coverage in day cases (90% in 2004 and 94% in 2005, of total procedures performed in public hospitals).
Notes updated: 2008

France
No data available
Notes updated: 2008

Italy
Source: Ministry of Labour, Health and Social Policies - D.G. of Health Information System (former Ministry of Health); Office of Statistics.
Till 2002 the main procedure performed during a hospital stay is reported only for discharges from acute wards. Since 2003 also discharges from not acute wards are considered. Figures from 2003 are counted on the base of the last procedures list.
Notes updated: 2008

Cyprus
Source: Statistical Service of Cyprus – Public sector administrative sources.
Data on surgical operations on in-patients are based on reported cases only and not on total numbers as obtained from public sector hospital sources.
Surgical procedure: Any therapeutic or major diagnostic procedure which involves the use of instruments or the manipulation of part of the body and generally takes place under operating theatre conditions.

**Notes updated:** 2008

**Latvia**

Source: Health Statistics and Medical Technologies State Agency; Statistical Report No.14 "Report about Hospital's Activities" and Statistical Report No.49 "Report about Radiological Work".

The data about number of operations on the ear and operations on the nose, mouth and pharynx in the existing data sources are united. It is impossible to give two separate values. Since 2005 it is not possible to give two separate values for operations on the urinary system and operations on the male genital organs due to changes in data source.

**Notes updated:** 2007

**Lithuania**

Source: Lithuanian Health Information Centre, data of annual summary reports and Compulsory Health Insurance Database (for day surgery).

Up to 2001 as day cases were not separated, in-patient operations included also small number of day surgery.

From 2001 the number of procedures for day cases patients (admitted and discharged to home at the same day) is calculated from Compulsory Health Insurance database.

**Notes updated:** 2008

**Luxembourg**

Source: Inspection Générale de la Sécurité Sociale, fichiers (PEN 2) de la sécurité sociale.

Procedures based on national classification system (the 'nomenclature des actes des médecins' used for the refunding of services). Attempt made to come as close possible to procedures in ICD-9-CM.

Data refer only to the resident population covered by the general health care and maternity insurance scheme.

**Notes updated:** 2008

**Hungary**

Source: National Institute for Strategic Health Research (ESKI). The data are calculated from the itemised data of the in-patient care finance report submitted by the National Health Insurance Fund.

The figures refer to numbers of department cases at which an intervention belonging to the given medical intervention group have been reported as the main intervention, and which department cases belong to hospital services not considered to be day cases.

Number of procedures: day surgery: under this item are reported the number of department cases at which an intervention belonging to the given medical intervention group had been reported as the main intervention, and which department cases belong to hospital services, which are considered to be day-cases.

Day case is considered a hospital case where the date of admission and the date of discharge are identical, and during the hospital stay, a medical intervention was performed that appears on the list of allowed day case interventions. Patients who passed away on the day of admission are always counted among in-patient cases.

**Notes updated:** 2008
Malta
Source: Surgical Operations Register, Mater Dei Hospital/St. Luke's Hospital - Operations carried out at Operating Theatres, Endoscopy and Catheterisation Lab. Theatre only; Gozo General Hospital, Hospital Activity Database - Only procedures recorded in the database are counted.
Data on surgical procedures subdivided by the numbers of procedures performed on in-patients and procedures performed on day cases are not available. Only data on total procedures performed (in-patients and day cases together) are available in Malta. Supplied figures refer to procedures performed in State acute hospitals only.
Notes updated: 2008

Netherlands
Source: Hospital Discharge Register (LMR "Landelijke Medische Registatie", National Medical Registry).
The operations in the Hospital Discharge Register are not coded in ICD-9 CM, but with "Classificatie van verrichtingen". This Dutch version is based on, but not identical to ICD-9-CM. Inclusion and exclusion of certain operations in the categories therefore differ. The figures represent main procedures and/or main operations: Main procedure is the (medical) procedure that at the moment of discharge of the patient is considered the most important procedure of that hospital stay. If a patient was transferred from one specialist to another, the main procedure is determined by the discharging specialist who chooses the primary procedure. Other (surgical) operations done to an in-patient during the hospital stay are not included in the figures.
Notes updated: 2008

Austria
No data available.
Notes updated: 2008

Poland
Source: The National Institute of Hygiene.
Estimations for general hospitals have been made by the National Institute of Hygiene.
Notes updated: 2008

Portugal
Source: Direcção-Geral da Saúde - Health Ministry. The information is taken from the "Diagnosis related groups" database.
Data come from hospitals of the National Health Service.
Notes updated: 2006

Romania
Source: Ministry of Public Health.
From 2005, the procedures are coded using the Australian International Procedures Classification, which is more detailed than the classification used in the past.
The data concerning procedures using in hospitals cover only the hospitals from the Ministry of Public Health network (public sector).
Notes updated: 2008
Slovenia
No methodological notes available.
Notes updated: 2008

Slovakia
Source: National Health Information Centre.
Notes updated: 2008

Finland
Source: National Research and Development Centre for Welfare and Health (STAKES), Hospital Discharge Register.
Operations of the cardiovascular system have increased since the year 2000. Before the statistical year 2000 only the NOMESKO classification of the procedures were used. Since the year 2000 the data have been analyzed according to both the NOMESKO classification of the procedures and the form of so called demanding heart patient attached as a part of Hospital Discharge Register data collection.
Notes updated: 2008

Sweden
Source: National Board of Health and Welfare, Centre of Epidemiology.
Only procedures used in hospitals in-patient care included.
Notes updated: 2008

United Kingdom
Source: England: The Information Centre for Health and Social Care (Hospital Episode Statistics database); Wales: National Assembly for Wales (Patient Episode Database); Scotland: Information Services, National Health Service Scotland (SMR01, SMR02 and SMR04 records); Northern Ireland: Department of Health, Social Services and Public Safety, (Hospital Inpatients database).
Reference period: Data for England, Wales and Northern Ireland are for calendar years (1st Jan to 31st Dec). Dates derived by using discharge episode end date. Data for Scotland are for financial years (1st April to 31st March). Data for e.g. financial year 1999/00 are presented for 1999.
Data cover National Health Service hospital activity only, i.e. activity in private hospitals is not included.
For England, Wales and Northern Ireland each inpatient record in the database relates to a Finished Consultant Episode (FCE) (a period of admitted patient care under one consultant within one healthcare provider), so a single stay in hospital may comprise more than one episode. The discharge episode is the last episode during a hospital stay, where the patient is discharged from hospital (this includes transfer to another hospital). Data for England, Wales and Northern Ireland are based on counts of discharge episodes. For Scotland, each inpatient record relates to an episode of care initiated by hospital admission and ended by discharge from hospital, and data for Scotland are based on counts of episodes of care.
Procedures are coded using the Office of Population Censuses and Surveys Classification of Surgical Operations and Procedures (fourth revision) (OPCS4). OPCS4 codes were mapped to the specified procedure groups. OPCS4 coding did not enable computerised axial tomography, diagnostic ultrasound or respiratory therapy to be coded, so data have not been entered for these. Furthermore, some OPCS4 categories fall into more than one ICD category. This explains the sum of each chapter being higher than the total.
Data represent a count of all inpatient records where the procedure was mentioned in any of the operation fields in a record. (So where more than one operation appears in a record, that record is counted under each of the operation groups that it contains - but an operation appearing more than once in a record only contributes one to the count). Note that the number of operation fields in a record varies between the four UK inpatient databases.

Day cases are all cases that had a length of stay of 0 days.
In-patient cases are all cases that had a length of stay of one or more days.
Number of hospital days is calculated by aggregating length of stay for each case. Length of stay is the difference in days between the admission date and the discharge date, where both are given.

There may be some double-counting in Scotland data for the categories 'Obstetrical Procedures' and 'Caesarean Sections', as data for these categories combine records from 2 databases that may have some overlapping records.
Northern Ireland data exclude mental health inpatients due to data quality issues.
Data include records with sex and age not specified or not known.
Data are 'ungrossed' (i.e. they have not been adjusted for shortfalls).

Notes updated: 2007

Croatia
No data available.
Notes updated: 2007

former Yugoslav Republic of Macedonia
No data available.
Notes updated: 2008

Turkey
No data available.
Notes updated: 2007

Iceland
Source: Directorate of Health in Iceland, Hospital Database.
All main procedures performed in hospitals, both day cases and in-patients.
Notes updated: 2008

Norway
No data available.
Notes updated: 2008

Switzerland
Source: Office fédéral de la statistiques: Statistique médicale des hôpitaux (Relevés annuels).
The medical statistic of Switzerland in its present form was started in 1998. Results can be considered as dependable from 2002 on.
The coding quality is increasing, the best results being reached in acute care hospitals where patient classification systems are used for financing.
All inpatients and day-cases are provided. However, the definition of “day-case” is subject to local interpretation within each canton and induces some uncertainty within these cases.
Seul le traitement principal, codé selon la classification CHOP, est utilisé dans ce tableau.
Seuls les cas présentant un type de prise en charge qui équivaut à l'hospitalisation ont été pris en charge.
Les patients entrés en cours d'année, mais dont le traitement se poursuit au-delà du 31 décembre ne sont pas dénombrés dans ces tableaux.

Notes updated: 2008