



Hospital Episode Statistics (HES) Admitted Patient Care (APC) Data Dictionary (set 18)

Version 2.3

Date: 09 December 2019

Documentation Control Sheet

Over time, it may be necessary to issue amendments or clarifications to parts of this document. This form must be updated whenever changes are made.

Version	Affected Areas Summary of Change	Prepared By	Reviewed By
1.0	Initial		
1.1	Modified	Shivani Puri	Susan Eaton
1.2	Modified	Shivani Puri	Arlene Gallagher
1.3	Modified	Shivani Puri	Rachael Boggon
1.4	Modified	Tarita Murray-Thomas	Helen Strongman
1.5	Modified	Grant Lee	Tarita Murray-Thomas
1.6	Formatted	Grant Lee	Helen Strongman
1.7	Modified	Tarita Murray-Thomas	Shivani Padmanabhan
1.8	Modified	Tarita Murray-Thomas	Shivani Padmanabhan Helen Strongman
1.9	Modified	Tarita Murray-Thomas	Shivani Padmanabhan
1.10	Modified	Tarita Murray-Thomas	Dan Dedman
2.0	Modified and Formatted	Dan Dedman, Arlene Gallagher	
2.1	Modified	Dan Dedman	Tarita Murray-Thomas
2.2	Modified	Tarita Murray-Thomas	Arlene Gallagher
2.3	Modified	Dan Dedman	Tarita Murray-Thomas

Summary of changes

Version 1.1

- Refined wordings
- Added critical care data file (hes_ccare.txt)

Version 1.2

- Added new field (HESid) in source file
- Formatted all diagnosis ICD codes into XXX, or XXX.X format
- Added new field (ICDx) in diagnoses tables

Version 1.3

- Prefixed all files with HES_
- Removed source table – make use of linkage_eligibility.txt to define cohort of linked patients
- Removed birthyear and gender fields from patient file (hes_patient.txt)
- Added new fields (gen_hesid, n_patid_hes) to patient file (hes_patient.txt)
- Removed primary field from diagnoses by episode table (hes_diagnosis_epi.txt)
- Added new field (d_order) in diagnoses by episode table (hes_diagnosis_epi.txt)
- Added new field (p_order) in procedures by episode table (hes_procedures_epi.txt)
- Added description for field (acpdqind) in ACP table (hes_acp.txt)

Version 1.4

- Updated for set 10
 - Added description of the 'match rank' variable now included in HES patients table (hes_patient.txt)
 - Added guidance relating to the variable 'admimeth' found in the hospitalisation (hes_hospital.txt) and episodes table (HES_episodes.txt)
 - Added description relating to handling of unfinished consultant episodes
 - Updated the variable 'ccaprel' to 'ccaprel' in the critical care table (hes_ccare.txt)
 - Added HES Health Resource Group (HRG) table (hes_hrg.txt)

Version 1.5

- Corrected 'Type' value for field 'admimeth' in hospitalisations and episodes tables

Version 1.6

- Formatted with new agency branding and updated document title
- Included version of HES on front page

Version 1.7

- Updated for set 11
 - Changed the variable order in the HES Patient table (hes_patient.txt)
 - Included the variable 'gen_ethnicity' in the HES Patient table (hes_patient.txt)
 - Included the variable 'ethnos' in the HES Episodes table (hes_episodes.txt)
 - Added a footnote to the HES augmented care period table (hes_acp.txt)
 - Added a footnote to the HES critical care table (hes_ccare.txt)

Version 1.8

- Updated for set 12
 - Added a footnote to the HES hospital table (hes_hospital.txt) about changes to 'duration'
 - Added a footnote to the HES episodes table (hes_episodes.txt) about changes to 'epidur'
 - Added a footnote to the HES augment care periods table (hes_acp.txt) about changes to the 'epidur' and 'acpdur' variables
 - Added a footnote to the HES maternity table (hes_maternity.txt) about changes to 'epidur'
 - Added a footnote to the HES primary diagnosis table (hes_primary_diag_hosp.txt) to clarify the reference to 'primary'

Version 1.9

- Updated for set 13
- Corrected misspelling of column name for spell number field in the HES procedures table

Version 1.10

- Updated for set 14

Version 2.0

- Updated for set 15
- Removed variable 'hrglate' from the Health Resource Group table (hes_hrg.txt). See HES APC Set 15 documentation for further details.

Version 2.1

- Updated for set 16
- Updated to include CPRD Aurum

Version 2.2

- Updated for set 17

Version 2.3

- Updated for set 18: version number, date and linkage set
- Updated information on n_patid_hes
- Updated NIHR logo
- Specified primary keys in each data table

- HES APC: Data Dictionary

1. Patient (hes_patient.txt)

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key]	INTEGER	20
pracid	Encrypted unique key given to a practice in CPRD GOLD or CPRD Aurum	INTEGER	5
gen_hesid ¹	A CPRD generated unique key assigned to a patient across all CPRD linked HES datasets within a linkage set. An individual that has contributed data to more than one CPRD practice has the same gen_hesid but this may change between linkage sets	INTEGER	20
n_patid_hes ¹	Number of individuals in CPRD GOLD or CPRD Aurum assigned the same gen_hesid. Linked HES data for patients where n_patid_hes is large (>20) may not be reliable. Users should consider excluding these patients from analysis.	INTEGER	3
gen_ethnicity ¹	Ethnicity derived from across HES data (including Admitted patient care, Outpatient, A&E, PROMs and DID)	CHAR	10
match_rank ²	Indicates the quality of matching between a record in HES and CPRD primary care data and gives the level of confidence that an HES record has been correctly matched to a patient in CPRD GOLD or CPRD Aurum.	INTEGER	1

¹ Variable generated by CPRD.

² An eight-step process is used to match patients in CPRD primary care data (CPRD GOLD or CPRD Aurum) and HES using some or all of the following: NHS number, date of birth, sex and postcode. Only data for patients matched using steps 1-5 has been provided. This variable was first available with HES Set 10.

2. Hospitalisations (hes_hospital.txt)

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with spno]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation [primary key, in combination with patid]	INTEGER	20
admidate	Date of admission	DATE	dd/mm/yyyy
discharged	Date of discharge	DATE	dd/mm/yyyy
admimeth ³	Method of admission	CHAR	5
admisorc	Source of admission	INTEGER	3
disdest	Destination on discharge	INTEGER	3
dismeth	Method of discharge	INTEGER	1
duration ⁴	Duration of hospitalisation spell in days	INTEGER	5
elecdate	Date of decision to admit patient	DATE	dd/mm/yyyy
elecdu	Waiting time (difference in days between elecdate and admidate)	INTEGER	5

³ From April 2013, National Codes 2A, 2B, 2C and 2D have been introduced to replace National Code 28 'Other means'. Records containing these codes prior to April 2013 will U group and will consequently not attract tariff. Further information on the attributes of HES variables including 'admimeth' can be found here http://www.datadictionary.nhs.uk/items_index_a_child.asp?shownav=1

⁴ Values of the 'duration' variable are now provided as generated by HES. These were previously recalculated by the CPRD by incrementing the original values by 1.

3. Episodes (hes_episodes.txt)

Column name	Description	Type	Format
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation	INTEGER	20
epikey ⁵	Episode key uniquely identifying an episode of care [primary key, in combination with patid]	INTEGER	20
admidate	Date of admission	DATE	dd/mm/yyyy
epistart	Date of start of episode	DATE	dd/mm/yyyy
epiend	Date of end of episode	DATE	dd/mm/yyyy
discharged	Date of discharge	DATE	dd/mm/yyyy
eorder	Order of episode within spell	INTEGER	3
epidur ⁶	Duration of episode in days	INTEGER	5
epitype	Type of episode (general, delivery, birth, psychiatric etc.)	INTEGER	1
admimeth3	Method of admission	CHAR	2
admisorc	Source of admission	INTEGER	2
disdest	Destination on discharge	INTEGER	2
dismeth	Method of discharge	INTEGER	1
mainspef	Speciality under which consultant is contracted	CHAR	3
tretspef	Speciality under which consultant is working in period of care	CHAR	3
pconsult	Consultant code (pseudonymised)	CHAR	16
intmanig	Intended management	INTEGER	1
classpat	Patient classification: (Actual Management) 1=Ordinary admission; 2=Day case admission; 3=Regular day attendee; 4=Regular night attendee; 5=Mothers and babies using only delivery facilities; 8=Not applicable (other maternity event)	INTEGER	1
firstreg	First regular day or night admission?	CHAR	2
ethnos	Patient ethnicity as recorded with the HES Admitted Patient Care episode	CHAR	10

³ From April 2013, National Codes 2A, 2B, 2C and 2D have been introduced to replace National Code 28 'Other means'. Records containing these codes prior to April 2013 will U group and will consequently not attract tariff. Further information on the attributes of HES variables including 'admimeth' can be found here http://www.datadictionary.nhs.uk/items_index_a_child.asp?shownav=1

⁵ Only finished consultant episodes occurring within the financial year (up to midnight on 31Mar) are included. Patients with an unfinished consultant episode in the current financial year will have their record represented as a finished episode in the next financial year of HES data. The discharge date of patients with both finished and unfinished consultant episodes in the same spell in the financial year have been set to missing (.)

⁶ Values of the 'epidur' variable are now provided as generated by HES. These were previously recalculated by the CPRD by incrementing the original values by 1.

4. Diagnoses

- **By episode (hes_diagnosis_epi.txt):** ICD10 codes across an episode

Column name	Description	Type	Format
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey & d_order]	INTEGER	20
spno	Number uniquely identifying a hospitalisation	INTEGER	20
epikey	Episode key uniquely identifying an episode of care [primary key, in combination with patid & d_order]	INTEGER	20
epistart	Start date of episode of care	DATE	dd/mm/yyyy
epiend	Date of end of episode	DATE	dd/mm/yyyy
ICD	An ICD10 diagnosis code in XXX or XXX.X format	CHAR	5
ICDx	5 th /6 th characters of the ICD code (if available)	CHAR	5
d_order	Ordering of diagnosis code in episode, within range 1-20 [primary key, in combination with patid & epikey]	INTEGER	2

- **By hospitalisation (hes_diagnosis_hosp.txt):** Unique ICD10 codes across a hospitalisation

Column name	Description	Type	Format
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with spno & ICD]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation [primary key, in combination with patid & ICD]	INTEGER	20
admidate	Date of admission	DATE	dd/mm/yyyy
discharged	Date of discharge	DATE	dd/mm/yyyy
ICD	An ICD10 diagnosis code in XXX or XXX.X format [primary key, in combination with patid & spno]	CHAR	5
ICDx	5 th /6 th characters of the ICD code (if available)	CHAR	5

- **Primary* diagnoses across a hospitalisation (hes_primary_diag_hosp.txt)**

Column name	Description	Type	Format
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with spno & ICD_PRIMARY]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation [primary key, in combination with patid & ICD_PRIMARY]	INTEGER	20
admidate	Date of admission	DATE	dd/mm/yyyy
discharged	Date of discharge	DATE	dd/mm/yyyy
ICD_PRIMARY	Primary ICD10 diagnosis code in XXX or XXX.X format [primary key, in combination with patid & spno]	CHAR	5
ICDx	5 th /6 th characters of the ICD code (if available)	CHAR	5

*The first diagnosis recorded during each episode of care in a spell

5. Procedures (hes_procedures_epi.txt)

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey & p_order]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation	INTEGER	20
epikey	Episode key uniquely identifying an episode of care [primary key, in combination with patid & p_order]	INTEGER	20
admidate	Date of admission	DATE	dd/mm/yyyy
epistart	Start date of episode of care	DATE	dd/mm/yyyy
epiend	Date of end of episode	DATE	dd/mm/yyyy
discharged	Date of discharge	DATE	dd/mm/yyyy
OPCS	An OPCS 4 procedure code	CHAR	4
evdate	Date of operation / procedure	DATE	dd/mm/yyyy
p_order	Ordering of OPCS code in episode, within range 1-24 [primary key, in combination with patid & epikey]	INTEGER	2

6. Augmented Care Periods – ACP (hes_acp.txt)

Data in these tables are collected from 01/10/1997 – 31/03/2006. Data continued to appear in HES until 31/03/2008. Please note that the coverage and quality of ACP data collected within HES across the entire period is uncertain. From 2008/2009 onward, augmented care period data was replaced by the critical care dataset.

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation	INTEGER	20
epikey	Episode key uniquely identifying an episode of care [primary key, in combination with patid]	INTEGER	20
epistart	Date of start of episode	DATE	dd/mm/yyyy
epiend	Date of end of episode	DATE	dd/mm/yyyy
eorder	Order of episode within spell	INTEGER	3
epidur	Duration of episode in days	INTEGER	5
numacp	Number of augmented care periods within episode	INTEGER	2
acpn	Order of an augmented care episode within a sequence of episodes that make up a period of augmented care	INTEGER	2
acpstar	Start date of a period of augmented care	DATE	dd/mm/yyyy
acpend	End date of a period of augmented care	DATE	dd/mm/yyyy
acpdur ⁷	Duration of augmented care period in days	INTEGER	8
intdays	Number of days of intensive care in a period of augmented care	INTEGER	5
depdays	Number of days of high dependency care in a period of augmented care	INTEGER	5
acploc	Location of a patient during a period of augmented care	INTEGER	2
acpsour	Location of patient immediately before the period of augmented care	INTEGER	2
acpdisp	Destination of a discharged patient after a period of augmented care	INTEGER	2
acpout	Augmented care period outcome indicator	INTEGER	2
acpplan	Flag for whether ACP was planned in advance of admission to ACP location	CHAR	1
acpspef	Code for main specialty of consultant clinically managing the ACP	CHAR	3
orgsup	Number of organ support systems used (up to five) during an ACP	INTEGER	2
acpdqind	Augmented Care Period Quality Indicator (G = Good, P = Poor, R = Real V = Very Good)	CHAR	1

⁷ Values of the 'acpdur' variable are now provided as generated by HES. These were previously recalculated by the CPRD by incrementing the original values by 1.

7. Critical Care (hes_ccare.txt)

Data in these tables are collected from 2008/2009 onward.

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation	INTEGER	20
epikey	Episode key uniquely identifying an episode of care [primary key, in combination with patid]	INTEGER	20
admidate	Date of admission	DATE	dd/mm/yyyy
discharged	Date of discharge	DATE	dd/mm/yyyy
epistart	Date of start of episode	DATE	dd/mm/yyyy
epiend	Date of end of episode	DATE	dd/mm/yyyy
eorder	Order of episode within spell	INTEGER	3
ccstartdate	Date on which the critical care period started	DATE	dd/mm/yyyy
ccstarttime	Time at which the critical care period started	CHAR	8
ccdisrdydate	Critical care discharge ready date	DATE	dd/mm/yyyy
ccdisrdytime	Critical care discharge ready time	CHAR	8
ccdisdate	Critical care discharge date	DATE	dd/mm/yyyy
ccdistime	Critical care discharge time	CHAR	8
ccadmitype	Critical care admission type	INTEGER	2
ccadmisorc	Critical care admission source	INTEGER	2
ccsorcloc	Specific location in the admission source	INTEGER	2
ccdisstat	Patient's status at time of discharge	INTEGER	2
ccdisdest	Critical care discharge destination	INTEGER	2
ccdisloc	Principle location the patient is being discharged to for further care	INTEGER	2
ccllev2days	Total calendar days during which level 2 care alone was provided during the period	INTEGER	5
ccllev3days	Total calendar days during which level 3 care was provided during the period	INTEGER	5
bcardsupdays	Number of days of basic cardiovascular support	INTEGER	5
acardsupdays	Number of days of advanced cardiovascular support	INTEGER	5
bressupdays	Number of days of basic respiratory support	INTEGER	5
aressupdays	Number of days of advanced respiratory support	INTEGER	5
gisupdays	Number of days of gastrointestinal support	INTEGER	5
liversupdays	Number of days of liver support	INTEGER	5
neurosupdays	Number of days of neurological support	INTEGER	5
rensupdays	Number of days of renal support	INTEGER	5
dermsupdays	Number of days of dermatological support	INTEGER	5
orgsupmax	Maximum number of organ systems supported at any one time, at any point in the critical care period	INTEGER	2
ccunitfun	Critical care unit function	INTEGER	2
unitbedconfig	Critical care unit bed configuration	INTEGER	2
bestmatch	Flag stating whether the row represents the best match between the critical care & episode start & end dates for this critical care period	INTEGER	2
ccapcrel	Comparison of dates of the critical care period and the associated inpatient episode. Used in derivation of the 'bestmatch' field	INTEGER	2

8. Maternity (hes_maternity.txt)

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation	INTEGER	20
epikey	Episode key uniquely identifying an episode of care [primary key, in combination with patid]	INTEGER	20
epistart	Date of start of episode	DATE	dd/mm/yyyy
epiend	Date of end of episode	DATE	dd/mm/yyyy
eorder	Order of episode within spell	INTEGER	3
epidur	Duration of episode in days	INTEGER	5
numbaby	Number of babies delivered at the end of a single pregnancy. Both live and stillborn babies are counted	CHAR	2
numtailb	Number of baby tails	INTEGER	1
matordr	Order of birth	INTEGER	1
neocare	Neonatal level of care	INTEGER	1
wellbaby	Well baby check flag - indicates whether the episode relates to a well-baby (a neonate receiving normal levels of care, usually given by a mother or mother substitute)	CHAR	1
anasdate	First antenatal assessment date	DATE	dd/mm/yyyy
birordr	The position in the sequence of births	CHAR	1
birstat	Indicates whether the baby was born alive or dead (still birth).	INTEGER	1
biresus	Identifies resuscitation method used to get the baby breathing	INTEGER	1
sexbaby	Sex of baby	CHAR	1
birweit	Weight of the baby in grams immediately after birth	INTEGER	4
delmeth	Method used to deliver a baby that is a registrable birth	CHAR	1
delonset	Method used to induce (initiate) labour, rather than to accelerate it	INTEGER	1
delinten	Intended type of delivery place	INTEGER	1
delplac	Actual type of delivery place	INTEGER	1
delchang	Reason for changing the delivery place type	INTEGER	1
delprean	Anaesthetic or analgesic administered before and during labour and delivery	INTEGER	1
delposan	Anaesthetic or analgesic administered after delivery	INTEGER	1
delstat	Status of the person conducting the delivery	INTEGER	1
anagest	Gestation period in weeks at the date of the first antenatal assessment (calculated from anasdate, gestat and dobbaby)	INTEGER	2
gestat	Length of gestation - number of completed weeks of gestation	INTEGER	2
numpreg	Number of previous pregnancies that resulted in a registered birth (live or still born)	INTEGER	2
matage	Mother's age at delivery	INTEGER	3
neodur	Baby's age in days	INTEGER	3
antedur	Antenatal days of stay	INTEGER	3
postdur	Postnatal days of stay	INTEGER	3

9. Health Resource Group (hes_hrg.txt)

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
patid	Encrypted unique key given to a patient in CPRD GOLD or CPRD Aurum [primary key, in combination with epikey]	INTEGER	20
spno	Spell number uniquely identifying a hospitalisation	INTEGER	20
epikey	Episode key uniquely identifying an episode of care [primary key, in combination with patid]	INTEGER	20
domproc	NHS Trust derived dominant procedure	CHAR	5
hrglate35	HRG version 3.5 derived by HES	CHAR	4
hrgnhs	NHS Trust derived HRG value	CHAR	4
hrgnhsvn	Version number of Trust derived HRG	CHAR	3
suscorehrg	SUS ^{8*} generated Core Spell HRG	CHAR	3-5
sushrg	SUS ⁸ generated HRG	CHAR	3-5
sushrgvers	SUS ⁸ generated HRG version number	NUMERIC	3
hes_yr ¹	Year of HES record	NUMERIC	4

*The first diagnosis recorded during each episode of care in a spell

¹ Variable generated by CPRD.

⁸ The Secondary Uses Service (SUS) supports the NHS and its partners by providing a single source of comprehensive data for 'secondary uses'; purposes other than primary clinical care.