Data Collection Manual

ICNARC Case Mix Programme

Version 3.1

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Contents

Data

Data are collected for all admissions to your unit regardless of age, severity of illness, reason for admission, length of stay etc. For example, data are collected for readmissions as for a new admission. Data are collected for the same time period for all admissions - there are no exclusions and no exceptions.

Data that are measured and/or recorded in any part of the permanent written or electronic patient record are acceptable, for example, data from charts, case notes or any medium that comprises the permanent patient record. This is based on the assumption that all clinically important information is documented. Such an assumption is the only realistic standardisation possible at this time.

In specifying and defining the dataset, judgements have had to be made. It is recognised that such judgements will not comply with all opinions. It should, be emphasised, however, that it is better to comply with rules and definitions which you deem incorrect than to substitute personal rules and/or definitions.

Missing data

If data are not available, are missing or measurements were not made, no value should be entered. It is not the aim of the Case Mix Programme to encourage unnecessary investigations and it is accepted that, for some fields (particularly biochemical and haematological ones), it may not be necessary to measure these for particular admissions.

Do not enter guesses or fabricated data. Where data are missing, these should be recorded as “NULL” and exported to ICNARC as blank fields. The value “0” must not be used to indicate missing numeric data. A value of “00:00:00” in any time field will be interpreted as NULL (we recommended that NULL times are exported as blanks in preference to “00:00:00”) – it is essential, therefore, that true midnight be exported as “00:00:01”

The first 24 hours in your unit

The first 24 hours in the unit commences at the time of admission to your unit, defined as the earliest documented time that an admission is physically in a bed in your unit, and ends precisely 24 hours later.

For patients admitted for pre-surgical preparation, the first 24 hours in your unit commences at the time of admission to your unit for pre-surgical preparation and ends precisely 24 hours later.

Time spent outside the unit during the first 24 hours, for example, while undergoing surgery, is counted when determining the first 24 hours in your unit.

Data recorded during the first 24 hours following admission to your unit but while the admission is outside the unit are valid only while the admission is managed by the unit team, for example, data collected during surgery after admission but within the first 24 hours are excluded.

In the event of a cardiac arrest during the first 24 hours in your unit, data are valid except during active internal or external cardiac massage.

In the event of a formal documented decision to withdraw all active treatment, data are valid up to the time when treatment was first withdrawn, physiology data measured and recorded after this time should be disregarded.

In the event of brainstem death tests, data are valid up to and including the time of certification of brainstem death (the first set of tests), physiology data measured and recorded after this time should be disregarded.

In the event of death during the first 24 hours in your unit and, in the absence of either a formal documented decision to withdraw all active treatment or testing and certification of brainstem death, data are valid up to certification of death - agonal values are valid if charted.

ICNARC Coding Method

Where a required condition is not available or cannot be located in the ICNARC Coding Method, please complete as many tiers of the ICNARC Coding Method as possible (at least type, system and site) and describe the condition in the text field. These qualitative data, entered in the text field, are used to improve the ICNARC Coding Method over time.

Text

Field: Text

Number of data items: One
Units of measurement: None

Definition for collection:

- any additional information considered relevant to this admission
- text data entered in this field may provide extra information about data entered elsewhere for a specific field in the dataset or may provide extra information on the admission which is not collected as part of the dataset
- entry of data in the text field is not compulsory
- no identifiers (patient, nurse, doctor, unit, hospital) should be included in text data entered into this field
- information entered in the text field may derive from any time period during data collection
- space for comments is limited, please restrict comments to clarification of data entered, conditions not found in the ICNARC Coding Method and comments to facilitate data validation

Justification

Despite best intentions and endeavours, no dataset can be completely comprehensive and unequivocally objective, therefore Version 3.0 of the ICMPDS incorporates a field for free text. Information provided in this field will enable the dataset to be improved over time.

Actual date of delivery of recent pregnancy

Field: Actual date of delivery of recent pregnancy

Number of data items: One

Definition for collection:

- specifies the actual date of delivery of recent pregnancy
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Acute myelogenous/lymphocytic leukaemia or multiple myeloma

Field:	Acute myelogenous/lymphocytic leukaemia or multiple myeloma
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether admission has acute myelogenous leukaemia, acute lymphocytic leukaemia or multiple myeloma
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit

Justification

Weighted in the APACHE II model.

Admission currently/recently pregnant

Field:	Admission currently/recently pregnant
Number of data items:	One
Options:	**C**urrently pregnant **R**ecently pregnant **N**ot known to be pregnant

Definition for collection:

- specifies whether the admission is currently or recently or not pregnant at admission to your unit
- **C**urrently pregnant is defined as any woman who is pregnant (including following fertility treatment or in whom a positive pregnancy test indicates woman was pregnant) at time of admission to your unit even if test done after admission
- **R**ecently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit
- **N**ot known to be pregnant is defined as any woman who is not pregnant or not known to be pregnant and includes any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) greater than 42 days before the date of admission to your unit (i.e. not **R**ecently pregnant)
- admission to your unit is defined as the physical admission and recording of that admission to a bed in your unit

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Admission for pre-surgical preparation

Field:	Admission for pre-surgical preparation
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- admission to your unit for resuscitation, physiological optimisation or monitoring prior to surgery
- pre-surgical preparation is not pre-medication, washing, bowel preparation, shaving etc.

Justification

Provides important data for activity and future planning.

Admission number

Field: Admission number

Number of data items: One
Units of measurement: None

Definition for collection:

- unique number assigned to each admission to your unit
- value should be automatically generated by software application as each admission record is created
- admission to your unit is defined as the physical admission and the recording of that admission to a bed in your unit

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Justification

Provides a unique number for each admission to each unit participating in the Case Mix Programme.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data are required in England to provide standardised, core data on critical care episodes and interventions. These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

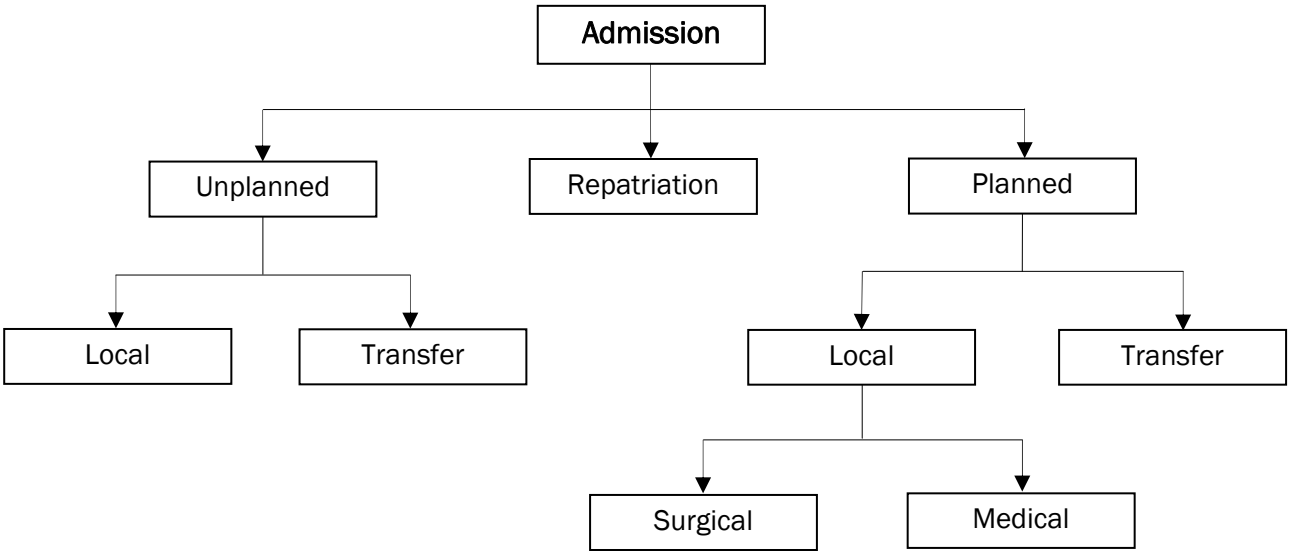
Admission type

Field:	Admission type
Number of data items:	One
Options:	unplanned **L**ocal admission **U**nplanned transfer in **P**lanned transfer in planned local **S**urgical admission planned local **M**edical admission **R**epatriation

Definition for collection:

- unplanned **L**ocal admission
  - unplanned is defined as an emergency or urgent admission to your unit only as a result of an unexpected acute illness
  - local is defined as from hospitals within the Trust together with neighbouring community units and services
- **U**nplanned transfer in
  - unplanned is defined as an emergency or urgent admission to your unit only as a result of an unexpected acute illness
  - transfer is defined as from outside the local area
- **P**lanned transfer in
  - planned is defined as a pre-arranged admission to your unit, after treatment or initial stabilisation but requiring specialist or higher-level critical care that cannot be provided at the source
  - transfer is defined as from another healthcare provider outside the local area including private and overseas healthcare providers
- planned local **S**urgical admission
  - planned is defined as a pre-arranged admission (acceptance by your unit must have occurred prior to start of surgery – specifically, the induction of anaesthesia)
  - local is defined as from hospitals within the Trust together with neighbouring community units and services
  - surgical is defined as either having had a major procedure or for a high risk medical condition associated with any level of surgery including pre-surgical optimisation prior to elective surgery and admissions for monitoring of pain control

- planned local **M**edical admission
    - planned is defined as a pre-arranged admission to your unit
    - local is defined as from hospitals within the Trust together with neighbouring community units and services
    - medical is defined as admission for a planned investigation or high risk medical treatment
- **R**epatriation is defined as a planned admission transferred to your unit from another location because the admission either originated from your unit or your hospital or your area (includes repatriation from a specialist unit in your hospital/Trust)
- The following decision algorithm may aid categorisation of admission type:



Justification

Provides important data for activity and future planning.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society. These data are required in England to provide standardised, core data on critical care episodes and interventions. The data support local, regional and national analysis, commissioning and Payment by Results (PbR).

Adult ICU/HDU within your critical care transfer group (in)

Field: Adult ICU/HDU within your critical care transfer group (in)

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether the adult ICU or combined ICU/HDU or HDU is part of your critical care transfer group
- a critical care transfer group is defined as the group, recommended by “Comprehensive Critical Care” and supported by “Quality Critical Care”, specified and developed to reduce the number of long distance transfers that take place and to ensure that transfers are contained within the critical care network or, by special agreement, between hospitals at the borders of adjacent networks

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Justification

Provides important information on transfers.

Adult ICU/HDU within your critical care transfer group (out)

Field: Adult ICU/HDU within your critical care transfer group (out)

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether the adult ICU or combined ICU/HDU or HDU is part of your critical care transfer group
- a critical care transfer group is defined as the group, recommended by “Comprehensive Critical Care” and supported by “Quality Critical Care”, specified and developed to reduce the number of long distance transfers that take place and to ensure that transfers are contained within the critical care network or, by special agreement, between hospitals at the borders of adjacent networks

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Justification

Provides important information on transfers.

Antimicrobial use after 48 hours in your unit

Field:	Antimicrobial use after 48 hours in your unit
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- initiation of therapeutic (not prophylactic) antimicrobial agent(s) after 48 hours following admission to your unit
- includes a change from prophylactic antimicrobial agent(s) initiated prior to 48 hours to therapeutic antimicrobial agent(s) initiated after 48 hours
- includes initiation of a new course of therapeutic antimicrobial agents(s) after 48 hours, following a gap of 24 hours or more after having stopped a previous course of therapeutic antimicrobial agent(s) initiated prior to 48 hours
- does not include a change of therapeutic antimicrobial agent(s) initiated prior to 48 hours to different therapeutic antimicrobial agent(s) after 48 hours without a gap of 24 hours
- include intravenous, oral (including naso-gastric) and rectal (e.g. enemas) antimicrobials
- exclude antimicrobial agent(s) after 48 hours following admission to your unit given for reasons other than to treat infection (e.g. macrolides to improve gastric emptying)
- exclude prophylactic (e.g. selective decontamination of the digestive tract SDD), nebulised, topical antimicrobials, eye/ear drops and vaginal pessaries
- antimicrobials include aminoglycosides, co-amoxiclav, piperacillin-tazobactam, other penicillins, quinolone, carbapenems, glycopeptide, cephalosporin I &II, ceftazidime, linezolid, metronidazole, azole, echinocandin, amphotericin

- The following table illustrates when to, and when not to, record antimicrobial use after 48 hours in your unit:

From admission to your unit – up to 48 hours	After 48 hours	Valid?
	Therapeutic initiated	✓
Prophylactic initiated	Therapeutic initiated	✓
Therapeutic initiated	New therapeutic initiated with >24 hour gap	✓
Therapeutic initiated	New therapeutic initiated with <24 hour gap	✗
Prophylactic initiated		✗
	Prophylactic initiated	✗

Justification

Provides a proxy for the incidence of infection.

Arterial pH/H^+

Fields: pH/H^+ from arterial blood gas with lowest pH (or highest H^+)
Associated $PaCO_2$ from arterial blood gas with lowest pH (or highest H^+)

Number of data items:	Two	
Units of measurement:	pH/H^+	pH or nmol l^{-1}
	$PaCO_2$	kPa or mmHg

Definition for collection:

- lowest pH (or highest H^+) values with their associated $PaCO_2$ value from the same blood gas measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest pH (or highest H^+) value with the associated $PaCO_2$ value measured and recorded while on your unit
- if only one set of blood gas values is measured and recorded, then these values are considered the lowest pH (or highest H^+) and associated $PaCO_2$ value
- if two or more pH values provide the lowest pH value, then enter the lowest pH value with the lowest associated $PaCO_2$ value
- if two or more H^+ values provide the highest H^+ value, then enter the highest H^+ value with the lowest associated $PaCO_2$ value

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Justification

Weighted in the APACHE II and ICNARC models.

Assent for solid organ or tissue donation

Field:	Assent for solid organ or tissue donation
Number of data items:	One
Options:	**Y**es **N**o Not **A**pproached

Definition for collection:

- specifies whether assent for solid organ or tissue donation was obtained from the admission's next of kin
- expression of assent must be formally documented within the patient record
- **Y**es is defined as assent given and the documentation of assent to solid organ or tissue donation
- **N**o is defined as assent refused and the documentation of refusal to solid organ or tissue donation
- a potential or definite solid organ or tissue donor is defined as a donor (either heartbeating or non-heartbeating) from whom one or more solid organs (heart, kidney(s), liver, lungs(s), pancreas, small bowel) are/may be removed for the purposes of transplantation, or from whom tissue (heart valves, skin, cornea, bone, dura and organs/tissue for research) are/may be removed

Justification

Provides important information on organ/tissue donation.

Assisted conception used for recent pregnancy

Field:	Assisted conception used for recent pregnancy
Number of data items:	One
Options:	**Y**es **N**o **U**nknown

Definition for collection:

- specifies whether recent pregnancy was assisted
- assisted conception is defined as treatment to assist the admission in becoming pregnant - treatment includes any form of drug/chemical or physical intervention that has assisted fertilisation or embryo implantation
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Biopsy proven cirrhosis

Field: Biopsy proven cirrhosis

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has biopsy proven cirrhosis
- hepatic ultrasound scanning diagnosed cirrhosis is not considered biopsy proven
- must have been biopsy proven in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit

Justification

Weighted in the APACHE II model.

Blood lactate

Fields:	Highest blood lactate or Pre-admission blood lactate or Blood lactate missing
Number of data items:	Three
Units of measurement:	mmol l^{-1}
Options:	Blood lactate missing - **Y**es or **N**o

Definition for collection:

- highest blood lactate value measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the highest blood lactate value measured and recorded while on your unit
- blood lactate values must be measured on arterial blood
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point of care testing laboratories with formal quality control programmes in operation
- blood lactate values can be taken from the blood gas analyser
- if only one blood lactate value is measured and recorded then this value is considered the highest value
- if no blood lactate value is measured and recorded in the first 24 hours in your unit, a pre-admission blood lactate value should be recorded
- pre-admission blood lactate must be measured and recorded in the four hours prior to admission
- pre-admission blood lactate is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no blood lactate values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record blood lactate as missing

Justification

Evidence suggests that blood lactate levels are associated with mortality.

Blood pressure

Fields: Lowest systolic BP
Paired diastolic BP for lowest systolic BP
Highest systolic BP
Paired diastolic BP for highest systolic BP

Number of data items: Four (two pairs)
Units of measurement: mmHg

Definition for collection:

- lowest and highest systolic blood pressure values measured and recorded in the first 24 hours in your unit plus the paired diastolic blood pressure values from the same measurement
- if an admission stays less than 24 hours, then enter the lowest and highest systolic blood pressure values plus the paired diastolic blood pressure values measured and recorded while in your unit
- blood pressure values are included irrespective of the measurement method used but should not be recorded for any admission during periods of iatrogenic disturbance, e.g. physiotherapy, turning, periods of crying etc.
- where blood pressure values are not measurable (i.e. undetectable), the value zero should be recorded
- if only one pair of blood pressure values was measured and recorded, then these values are considered to be the lowest systolic blood pressure and paired diastolic blood pressure values
- if two or more systolic blood pressures provide the lowest systolic blood pressure, enter the lowest systolic blood pressure with the lowest paired diastolic blood pressure
- if two or more systolic blood pressures provide the highest systolic blood pressure, enter the highest systolic blood pressure with the highest paired diastolic blood pressure

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Justification

Weighted in the APACHE II and ICNARC models.

Body composition

Fields:	Height	
	Height estimated	
	Weight	
	Weight estimated	
Number of data items:	Four	
Units of measurement:	Height	cm
	Weight	kg
Options:	Height estimated	**Y**es
		No
	Weight estimated	**Y**es
		No

Definition for collection:

- height, in cm, of this admission to your unit
- if height is unobtainable, use estimated height and record Yes in Height estimated
- weight, in kg, of this admission to your unit
- if weight is unobtainable, use estimated weight and record Yes in Weight estimated

Justification

Used to calculate/estimate Body Mass Index.

Brainstem death declared

Field:	Brainstem death declared
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether admission was declared brainstem dead
- results of brainstem death test(s) must be documented
- brainstem death test(s) must have been conducted according to the current Department of Health Statement on brainstem death or equivalent

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Burns

Fields:	Burned surface area Inhalation injury

Number of data items:	Two	
Units of measurement:	Burned surface area	%
Options:	Inhalation injury	**Y**es **N**o

Definition for collection:

- Burned surface area is defined as the sum (%) of the extent of second-and third-degree burns (first-degree burns are not taken into account)
- Inhalation injury is defined as exposure to hot gases, steam or products of combustion with either clinical findings (singed nasal vibrissae, carbonaceous sputum or soot below the level of the vocal chords identified by bronchoscopy) or laboratory findings (raised carboxyhaemoglobin or cyanide levels) and receiving mechanical ventilation

Justification

Improving risk prediction for admissions with burns.

Cardiopulmonary resuscitation (CPR) within 24 hours prior to admission to your unit

Field:	Cardiopulmonary resuscitation (CPR) within 24 hours prior to admission to your unit
Number of data items:	One
Options:	in-**H**ospital CPR **C**ommunity CPR **N**o CPR

Definition for collection:

- specifies whether and where the admission received CPR within 24 hours prior to admission to your unit
- this does not include CPR received before 24 hours prior to admission or after admission to your unit
- in-**H**ospital CPR is defined as CPR administered by an in-hospital resuscitation team (or equivalent)
- **C**ommunity CPR is defined as CPR not administered by an in-hospital resuscitation team (or equivalent)
- admissions receiving both community and in-hospital CPR (both within 24 hours prior to admission to your unit) are coded as **C**ommunity CPR
- CPR must include either internal or external cardiac massage
- precordial thumps or defibrillation without cardiac massage are excluded

Justification

Provides important information on in-hospital and community CPR.

Cardiovascular support days

Fields:	Basic cardiovascular support days Advanced cardiovascular support days
Number of data items:	Two
Units of measurement:	Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof, e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received any basic or advanced cardiovascular support whilst on your unit
- record 1, 2, 3 etc for one, two, three etc calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Advanced Cardiovascular - indicated by one or more of the following:
    - admissions receiving multiple intravenous and/or rhythm controlling drugs (e.g. inotropes, amiodarone, nitrates etc.) (of which, at least one must be vasoactive) when used simultaneously to support or control arterial pressure, cardiac output or organ/tissue perfusion
    - admissions receiving continuous observation of cardiac output and derived indices (e.g. with a pulmonary artery catheter, lithium dilution, pulse contour analyses, oesophageal doppler, impedance and conductance methods.)
    - admissions with an intra aortic balloon pump in place and other assist devices
    - admissions with a temporary cardiac pacemaker (valid each day while connected for therapeutic reasons to a functioning external pacemaker unit)
- Basic Cardiovascular - indicated by:
    - admissions with a CVP (central venous pressure) receiving monitoring or for central venous access to deliver titrated fluids to treat hypovolaemia
    - admissions with an arterial line receiving monitoring of arterial pressure and/or sampling of arterial blood

- admissions receiving a single, intravenous, vasoactive drug to support or control arterial pressure, cardiac output or organ perfusion
- admissions receiving a single intravenous rhythm controlling drug to support or control cardiac arrhythmias

- Note: If advanced and basic cardiovascular monitoring and support occur simultaneously, then only advanced cardiovascular monitoring and support should be recorded.

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (Version 8.0, ISN: Amd 81/2010). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Chemotherapy

Field: Chemotherapy

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has received drug treatment resulting in a lower resistance to infection
- must have been received in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- examples include drug treatment for malignancy, vasculitides, rheumatoid arthritis, inflammatory bowel disease, transplant rejection etc
- excludes treatment with corticosteroids alone

Justification

Weighted in the APACHE II model.

Chronic myelogenous/lymphocytic leukaemia

Field:	Chronic myelogenous/lymphocytic leukaemia
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether admission has chronic myelogenous leukaemia or chronic lymphocytic leukaemia
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit

Justification

Weighted in the APACHE II model.

Chronic renal replacement therapy

Field:	Chronic renal replacement therapy
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether admission currently requires chronic renal replacement therapy for irreversible renal disease
- must have been received in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- this includes, but is not limited to, chronic haemodialysis, chronic haemofiltration and chronic peritoneal dialysis for irreversible renal disease

Justification

Weighted in the APACHE II model.

Classification of surgery

Field:	Classification of surgery
Number of data items:	One
Options	e**M**ergency **U**rgent **S**cheduled e**L**ective

Definition for collection:

- specifies whether the admission, whose Location (in) was Theatre & recovery, was following emergency, urgent, scheduled or elective surgery
- surgery is defined as undergoing all or part of a surgical procedure or anaesthesia for a surgical procedure in an operating theatre or an anaesthetic room
- e**M**ergency surgery is defined as immediate surgery, where resuscitation (stabilisation and physiological optimisation) is simultaneous with surgical treatment and where surgery normally takes place within minutes of decision to operate
- **U**rgent surgery is defined as surgery as soon as possible after resuscitation (stabilisation and physiological optimisation) and normally takes place within hours of decision to operate
- **S**cheduled surgery is defined as early surgery but not immediately life-saving and normally takes place within days of decision to operate
- e**L**ective surgery is defined as surgery at a time to suit both patient and surgeon and is booked in advance of routine admission to hospital
- elective surgery initially postponed can subsequently become emergency, urgent or scheduled surgery
- organ donation/retrieval is not considered surgery

Justification

Provides important information on surgical status. The National Confidential Enquiry into Perioperative Deaths (NCEPOD) Classification of Interventions (December 2004) is used (www.ncepod.org.uk/pdf/NCEPODClassification.pdf).

Clostridium difficile present

Field: Clostridium difficile present

Number of data items: One
Options: **A**dmission C. difficile
Unit-acquired C. difficile
No C. difficile
No **S**amples taken

Definition for collection:

- **A**dmission C. difficile is defined as the detection of C. difficile toxin in any stool sample taken for microbiological examination after admission to your hospital and either prior to admission or in the first 48 hours following admission to your unit or in a stool sample taken after 48 hours if the diarrhoea was present on admission
- **U**nit-acquired C. difficile is defined as the detection of C. difficile toxin in any stool sample taken for microbiological examination after 48 hours following admission to your unit and while admission still in your unit
- it is recognised that this will underestimate the true rate of unit-acquired C. difficile i.e. those identified in any stool sample taken for microbiological examination within 48 hours post-discharge from your unit
- **N**o C. difficile is defined as the absence of C. difficile toxin in any stool sample taken for microbiological examination after admission to your hospital and either prior to admission to or during the stay in your unit

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Justification

Provides important information on unit-acquired infection.

CMP number

Field: CMP number

Number of data items: One

Definition for collection:

- unique unit identifier supplied by ICNARC to each unit participating in the Case Mix Programme
- previously known as the ICNARC number - updated to distinguish the Case Mix Programme from other ICNARC projects/studies
- value should be automatically generated by software application

Justification

Provides a unique, confidential identifier for each unit participating in the Case Mix Programme.

Congenital immunohumoral or cellular immune deficiency state

Field:	Congenital immunohumoral or cellular immune deficiency state
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether admission has a documented congenital immunohumoral or congenital cellular immune deficiency state
- includes common variable immunodeficiency (CVID), agammaglobulinaemia including X linked (XLA), severe combined immunodeficiency (SCID), chronic granulomatous disease, IgA deficiency, IgG deficiency, functional antibody deficiency, hyper IgE syndrome, Wiskott Aldrich syndrome, chronic mucocutaneous candidiasis (CMCC), Di George syndrome, ataxia telangiectasia, leucocyte adhesion defect, complement deficiencies, C1 esterase inhibitor deficiency, Kostmann's syndrome

Justification

Weighted in the APACHE II model.

Critical care visit post-discharge from your unit

Field:	Critical care visit post-discharge from your unit
Number of data items:	One
Options:	unit **O**utreach service only unit outreach service & non-outreach staff **C**ombined unit **M**edical staff (non-outreach service only) unit n**U**rsing staff (non-outreach service only) **B**oth unit medical & nursing staff (non-outreach service only) **N**o critical visit care post-discharge from your unit

Definition for collection:

- critical care visit at any time post-discharge from your unit and prior to discharge from your hospital
- a critical care visit is defined as the physical attendance of a member of your unit outreach service or critical care staff (non-outreach) while on duty for your unit and documented in the patient record
- a critical care visit should only be recorded if one possible outcome from the visit was the patient remaining at their current location, therefore retrieval by critical care staff for admission/readmission to your unit is not included
- unit **O**utreach service is defined as any member of your critical care team (nursing, medical) rostered at that time to the outreach service (which falls under the managerial control of your critical care service) with prime responsibility for advising or assisting with the care of the severely ill patient outside the critical care unit (unit outreach service may be available continuously or for defined limited periods)
- a unit outreach service includes both scheduled (routine follow-up) and unscheduled (ward team requests) visits, but excludes initial hand-over to ward team if undertaken by a member of the outreach service
- non-outreach staff is defined as a member of your critical care medical or nursing staff, not currently part of a formal outreach service who physically attends and provides advice or assistance with the care of the severely ill patient who falls under the managerial control of your critical care service outside the critical care unit
- unit outreach service & non-outreach staff **C**ombined is defined as advice or assistance provided either at the same or different times by both the unit outreach service and non-outreach staff
- unit **M**edical staff (non-outreach service only) is defined as advice or assistance provided solely by a medical member(s) of the critical care staff who is/are not part of your current outreach service

- unit n**U**rsing staff (non-outreach service only) is defined as advice or assistance provided solely by a nursing member(s) of the critical care staff who is/are not part of your current outreach service

- **B**oth unit medical & nursing staff (non-outreach service only) is defined as advice or assistance provided either at the same time, or at different times by the unit medical staff (non-outreach service) and the unit nursing staff (non-outreach service)

- **N**o critical care visit post-discharge from your unit is defined as no visit by any member of your critical care team

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Justification

Provides important information on Outreach/post-discharge critical care visits.

Critical care visit prior to this admission to your unit

Field:	Critical care visit prior to this admission to your unit
Number of data item:	One
Options:	unit **O**utreach service only unit outreach service & non-outreach staff **C**ombined unit **M**edical staff (non-outreach service only) unit n**U**rsing staff (non-outreach service only) **B**oth unit medical & nursing staff (non-outreach service only) **N**o critical care visit prior to this admission to your unit

Definition for collection:

- critical care visit at any time after admission to your hospital and prior to admission to your unit
- a critical care visit is defined as the physical attendance of a member of your unit outreach service or critical care staff (non-outreach) while on duty for your unit documented in the patient record
- a critical care visit should only be recorded if one possible outcome from the visit was the patient remaining at their current location, therefore retrieval by critical care staff for admission/readmission to your unit is not included
- unit **O**utreach service is defined as any member of your critical care team (nursing, medical) rostered at that time to the outreach service (which falls under the managerial control of your critical care service) with prime responsibility for advising or assisting with the care of the severely ill patient outside the critical care unit (unit outreach service may be available continuously or for defined limited periods)
- a unit outreach service includes both scheduled (routine follow-up) and unscheduled (ward team requests) visits
- non-outreach staff is defined as a member of your critical care medical or nursing staff, not currently part of a formal outreach service who physically attends and provides advice or assistance with the care of the severely ill patient who falls under the managerial control of your critical care service outside the critical care unit
- unit outreach service & non-outreach staff **C**ombined is defined as advice or assistance provided either at the same time, or at different times by both the unit outreach service and non-outreach staff
- unit **M**edical staff (non-outreach service only) is defined as advice or assistance provided solely by a medical member(s) of the critical care staff who is/are not part of your current outreach service

- unit n**U**rsing staff (non-outreach service only) is defined as advice or assistance provided solely by a nursing member(s) of the critical care staff who is/are not part of your current outreach service

- **B**oth unit medical & nursing staff (non-outreach service only) is defined as advice or assistance provided either at the same time, or at different times by the unit medical staff (non-outreach service) and the unit nursing staff (non-outreach service)

- **N**o critical care visit prior to this admission to your unit is defined as no visit by any member of your critical care team

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Justification

Provides important information on Outreach/pre-admission critical care visits.

Date of admission to your hospital

Field: Date of admission to your hospital

Number of data items: One

Definition for collection:

- admission to hospital is defined as the physical admission and recording of that admission to an acute in-patient bed in your hospital, the hospital housing your unit
- where more than one date of admission to your hospital is documented, the earliest documented date is recorded
- hospital care in your hospital must be continuous up to the point of admission to your unit

Justification

Used to calculate length of stay in your hospital.

Date of birth

Fields: Date of birth
Date of birth estimated

Number of data items: Two

Definition for collection:

- date of birth for this admission to your unit
- if date of birth is unobtainable, use judgement to estimate year of birth and record as 1 January of estimated year i.e. 01-01-ccyy (cc = century, yy = year)
- if 01-01-ccyy, then record whether date of birth is estimated or not

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Justification

Used to calculate age.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Date of discharge from your hospital

Field: Date of discharge from your hospital

Number of data items: One

Definition for collection:

- date of discharge from your hospital is the latest documented date of the admission being physically within an acute in-patient bed in your hospital or the date of death in your hospital
- discharge from your hospital is defined as the physical discharge and recording of that discharge from an acute in-patient bed in your hospital
- where more than one date of discharge from your hospital is documented, the latest documented date is recorded

Justification

Used to calculate length of stay in your hospital.

Date of first critical care visit post-discharge from your unit

Field: Date of first critical care visit post-discharge from your unit

Number of data items: One

Definition for collection:

- date of the first visit from your critical care staff post-discharge from your unit but prior to discharge from your hospital
- a critical care visit is defined as the physical attendance of a member of your unit outreach service or critical care staff (non-outreach) which is documented in the patient record
- includes both scheduled (routine follow-up) and unscheduled (ward team request) visits, but excludes both initial hand-over to ward team and retrieval by critical care staff for admission/readmission to your unit
- includes visits by any member of your unit team (nursing, medical)

Justification

Provides important information on Outreach/post-discharge critical care visits.

Date of last critical care visit prior to this admission to your unit

Field:	Date of last critical care visit prior to this admission to your unit
Number of data items:	One

Definition for collection:

- the date of the last visit from your critical care staff prior to this admission to your unit
- a critical care visit is defined as the physical attendance of a member of your unit outreach service or critical care staff (non-outreach) which is documented in the patient record
- includes both scheduled (routine follow-up) and unscheduled (ward team request) visits, but excludes retrieval by critical care staff for admission/readmission to your unit
- includes visits by any member of your unit team (nursing, medical)

Justification

Provides important information on Outreach/pre-admission critical care visits.

Date of original admission to/attendance at acute hospital

Field: Date of original admission to/attendance at acute hospital

Number of data items: One

Definition for collection:

- the earliest documented date on which this admission was originally admitted to/attended the first acute hospital for the current period of continuous in-patient treatment
- an acute hospital is defined as any hospital providing a range of acute hospital services to diagnose, treat and care for seriously ill or injured patients; some acute hospitals may provide only specialist services while others will provide general services
- admission to acute hospital is defined as the physical admission and recording of that admission to an acute in-patient bed in another acute hospital, not your hospital e.g. not the hospital housing your unit
- attendance at acute hospital is defined as the physical attendance and recording of that attendance in another acute hospital, not your hospital e.g. not the hospital housing your unit
- the date is not necessarily the date of admission to/attendance at the acute hospital from which the admission has been transferred to your unit
- where more than one date of original admission to/attendance at an acute hospital is documented, the earliest documented date is recorded

Justification

Used to calculate total length of stay in hospital.

Date of original admission to ICU/HDU

Field: Date of original admission to ICU/HDU

Number of data items: One

Definition for collection:

- the earliest documented date on which this admission was originally admitted for adult critical care and since when adult critical care has been continuous
- ICU/HDU is defined as an ICU or a combined ICU/HDU or an HDU
- the date is not necessarily the date of admission to the ICU/HDU from which this admission has been transferred to your unit
- admission is defined as the physical admission and recording of that admission to a bed in ICU/HDU
- where more than one date of original admission to ICU/HDU is documented, the earliest documented date is recorded

Justification

Used to calculate total length of stay in critical care.

Date of ultimate discharge from ICU/HDU

Field: Date of ultimate discharge from ICU/HDU

Number of data items: One

Definition for collection:

- the latest documented date on which this admission was ultimately discharged from adult critical care, the critical care having been continuous since discharge from your unit
- ultimate discharge is defined as the physical discharge and recording of that discharge from a bed in ICU/HDU
- ICU/HDU is defined as an ICU or a combined ICU/HDU or an HDU
- where more than one date of ultimate discharge from ICU/HDU is documented, the latest documented date is recorded
- the date is not necessarily the date of discharge from the ICU/HDU to which the admission was transferred from your unit

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Justification

Used to calculate total length of stay in critical care.

Date of ultimate discharge from hospital

Field: Date of ultimate discharge from hospital

Number of data items: One

Definition for collection:

- the latest documented date of the admission being physically within an acute in-patient bed in an acute hospital, or the date of death
- ultimate discharge from hospital is defined as the physical discharge and recording of that discharge from an acute in-patient bed in an acute hospital
- an acute hospital is defined as any hospital providing a range of acute hospital services to diagnose, treat and care for seriously ill or injured patients; some acute hospitals may provide only specialist services while others will provide general services
- where more than one date of discharge from your hospital is documented, the latest documented date is recorded
- this is not necessarily the date of discharge from the acute hospital to which the admission was directly transferred

Justification

Used to calculate total length of hospital stay.

Date/Time body removed from your unit

Fields: Date body removed from your unit
Time body removed from your unit

Number of data items: Two

Definition for collection:

- removal of the body from your unit is defined as the physical removal of the body from a bed in your unit
- date body removed from your unit is the latest documented date of the body being physically in your unit
- time body removed from your unit is the latest documented time of the body being physically in your unit (twenty-four hour clock)
- where more than one date/time body removed from your unit is documented, the latest documented date/time is recorded

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Justification

Used to calculate the total length of stay in your unit for non-survivors.

Date/Time of admission to your unit

Fields: Date of admission to your unit
Time of admission to your unit

Number of data items: Two

Definition for collection:

- admission to your unit is defined as the physical admission and recording of that admission to a bed in your unit
- date of admission to your unit is the earliest documented date of the admission being physically in a bed in your unit
- time of admission to your unit may be the time first charted if not documented as earlier in the case notes (twenty-four hour clock)
- where more than one date/time of admission to your unit is documented, the earliest documented date/time is recorded

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Justification

Used to calculate length of stay in your unit.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Date/Time of death

Fields:	Date of death Time of death
Number of data items:	Two

Definition for collection:

- date of death in your unit as documented in the admission's clinical record
- time of death in your unit as documented in the admission's clinical record (twenty-four hour clock)

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Date/Time of declaration of brainstem death

Fields:	Date of declaration of brainstem death Time of declaration of brainstem death
Number of data items:	Two

Definition for collection:

- the date on which the completion of the first set of tests confirming brainstem death is recorded (as per the current Department of Health (England) Statement on brainstem death)
- the time at which the completion of the first set of tests confirming brainstem death is recorded (as per the current Department of Health (England) Statement on brainstem death), (twenty-four hour clock)

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Date/Time of discharge from your unit

Fields: Date of discharge from your unit
Time of discharge from your unit

Number of data items: Two

Definition for collection:

- discharge from your unit is defined as the physical discharge of an admission and the recording of that discharge from a bed in your unit
- discharge does not include temporary transfer from your unit, e.g. for surgery, radiology, or other investigation
- date of discharge from your unit is the latest documented date of the admission being physically in your unit
- time of discharge from your unit is the latest documented time of the admission being physically within your unit (twenty-four hour clock)
- where more than one date/time of discharge from your unit is documented, the latest date/time is recorded

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Justification

Used to calculate length of stay in your unit.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Date/Time treatment first withdrawn

Fields:	Date treatment first withdrawn Time treatment first withdrawn
Number of data items:	Two

Definition for collection:

- date when treatment was first withdrawn is defined as the documented date when one or more clinically indicated treatments other than comfort measures were withdrawn (not the date of the decision), on the grounds of lack of benefit to the patient
- time when treatment was first withdrawn is defined as the documented time when one or more clinically indicated treatments other than comfort measures were withdrawn (not the date of the decision), on the grounds of lack of benefit to the patient (twenty-four hour clock)
- where more than one date/time treatment first withdrawn is documented, the earliest documented date/time is recorded

Justification

Provides important information for interpreting outcome.

Date/Time when fully ready to discharge

Fields:	Date when fully ready to discharge Time when fully ready to discharge
Number of data items:	Two

Definition for collection:

- the documented date when the admission was declared fully clinically ready for discharge
- the documented time when the admission was declared fully clinically ready for discharge (twenty-four hour clock)
- includes the documented date/time when a formal request was made to the appropriate staff with authority to admit at the intended destination (e.g. hospital bed management system, PICU staff for retrieval, transfer for more-specialist care etc.)
- where discharge planning occurs in the expectation of, and in advance of, the admission being fully clinically ready for discharge – the latter date/time when fully clinically ready is recorded
- where more than one date/time when fully ready to discharge is documented, the earliest documented date/time is recorded
- where date/time when fully ready to discharge equals date/time of discharge from your unit, enter the same values for both dates and times
- these fields should be left blank for admissions discharged early or where date/time when fully ready to discharge is not recorded

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Delayed admission

Field:	Timeliness of admission to your unit Delay	
Number of data items:	Two	
Options:	Timeliness of admission to your unit	**T**imely **D**elayed
Units of measurement:	Delay Hours	

Definition for collection:

- **T**imely is defined as an appropriately timed admission to your unit
- **D**elayed is defined as the admission remaining outside your unit despite agreement/decision to admit being made and entered in the notes following formal referral and agreement/decision by appropriate staff with authority to admit (e.g. on call unit consultant or their direct proxy), at that time, to your unit
- Where there is no record of the admission being delayed, record as timely
- Delay is defined as the number of hours the admission to your unit was delayed following formal referral and agreement/decision by appropriate staff with authority to admit to your unit at that time (e.g. on call unit consultant or their direct proxy). Record 99 for delay of 99 or more hours, and note actual hours in text box
- Where delay is less than one hour, record 1

Justification

Provides important information on timing of admission.

Dependency prior to admission to acute hospital

Field:	Dependency prior to admission to acute hospital
Number of data items:	One
Options:	**A**ble to live without assistance in daily activities mi**N**or assistance with some daily activities ma**J**or assistance with majority of/all daily activities **T**otal assistance with all daily activities

Definition for collection:

- designed to indicate what the admission could do before the acute onset of the condition which necessitated admission to acute hospital
- assess as best description for the dependency of this admission in the two weeks prior to admission to acute hospital and prior to the onset of the acute illness i.e. “usual” dependency
- **A**ble – receives no assistance with daily activities
- mi**N**or – receives some assistance with some daily activities
- ma**J**or – receives considerable assistance with majority of/all daily activities
- **T**otal – receives total assistance with all daily activities
- assistance means personal assistance
- daily activities include bathing, dressing, going to the toilet, moving in/out of bed/chair, continence and eating
- for babies/young children choose option relative for age i.e. a baby with no additional level of dependency is determined to be able
- it is recognised that these data are subjective, the important distinction is between total independence (able to live without assistance in daily activities), some level of dependence (minor/major limitations) and total dependence (total assistance with all daily activities) – the difference between minor or major assistance in daily activities is difficult to standardise and this lack of specificity is acknowledged

Justification

Provides important information for interpreting outcome.

Dermatological support days

Field:	Dermatological support days
Number of data items:	One
Units of measurement:	Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof, e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received any dermatological support whilst on your unit
- record 1, 2, 3 etc for one, two, three etc calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Dermatological – indicated by one or more of the following:
    - admissions with major (e.g. greater than 30% body surface area affected) skin rashes, exfoliation or burns
    - admissions receiving complex dressings (e.g. major – greater than 30% body surface area affected – skin dressings, open abdomen, vacuum dressings or large – multiple limb or limb and head – trauma dressings)

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Destination post-discharge from your hospital

Field:	Destination post-discharge from your hospital
Number of data items:	One
Options:	other **A**cute hospital n**O**n-acute hospital **N**ot in hospital

Definition for collection:

- the destination to which the admission was directly transferred post-discharge from your hospital, the hospital housing your unit
- other **A**cute hospital, one that does not house your unit, is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of acute hospital services to diagnose, treat and care for seriously ill or injured patients; some acute hospitals may provide only specialist services while others will provide general services
- n**O**n-acute hospital is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of short or long-term non-acute services
- **N**ot in hospital is defined as discharge to a location that is no longer within a hospital

Justification

Provides important information for interpreting outcome.

Ethnicity

Field:	Ethnicity
Number of data items:	One
Options:	**A** - White-British **B** - White-Irish **C** - White-any other **D** - Mixed-white and black Caribbean **E** - Mixed-white and black African **F** - Mixed-white and Asian **G** - Mixed-any other **H** - Asian or Asian British-Indian **J** - Asian or Asian British-Pakistani **K** - Asian or Asian British-Bangladeshi **L** - Asian or Asian British-any other **M** - Black or black British-Caribbean **N** - Black or black British-African **P** - Black or black British-any other **R** - Other ethnic group-Chinese **S** - Any other ethnic group **Z** - Not stated

Definition for collection:

- ethnic group refers to the way an individual views her/himself and is a mixture of culture, religion, skin colour, language, their origins and the origins of their family
- ethnicity is not the same as nationality and should be recorded as seen
- current NHS ethnic codes are used
- where specific detail of ethnicity is not known, use relevant “other” codes (e.g. C, G, L, P, R, S)

Justification

Provides important information for demographic statistics.

Evidence available to abstract physiology data

Field:	Evidence available to abstract physiology data
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether evidence is available to abstract required physiology data
- evidence includes any relevant documentation such as charts, notes etc.

Justification

Acts as a filter field for further data entry.

Evidence available to assess past medical history

Field:	Evidence available to assess past medical history
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether evidence is available to assess past medical history
- evidence includes in- or out-patient hospital notes (doctors' or nurses' case notes), GP case notes, information from the admission or the admission's relatives, friends or GP
- evidence is valid only if recorded in the case notes prior to or at admission to your unit

Justification

Acts as a filter field for further data entry.

Expected date of delivery of current pregnancy

Field: Expected date of delivery of current pregnancy

Number of data items: One

Definition for collection:

- the expected date of delivery of current pregnancy
- if estimated date of delivery from antenatal clinic is available, based on last normal menstrual period or sonography, use this estimate
- if estimated date of delivery is not available from antenatal clinic, calculate from last normal menstrual period
- currently pregnant is defined as any woman who is known to be pregnant (including following fertility treatment) or in whom a pregnancy test is known to have been positive prior to or within the first 24 hours of admission to your unit

Justification

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Expected dependency post-acute hospital discharge

Field:	Expected dependency post-acute hospital discharge
Number of data items:	One
Options:	**A**ble to live without assistance in daily activities mi**N**or assistance with some daily activities ma**J**or assistance with majority of/all daily activities **T**otal assistance with all daily activities **D**ischarged with the expectation of dying

Definition for collection:

- a prediction at the point of discharge from your unit to indicate what the admission might expect to be able to do following discharge from acute hospital
- assess as best description for the expected dependency of this admission in the two weeks following discharge from acute hospital i.e. the dependency one might predict the admission to regain, predicted at the point of discharge from your unit
- **A**ble – will need no assistance with daily activities
- mi**N**or – will need some assistance with some daily activities
- ma**J**or – will need considerable assistance with majority of/all daily activities
- **T**otal – will need total assistance with all daily activities
- **D**ischarged with the expectation of dying is defined as discharge with the expectation of dying before discharge from acute hospital
- assistance means personal assistance
- daily activities include bathing, dressing, going to the toilet, moving in/out of bed/chair, continence and eating
- for babies/young children choose option relative for age i.e. a baby with no additional level of dependency is determined to be able
- it is recognised that these data are subjective, the important distinction is between total independence (able to live without assistance in daily activities), some level of dependence (minor/major limitations), total dependence (total assistance with all daily activities) and expected death (expected to die before discharge from acute hospital) – the difference

between minor or major assistance in daily activities is difficult to standardise and this lack of specificity is acknowledged

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Justification

Provides important information for interpreting outcome.

Gastrointestinal support days

Field: Gastrointestinal support days

Number of data items: One
Units of measurement: Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof, e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received any gastrointestinal support whilst on your unit
- record 1, 2, 3 etc for one, two, three etc calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Gastrointestinal – indicated by the following:
    - Admissions receiving parenteral or enteral nutrition (i.e. any method of feeding other than normal oral intake)

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Gestation at delivery of recent pregnancy

Field: Gestation at delivery of recent pregnancy

Number of data items: One
Units of measurement: Weeks

Definition for collection:

- specifies the duration of gestation of recent pregnancy in completed weeks
- gestation is defined as the number of weeks of pregnancy and is calculated from the last normal menstrual period
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit

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Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Gestation of current pregnancy

Field: Gestation of current pregnancy

Number of data items: One
Units of measurement: Weeks

Definition for collection:

- specifies the duration of gestation of current pregnancy in completed weeks
- gestation is defined as the number of weeks of pregnancy and is calculated from the last normal menstrual period
- currently pregnant is defined as any woman who is known to be pregnant (including following fertility treatment) or in whom a pregnancy test is known to have been positive prior to or within the first 24 hours of admission to your unit

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Justification

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Glasgow Coma Score

Fields: Lowest total Glasgow Coma Score
Associated eye component
Associated motor component
Associated verbal component
Associated intubation status

Number of data items: Five (one set)
Units of measurement: None
Options: Associated intubation status - **Y**es or **N**o

Definition for collection:

- all five values assessed and recorded from the same assessment of the lowest total Glasgow Coma Score in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the five values from the lowest total Glasgow Coma Score assessed and recorded while in your unit
- only Glasgow Coma Scores assessed when the admission is free from the effects of sedative and/or paralysing or neuromuscular blocking agents are valid
- for those sedated or paralysed and sedated for some of the first 24 hours i.e. (where for part of the day the admission is free from the effects of sedatives/paralysing agents and a valid assessment of the admission's neurological status is possible), the Glasgow Coma Score recorded must derive from the period free from the effects of sedatives/paralysing agents (given the important prognostic weight of neurological deficit)
- the determination as to whether an admission is free from the effects of sedative and/or paralysing or neuromuscular blocking agents is left to clinical judgement, as this is the only realistic standardisation for collection of these data at this time
- admissions due to self-sedation through deliberate or accidental overdose/poisoning should have a Glasgow Coma Score assessed
- the Glasgow Coma Score may be either documented as a score (e.g. as numbers) or as explicit text allowing precise assignment of the score (e.g. "fully alert and orientated" equals 15).
- if two or more Glasgow Coma Score assessments provide the lowest total Glasgow Coma Score, then enter the lowest total Glasgow Coma Score with the lowest associated motor component
- intubated is defined as a laryngeal mask, an endotracheal tube, endobronchial or tracheostomy tube in place
- if only one set of Glasgow Coma Score values is assessed and recorded, then this set of values is considered the lowest total Glasgow Coma Score and associated values

- see Appendix: How to assess the Glasgow Coma Score

Justification

Lowest total Glasgow Coma Score is weighted in the APACHE II and ICNARC models.

Haemoglobin

Fields:	Lowest haemoglobin Highest haemoglobin or Pre-admission haemoglobin or Haemoglobin missing
Number of data items:	Four
Units of measurement:	g dl^{-1}
Options:	Haemoglobin missing - **Y**es or **N**o

Definition for collection:

- lowest and highest haemoglobin values measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest haemoglobin values measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point-of-care testing laboratories with formal quality control programmes in operation
- if only one haemoglobin value is measured and recorded, then this value is considered the lowest value
- if no haemoglobin value is measured and recorded in the first 24 hours in your unit, then a pre-admission haemoglobin value should be recorded
- pre-admission haemoglobin must be measured and recorded in the four hours prior to admission
- pre-admission haemoglobin is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no haemoglobin values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record haemoglobin as missing

Justification

Weighted in the APACHE II model.

Heart rate

Field:	Lowest heart rate Highest heart rate
Number of data items:	Two
Units of measurement:	beats min^{-1}

Definition for collection:

- lowest and highest heart (ventricular) rates measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest heart rates measured and recorded while in your unit
- for admissions who are paced, record the actual measured heart rate
- heart rates should not be recorded for any admissions during periods of iatrogenic disturbance, e.g. physiotherapy, turning, periods of crying etc.
- if only one heart rate was measured and recorded, then this value is considered the lowest value
- where no heart rate was measurable, the value zero should be recorded for the lowest heart rate

Justification

Weighted in the APACHE II and the ICNARC models.

Hepatic encephalopathy

Field: Hepatic encephalopathy

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has had episodes of hepatic encephalopathy, Grade 1 or greater
- must have occurred in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- see Appendix: Grading of hepatic encephalopathy

Justification

Weighted in the APACHE II model.

Highest level of care received in the first 24 hours in your unit

Field:	Highest level of care received in the first 24 hours in your unit
Number of data items:	One
Units of measurement:	None
Options:	Level **3** Level **2** Level **1** Level **0**

Definition for collection:

- level of care refers to the type of care received by the admission
- specifies the highest level of care received in the first 24 hours in your unit
- location of an admission does not determine level of care
- Level 3 – indicated by one or more of the following:
    - admissions receiving advanced respiratory monitoring and support due to an acute illness
    - admissions receiving monitoring and support for two or more organ system dysfunctions (excluding gastrointestinal support) due to an acute illness
        - admissions solely receiving basic respiratory monitoring and support and basic cardiovascular monitoring and support due to an acute illness only meet Level 2
- Level 2 – indicated by one or more of the following:
    - admissions receiving monitoring and support for one organ system dysfunction (excluding gastrointestinal support) due to an acute illness
        - admissions solely receiving advanced respiratory monitoring and support due to an acute illness meet Level 3
        - admissions solely receiving basic respiratory and basic cardiovascular monitoring and support due to an acute illness meet Level 2
    - admissions receiving pre-surgical optimisation including invasive monitoring and treatment to improve organ system function
    - admissions receiving extended post-surgical care either because of the procedure and/or the condition of the admission

- admissions stepping down to Level 2 from Level 3 care

- Level 1 – indicated by one or more of the following:
  - admission recently discharged from a higher level of care
  - admissions receiving a greater degree of observation, monitoring, intervention(s), clinical input or advice than Level 0 care
  - admissions receiving critical care outreach service support fulfilling the medium-score group, or higher, as defined by NICE Guidelines 50
- Level 0 – indicated by the following:
  - admissions in hospital and receiving normal ward care

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

HIV/AIDS

Field: HIV/AIDS

Number of data items: One
Options: **H**IV
AIDS
No

Definition for collection:

- selecting 'HIV' specifies that the admission is HIV positive
- definite diagnosis of HIV infection - positive HIV test confirmed by an accredited microbiology laboratory
- selecting 'AIDS' specifies that the admission is HIV positive and has had an AIDS-defining illness (definite diagnosis of AIDS as per the current World Health Organisation definition)
- an AIDS-defining illness includes pneumocystis pneumonia, Kaposi's sarcoma, lymphoma, tuberculosis and toxoplasma infection (for an exhaustive list, please see: www.AIDSMAP.com)
- documented prior to admission or at admission to your unit

Justification

Weighted in the APACHE II model.

Home ventilation

Field: Home ventilation

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has used or uses home ventilation
- must have been received in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- ventilation is defined as where all or some of the breaths or a portion of the breaths (pressure support) are delivered by a mechanical device; ventilation can be simply defined as a treatment where some or all of the energy required to increase lung volume during inspiration is supplied by a mechanical device
- CPAP (continuous positive airway pressure) for sleep apnoea does not fulfil the definition for home ventilation

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Justification

Weighted in the APACHE II model.

Hospital housing location (out)

Field:	Hospital housing location (out)
Number of data items:	One
Options:	**S**ame hospital other **A**cute hospital n**O**n-acute hospital

Definition for collection:

- the hospital housing the location (out) to which this admission was discharged from your unit
- **S**ame hospital is defined as the hospital that houses your unit
- other **A**cute hospital, one that does not house your unit, is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of acute hospital services to diagnose, treat and care for seriously ill or injured patients; some acute hospitals may provide only specialist services while others will provide general services
- n**O**n-acute hospital is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of short or long-term non-acute services

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Hospital housing non-transient location (in)

Field:	Hospital housing non-transient location (in)
Number of data items:	One
Options:	**S**ame hospital other **A**cute hospital n**O**n-acute hospital

Definition for collection:

- the hospital housing the non-transient (Ward, Obstetrics area, Level 3 bed in adult ICU or ICU/HDU, Adult HDU etc) location (in) or prior location (in) from which this admission was admitted to your unit
- **S**ame hospital is defined as the hospital that houses your unit
- other **A**cute hospital, one that does not house your unit, is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of acute hospital services to diagnose, treat and care for seriously ill or injured patients; some acute hospitals may provide only specialist services while others will provide general services
- n**O**n-acute hospital is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of short or long-term non-acute services

Justification

Provides important information on source of admission.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Hospital housing transient location (in)

Field:	Hospital housing transient location (in)
Number of data items:	One
Options:	**S**ame hospital other **A**cute hospital n**O**n-acute hospital

Definition for collection:

- the hospital housing the transient (i.e. theatre & recovery, accident & emergency, recovery only, imaging department, specialist treatment area, clinic) location (in) from which this admission was admitted directly to your unit
- **S**ame hospital is defined as the hospital that houses your unit
- other **A**cute hospital, one that does not house your unit, is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of acute hospital services to diagnose, treat and care for seriously ill or injured patients; some acute hospitals may provide only specialist services while others will provide general services
- n**O**n-acute hospital is defined as another hospital (can be in the same or a different NHS Trust) that provides a range of short or long-term non-acute services

Justification

Provides important information on source of admission.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Hysterectomy at/since delivery of recent pregnancy

Field:	Hysterectomy at/since delivery of recent pregnancy
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- hysterectomy is defined as the surgical removal of the uterus at/since delivery of recent pregnancy
- includes all hysterectomies (with or without removal of the ovaries); a hysterectomy may be total (uterus and cervix removed) or subtotal (uterus removed but cervix conserved).
- excludes other operations (e.g. operations for bleeding) where the uterus is retained
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Level of care received at discharge from your unit

Field: Level of care received at discharge from your unit

Number of data items: One
Options:
Level **3**
Level **2**
Level **1**
Level **0**

Definition for collection:

- level of care refers to the type of care received by the admission immediately prior to discharge from your unit
- location of an admission does not determine level of care
- Level 3 – indicated by one or more of the following:
  - admissions receiving advanced respiratory monitoring and support due to an acute illness
  - admissions receiving monitoring and support for two or more organ system dysfunctions (excluding gastrointestinal support) due to an acute illness
    - admissions solely receiving basic respiratory monitoring and support and basic cardiovascular monitoring and support due to an acute illness only meet Level 2
- Level 2 – indicated by one or more of the following:
  - admissions receiving monitoring and support for one organ system dysfunction (excluding gastrointestinal support) due to an acute illness
    - admissions solely receiving advanced respiratory monitoring and support due to an acute illness meet Level 3
    - admissions solely receiving basic respiratory and basic cardiovascular monitoring and support due to an acute illness meet Level 2
  - admissions receiving pre-surgical optimisation including invasive monitoring and treatment to improve organ system function
  - admissions receiving extended post-surgical care either because of the procedure and/or the condition of the admission
  - admissions stepping down to Level 2 from Level 3 care

- Level 1 – indicated by one or more of the following:
    - admission recently discharged from a higher level of care
    - admissions receiving a greater degree of observation, monitoring, intervention(s), clinical input or advice than Level 0 care
    - admissions receiving critical care outreach service support fulfilling the medium-score group, or higher, as defined by NICE Guidelines 50
- Level 0 – indicated by the following:
    - admissions in hospital and receiving normal ward care

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Levels of care

Fields: Level 3 days
Level 2 days
Level 1 days
Level 0 days

Number of data items: Four
Units of measurement: Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the total number of calendar days during which the admission received care at a specific level of care whilst on your unit
- record 1, 2, 3 etc for one, two, three etc calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- the highest level of care within a calendar day is recorded such that if an admission changes from level 2 care to level 3 care, or vice versa, during a calendar day, then the level of care recorded is level 3 e.g. a complete calendar day on which an admission receives 30 minutes of level 3 care and 23 hours, 30 minutes of level 2 care is recorded as one calendar day of level 3 care
- location of an admission does not determine level of care
- Level 3 – indicated by one or more of the following:
    - admissions receiving advanced respiratory monitoring and support due to an acute illness
    - admissions receiving monitoring and support for two or more organ system dysfunctions (excluding gastrointestinal support) due to an acute illness
        - admissions solely receiving basic respiratory monitoring and support and basic cardiovascular monitoring and support due to an acute illness only meet Level 2
- Level 2 – indicated by one or more of the following:

- admissions receiving monitoring and support for one organ system dysfunction (excluding gastrointestinal support) due to an acute illness
    - admissions solely receiving advanced respiratory monitoring and support due to an acute illness meet Level 3
    - admissions solely receiving basic respiratory and basic cardiovascular monitoring and support due to an acute illness meet Level 2
- admissions receiving pre-surgical optimisation including invasive monitoring and treatment to improve organ system function
- admissions receiving extended post-surgical care either because of the procedure and/or the condition of the admission
- admissions stepping down to Level 2 from Level 3 care

- Level 1 – indicated by one or more of the following:
    - admission recently discharged from a higher level of care
    - admissions receiving a greater degree of observation, monitoring, intervention(s), clinical input or advice than Level 0 care
    - admissions receiving critical care outreach service support fulfilling the medium-score group, or higher, as defined by NICE Guidelines 50
- Level 0 – indicated by the following:
    - admissions in hospital and receiving normal ward care

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Liver support days

Field: Liver support days

Number of data items: One
Units of measurement: Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received liver support whilst on your unit
- record 1, 2, 3 etc. for one, two, three etc. calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Liver support – indicated by the following:
    - admissions receiving management of coagulopathy and/or management of portal hypertension (including liver purification and detoxification techniques) for either:
        - acute on chronic hepatocellular failure; or
        - primary acute hepatocellular failure whilst being considered for transplantation.

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Location (in)

Field:	Location (in)
Number of data items:	One
Options:	**W**ard o**B**stetrics area other inter**M**ediate care area **P**aediatric/neonatal ICU/HDU level 3 bed in adult **I**CU or ICU/HDU level 2 bed in adult ICU or ICU/**H**DU adult HD**U** **T**heatre & recovery accident & **E**mergency **R**ecovery only ima**G**ing department **S**pecialist treatment area **C**linic **N**ot in hospital

Definition for collection:

- the location from which this admission was admitted directly to your unit
- **W**ard is a ward in the hospital
- o**B**stetrics area is a delivery suite, labour ward or obstetrics ward in the hospital
- other inter**M**ediate care area is a CCU or other area in the hospital where the level of care is greater than the normal ward but is not an ICU or combined ICU/HDU or HDU (use text box to specify where)
- **P**aediatric/neonatal ICU/HDU is a paediatric or neonatal ICU or combined ICU/HDU or HDU in the hospital
- level 3 bed in adult **I**CU or ICU/HDU is a level 3 bed in either an adult ICU or a combined ICU/HDU in the hospital
- level 2 bed in adult ICU or ICU/**H**DU is a level 2 bed in either an adult ICU or a combined ICU/HDU in the hospital
- adult HD**U** is an adult HDU or equivalent step-up/step-down unit in the hospital, where the Critical Care Minimum Data Set (CCMDS) is collected
- **T**heatre and recovery is a theatre in the hospital, the admission having undergone all or part of a surgical procedure or anaesthesia for a surgical procedure

- accident & **E**mergency is an accident & emergency department in the hospital
- **R**ecovery only is a recovery room used as a temporary critical care facility
- ima**G**ing department is an X-ray, CT, MRI, PET or other department in the hospital dedicated to providing diagnostic imaging or interventional radiology
- **S**pecialist treatment area includes endoscopy and catheter suites in the hospital
- **C**linic is defined as an out-patient or other clinic in the hospital
- **N**ot in hospital is defined as not in hospital

Justification

Provides important information on source of admission.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Location (out)

Field:	Location (out)
Number of data items:	One
Options:	**W**ard o**B**stetrics area other inter**M**ediate care area **R**ecovery only **P**aediatric/neonatal ICU/HDU level 3 bed in adult **I**CU or ICU/HDU level 2 bed in adult ICU or ICU/**H**DU adult HD**U** **N**ot in hospital

Definition for collection:

- the location to which this admission was discharged (select first location discharged to from the list provided)
- **W**ard is a ward in the hospital
- o**B**stetrics area is a delivery suite, labour ward or obstetrics ward in the hospital
- other inter**M**ediate care area is a CCU or other area where the level of care is greater than the normal ward but is not an ICU or combined ICU/HDU or HDU (use text box to specify where)
- **R**ecovery only is a recovery room used as a temporary critical care facility
- **P**aediatric/neonatal ICU/HDU is a paediatric or neonatal ICU or ICU/HDU or HDU in the hospital
- level 3 bed in adult **I**CU or ICU/HDU is a level 3 bed in either an adult ICU or a combined ICU/HDU in the hospital
- level 2 bed in adult ICU or ICU/**H**DU is a level 2 bed in either an adult ICU or a combined ICU/HDU in the hospital
- adult HD**U** is an adult HDU or equivalent step-up/step-down unit in the hospital, where the Critical Care Minimum Data Set (CCMDS) is collected
- **N**ot in hospital is defined as discharge to a location that is no longer within a hospital

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Lymphoma

Field: Lymphoma

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has active lymphoma, documented by surgery, imaging or biopsy
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit

Justification

Weighted in the APACHE II model.

Main organism causing first unit-acquired infection in blood

Field:	Main organism causing first unit-acquired infection in blood
Number of data items:	One
Options:	**M**RSA (methicillin resistant *Staphylococcus aureus*) *Staphylococcus a**U**reus* (not *MRSA*) **V**RE *(*vancomycin resistant *enterococcus)* *E**N**terococcus* (not VRE) **Y**east (e.g. *candida*) ***P**seudomonas* *Ac**I**netobacter* *En**T**erobacter* ***K**lebsiella* ***S**erratia* *Escherichia **C**oli* (*E. Coli*) **O**ther organism *(please specify in text box)*

Definition for collection:

- unit-acquired infection is defined as the presence of an infection in any blood sample taken for microbiological culture after 48 hours following admission to your unit
- blood sample taken for microbiological culture should be taken through skin venepuncture (where unknown, assume skin venepuncture unless indicated otherwise on the report)
- record the main organism responsible for causing first infection in the blood after the first 48 hours after admission to your unit
- do not record the presence of an infection where the organism responsible for causing an infection in blood is generally considered to be a contaminant, as it is difficult to distinguish these from real infections. See Appendix: Other organism: contaminants and valid organisms.
- in the situation where more than one organism is isolated, determine the main organism causing the first unit-acquired infection in blood by giving priority to the organism isolated in two rather than one blood culture bottles (except MRSA which takes priority even when only in one bottle). If the same two organisms are isolated in both bottles, give priority according to ranking in list of organisms
- specifies whether **M**RSA was responsible for causing infection in blood. **M**RSA must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether *S. a**U**reus* (not MRSA) was responsible for causing infection in blood. *S. a**U**reus* (not MRSA) must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether **V**RE was responsible for causing infection in blood. **V**RE must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether *E**N**terococcus* (not VRE) was responsible for causing infection in blood. *E**N**terococcus* (not VRE) must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether **Y**east (e.g. *candida*) was responsible for causing infection in blood. **Y**east (e.g. *candida*) must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether ***P**seudomonas* was responsible for causing infection in blood. ***P**seudomonas* must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether *Ac**I**netobacter* was responsible for causing infection in blood. *Ac**I**netobacter* must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether *En**T**erobacter* was responsible for causing infection in blood. *En**T**erobacter* must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether ***K**lebsiella* was responsible for causing infection in blood. ***K**lebsiella* must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether ***S**erratia* was responsible for causing infection in blood. ***S**erratia* must have been isolated from sample taken no less than 48 hours after admission to your unit

- specifies whether *Escherichia **C**oli* (*E. Coli*) was responsible for causing infection in blood. *Escherichia **C**oli* (*E. Coli*) must have been isolated from sample taken no less than 48 hours after admission to your unit

- **O** - specifies whether another organism, not listed, was responsible for causing infection in blood. The organism must have been isolated from sample taken no less than 48 hours after admission to your unit. Please specify other organism in text box (for details of valid and contaminant organisms see Appendix: Other organism: contaminants and valid organisms. If identified organism is not listed, please record and validity will be checked)

Justification

Provides important information on unit-acquired infection.

Metastatic disease

Field: Metastatic disease

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has distant (not regional lymph node) metastases, documented by surgery, imaging or biopsy
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit

Justification

Weighted in the APACHE II model.

Molar pregnancy associated with recent pregnancy

Field:	Molar pregnancy associated with recent pregnancy
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- molar pregnancy is defined as trophoblastic disease – any proliferative disorder of the trophoblast and includes hydatidiform mole and choriocarcinoma
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

MRSA present

Field: MRSA present

Number of data items: One
Options: **A**dmission MRSA
Unit-acquired MRSA
No MRSA
No **S**amples taken

Definition for collection:

- **A**dmission MRSA is defined as the presence of MRSA (methicillin resistant *Staphylococcus aureus*) in any sample taken for microbiological examination after admission to your hospital and either prior to admission, or in the first 48 hours following admission, to your unit
- **U**nit-acquired MRSA is defined as the presence of MRSA in any sample taken for microbiological examination after 48 hours following admission to your unit and while still in your unit
- it is recognised that this will underestimate the true rate of unit-acquired MRSA i.e. those identified in any sample taken for microbiological examination within 48 hours post-discharge from your unit
- **N**o MRSA is defined as the absence of MRSA in any sample taken for microbiological examination after admission to your hospital and either prior to admission to or during the stay in your unit
- any sample is defined as any sample and includes skin and/or nasal swabs or screens

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Justification

Provides important information on unit-acquired infection.

Neurological status

Field:	Neurological status
Number of data items:	One
Options:	**A**ssessed **N**ot assessed

Definition for collection:

- specifies whether or not neurological status was assessed

Justification

Acts as a filter field for further data entry.

Neurological support days

Field: Neurological support days

Number of data items: One
Units of measurement: Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received any neurological support whilst on your unit
- record 1, 2, 3 etc. for one, two, three etc. calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Neurological – indicated by one or more of the following:
    - admissions with central nervous system depression sufficient to prejudice their airway and protective reflexes, except central nervous system depression caused by sedation prescribed to facilitate mechanical ventilation; or, except poisoning (e.g. deliberate or accidental self-administered overdose, alcohol, drugs etc.);
    - admissions receiving invasive neurological monitoring or treatment (e.g. ICP (intracranial pressure), jugular bulb sampling, external ventricular drain etc.);
    - admissions receiving continuous intravenous medication to control seizures and/or for continuous cerebral monitoring; and
    - admissions receiving therapeutic hypothermia using cooling protocols or devices.

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

NHS number

Field: NHS number

Number of data items: One

Definition for collection:

- unique number assigned by the NHS as a numeric ten digit code to each NHS patient

Justification

Section 251 support for the collection and use of patient identifiable data has been approved for the Case Mix Programme by the Patient Information Advisory Group (PIAG) – Approval Number: PIAG 2-10(f)/2005. NHS number forms part of this approval. NB: PIAG has now become the National Information Governance Board (NIGB).

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Number of babies in NICU following recent pregnancy

Field: Number of babies in NICU following recent pregnancy

Number of data items: One
Units of measurement: None

Definition for collection:

- specifies the number of babies admitted to NICU (neonatal intensive care unit) within 24 hours following delivery of recent pregnancy
- a NICU is a neonatal intensive care unit in any hospital
- any formal admission to NICU is sufficient to be counted, however short the stay

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Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Number of births from recent pregnancy

Fields:	Number of live births (babies) Number of stillbirths
Number of data items:	Two
Units of measurement:	None

Definition for collection:

- specifies the total number of births delivered (both live births (babies) and stillbirths) from recent pregnancy
- a live birth (baby) is defined as delivery of a baby which, after complete separation from its mother, shows any signs of life (there is no recognised gestation or weight qualifier in UK law on birth registration such that any birth at any gestation or birth weight which fulfils this criteria should be registered as a live birth (baby))
- a stillbirth is defined as delivery of a baby at or after 24 weeks' gestation which, after complete separation from its mother, shows no signs of life
- do not count either miscarriage (defined as delivery of a baby up to 24 weeks which, after complete separation from its mother, shows no signs of life) or termination of pregnancy including multiple pregnancy reduction at any gestation as a stillbirth
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Number of unit-acquired infections present in blood

Field: Number of unit-acquired infections present in blood

Number of data items: One
Units of measurement: None

Definition for collection:

- unit-acquired infection is defined as the presence of an infection in any blood sample taken for microbiological culture after 48 hours following admission to your unit
- micro-organism must have been identified in a blood sample taken not earlier than 48 hours after admission to your unit
- micro-organisms grown from line tip cultures do not represent unit-acquired infections in blood
- record the number of unit-acquired infection episodes present in blood (i.e. not the same micro-organism cultured repeatedly and presumed to be the same infection)
- do not count the presence of an infection where Coagulase-negative *Staphylococcus* (e.g. *S. epidermidis*) was responsible for causing infection in the blood as the majority of these are contaminated and it is difficult to distinguish these from real infections
- record 9 for 9 or more unit-acquired infection episodes present in blood
- it is recognised that this will underestimate the true rate of unit-acquired infections present in blood i.e. those identified in any blood sample taken for microbiological culture within 48 hours post-discharge from your unit

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Justification

Provides important information on unit-acquired infection.

Other condition in past medical history

Field: Other condition in past medical history

Number of data items: One

Definition for collection:

- other chronic condition in the past medical history relevant to this admission assessed and recorded either prior to admission or at admission
- data on other condition in the past medical history may be important specifically when conditions in the past medical history are either not severe enough to fulfill the definitions for the listed conditions or are not included
- acute conditions should not be recorded as other condition in past medical history
- other condition should not duplicate either those entered in the primary/secondary reason for admission section or in the listed conditions in the past medical history
- the code generated may describe a condition requiring surgery (a surgical code) or a condition not requiring surgery (a non-surgical code)
- codes are generated by the ICNARC Coding Method
- where the condition required to be coded is not available, code the condition as far as you can and then enter the name of the condition in the text field (periodically, these text data are used to update and improve the ICNARC Coding Method)

Justification

Provides important information for interpreting outcome.

Outcome of recent pregnancy

Field:	Outcome of recent pregnancy
Number of data items:	One
Options:	**T**ermination of pregnancy **E**ctopic pregnancy **C**aesarean section **A**ssisted vaginal **S**pontaneous vaginal

Definition for collection:

- record the most invasive method for multiple live births (babies) and/or when multiple outcomes exist (most to least invasive - termination of pregnancy, ectopic pregnancy, Caesarean section, assisted vaginal and spontaneous vaginal) for the recent pregnancy
- recently pregnant is defined as any woman who has had a miscarriage, a termination of pregnancy, a stillbirth or a live birth (baby) within 42 days of the date of admission to your unit
- **T**ermination of pregnancy is defined as a pregnancy ended spontaneously (miscarriage – defined as delivery of a baby up to 24 weeks which, after complete separation from its mother, shows no signs of life) or by medical treatment – medical treatments include drugs (a medical termination) or surgery (a surgical termination)
- **E**ctopic pregnancy is defined as laparoscopic or open surgery where the fallopian tube containing the ectopic pregnancy was injected, surgically opened (salpingotomy) or surgically removed (salpingectomy)
- **C**aesarean section is defined as a live birth (baby) and/or a stillbirth being delivered by means of an operation through the abdomen on the mother's uterus (hysterotomy)
- **A**ssisted vaginal is defined as a live birth (baby) and/or a stillbirth being delivered vaginally with the need of instruments – includes medical assistance using either a vacuum cup (ventouse) or using forceps
- **S**pontaneous vaginal is defined as a live birth (baby) and/or a stillbirth being delivered vaginally without the need of instruments except those required for episiotomy
- a live birth (baby) is defined as delivery of a baby which, after complete separation from its mother, shows any signs of life (there is no recognised gestation or weight qualifier in UK law on birth registration such that any birth at any gestation or birth weight which fulfils this criteria should be registered as a live birth (baby))

- a stillbirth is defined as delivery of a baby at or after 24 weeks which, after complete separation from its mother, shows no signs of life
- in the case of pregnancies where multiple pregnancy reduction has occurred at an earlier gestation, the final outcome of the recent pregnancy is recorded

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Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Oxygenation and pH

Fields: PaO_2 from arterial blood gas with lowest PaO_2
Associated FIO_2
Associated $PaCO_2$
Associated pH/H^+
Associated intubation status
or
Arterial blood gases missing

Number of data items:	Six	
Units of measurement:	PaO_2	kPa or mmHg
	FIO_2	fraction
	$PaCO_2$	kPa or mmHg
	pH/H^+	pH or nmol l^{-1}

Options: Associated intubation status - **Y**es or **N**o
Arterial blood gases missing - **Y**es or **N**o

Definition for collection:

- all five values from the same arterial blood gas with the lowest PaO_2 measured and recorded in the first 24 hours in your unit
- only arterial blood gas measurements are acceptable
- intubated is defined as a laryngeal mask, an endotracheal, endobronchial or tracheostomy tube in place
- if an admission stays less than 24 hours, then enter the five values from the same arterial blood gas with the lowest PaO_2 measured and recorded while in your unit
- if only one set of arterial blood gas values is measured and recorded, then this set of values is considered the arterial blood gas with the lowest PaO_2 and associated values
- if two or more arterial blood gas values provide the lowest PaO_2 value, enter the lowest PaO_2 value with the highest associated FIO_2 value
- if no arterial blood gas values are measured and recorded, then record arterial blood gases as missing
- see Appendix: Table of FIO_2 approximations for non-intubated admissions receiving oxygen treatment

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Justification

Weighted in the APACHE II and in the ICNARC models.

Past medical history of one or more of listed conditions

Field:	Past medical history of one or more of listed conditions
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether one or more of the specific conditions in the past medical history are present

Justification

Acts as a filter field for further data entry.

Platelet count

Fields:	Lowest platelet count or Pre-admission platelet count or Platelet count missing
Number of data items:	Three
Units of measurement:	$x10^{9}$ l^{-1}
Options:	Platelet count missing - **Y**es or **N**o

Definition for collection:

- lowest platelet count measured and recorded in the first 24 hours in your unit
- the effects of splenectomy are ignored
- if an admission stays less than 24 hours, then enter the lowest platelet count value measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in the near-patient testing/point of care testing laboratories with formal quality control programmes in operation
- if only one platelet count value is measured and recorded, then this value is considered the lowest value
- if no platelet count value is measured and recorded in the first 24 hours in your unit, then a pre-admission platelet count value should be recorded
- pre-admission platelet count must be measured and recorded in the four hours prior to admission
- pre-admission platelet count is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no platelet count values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record platelet count as missing

Justification

Evidence suggests that platelet count levels are associated with mortality.

Portal hypertension

Field: Portal hypertension

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has portal hypertension from whatever cause
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- evidence of portal hypertension is the presence of oesophageal or gastric varices demonstrated by surgery, imaging or endoscopy, or the demonstration of retrograde splenic-venous flow by ultrasound
- do not include gastrointestinal bleeding without evidence of portal hypertension

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Justification

Weighted in the APACHE II model.

Postcode

Field: Postcode

Number of data items: One

Definition for collection:

- normal residential postcode for this admission to your unit
- for visitors to area, use normal residential postcode for admission's permanent place of residence
- if admission is not a resident of the United Kingdom and Ireland, use list of standard country codes
- a list of standard country codes can be found at www.icnarc.org
- if postcode is unobtainable, record UNKNOWN
- if outcode (first half of postcode) is obtainable, record this

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Justification

Provides important information on source of admission.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Previous pregnancies

Fields:	Number of live births (babies) and/or stillbirths from previous pregnancies Number of previous Caesarean sections excluding most recent pregnancy
Number of data items:	Two
Units of measurement:	None

Definition for collection:

- specifies whether admission has had a previous live birth (baby) and/or stillbirth before outcome of recent pregnancy
- a live birth (baby) is defined as delivery of a baby which, after complete separation from its mother, shows any signs of life (there is no recognised gestation or weight qualifier in UK law on birth registration, so that any birth at any gestation or birth weight, which fulfils this criteria, should be registered as a live birth (baby))
- a stillbirth is defined as delivery of a baby at or after 24 weeks' gestation which, after complete separation from its mother, shows no signs of life

Justification

Provides important information on obstetric critical illness which is a rare event and only ascertainable through a large clinical audit.

This field is part of the collaboration with the Department of Health and the Joint Standing Committee of the Royal College of Anaesthetists and the Royal College of Obstetricians and Gynaecologists.

Primary reason for admission to your unit

Field: Primary reason for admission to your unit

Number of data items: One

Definition for collection:

- the primary reason for admission to your unit as assessed and recorded at admission to and during the first 24 hours in your unit
- the primary reason for admission to your unit is deemed to be the most important underlying condition or reason for admission to your unit and should describe what is happening, or could possibly happen, to this admission that precluded management on the hospital ward
- if the admission to your unit has had surgery for the condition you are coding, then a surgical code is selected, if not, then a non-surgical code is selected
- if an admission to your unit is directly admitted from theatre and recovery following surgery (same or other acute hospital), then the primary or secondary reason for admission must be a surgical code (APACHE II rules). However, where an admission has been in theatre directly before admission to your unit and has not had surgery, or the induction of anaesthesia, record a non-surgical reason for admission but enter the reason for being in theatre in the text box (e.g. intubated in theatre)
- if an admission to your unit is directly admitted from theatre and recovery and has had the induction of anaesthesia but has had no surgery (due to complications), record the complication as the primary reason for admission and the proposed surgery as the secondary reason for admission
- there is no point describing a syndrome that is characterised by a series of physiological changes as this will be apparent, so septic shock, septicaemia etc. should be secondary to an underlying condition coded as primary
- codes are generated by the ICNARC Coding Method
- where the condition required to be coded is not available, code the condition as far as you can and then enter the name of the condition in the text field (periodically, these text data are used to update and improve the ICNARC Coding Method)

Justification

Weighted in the APACHE II and the ICNARC models.

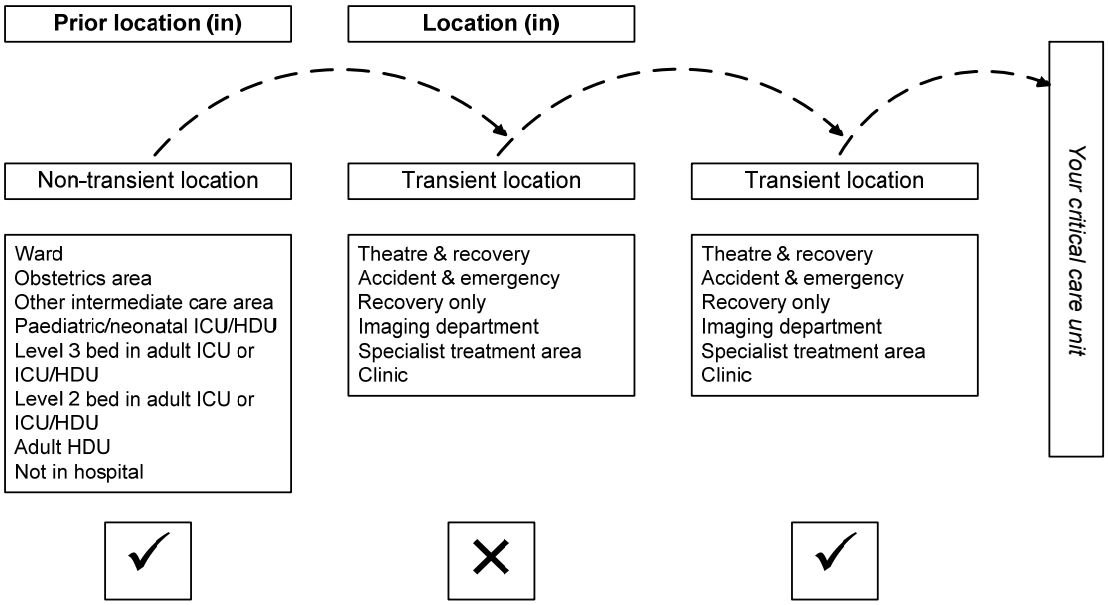
Prior location (in)

Field:	Prior location (in)
Number of data items:	One
Options:	**W**ard o**B**stetrics area other inter**M**ediate care area **P**aediatric/neonatal ICU/HDU level 3 bed in adult **I**CU or ICU/HDU level 2 bed in adult ICU or ICU/**H**DU adult HD**U** **N**ot in hospital

Definition for collection:

- specifies the prior location for admissions where the Location (in) is transient (i.e. theatre & recovery, accident & emergency, recovery only, imaging department, specialist treatment area, clinic)
- if the Prior location (in) is also transient, record the last non-transient location as the Prior location (in) (see diagram overleaf)
- **W**ard is a ward in the hospital
- o**B**stetrics area is a delivery suite, labour ward or obstetrics ward in the hospital
- other inter**M**ediate care area is a CCU or other area in the hospital where the level of care is greater than the normal ward but is not an ICU or combined ICU/HDU or HDU (use text box to specify where)
- **P**aediatric/neonatal ICU/HDU is a paediatric or neonatal ICU or combined ICU/HDU or HDU in the hospital
- level 3 bed in adult **I**CU or ICU/HDU is a level 3 bed in either an adult ICU or a combined ICU/HDU in the hospital
- level 2 bed in adult ICU or ICU/**H**DU is a level 2 bed in either an adult ICU or a combined ICU/HDU in the hospital
- adult HD**U** is an adult HDU or equivalent step-up/step-down unit in the hospital, where the Critical Care Minimum Data Set (CCMDS) is collected
- **N**ot in hospital is defined as not in hospital

- The following diagram illustrates how to record Prior location (in) where an admission passes through more than one transient location:



Justification

Provides important information on source of admission.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Pupil reactivity

Field:	Pupil reactivity (left eye) Pupil reactivity (right eye) or Pupil reactivity missing
Number of data items:	Three
Options:	**R**eactive **U**nreactive u**N**able to assess Pupil reactivity missing - **Y**es or **N**o

Definition for collection:

- most abnormal pupil reactivity, for left and right eye, assessed and recorded as a pair in the first 24 hours in your unit
- **R**eactive is defined as pupillary contraction to strong direct light
- **U**nreactive is defined as no pupillary contraction to strong direct light
- u**N**able to assess is defined where pupils cannot be inspected (e.g. eyes are closed due to facial injury or swelling, etc)
- most abnormal is rated as both unreactive>one (left or right) unreactive>both reactive
- chronically altered pupils from previous disease should be recorded as unable to assess
- only assess pupil reactivity when an admission is free from iatrogenic drug effects (e.g. drops given for dilation) are valid
- if an admission stays less than 24 hours, then enter the most abnormal pupil reactivity assessed and recorded while in your unit
- if no pupil reactivity values are assessed and recorded in the first 24 hours in your unit, then record pupil reactivity as missing

Justification

Evidence suggests that pupil reactivity is associated with mortality.

Radiotherapy

Field: Radiotherapy

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has received externally administered radiotherapy
- must have been received in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- excludes all of the following: radiotherapy for non-invasive skin tumours; enteral or parenteral radioisotope therapy; radioactive implants; radiotherapy for prevention of heterotopic bone formation

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Justification

Weighted in the APACHE II model.

Reason for discharge from your unit

Field:	Reason for discharge from your unit
Number of data items:	One
Options:	e**N**ding critical care **C**omparable critical care **R**epatriation **M**ore-specialist critical care **P**alliative care **S**elf-discharge

Definition for collection:

- discharge as e**N**ding critical care
- discharge for **C**omparable critical care (i.e. for similar care as provided in your unit) to another ICU or a combined ICU/HDU or an HDU, includes discharge for step-down care
- discharge for **R**epatriation is defined as returning an admission to their original unit, hospital or area
- discharge for **M**ore-specialist critical care (i.e. for specialist critical care, either age appropriate, e.g. paediatric critical care, or specialty appropriate, e.g. neurocritical care, not available in your unit) to another ICU or a combined ICU/HDU
- discharge for **P**alliative care is defined as withdrawal of critical care from which it is deemed that the admission can no longer benefit
- **S**elf-discharge is defined as a discharge precipitated by the admission against medical advice

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Referred to transplant co-ordinator for solid organ or tissue donation

Field:	Referred to transplant co-ordinator for solid organ or tissue donation
Number of data items:	One
Options:	**Y**es **N**o

Definition for collection:

- specifies whether a referral was made to a transplant co-ordinator team
- a referral is a formal communication about a potential or definite solid organ or tissue donor that is recorded in the case notes and does not include calls for advice
- a potential or definite solid organ or tissue donor is defined as a donor (either heartbeating or non-heartbeating) from whom one or more solid organs (heart, kidney(s), liver, lungs(s), pancreas, small bowel) are/may be removed for the purposes of transplantation, or from whom tissue (heart valves, skin, cornea, bone, dura and organs/tissue for research) are/may be removed

Justification

Provides important information on organ/tissue donation.

Renal support days

Field: Renal support days

Number of data items: One
Units of measurement: Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received renal support whilst on your unit
- record 1, 2, 3 etc for one, two, three etc calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Renal - indicated by the following:
    - admissions receiving acute renal replacement therapy (e.g. haemodialysis, haemofiltration etc.)
    - admissions receiving renal replacement therapy for chronic renal failure where other acute organ support is received
- last day of renal support is the date and time of completion of final renal replacement treatment

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Residence post-discharge from acute hospital

Field:	Residence post-discharge from acute hospital
Number of data items:	One
Options:	ho**M**e n**U**rsing home or equivalent health-related institution – **S**hort-term rehabilitation health-related institution – **L**ong-term rehabilitation other **H**ealth-related institution n**O**n-health-related institution **R**esidential place of work/education hos**P**ice or equivalent **N**o fixed address/abode or temporary abode

Definition for collection:

- admission's permanent/semi-permanent place of residence post-discharge from acute hospital
- ho**M**e includes owner occupied and rented property, sheltered housing, safe housing, warden-controlled housing, living with relatives/friends, mobile homes, houseboats, bed and breakfast (if on a semi-permanent basis), etc.
- n**U**rsing home or equivalent is an establishment providing nursing or personal care services to the older or infirm or chronically-ill population
- health-related institution – **S**hort-term rehabilitation includes a short-term care facility where rehabilitation (active promotion of recovery) care is focused on restoring and optimising the admission's functional independence and health for a defined period with a view to subsequent discharge to a permanent/semi-permanent place of residence
- health-related institution – **L**ong-term rehabilitation includes a long-term care facility where rehabilitation (active promotion of recovery) care is intertwined with maintenance (active prevention of deterioration) and other care (support for disabilities) focused on stabilising the admission's functional independence and health for an undefined period and with only the possibility of subsequent discharge to a permanent/semi-permanent place of residence
- other **H**ealth-related institution includes any other health-related institution (not short-term or long-term rehabilitation) from which there is no possibility of subsequent discharge to a permanent/ semi-permanent place of residence (e.g. institution for chronically sick etc.)
- n**O**n-health-related institution includes prison, correctional facility, children's home etc.

- **R**esidential place of work/education includes barracks, oil rig, lighthouse, monastery, trawler, embassy, cruise ship, boarding school, university etc.
- hos**P**ice or equivalent is an establishment providing medical care and support services to terminally-ill persons
- **N**o fixed address/abode or temporary abode includes either homeless or in hostels, bed and breakfast (if not on holiday) on a temporary basis, etc.

Justification

Provides important information for interpreting outcome.

Residence prior to admission to acute hospital

Field:	Residence prior to admission to acute hospital
Number of data items:	One
Options:	ho**M**e n**U**rsing home or equivalent **H**ealth-related institution n**O**n-health-related institution **R**esidential place of work/education hos**P**ice or equivalent **N**o fixed address/abode or temporary abode

Definition for collection:

- admission's permanent/semi-permanent place of residence prior to admission to acute hospital
- for transient locations e.g. on holiday, staying with relatives/friends, in a hotel (medical tourist), in the pub, on the tennis court, in a car park, outside etc. use admission's permanent/semi-permanent place of residence
- ho**M**e includes owner occupied and rented property, sheltered housing, safe housing, warden-controlled housing, living with relatives/friends, mobile homes, houseboats, bed and breakfast (if on a semi-permanent basis), etc.
- n**U**rsing home or equivalent is an establishment providing nursing or personal care services to the older or infirm or chronically-ill population
- **H**ealth-related institution includes psychiatric hospital, hospital or institution for chronically sick etc.
- n**O**n-health-related institution includes prison, correctional facility, children's home etc.
- **R**esidential place of work/education includes barracks, oil rig, lighthouse, monastery, trawler, embassy, cruise ship, boarding school, university etc.
- hos**P**ice or equivalent is an establishment providing medical care and support services to terminally-ill persons
- **N**o fixed address/abode or temporary abode includes either homeless or in hostels, bed and breakfast (if not on holiday) on a temporary basis, etc.

Justification

Provides important information on source of admission.

Respiratory rate

Fields:	Lowest non-ventilated respiratory rate Highest non-ventilated respiratory rate Lowest ventilated respiratory rate Highest ventilated respiratory rate
Number of data items:	Four
Units of measurement:	breaths min^{-1}

Definition for collection:

- lowest and highest non-ventilated respiratory rates and/or lowest and highest ventilated respiratory rates measured and recorded in the first 24 hours in your unit
- a ventilated respiratory rate is defined as where all or some of the breaths or a portion of the breaths (pressure support) are delivered by a mechanical device. Ventilation can be simply defined as a treatment where some or all of the energy required to increase lung volume during inspiration is supplied by a mechanical device
- for admissions who are ventilated, the respiratory rate should account for both ventilated and spontaneous breaths in a minute
- if an admission stays less than 24 hours, then enter the lowest and highest non-ventilated respiratory rates and/or lowest and highest ventilated respiratory rates measured and recorded while in your unit
- respiratory rates should not be recorded for any admissions during periods of iatrogenic disturbance, e.g. physiotherapy, turning, periods of crying etc.
- hand ventilation (by a member of your unit team) and high frequency and jet ventilators, negative pressure ventilators and BPAP* (bilevel positive airway pressure) are considered to be ventilated
- CPAP (continuous positive airway pressure), ECMO (extracorporeal membrane oxygenation) and IVOX (intravenacaval oxygenator/carbon dioxide removal device) alone are considered not ventilated
- if only one non-ventilated or one ventilated respiratory rate is measured and recorded, then this value is considered the lowest value
- where non-ventilated respiratory rates are not measurable (apnoea), the value zero should be recorded as the lowest non-ventilated respiratory rate

*BPAP is often also denoted BiPAP or BIPAP

Justification

Weighted in the APACHE II and the ICNARC models.

Respiratory support days

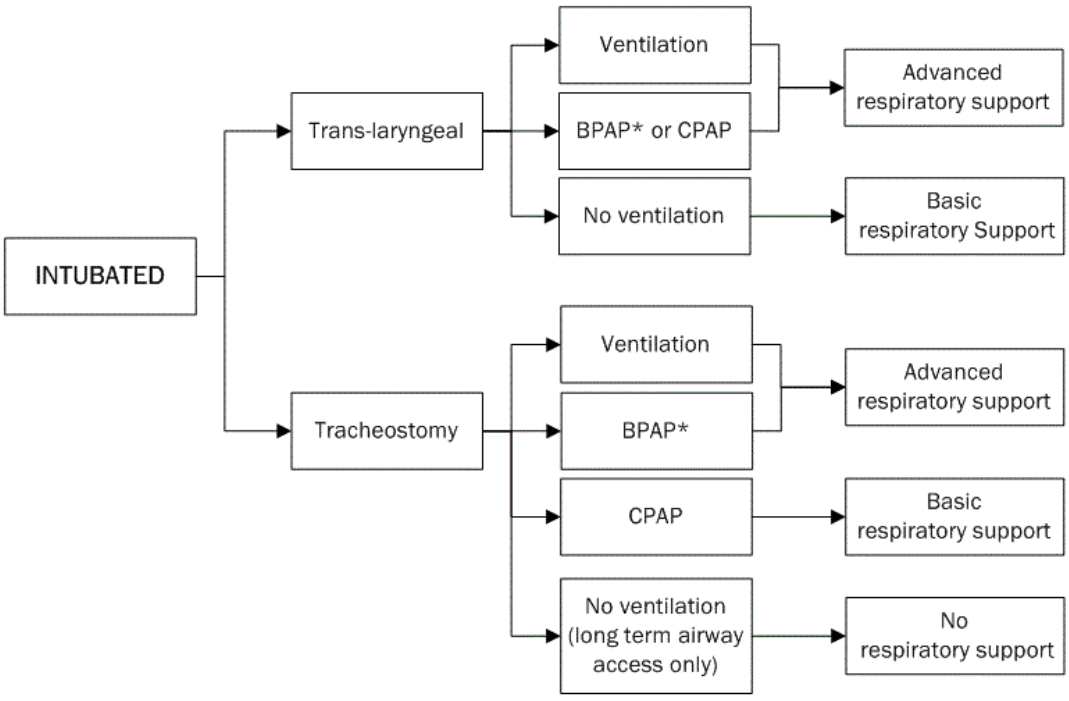
Fields:	Basic respiratory support days Advanced respiratory support days
Number of data items:	Two
Units of measurement:	Calendar days

Definition for collection:

- a calendar day is defined as any complete calendar day (00:00-23:59) or part thereof e.g. a patient admitted on 1 January 2012 at 23:45 and discharged on 3 January 2012 at 00:10 would be recorded as having received three calendar days of care
- specifies the number of calendar days during which the admission received any basic or advanced respiratory support whilst on your unit
- record 1, 2, 3 etc for one, two, three etc calendar days; record 998 for 998 or more calendar days; record 999 for support occurring but number of days not known
- Advanced Respiratory - indicated by one or more of the following (see diagram):
    - admissions receiving invasive mechanical ventilatory support applied via a trans-laryngeal tube or applied via a tracheostomy
    - admissions receiving BPAP* (bilevel positive airway pressure) applied via a trans-laryngeal tracheal tube or applied via a tracheostomy
    - admissions receiving CPAP (continuous positive airway pressure) via a trans-laryngeal tracheal tube
    - admissions receiving extracorporeal respiratory support
    - admissions receiving mask/hood CPAP or mask/hood BPAP* is <u>not</u> considered advanced respiratory support
- Basic Respiratory - indicated by one or more of the following (see diagram):
    - admissions receiving more than 50% oxygen delivered by a face mask (except those receiving short-term increases in FiO_2, e.g. during transfer, for physiotherapy, etc.)
    - admissions receiving close observation due to the potential for acute deterioration to the point of requiring advanced respiratory monitoring and support e.g. severely compromised airway, deteriorating respiratory muscle function, etc.

- admissions receiving physiotherapy or suction to clear secretions, at least two hourly, either via a tracheostomy, a minitracheostomy or in the absence of an artificial airway
- admissions recently (i.e. within 24 hours) extubated after a period (i.e. more than 24 hours) of mechanical ventilation via an endotracheal tube
- admissions receiving mask/hood CPAP or mask/hood BPAP* or non-invasive ventilation
- admissions receiving CPAP via a tracheostomy
- admissions intubated to protect their airway but receiving no ventilatory support and who are otherwise stable

- Note: If advanced and basic respiratory monitoring and support occur simultaneously, then only advanced respiratory monitoring and support should be recorded.
- The following diagram may aid categorisation to advanced or basic respiratory support:



*BPAP is often also denoted BiPAP or BIPAP

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (Version 8.0, ISN: Amd 81/2010). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Secondary reason for admission to your unit

Field: Secondary reason for admission to your unit

Number of data items: One

Definition for collection:

- the secondary reason for admission to your unit as assessed and recorded at admission to and during the first 24 hours in your unit
- the secondary reason for admission to your unit should describe, in addition to the primary reason for admission to your unit, what is happening, or could possibly happen, to this admission that precluded management on the hospital ward
- if the admission to your unit has had surgery for the condition you are coding, then a surgical code is selected, if not, then a non-surgical code is selected
- if an admission to your unit is directly admitted from theatre and recovery following surgery (same or other acute hospital), then the primary or secondary reason for admission must be a surgical code (APACHE II rules). However, where an admission has been in theatre directly before admission to your unit and has not had surgery or the induction of anaesthesia, record a non-surgical reason for admission but enter the reason for being in theatre in the text box (e.g. intubated in theatre)
- if an admission to your unit is directly admitted from theatre and recovery and has had the induction of anaesthesia but has had no surgery (due to complications), record the complication as the primary reason for admission and the proposed surgery as the secondary reason for admission
- codes are generated by the ICNARC Coding Method
- where the condition required to be coded is not available, code the condition as far as you can and then enter the name of the condition in the text field (periodically, these text data are used to update and improve the ICNARC Coding Method)

Justification

Provides important additional information to the Primary reason for admission to your unit.

Sector of other hospital (in)

Field: Sector of other hospital (in)

Number of data items: One
Options: **N**HS
non-NHS, **U**K
n**O**n-UK

Definition for collection:

- specifies the hospital sector of the other hospital from which the admission came prior to being admitted to your hospital/unit, either directly or indirectly
- **N**HS is defined as a hospital wholly or mostly owned and operated by the NHS
- non-NHS, **U**K is defined as another hospital wholly or mostly owned and operated by an organisation other than the NHS based in the United Kingdom (UK)
- n**O**n-UK is defined as another hospital which is not situated in the United Kingdom (UK)

Justification

Provides important information on source of admission.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Sector of other hospital (out)

Field: Sector of other hospital (out)

Number of data items: One
Options: **N**HS
non-NHS, **U**K
n**O**n-UK

Definition for collection:

- specifies the hospital sector of the other hospital to which the admission was discharged following discharge from your unit/hospital, either directly or indirectly
- **N**HS is defined as a hospital wholly or mostly owned and operated by the NHS
- non-NHS, **U**K is defined as another hospital wholly or mostly owned and operated by an organisation other than the NHS based in the United Kingdom (UK)
- n**O**n-UK is defined as another hospital which is not situated in the United Kingdom (UK)

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Sedated or paralysed and sedated for whole of first 24 hours in your unit

Field:	Sedated or paralysed and sedated for whole of first 24 hours in your unit
Number of data items:	One
Options:	**S**edated for whole of first 24 hours **P**aralysed and sedated for whole of first 24 hours sedated a**N**d/or paralysed for some of first 24 hours ne**V**er sedated or paralysed at any time in first 24 hours

Definition for collection:

- specifies whether admission has been sedated and/or paralysed in the first 24 hours in your unit
- if an admission stays less than 24 hours, then base assessment on the period while in your unit
- sedation is defined as receiving continuous or intermittent doses of agents to produce and maintain a continuous decreased level of consciousness – the latter includes patients allowed to lighten temporarily to assess for neurological readiness to extubate (sedation holds/vacations)
- self-sedation due to deliberate or accidental overdose/poisoning is not considered to be sedated and neurological status as seen, should be assessed
- paralysis is defined as receiving paralysis or neuromuscular blocking agents to produce and maintain continuous muscle paralysis
- if an admission is, in clinical opinion, never free from the effects of sedatives/paralysing agents, then they are considered sedated or paralysed and sedated for the whole of the first 24 hours
- the determination as to whether an admission is free from the effects of sedative and/or paralysing or neuromuscular blocking agents is left to clinical judgement, as this is the only realistic standardisation for recording these data at this time

Justification

Weighted in the ICNARC model.

Serum bicarbonate

Fields:	Lowest serum bicarbonate Highest serum bicarbonate or Pre-admission serum bicarbonate or Serum bicarbonate missing
Number of data items:	Four
Units of measurement:	mmol l^{-1}
Options:	Serum bicarbonate missing - **Y**es or **N**o

Definition for collection:

- lowest and highest serum bicarbonate values measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest serum bicarbonate values measured and recorded while in your unit
- serum bicarbonate values must be measured values from a separate biochemical process on venous blood, and not those estimated by the blood gas analyser
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point of care testing laboratories with formal quality control programmes in operation
- if only one serum bicarbonate value is measured and recorded, then this value is considered the lowest value
- if no serum bicarbonate value is measured and recorded in the first 24 hours in your unit, a pre-admission serum bicarbonate value should be recorded
- pre-admission serum bicarbonate must be measured and recorded in the four hours prior to admission
- pre-admission serum bicarbonate is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no serum bicarbonate values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record serum bicarbonate as missing

Justification

Weighted in the APACHE II model.

Serum creatinine

Fields:	Lowest serum creatinine Highest serum creatinine or Pre-admission creatinine or Serum creatinine missing
Number of data items:	Four
Units of measurement:	µmol l^{-1}
Option:	Serum creatinine missing - **Y**es or **N**o

Definition for collection:

- lowest and highest serum creatinine values measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest serum creatinine values measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point-of-care testing laboratories with formal quality control programmes in operation
- serum creatinine values can be taken from the blood gas analyser
- if only one serum creatinine value is measured and recorded, then this value is considered the lowest value
- if no serum creatinine value is measured and recorded in the first 24 hours in your unit, then a pre-admission serum creatinine value should be recorded
- pre-admission serum creatinine must be measured and recorded in the four hours prior to admission
- pre-admission serum creatinine is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no serum creatinine values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record serum creatinine as missing

Justification

Weighted in the APACHE II and ICNARC models.

Serum glucose

Fields:	Lowest serum glucose Highest serum glucose or Pre-admission serum glucose or Serum glucose missing
Number of data items:	Four
Units of measurement:	mmol l^{-1}
Options:	Serum glucose missing - **Y**es or **N**o

Definition for collection:

- lowest and highest serum glucose values measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest serum glucose values measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in the near-patient testing/point of care testing laboratories with formal quality control programmes in operation
- serum glucose values can be taken from the blood gas analyser
- estimations based on reflectance meters are included if formal quality control programmes are in operation; estimations based on the observed colour of BM stix are excluded
- if only one serum glucose value is measured and recorded, then this value is considered the lowest value
- if no serum glucose value is measured and recorded in the first 24 hours in your unit, then a pre-admission serum glucose value should be recorded
- pre-admission serum glucose must be measured and recorded in the four hours prior to admission
- pre-admission serum glucose is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no serum glucose values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record serum glucose as missing

Justification

Evidence suggests that serum glucose levels are associated with mortality.

Serum potassium

Fields:	Lowest serum potassium Highest serum potassium or Pre-admission serum potassium or Serum potassium missing
Number of data items:	Four
Units of measurement:	mmol l^{-1}
Options:	Serum potassium missing - **Y**es or **N**o

Definition for collection:

- lowest and highest serum potassium values measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest serum potassium values measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point-of-care testing laboratories with formal quality control programmes in operation
- serum potassium values can be taken from the blood gas analyser
- if only one serum potassium value is measured and recorded, then this value is considered the lowest value
- if no serum potassium value is measured and recorded in the first 24 hours in your unit, then a pre-admission serum potassium value should be recorded
- pre-admission serum potassium must be measured and recorded in the four hours prior to admission
- pre-admission serum potassium is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no serum potassium values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record serum potassium as missing

Justification

Weighted in the APACHE II model.

Serum sodium

Fields:	Lowest serum sodium Highest serum sodium or Pre-admission serum sodium or Serum sodium missing
Number of data items:	Four
Units of measurement:	mmol l^{-1}
Options:	Serum sodium missing - **Y**es or **N**o

Definition for collection:

- lowest and highest serum sodium values measured and recorded in the first 24 hours in your unit
- if an admission stays less than 24 hours, then enter the lowest and highest serum sodium values measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point-of-care testing laboratories with formal quality control programmes in operation
- serum sodium values can be taken from the blood gas analyser
- if only one serum sodium value is measured and recorded, then this value is considered the lowest value
- if no serum sodium value is measured and recorded in the first 24 hours in your unit, then a pre-admission serum sodium value should be recorded
- pre-admission serum sodium must be measured and recorded in the four hours prior to admission
- pre-admission serum sodium is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no serum sodium values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record serum sodium as missing

Justification

Weighted in the APACHE II and ICNARC models.

Serum urea

Fields:	Highest serum urea or Pre-admission serum urea or Serum urea missing

Number of data items:	Three
Units of measurement:	mmol l^{-1}
Options:	Serum urea missing - **Y**es or **N**o

Definition for collection:

- highest serum urea value measured and recorded in the first 24 hours in your unit
- the effect of artificial reduction of serum urea is ignored
- if an admission stays less than 24 hours, then enter the highest serum urea value measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point-of-care testing laboratories with formal quality control programmes in operation
- serum urea values can be taken from the blood gas analyser
- if only one serum urea value is measured and recorded then this value is considered the highest value
- if no serum urea value is measured and recorded in the first 24 hours in your unit, then a pre-admission serum urea value should be recorded
- pre-admission serum urea must be measured and recorded in the four hours prior to admission
- pre-admission serum urea is the last value (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no serum urea values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record serum urea as missing

Justification

Weighted in the ICNARC model.

Severe respiratory disease

Field: Severe respiratory disease

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether admission has permanent shortness of breath with light activity due to pulmonary disease
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- functionally, this admission is unable to work and has shortness of breath performing most normal activities of daily living, e.g. walking 20 metres on level ground, walking slowly in the house, climbing one flight of stairs, dressing or standing

---

Justification

Weighted in the APACHE II model.

Sex

Field: Sex

Number of data items: One
Options: **F**emale
Male

Definition for collection:

- genotypical (sex they were born as…) sex of the admission

Justification

Provides important information on source of admission.

Solid organ or tissue donor

Field:	Solid organ or tissue donor
Number of data items:	One
Options:	**H**eartbeating solid organ donor n**O**n-heartbeating solid organ donor **T**issue donor only **N**o solid organ(s) or tissue(s) donated

Definition for collection:

- specifies whether admission went to surgery for organ donation as either a heartbeating or non-heartbeating solid organ donor or a non-heartbeating tissue donor
- the fact that the admission went to surgery for organ or tissue donation must be documented
- **H**eartbeating solid organ donor is defined as a donor who has been certified dead following brainstem death tests (a ventilator allows the heart and circulation to continue until the organs are removed for the purposes of transplantation)
- n**O**n-heartbeating (asystolic) solid organ donor is defined as a donor whose death is certified and the organs are removed for the purposes of transplantation after the heart has stopped beating
- solid organ includes heart, kidney(s), liver, lungs(s), pancreas, small bowel
- **T**issue donor only is defined as a non-heartbeating (asystolic) tissue donor whose death is certified and the tissues are removed after the heart has stopped beating
- tissue includes heart valves, skin, cornea, bone, dura and organ(s)/tissue(s) for research
- an admission who is both a solid organ donor and a tissue donor is coded as a solid organ donor (heartbeating or non-heartbeating as appropriate)

Justification

Provides important information on organ/tissue donation.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Specialty code prior to admission to your unit

Fields: Specialty code prior to admission to your unit

Number of data items: One

Definition for collection:

- specifies the treatment function code the admission was treated under at the beginning of the hospital episode that contains the critical care period
- if admission to your unit corresponds to the start of a new episode (i.e. the primary responsibility for the admission passes to a consultant in your unit) then record the treatment function code the admission was treated under for the last (i.e. just prior to admission to your unit) hospital episode
- the treatment function code should be the particular specialty that the admission was treated under and not necessarily the main speciality of the consultant, e.g. an admission having colorectal surgery under a general surgeon would be coded as colorectal surgery and not general surgery
- see Appendix: NHS Treatment Function Codes or the NHS Data Dictionary http://www.datadictionary.nhs.uk

Justification

To quantify demand on critical care services by different hospital specialities.

Status at discharge from your hospital

Field:	Status at discharge from your hospital
Number of data items:	One
Options:	**A**live **D**ead **E**xporting data, still in your hospital

Definition for collection:

- status of the admission at discharge from the hospital housing your unit

Justification

Provides important information for interpreting outcome.

Status at discharge from your unit

Field: Status at discharge from your unit

Number of data items: One
Options: **A**live
Dead
Exporting data, still in your unit

Definition for collection:

- status of the admission at discharge from your unit
- **D**ead includes admissions who leave your unit to become heartbeating organ donors
- use this code if, at the point of **E**xporting data to ICNARC, the admission is still in your unit

---

Justification

Provides important information for interpreting outcome.

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Status at ultimate discharge from ICU/HDU

Field:	Status at ultimate discharge from ICU/HDU
Number of data items:	One
Options:	**A**live **D**ead **E**xporting data, still in ICU/HDU

Definition for collection:

- ICU/HDU is defined as an ICU or a combined ICU/HDU or an HDU
- ultimate discharge is defined as the physical discharge and recording of that discharge from a bed in another ICU/HDU

Justification

Provides important information for interpreting outcome.

It is recognised that these data are difficult to obtain. However, they are important for revealing true survival statistics for critical care.

Status at ultimate discharge from hospital

Field:	Status at ultimate discharge from hospital
Number of data items:	One
Options:	**A**live **D**ead **E**xporting data, still in hospital

Definition for collection:

- status at ultimate discharge from acute hospital
- the hospital is another acute hospital, not the hospital housing your unit
- this is not necessarily the status at discharge from the acute hospital to which the admission was directly transferred

Justification

Provides important information on outcome for the APACHE II and ICNARC models.

It is recognised that these data are difficult to obtain. However, they are important for revealing true survival statistics for critical care.

Steroid treatment

Field: Steroid treatment

Number of data items: One
Units of measurement: None
Options: **Y**es
No

Definition for collection:

- specifies whether the admission has received ≥ 0.3 mg kg^{-1} prednisolone or an equivalent dosage of another corticosteroid, daily for the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- where bodyweight for an adult admission is unknown, assume 70kg

---

Justification

Weighted in the APACHE II model.

Temperature

Fields: Lowest central temperature
Highest central temperature
Lowest non-central temperature
Highest non-central temperature

Number of data items: Four
Units of measurement: °C

Definition for collection:

- lowest and highest central/non-central temperature values measured and recorded in the first 24 hours in your unit
- central temperatures are preferred as they are a better indicator of core temperatures
- if an admission stays less than 24 hours, then enter the lowest and highest central/non-central temperature values measured and recorded while in your unit
- tympanic membrane, nasopharyngeal, oesophageal, rectal, pulmonary artery and bladder are considered to be central temperature measurement sites; all other sites are considered to be non-central
- temperature values are included irrespective of whether the value was artificially manipulated through treatment such as central cooling
- temperature values measured and recorded for the purpose of estimating perfusion e.g. toe or ear lobe, are not to be included
- if only one central/non-central temperature value is measured and recorded, then this value is considered the lowest value

---

Justification

Weighted in the APACHE II and ICNARC models.

Timeliness of discharge from your unit

Field:	Timeliness of discharge from your unit
Number of data items:	One
Options:	**F**ully ready **D**elayed **E**arly

Definition for collection:

- **F**ully ready is defined as an appropriately timed discharge of an admission; where there is no record of the admission being discharged early or delayed, the admission should be recorded as fully ready
- **D**elayed is defined as the admission remaining on your unit despite requiring a level of care that could be delivered in either a less specialised area or a more specialised unit
- **E**arly is defined as an unplanned discharge of an admission still requiring the current level of care (e.g. usually caused by a shortage of beds)

Justification

This field is part of the NHS Critical Care Minimum Data Set (CCMDS) approved by the Department of Health and supported by the Intensive Care Society (DSCN: 25/2008 Version 1.1). These data support local, regional and national analysis, commissioning and Payment by Results (PbR). Level of care definitions are based on ICS Standards and Guidelines 2009.

Transferring unit admission number

Field: Transferring unit admission number

Number of data items: One
Units of measurement: None

Definition for collection:

- the admission number given to this admission in the unit from which they were transferred to your unit
- only valid if the unit from which the admission was transferred is actively participating in the Case Mix Programme
- if the unit from which the admission was transferred is not actively participating in the Case Mix Programme, then complete Type of adult ICU/HDU (in), Adult ICU/HDU within your critical care transfer group (in) and Date of original admission to ICU/HDU
- to obtain the correct transferring unit admission number, contact the unit participating in the Case Mix Programme from which this admission was transferred to your unit

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Justification

Provides important information to link admissions across units.

Transferring unit identifier (in)

Field: Transferring unit identifier (in)

Number of data items: One
Units of measurement: None

Definition for collection:

- the identifier for the unit from which this admission was directly transferred to your unit
- only valid if the unit from which the admission was directly transferred is actively participating in the Case Mix Programme
- if the unit from which the admission was transferred is not actively participating in the Case Mix Programme, then complete Type of adult ICU/HDU (in), Adult ICU/HDU within your critical care transfer group (in) and Date of original admission to ICU/HDU
- a list of transferring unit identifiers for actively participating units can be found at www.icnarc.org

Justification

Provides important information to link admissions across units.

Transferring unit identifier (out)

Field: Transferring unit identifier (out)

Number of data items: One
Units of measurement: None

Definition for collection:

- the identifier for the unit to which the admission was directly transferred
- only valid if the unit to which the admission was directly transferred is actively participating in the Case Mix Programme
- if the unit from which the admission was transferred is not actively participating in the Case Mix Programme, then complete Type of adult ICU/HDU (out), Adult ICU/HDU within your critical care transfer group (out) and Date of ultimate discharge from ICU/HDU
- a list of transferring unit identifiers for actively participating units can be found at www.icnarc.org

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Justification

Provides important information to link admissions across units.

Treatment withheld/withdrawn

Field:	Treatment withheld/withdrawn
Number of data items:	One
Options:	wit**H**held **W**ithdrawn **B**oth withheld then withdrawn **N**either

Definition for collection:

- specifies whether one or more clinically indicated treatments were withheld, or all clinically indicated treatments, other than comfort measures, were withdrawn, or both occurred, on the grounds of lack of benefit to the patient
- wit**H**held is defined as where one or more clinically indicated treatments were not instituted or escalated (e.g. limit on Norepinephrine) on the grounds of lack of benefit to the patient
- **W**ithdrawn is defined as where all clinically indicated treatments, other than comfort measures, were withdrawn on the grounds of lack of benefit to the patient
- **B**oth withheld then withdrawn is defined as where one or more clinically indicated treatments were withheld progressing to all clinically indicated treatments, other than comfort measures, being withdrawn on the grounds of lack of benefit to the patient
- **N**either is defined as where clinically indicated treatment(s) were neither withheld nor withdrawn
- withholding and/or withdrawing of one or more clinically indicated treatments must be documented

Justification

Provides important information for interpreting outcome.

Type of adult ICU/HDU (in)

Field: Type of adult ICU/HDU (in)

Number of data items: One
Options:
General
Cardiac
Thoracic
Liver
Spinal injury
Burns & plastic
Renal
Neurosciences
Medical
s**U**rgical
Obstetric

Definition for collection:

- specifies the type of adult ICU or combined ICU/HDU or HDU from which the admission was transferred prior to admission to your unit
- specifies the principal clinical service or predominant patient population
- for mixed units use either **G**eneral or the predominant specialty

---

Justification

Provides important information to link admissions across units.

Type of adult ICU/HDU (out)

Field:	Type of adult ICU/HDU (out)
Number of data items:	One
Options:	**G**eneral **C**ardiac **T**horacic **L**iver **S**pinal injury **B**urns & plastic **R**enal **N**eurosciences **M**edical s**U**rgical **O**bstetric

Definition for collection:

- specifies the type of adult ICU or combined ICU/HDU or HDU to which the admission was transferred post-discharge from your unit
- specifies the principal clinical service or predominant patient population
- for mixed units use either **G**eneral or the predominant speciality

Justification

Provides important information to link admissions across units.

Ultimate primary reason for admission to your unit

Field: Ultimate primary reason for admission to your unit

Number of data items: One

Definition for collection:

- the Ultimate primary reason for admission to your unit should describe the precise reason for admission if, after the first 24 hours in your unit, further information has become available from investigations or at autopsy and the Primary reason for admission to your unit recorded is no longer the most appropriate or can be made more explicit
- the Ultimate primary reason for admission to your unit should only be entered if different from the Primary reason for admission to your unit
- if the admission to your unit has had surgery for the condition you are coding, then a surgical code is selected, if not, then a non-surgical code is selected
- codes are generated by the ICNARC Coding Method
- where the condition required to be coded is not available, code the condition as far as you can and then enter the name of the condition in the text field (periodically, these text data are used to update and improve the ICNARC Coding Method)

Justification

Provides important additional information to the reason for admission to your unit.

Urine output

Field:	Urine output or Urine output missing
Number of data items:	Two
Units of measurement:	ml
Options:	Urine output missing - **Y**es or **N**o

Definition for collection:

- total urine output measured and recorded in the first 24 hours in your unit
- units are recommended to chart cumulative urine output to ease calculation of 24 hour total urine output
- no account is taken of the effect of diuretics
- if an admission stays less than 24 hours, then enter the total urine output measured and recorded while in your unit
- where the total urine output is zero, the value zero should be recorded
- if no urine output value is measured and recorded, then record urine output as missing

Justification

Weighted in the APACHE II and ICNARC models.

Very severe cardiovascular disease

Field: Very severe cardiovascular disease

Number of data items: One
Options: **Y**es
No

Definition for collection:

- specifies whether the admission has fatigue, claudication, dyspnoea or angina at rest
- must have been evident in the six months prior to admission to your unit
- documented prior to admission or at admission to your unit
- any activity increases symptoms
- symptoms must be due to myocardial or peripheral vascular disease
- functionally, this admission cannot stand alone, walk slowly or dress without symptoms
- New York Heart Association Functional Classification - Functional Class IV (see Appendix: New York Heart Association Functional Classification)

Justification

Weighted in the APACHE II model.

VRE present

Field: VRE present

Number of data items: One
Options: **A**dmission VRE
Unit-acquired VRE
No VRE
No **S**amples taken

Definition for collection:

- **A**dmission VRE is defined as the presence of VRE (vancomycin resistant enterococcus) in any sample taken for microbiological examination after admission to your hospital and either prior to admission, or in the first 48 hours following admission, to your unit
- **U**nit-acquired VRE is defined as the presence of VRE in any sample taken for microbiological examination after 48 hours following admission to your unit and while still in your unit
- it is recognised that this will underestimate the true rate of unit-acquired VRE i.e. those identified in any sample taken for microbiological examination within 48 hours post-discharge from your unit
- **N**o VRE is defined as the absence of VRE in any sample taken for microbiological examination after admission to your hospital and either prior to admission to or during the stay in your unit
- any sample is defined as any sample and includes skin and/or nasal swabs or screens

Justification

Provides important information on unit-acquired infection.

White blood cell count

Fields:	Lowest white blood cell count Associated absolute neutrophil count Highest white blood cell count Associated absolute neutrophil count or Pre-admission white blood cell count Associated absolute neutrophil count or White blood cell count missing
Number of data items:	Seven
Units of measurement:	$x10^{9}\ l^{-1}$
Options:	White blood cell count missing - **Y**es or **N**o

Definition for collection:

- lowest and highest white blood cell count and associated absolute neutrophil count values from the same blood sample measured and recorded in the first 24 hours in your unit
- the effects of steroids, inotropes and splenectomy are ignored
- if an admission stays less than 24 hours, then enter the lowest and highest white blood cell count and associated absolute neutrophil count values measured and recorded while in your unit
- laboratory results only - laboratory results are defined as results of tests performed either in the departments of Clinical Chemistry or Haematology or in near-patient testing/point-of-care testing laboratories with formal quality control programmes in operation
- if only one white blood cell count and associated absolute neutrophil count value is measured and recorded, then this value is considered the lowest value
- if two or more white blood cell count values provide the lowest white blood cell count, then enter the lowest white blood cell count value with the lowest associated absolute neutrophil count value
- if two or more white blood cell count values provide the highest white blood cell count value, then enter the highest white blood cell count value with the highest associated absolute neutrophil count value
- if no white blood cell count and associated absolute neutrophil count values are measured and recorded in the first 24 hours in your unit, then pre-admission white blood cell count and associated absolute neutrophil count values should be recorded

- pre-admission white blood cell count and associated absolute neutrophil count values must be measured and recorded in the four hours prior to admission
- pre-admission white blood cell count and associated absolute neutrophil count are the last values (i.e. closest to the point of admission) measured and recorded in the four hours prior to admission to your unit
- if no white blood cell count and associated absolute neutrophil count values, either in the first 24 hours in your unit or pre-admission, are measured and recorded, then record white blood cell count as missing

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Justification

Weighted in the APACHE II and ICNARC models.

Appendix

ICNARC Case Mix Programme

Version 3.1

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Contents

How to assess the Glasgow Coma Score

The Glasgow Coma Score is assessed for adults and small children or neonates as follows:

Adults [1]		Small children or neonates [2]
The best eye opening response:		
Spontaneous	**4**	
To verbal command	**3**	As for adults
To pain	**2**	
No response	**1**	
The best motor response:		
Obeys verbal command	**6**	
Localises pain	**5**	
Flexion withdrawal	**4**	As for adults
Flexion-abnormal/decorticate rigidity	**3**	
Extension/decerebrate rigidity	**2**	
No response	**1**	
The best verbal response:		
Oriented and converses	**5**	Social smile, orientates to sound, follows objects, cooing, jargon, converses. Interacts appropriately with environment
Disoriented and converses	**4**	Consolable cries. Aware of environment, uncooperative interactions
Inappropriate words	**3**	Inappropriate persistent cries, moaning, inconsistently aware of environment/inconsistently consolable
Incomprehensible sounds (not words)	**2**	Agitated, restless inconsolable cries, unaware of environment
No response	**1**	No response
If an admission is intubated, use clinical judgement to score verbal response as follows:		
Appears oriented and able to converse	**5**	Social smile, oriented to sound. Interacts appropriately with environment
Responsive but ability to converse questionable	**3**	Responsive but does not interact appropriately with environment
Generally unresponsive	**1**	Generally unresponsive

References

1 Knaus WA et al. Data Dictionary for Introduction to Data Collection, The APACHE II System: A severity of disease classification system

2 Rubenstein JS, Hageman R. Monitoring of Critically Ill Infants and Children. Intensive Care Monitoring 1988; 621 – 639.

Grading of hepatic encephalopathy

Hepatic encephalopathy is graded as follows:

Grade 0	No abnormality detected
Grade 1	Slowness in cerebration, intermittent mild confusion and euphoria
Grade 2	Confused most of the time, increasing drowsiness
Grade 3	Severe confusion, rousable, responds to simple commands
Grade 4	Unconscious, responds to painful stimuli

Reference

Park GR and Manara AR. Liver and gastrointestinal problems. In: Park GR, Manara AR. Intensive Care. Oxford University Press, 1994, pp108-121.

Code	Treatment Function Title
Surgical Specialties	
100	GENERAL SURGERY
101	UROLOGY
102	TRANSPLANTATION SURGERY
103	BREAST SURGERY
104	COLORECTAL SURGERY
105	HEPATOBILIARY & PANCREATIC SURGERY
106	UPPER GASTROINTESTINAL SURGERY
107	VASCULAR SURGERY
108	SPINAL SURGERY SERVICE
110	TRAUMA & ORTHOPAEDICS
120	ENT
130	OPHTHALMOLOGY
140	ORAL SURGERY
141	RESTORATIVE DENTISTRY
142	PAEDIATRIC DENTISTRY
143	ORTHODONTICS
144	MAXILLO-FACIAL SURGERY
150	NEUROSURGERY
160	PLASTIC SURGERY
161	BURNS CARE
170	CARDIOTHORACIC SURGERY
171	PAEDIATRIC SURGERY
172	CARDIAC SURGERY
173	THORACIC SURGERY
174	CARDIOTHORACIC TRANSPLANTATION
180	ACCIDENT & EMERGENCY
191	PAIN MANAGEMENT
Paediatric Specialties	
211	PAEDIATRIC UROLOGY
212	PAEDIATRIC TRANSPLANTATION SURGERY
213	PAEDIATRIC GASTROINTESTINAL SURGERY
214	PAEDIATRIC TRAUMA AND ORTHOPAEDICS
215	PAEDIATRIC EAR NOSE AND THROAT
216	PAEDIATRIC OPHTHALMOLOGY

217	PAEDIATRIC MAXILLO-FACIAL SURGERY
218	PAEDIATRIC NEUROSURGERY
219	PAEDIATRIC PLASTIC SURGERY
220	PAEDIATRIC BURNS CARE
221	PAEDIATRIC CARDIAC SURGERY
222	PAEDIATRIC THORACIC SURGERY
223	PAEDIATRIC EPILEPSY
241	PAEDIATRIC PAIN MANAGEMENT
242	PAEDIATRIC INTENSIVE CARE
251	PAEDIATRIC GASTROENTEROLOGY
252	PAEDIATRIC ENDOCRINOLOGY
253	PAEDIATRIC CLINICAL HAEMATOLOGY
254	PAEDIATRIC AUDIOLOGICAL MEDICINE
255	PAEDIATRIC CLINICAL IMMUNOLOGY AND ALLERGY SERVICE
256	PAEDIATRIC INFECTIOUS DISEASES
257	PAEDIATRIC DERMATOLOGY
258	PAEDIATRIC RESPIRATORY MEDICINE
259	PAEDIATRIC NEPHROLOGY
260	PAEDIATRIC MEDICAL ONCOLOGY
261	PAEDIATRIC METABOLIC DISEASE
262	PAEDIATRIC RHEUMATOLOGY
263	PAEDIATRIC DIABETIC MEDICINE
264	PAEDIATRIC CYSTIC FIBROSIS
280	PAEDIATRIC INTERVENTIONAL RADIOLOGY
290	COMMUNITY PAEDIATRICS
291	PAEDIATRIC NEURO-DISABILITY
Medical Specialties	
190	ANAESTHETICS
192	CRITICAL CARE MEDICINE
300	GENERAL MEDICINE
301	GASTROENTEROLOGY
302	ENDOCRINOLOGY
303	CLINICAL HAEMATOLOGY
304	CLINICAL PHYSIOLOGY
305	CLINICAL PHARMACOLOGY
306	HEPATOLOGY
307	DIABETIC MEDICINE
308	BLOOD AND MARROW TRANSPLANTATION
309	HAEMOPHILIA SERVICE
310	AUDIOLOGICAL MEDICINE

311	CLINICAL GENETICS
312	not a Treatment Function
313	CLINICAL IMMUNOLOGY and ALLERGY SERVICE
314	REHABILITATION SERVICE
315	PALLIATIVE MEDICINE
316	CLINICAL IMMUNOLOGY
317	ALLERGY SERVICE
318	INTERMEDIATE CARE
319	RESPITE CARE
320	CARDIOLOGY
321	PAEDIATRIC CARDIOLOGY
322	CLINICAL MICROBIOLOGY
323	SPINAL INJURIES
324	ANTICOAGULANT SERVICE
325	SPORT AND EXERCISE MEDICINE
327	CARDIAC REHABILITATION
328	STROKE MEDICINE
329	TRANSIENT ISCHAEMIC ATTACK
330	DERMATOLOGY
331	CONGENITAL HEART DISEASE SERVICE
340	RESPIRATORY MEDICINE
341	RESPIRATORY PHYSIOLOGY
342	PROGRAMMED PULMONARY REHABILITATION
343	ADULT CYSTIC FIBROSIS SERVICE
344	COMPLEX SPECIALISED REHABILITATION SERVICE
345	SPECIALIST REHABILITATION SERVICE
346	LOCAL SPECIALIST REHABILITATION SERVICE
350	INFECTIOUS DISEASES
352	TROPICAL MEDICINE
360	GENITOURINARY MEDICINE
361	NEPHROLOGY
370	MEDICAL ONCOLOGY
371	NUCLEAR MEDICINE
400	NEUROLOGY
401	CLINICAL NEUROPHYSIOLOGY
410	RHEUMATOLOGY
420	PAEDIATRICS
421	PAEDIATRIC NEUROLOGY
422	NEONATOLOGY
424	WELL BABIES

430	GERIATRIC MEDICINE
450	DENTAL MEDICINE SPECIALTIES
460	MEDICAL OPHTHALMOLOGY
500	not a Treatment Function
501	OBSTETRICS
502	GYNAECOLOGY
503	GYNAECOLOGICAL ONCOLOGY
510	Retired
520	Retired
560	MIDWIFERY SERVICE
600	not a Treatment Function
610	Retired
620	Retired
Therapies	
650	PHYSIOTHERAPY
651	OCCUPATIONAL THERAPY
652	SPEECH AND LANGUAGE THERAPY
653	PODIATRY
654	DIETETICS
655	ORTHOPTICS
656	CLINICAL PSYCHOLOGY
657	PROSTHETICS
658	ORTHOTICS
659	DRAMA THERAPY
660	ART THERAPY
661	MUSIC THERAPY
662	OPTOMETRY
663	PODIATRIC SURGERY
Psychiatry	
700	LEARNING DISABILITY
710	ADULT MENTAL ILLNESS
711	CHILD and ADOLESCENT PSYCHIATRY
712	FORENSIC PSYCHIATRY
713	PSYCHOTHERAPY
715	OLD AGE PSYCHIATRY
720	EATING DISORDERS
721	ADDICTION SERVICES
722	LIAISON PSYCHIATRY
723	PSYCHIATRIC INTENSIVE CARE
724	PERINATAL PSYCHIATRY

725	MENTAL HEALTH RECOVERY AND REHABILIATION SERVICE
726	MENTAL HEALTH DUAL DIAGNOSIS SERVICE
727	DEMENTIA ASSESSMENT SERVICE
Radiology	
800	CLINICAL ONCOLOGY (previously RADIOTHERAPY)
810	not a Treatment Function
811	INTERVENTIONAL RADIOLOGY
812	DIAGNOSTIC IMAGING
Pathology	
820	not a Treatment Function
821	not a Treatment Function
822	CHEMICAL PATHOLOGY
823	not a Treatment Function
824	not a Treatment Function
830	not a Treatment Function
831	not a Treatment Function
832	Retired
834	MEDICAL VIROLOGY
840	AUDIOLOGY
Other	
900	not a Treatment Function
901	not a Treatment Function
920	DIABETIC EDUCATION SERVICE
950	not a Treatment Function
960	not a Treatment Function
990	Retired

Notes

- Correct as of 19/03/2013
- For updated lists go to: www.datadictionary.nhs.uk –
  Search: 'Treatment Function Codes'
- Code 500 is not acceptable for Central Returns including Hospital Episode Statistics

Table of FIO_2 approximations

Conversion table for FIO_2 when measured on nasal cannula or mask (see references overleaf):

Values given represent an estimation of the likely overall FIO_2 in the airway, not just the concentration in the mask, assuming a relatively normal respiratory pattern.

Nasal cannula		Face mask		Face mask with reservoir bag		"Venturi" type face mask Ventimask		Aerosol face mask O2 15 l min^{-1} via nebulizer	
l min^{-1}	FIO_2	l min^{-1}	FIO_2	l min^{-1}	FIO_2	Set %	FIO_2	Set %	FIO_2
1	0.22	2*	0.25	6	0.60	24	0.24	35	0.28
2	0.25	3*	0.27	7	0.70	28	0.28	40	0.30
3	0.27	4	0.30	8	0.80	35	0.35	70	0.50
4	0.30	5	0.35	9	0.85	40	0.40	100	0.60
5	0.35	6	0.40	10+	0.90	60	0.50		
		7	0.45						
		8+	0.50						

* we acknowledge that there is some fresh evidence that fresh gas flows less than 4 l min^{-1} are not recommended because of the risk of CO_2 retention.

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Cox D, Gillbe C. Fixed performance oxygen masks. Hypoxic hazard of low-capacity designs. Anaesthesia 1981; 36:958-964.

Froust GN, Potter WA, Wilons MD, Golden EB. Shortcomings of using two jet nebulizers in tandem with an aerosol face mask for optimal oxygen therapy. Chest 1991; 99:1346-1351.

Goldstein RS, Young J, Rebuck AS. Effect of breathing patterns on oxygen concentration received from standard face masks. Lancet 1982; ii:1188-1190.

Green ID. Choice of method for administration of oxygen. British Medical Journal 1967; 3:593-596.

Hill SL, Barnes PK, Hollway T, Tennant R. Fixed performance oxygen masks: an evaluation. British Medical Journal 1984; 288:1261-1263.

Jones HA, Turner SL, Hughes JMB. Performance of the large-reservoir oxygen mask (Ventimask). Lancet 1984; i:1427-1431.

Leigh JM. Variation in performance of oxygen therapy devices. Annals of the Royal College of Surgeons of England 1973; 52:234-253.

Shapiro BA, Peruzzi WT, Templin R. Hypoxemia and oxygen therapy. In: Shapiro BA, editor. Clinical application of blood gases. 5th edition. Chicago: Mosby, 1995:127-155.

New York Heart Association Functional Classification

Functional classification based on the degree of physical activity precipitating cardiac symptoms:

Functional Class I	Patients with cardiac disease but without resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitations, dyspnoea or anginal pain.
Functional Class II	Patients with cardiac disease resulting in slight limitations of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitations, dyspnoea or anginal pain.
Functional Class III	Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary physical activity causes fatigue, palpitations, dyspnoea or anginal pain.
Functional Class IV	Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.

Reference

Criteria Committee of the NYHA. Nomenclature and Criteria for Diagnoses of Diseases of the Heart and Great Vessels (9th Edition). Boston, Little, Brown & Co., 1994.

Contaminant (invalid) organisms		
Genus	Species	Also known as
Aerococcus	urinae	
Bacillus	subtillis and others*	
Corynebacterium	All species*	Diphtheroids or coryneforms
Granulicatella	addiacens	Nutritionally variant streptococcus
Micrococcus	All species*	Rothia spp
Propionobacterium	acnes	
Staphylococcus†	epidermidis, haemolyticus, hominis, capitis and others	Coagulase negative staphylococci
Streptococcus	gordonii, mitis, mutans, oralis, sanguis, salivarius, warneri and others	Viridans group streptococci, α-haemolytic streptococci, aerococcus viridans

Continues on following page

* Usually not worked out to species level. Often referred to just as 'species'

† Any Staphylococcus that is not either Staphylococcus aureus or Staphylococcus lugdunensis is an invalid organism and often referred to as coagulase negative staphylococcus

Valid organisms		
Genus	Species	Also known as
Aspergillus	fumigatus	
Bacteroides	fragilis, fragilis group and many other species	Anaerobe
Burkholderia	cepacia	
Cedecea	davisae	
Chryseobacterium	meningosepticum	
Citrobacter	freundii, diversus	
Clostridium	perfringens, bifermentans and other species	
Haemophilus	influenzae	
Lactobacillus	rhamnosus and other species	
Leuconostoc	All species*	Lecuconostoc
Morganella	morganii	
Neisseria	All species*	
Pantoea	agglomerans	Enterobacter agglomerans
Peptostreptococcus	All species*	Anaerobic coccus
Prevotella	losechii	Anaerobe
Proteus	mirabilis, vulgaris	
Raoultella	planticola	
Rahnella	aquatilis	
Salmonella	enteritidis, typhi, typhimurium, many other species	
Sphingomonas	paucimobilis	
Staphylococcus	lugdunensis	
Stenotrophomonas	maltophilia	
Streptococcus	anginosus, constellatus, intermedius	Streptococcus milleri
Streptococcus	pneumoniae	Pneumonococcus
Streptococcus	pyogenes	Group A Streptococcus‡
Streptococcus	agalactiae	Group B Streptococcus‡
Streptococcus	Not usually specified	Group C Streptococcus‡
Streptococcus	bovis	Group D Streptococcus‡
Streptococcus	Not usually specified	Group G Streptococcus‡
Weeksella	virosa	

* Usually not worked out to species level. Often referred to just as ‘species’

† Any Staphylococcus that is not either Staphylococcus aureus or Staphylococcus lugdunensis is an invalid organism and often referred to as coagulase negative staphylococcus

‡ These organisms are sometimes referred to as being β-Haemolytic

Acknowledgements

Don Baldie
Carol Ball
Kerri Barber
Steve Batson
Anne Beverley
Sue Bracey
Kate Bray
James Carpenter
Tony Chang
Dave Collet
Griselda Cooper
Mike Cunningham
Nicky Davey
Liz Draper
Jane Eddleston
Jonathan Edgeworth
Sheila Harvey
Mike Heap
Sam Hickman
Al Hunt
Brian Jenkins
Sam Jones
Brian Millar
John Morris
Mick Nielsen
Martin Ogden
Gareth Parry
Roger Parslow
Sara Paterson-Brown
Jason Ratcliffe
Chris Rudge
Jeremy Rushmer
Alasdair Short
Paul Schweiger
Sharon Tainsh
Darell Tupper-Carey
John Welch
Bob Willans
Tony Wolff
Hannah Wunsch
Steve Yentis
Duncan Young
Keith Young

All Case Mix Programme participating units for their continuing feedback.

And to all those we have forgotten to mention…

Comments on the ICMPDS

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