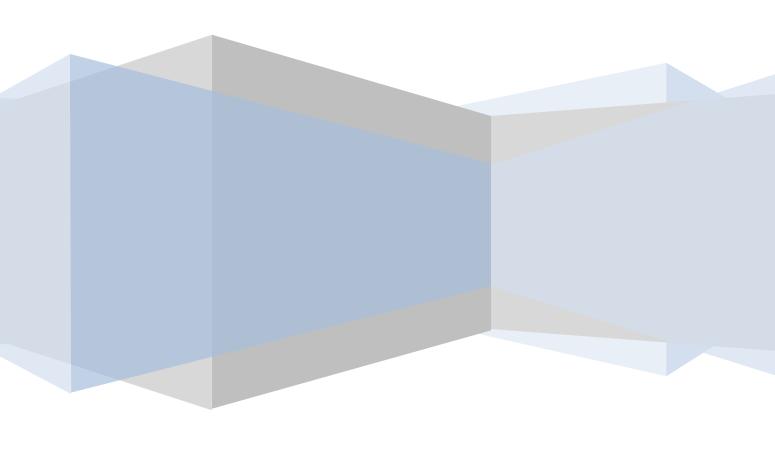


# PICANet Admission Schema Manual

Version 3.0 April 2025







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# Introduction

PICANet Web provides a mechanism for import of data into the research database through the medium of XML (Extensible Mark-up Language). For data to be successfully imported into the database it must conform to the XML schema, as defined in the XSD (XML Schema definition) document.

On upload an XML file is validated against the XSD document, files that do not match the definition will be rejected. In the event of a file not conforming to the definition the user will be provided with detailed feedback on the problems with each episode node in the file.

Historically PICANet only collected data on admissions to PICU, in recent years the PICANet project has expanded the core dataset to contain information on both referral and transport PIC events. To maintain backwards compatibility PICANet have kept the same basic structure to the XSD document that was originally designed only for admission records. For this reason the structure of the schema is not entirely logical however the PICANet system maintains the ability to import a file from a clinical information system that has not altered its export methods in over 7 years.

The top level (or parent) node of each file should be "picanetClientImport", all nodes defining referral, transport or admission events should be contained within this node. Each referral, transport or admission event should be contained within an "episode" node inside of the "picanetClientImport" parent node. Each "episode" node should contain data for one and only one referral, transport or admission event.

Each "episode" node should have the attribute "localID", the "localID" attribute should be a unique identifier that can be used to link data held in the clinical system of the PICU. For further information on any data element please refer directly to the appropriate xsd definition file.

1 000	10
Local	Lid

XML E	lement:
-------	---------

episode/Attribute: localID

# Definition:

Your local identifier

## Reason:

to link to records in your clinical system

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
1	1	No	localIDType
Datatype Definition			
Text string: 50 characters			

# Episode details node

The "episodeDetails" node contains all demographic information, PIM2 / PIM3 variables and the majority of fields that constitute an admission record. This node is a legacy structure; it dates back to before PICANet collected referral and transport data items.

Data items in this node can be supplied in any order, if some variables are not part of the event type being supplied then they can simply be omitted.

## Demographic elements

Demographic information is collected to enable us to uniquely identify a patient and to track them across all PIC services. These variables are used to track a patients treatment and journey across the service. Demographic details are used in the calculation of the PICANet variable "PatientID" which uniquely identifies an individual in the database based on the data provided.

Demographic data is collected for all event types so that we can hopefully track a patient across multiple referral / transport and admission events.

As of May 2022 the field "gpPracticeCode" has been deprecated. Units can continue temporarily to import data into this field where unable to update their exports, but the data will not be stored in PICANet web. The reason for the change is that the data is no longer needed.

## Family name

## XML Element:

episodeDetails/Element:familyName

# Definition:

The last or family name or surname given to the child as it would appear on the child's birth certificate or other appropriate document.

## Reason:

Family name provides an additional identifier that can aid patient tracking throughout the hospital and PICANet Web.

Can help identify individuals who may have had multiple referrals, transport and/or admission events to one or more PICUs.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	nameType		
		Datatype	Definition		
Text string: 35 char	Text string: 35 characters				

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episodeDetails/Element:familyName2

## Definition:

A second family name by which the child might be known.

## Reason:

Second family name provides an additional identifier that can aid patient tracking throughout the hospital. Can help identify individuals who may have had multiple admissions to one or more PICUs.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	nameType			
		Datatype	Definition			
Text string: 35 char	Text string: 35 characters					

#### First name

## XML Element:

episodeDetails/Element:firstName

## Definition:

The first name given to the child as it would appear on the child's birth certificate or other appropriate document.

## Reason:

First name provides an additional identifier that can aid patient tracking throughout the hospital and PICANet Web. Can help identify individuals who may have had multiple referrals, transport and/or admission events to one or more PICUs.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	nameType			
		Datatype	Definition Property of the Control o			
Text string: 35 char	Text string: 35 characters					

episodeDetails/Element:

- address1
- address2
- address3
- Address4

## Definition:

The normal place of residence for the child.

## Reason:

Address provides an additional identifier that can aid patient tracking throughout the paediatric intensive care service and PICANet Web.

Can help identify individuals who may have had multiple referrals, transport and/or admission events to one or more PICUs.

A full residential address is required to enable geographic and demographic information to be linked to the patient for effective audit and assessment of health services delivery.

A full residential address will allow validation of postcode.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	addressType			
		Datatype	Definition			
Text string: 50 chai	Text string: 50 characters					

episodeDetails/Element:postcode

## Definition:

The postcode for the child's normal place of residence.

## Reason:

Postcode provides an additional identifier that can aid patient tracking throughout the paediatric intensive care service and PICANet Web.

Can help identify individuals who may have had multiple referrals, transport and/or admission events to one or more PICUs.

Postcode provides a means of linkage to geographic and demographic information for effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype			
0		Yes	postcodeType			
		Datatype	Definition			
Text string: 7 chara	Text string: 7 characters					

episodeDetails/Element:nhsNo

## Definition:

Unique identifying number enabling tracing of a patient through the NHS system in the United Kingdom. For English and Welsh patients the NHS number, for Scottish patients the CHI number and for Northern Ireland the H&C number is used as a unique numeric identifier.

## Reason:

NHS, CHI or H&C number gives a unique, identifiable variable that will allow other identifiable data items to be removed from the database.

Can help identify individuals who may have had multiple referrals, transport and/or admission events to one or more PICUs.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	nhsNumberType		
		Datatype	Definition		
Numerical string: 1	Numerical string: 10 characters				

episodeDetails/Element:NhsIneligible

## Definition:

The patient is not eligible for NHS, CHI or H&C number, he or she is an overseas national who is not ordinarily a resident in the UK and therefore does not have an allocated NHS, CHI or H&C number.

## Reason:

To enable effective audit of availability of NHS, CHI or H&C number and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:boolean			
		Datatype	Definition			
Boolean data: True,	Boolean data: True/False					

## Case note number

# XML Element:

episode Details/Element: case No

## Definition:

Unique identifying number for an individual's hospital records at the treating unit.

Allocated on first admission to hospital.

## Reason:

Case note number provides a unique identifier that can aid patient tracking throughout the hospital.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	CaseNumberType			
		Datatype	Definition			
Text string: 64 char	Text string: 64 characters					

episodeDetails/Element:dob

## Definition:

The child's date of birth as recorded on the child's birth certificate or other appropriate document.

## Reason:

Date of birth and Date of admission are used to calculate age at admission to this paediatric intensive care service. Date of birth provides an additional identifier that can aid patient tracking throughout the paediatric intensive care service, hospital and PICANet Web. Can help identify individuals who may have had multiple referrals and/or admissions to one or more PICUs.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype			
0		Yes	xs:date			
		Datatype	Definition			
Date format: YYYY-	Date format: YYYY-MM-DD					

episodeDetails/Element:dobEst

## Definition:

Specifies whether the date of birth is estimated, anonymised or unknown (and cannot be estimated).

## Reason:

Date of birth and Date of admission to your unit are used to calculate age at admission to this paediatric intensive care service.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	dob Estimated Type
		Datatype	Definition
Enumerated field			<ul> <li>0 Not estimated</li> <li>1 Estimated</li> <li>2 Anonymised</li> <li>9 DOB N/K</li> </ul>

episodeDetails/Element:sex

## Definition:

Identifies the genotypical sex of the child at admission to this paediatric intensive care service.

## Reason:

Sex is important for reporting demographic statistics for admissions to your unit or transport service. Sex provides an additional identifier that can aid patient tracking throughout the paediatric intensive care service and PICANet Web.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype
0		Yes	sexType
		Datatype	Definition
Enumerated field:			<ul><li>1 Male</li><li>2 Female</li><li>3 Ambiguous</li><li>9 N/K</li></ul>

episodeDetails/Element:ethnic

## Definition:

Identifies the child's ethnic origin according to standard NHS ethnic categories and codes and Ethnic Category 2021 categories (T, W and Y).

## Reason:

Required for epidemiological analysis and assessment of health services delivery.

 $Potentially\ of\ value\ in\ clinical\ audit\ and\ research\ in\ conjunction\ with\ other\ clinical\ data.$ 

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ethnicType
		Datatype	Definition
Enumerated field:			<ul> <li>A White – English, Welsh, Scottish, Northern Irish or British</li> <li>B White - Irish</li> <li>C White – Any other White background</li> <li>D Mixed - White and Black Caribbean</li> <li>E Mixed - White and Black African</li> <li>F Mixed - White and Asian</li> <li>G Mixed – Any other Mixed or multiple ethnic background</li> <li>H Asian - Indian</li> <li>J Asian - Pakistani</li> <li>K Asian - Bangladeshi</li> <li>L Asian – Any other Asian background</li> <li>M Black - Caribbean</li> <li>N Black - African</li> <li>P Black – Any other Black, Black British or Caribbean background</li> <li>R Other - Chinese</li> <li>S Other – Any other ethnic group</li> <li>T White - Gypsy or Irish Traveller</li> <li>W Other - Arab</li> <li>Y White - Roma</li> <li>Z Not stated</li> <li>9 Unknown</li> </ul>

episode Details/Element: ethnic Other

## Definition:

Identifies the child's ethnicity when they do not fit into any of the NHS or Ethnic Category 2021 categories

## Reason:

Required for epidemiological analysis and assessment of health services delivery.

Potentially of value in clinical audit and research in conjunction with other clinical data.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	ethnicOtherType	
		Datatype	Definition	
Text string: 35 characters				

episodeDetails/Element:delOrder

# Definition:

Identifies the order in which the child was delivered if a multiple birth.

## Reason:

In the case of multiple births, delivery order provides an additional identifier that can aid patient matching.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	multiplicityBirthOrderType		
	Datatype Definition				
Integer: Numeric data without a fractional component restricted to values between 1 and 9 The value 9 can be used to indicate unknown					

# Gestational age at delivery

## XML Element:

episodeDetails/Element:gest

## Definition:

Gestational age at delivery in completed weeks if aged less than 2 years at admission to your unit. If gestational age is reported as term record 40 weeks.

## Reason:

For young infants, there is evidence that gestational age can act as an important prognostic factor. Also assists with data matching.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:integer	
		Datatype	Definition	
Integer: Numeric data without a fractional component The value 99 can be submitted to indicate that this value is unknown				

episodeDetails/Element:mult

## Definition:

Identifies whether the child was a singleton, twin, triplet, etc. If medical notes are available and there is no mention of multiple birth, assume the child is a singleton.

## Reason:

unknown

Multiple birth information provides an additional identifier that can aid patient matching.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	multiplicityBirthOrderType	
		Datatype	Definition	
Integer: Numeric data without a fractional component restricted to values between 1 and 9 The value 9 can be submitted to indicate that this value is				

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## **GP Practice code**

This field has been deprecated in the PICANet Dataset – you do not need to submit data for this node

## XML Element:

episodeDetails/Element:gpPracticeCode

## Definition:

The unique code assigned by the National Administrative Codes Service to the practice that the child's GP is part of.

## Reason:

Was previously included at the request of commissioners to enable assessment of service delivery at local CCG level. Units were to consult their local agreements to determine whether they were required to collect this data by their commissioners. Field deprecated (removed) in May 2022 by PICANet as no longer required to collect overall. Units can continue to submit data in this field but it will not be stored in PICANet Web.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	gpPracticeCodeType	
		Datatype	Definition	
Text string: 6 characters				

## Admission elements

Data relating to a patients admission to PICU is collected in the following elements, the majority of the elements in this section have been part of the PICANet core dataset for many years with very little change.

As of version 5.0 of the admission dataset (August 2014) the field "retrievalBy" has been deprecated and replaced by "ATransportOrgType". Units can continue temporarily to import data using the "retrievalBy" field as PICANet has produced a mapping to calculate the value of ATransportOrgType. The reason for the change is to align the options available with the corresponding elements for referral and transports.

episodeDetails/Element:adDate

## Definition:

The actual date that the child was physically admitted to a bed or cot within your unit. This is not the date of first contact as this may be in another department or hospital. This may be the date first charted if not documented as earlier in the admission case notes.

24 hour period, starting from 00:00hrs. 23:59 is the end of one day and 00:00 is the start of the next day.

## Reason:

Date of admission to your unit is used to calculate total length of stay on your unit.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype		
Date format: YYYY-MM-DD				

episodeDetails/Element:adTime

## Definition:

The actual time that the child was physically admitted to a bed or cot within your unit. This is not the time of first contact as this may be in another department or hospital. This may be the time first charted if not documented as earlier in the admission case notes.

24 hour period, starting from 00:00hrs. 23:59 is the end of one day and 00:00 is the start of the next day.

## Reason:

Time of admission to your unit is used to calculate total length of stay on your unit.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	xs:time	
		Datatype		
Time format: hh:mm:ss				

episodeDetails/Element:adNo

## Definition:

Unique identifier assigned to each consecutive admission to your unit.

As recorded in your unit admission book or clinical information system.

Admission to your unit is defined as the physical admission and recording of that admission to a bed or cot in your unit.

## Reason:

Admission number provides a unique identifier for each admission to each unit participating in PICANet and thus allows identification of one set of admission data from another.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	admission Number Type	
		Datatype	Definition	
Text string: 10 characters				

episodeDetails/Element:adType

## Definition:

Identifies type of admission to your unit.

- A planned admission following surgery is an admission that your unit is aware of before the surgery begins, or one that could have been delayed for more than 24 hours without risk (e.g. spinal surgery).
- An unplanned admission following surgery is an admission that your unit was not aware of before surgery began (e.g. bleeding tonsillectomy).

Surgery is defined as undergoing all or part of a procedure or anaesthesia for a procedure in an operating theatre or anaesthetic room. Please note: do not include patients admitted from the operating theatre where surgery is not the main reason for admission (e.g. a patient with a head injury who is admitted from theatre after insertion of an ICP monitor; in this patient the main reason for admission is head injury and thus the admission type would be unplanned - other).

- A planned other admission is any other planned admission that is not an emergency (e.g. liver biopsy).
- An unplanned other admission is an admission that your unit was not expecting and is therefore an emergency admission to your unit (e.g. status epilepticus).

#### Reason:

Planned admissions are weighted in PIM2/PIM3. Required for epidemiological analysis and assessment of health services provision.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	admission Type Type	
	Datatype Definition			
<ul> <li>1 Planned - following surgery</li> <li>2 Unplanned - following surgery</li> <li>3 Planned - other</li> <li>4 Unplanned</li> <li>9 N/K</li> </ul>			<ul><li>2 Unplanned - following surgery</li><li>3 Planned - other</li><li>4 Unplanned</li></ul>	

episodeDetails/Element:prevIcuAd

## Definition:

Specifies whether the child has had a previous admission to a critical care environment such as, PICU, NICU, ICU (Adult) or a Level 2 unit (HDU) before admission to your unit, during the current hospital stay.

The PICU/NICU/ICU (Adult)/Level 2 unit (HDU) can be in the same hospital as the one housing your unit, or another hospital, as long as the admission was during the current hospital stay.

If the child has been previously admitted to more than one PICU/NICU/ICU (Adult)/Level 2 unit (HDU) during the current hospital stay, record the location of the most recent admission.

Current hospital stay is defined as the period

#### Reason:

Important for assessing re-admission rates. Important for allowing the accurate matching of children from one admission to another.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	previous Icu Admission Type
		Datatype	Definition
Enumerated field:			<ul> <li>1 ICU (Adult)</li> <li>2 PICU</li> <li>3 NICU</li> <li>4 None</li> <li>5 Level 2 unit (HDU)</li> <li>9 N/K</li> </ul>

episodeDetails/Element:sourceAd

## Definition:

The location from where the child was directly admitted to your unit.

- Same hospital is defined as the same hospital housing your intensive care unit.
- Other hospital is another hospital which does not house your unit.
- Clinic is defined as an outpatient clinic.
- Home is defined as the normal place of residence for the child.

#### Reason:

Important for allowing the accurate matching of children from one admission to another including retrieval / transfer from another PICU in the original admitting hospital. Acts as a filter field for further data entry.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	source Of Admission Type	
	Datatype Definition			
Enumerated field:			<ul> <li>1 Same hospital</li> <li>2 Other hospital</li> <li>3 Clinic</li> <li>4 Home</li> <li>9 N/K</li> </ul>	

episodeDetails/Element:careAreaAd

#### Definition:

The care area that the child came from immediately before admission to your unit.

- X-ray, endoscopy, CT scanner or similar area identifies that the child came from an area where diagnostic procedures may have been carried out.
- Recovery only means the child was cared for in the recovery area prior to admission to your unit.
- Level 2 unit (HDU) means the child received care in a high dependency area prior to admission to your unit.
- Other intermediate care area is an area where the level of care is greater than that of the normal wards, but not an ICU/PICU/NICU or HDU.
- ICU/PICU/NICU means the child received care within one or more of these areas prior to admission to your unit.
- Ward means the child was admitted directly from a ward to your unit.
- Theatre and recovery means the child has undergone all or part of a surgical procedure or has received an anaesthetic for a procedure within the theatre and recovery area.
- **Emergency Department (A&E)** means the child was admitted to your unit directly from an Emergency Department.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	careAreaAdmittedFromType
		Datatype	Definition
Enumerated field:			<ul> <li>1 X-ray, endoscopy, CT scanner or similar</li> <li>2 Recovery only</li> <li>3 Level 2 unit (HDU)</li> <li>4 Other intermediate care area (not ICU or PICU or NICU)</li> <li>5 PICU/ NICU / ICU (adult)</li> <li>6 Ward</li> <li>7 Theatre and recovery</li> <li>8 Emergency department (A&amp; E)</li> <li>9 Unknown</li> </ul>

episodeDetails/Element: AdmissionCareAreaDetails

## Definition:

Identifies the care area that the child came from immediately before admission to your unit, when this doesn't not fit into any of the listed categories

## Reason:

Required for epidemiological analysis and assessment of health services provision.

## Format:

Free text.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanetFreeText255Type
		Datatype	Definition
Text string: 35 characters			

episodeDetails/Element:retrieval

## Definition:

Specifies whether the child was transferred to your unit from the original admitting hospital by a transport team. If your own PIC team go to a ward within your own hospital to help the ward staff to stabilise and then transfer a critically ill child into your own unit, this does not count as a retrieval/transfer. A retrieval/transfer is any child admitted to your unit from outside of your hospital regardless of who brought the child to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

#### Type of transport team

## This field has been added to the PICANet dataset on 01/08/2014

#### XML Element:

episodeDetails/Element:ATransportOrgType

#### Definition:

Specifies the type of transport team and identifies whether the team is a specialist PIC team or not.

- **PICU** identifies that a specialised PICU team transferred the child.
- Specialist paediatric transport service (SPTS) identifies that a transport team from a specialist paediatric transport service (SPTS) transferred the child.
- Transport team from neonates identifies that a specialist neonatal transport team transferred the child.
- Other specialist team identifies that another specialist team (not a specialist PIC or neonatal transport team), transported the child to your unit. E.g. A&E or theatre staff transferring the child.
- Other non-specialist team identifies that another non-specialist team transported the child to your unit.
- Unknown

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	TransportOrgType
		Datatype	Definition
Enumerated field			<ul> <li>1 PICU</li> <li>2 Specialised paediatric transport service (SPTS)</li> <li>3 Transport team from neonates</li> <li>4 Other specialist team</li> <li>5 Other non-specialist team</li> <li>9 Unknown</li> </ul>

## Retrieval by

This field has been deprecated in the PICANet Dataset - please do not submit data for this node

#### XML Element:

episodeDetails/Element:retrievalBy

#### Definition:

Specifies which retrieval team transported the child to your unit.

- Own team identifies that your own retrieval team collected the child from the referring hospital.
- Other PICU specialist team identifies that another PIC retrieval team transferred the child to your unit.
- Other specialist team identifies that another transport team, not a PICU team (e.g. A&E, theatres or neonatal teams), transported the child to your unit.
- **Non-specialist team** identifies that a non-PICU, nonspecialist team transported the child to your unit. This could be ward staff transferring the child to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	retrieval By Type
Datatype Definition			
Enumerated field:			<ul> <li>1 Own team</li> <li>2 Other specialist team (PICU)</li> <li>3 Other specialist team (non-PICU)</li> <li>4 Non-specialist team</li> <li>9 N/K</li> </ul>

## Transport team

## XML Element:

episodeDetails/Element:transportOrg

## Definition:

The unique name of the centralised transport service (PIC), PICU own team, other specialist team or other non-specialist team (DGH) undertaking this episode of transport.

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0	1	No	organisation ID Type		
	Datatype Definition				
Text string: 6 characters					

Other	tran	sport	team
-------	------	-------	------

episode Details/Element: transport Org Other

## Definition:

Free text field to record any uncoded organisations

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0	1	No	orgOtherType		
	Datatype Definition				
Text string: 255 characters					

• episodeDetails/Element:ACollectionOrg

## Definition:

The unique name of the organization that the patient has been collected from.

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0	1	No	organisation ID Type		
	Datatype Definition				
Text string: 6 characters					

## Other collection organisation

## XML Element:

episode Details/Element: A Collection Org Other

## Definition:

Free text field to record any uncoded organisations

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0	1	No	orgOtherType		
	Datatype Definition				
Text string: 255 characters					

## PIM2 / PIM3 elements

PIM is a scoring system for rating the severity of medical illness for children, one of several ICU scoring systems. Its name stands for "Paediatric Index of Mortality". It has been designed to provide a predicted mortality for a patient by following a well-defined procedure. Predicted mortalities are good when dealing with several patients, because the average predicted mortality for a group of patients is an indicator for the morbidity of these patients.

As of version 5.0 of the PICANet dataset (August 2014) PICANet will be moving from PIM2 to PIM3, this means that variables will be deprecated or amended and additional variables added to enable the PIM3 calculation.

The element "CardiacByp" has now been depreciated and the element "SurgicalProcedure" has been added to the database. A value is now expected in the "SurgicalProcedure" element if the element "PrimReason" (Primary reason for admission) is set to "Recovery from surgery". Units can temporarily continue to submit the element "CardiacByp" as PICANet have produced a mapping that can convert this data into the appropriate format. Please note that supplying a positive response for the "CardiacByp" element will from now mean that in terms of PIM3 calculation PICANet will consider the element "PrimReason" to be equal to "Recovery from surgery" however your data will remain in the same state as it was at import.

Please see the table below for details of this mapping.

episodeDetails/Element:electiveAd

## Definition:

Identifies whether the child is an elective admission to the paediatric intensive care service. Include admission (planned or foreseeable) after elective surgery or admission for an elective procedure (e.g. insertion of a central catheter), or elective monitoring, or review of home ventilation. Unexpected admissions (i.e. not planned and that could not have been foreseen) after elective surgery are not classed as Elective. An admission to PICU is considered elective if it could be postponed for more than 6 hours without adverse effects.

Note: this definition is taken from PIM and is more stringent than the PICANet definition of a planned admission, where an admission is regarded as planned if it could be delayed for more than 24 hours.

#### Reason:

Elective admissions are weighted in PIM2/PIM3

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	extended Yes No Unknown Type	
Datatype Definition				
Enumerated field:			<ul> <li>0 No (Converted to 2 on import)</li> <li>1 Yes</li> <li>2 No</li> <li>9 Unknown</li> </ul>	

episodeDetails/Element:primReason

## Definition:

These diagnoses are weighted in PIM2/PIM3 if they are the main reason for this admission.

#### Reason:

Choose from the following:

- Asthma
- Bronchiolitis
- Croup
   Obstructive sleep apnoea
- Recovery from surgery
- Diabetic ketoacidosis
- Seizure disorder
- Other (none of the above)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	primary Reason For Admission Type
		Datatype	Definition
Enumerated field:			<ul> <li>0 None of the below</li> <li>1 Asthma</li> <li>2 Bronchiolitis</li> <li>3 Croup</li> <li>4 Obstructive sleep apnoea</li> <li>5 Diabetic Ketoacidosis</li> <li>6 Recovery from surgery</li> <li>7 Seizure disorder</li> <li>9 N/K</li> </ul>

## Recovery from surgery: procedure

## This field has been added to the PICANet dataset on 01/08/2014

#### XML Element:

episodeDetails/Element:SurgicalProcedure

#### Definition:

If main reason for ICU admission is "Recovery from surgery or procedure" then this field can be used to classify the surgery - (include a radiological procedure or cardiac catheter). Do not include patients admitted from the operating theatre where recovery from surgery is not the main reason for admission to the paediatric intensive care service e.g. a patient with a head injury who goes to theatre for insertion of an ICP monitor; in this patient the main reason for admission is the head injury.

- Yes recovery from a bypass cardiac procedure or surgery
- Yes recovery from a non-bypass cardiac procedure or surgery
- Yes recovery from an elective liver transplant for acute or chronic liver failure.
- Yes recovery from other procedure or surgery

#### Reason:

Recovery from surgery / procedure as a reason for admission to paediatric intensive care service is weighted in PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	SurgicalProcedure
		Datatype	Definition
Enumerated field:			<ul> <li>1, 'Bypass cardiac procedure'</li> <li>2, 'Non-bypass cardiac procedure'</li> <li>3, 'Elective liver transplant'</li> <li>4, 'Other procedure'</li> <li>9, 'Unspecified'</li> </ul>

episodeDetails/Element:medHistEvid

## Definition:

Identifies whether or not evidence was available at the time of the admission event to assess past medical history. Evidence may be obtained from in or out-patient hospital notes, GP notes, or information from the child (if able), the child's family or any other responsible adult.

#### Reason:

Important data to confirm whether evidence is available to assess medical history. Acts as a filter for further data entry.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

episodeDetails/Element:precedCpr

## Definition:

Identifies whether the child has had a cardiac arrest before admission to the paediatric intensive care service, including the specialised paediatric intensive care transport service. Include both in-hospital and out-of-hospital arrests. Requires either documented absent pulse or the requirement for external cardiac compression. Do not include past history of cardiac arrest.

#### Reason:

Cardiac arrest preceding admission to the paediatric intensive care service is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episode Details/Element: prece Hosp Card Arr

## Definition:

Identifies whether the child has a cardiac arrest before this admission to hospital. Only relates to out-of-hospital cardiac arrests. Requires documented absent pulse or the requirement for external cardiac massage (do not include past history of cardiac arrest).

## Reason:

Cardiac arrest preceding admission to hospital is required for analysis and research.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episodeDetails/Element:cardioMyoCarditis

#### Definition:

Cardiomyopathy or myocarditis refers to a documented diagnosis of cardiomyopathy or myocarditis relevant to the period one month before or at first contact with the paediatric intensive care service. First contact with the specialist paediatric intensive care doctor refers to face to face contact and may occur at admission to your unit or prior to admission (e.g. on a ward in your hospital or in another hospital, when the decision to start intensive care is made). If cardiomyopathy or myocarditis only develop subsequently following admission to your unit and are not present at first contact then do not record. Impaired cardiac function associated with sepsis or surgery should NOT be recorded as cardiomyopathy. Descriptions of poor ventricular function alone, whether based upon haemodynamic or invasive pressure measurement or during real time imaging are NOT sufficient evidence of cardiomyopathy. Echocardiographic appearances of endocardial fibroelastosis in addition to evidence of poor ventricular function (echocardiographic or otherwise) are sufficient evidence of cardiomyopathy.

#### Reason:

Cardiomyopathy and myocarditis are weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episodeDetails/Element:sevCombImmune

## Definition:

Identifies whether the child has a diagnosis of severe combined immune deficiency syndrome (SCIDS) documented in the case notes prior to or at first contact with the paediatric intensive care service. Patients who have SCIDS and who have had a successful bone marrow transplant following which they have been discharged home, are still regarded as having SCIDS.

#### Reason:

Severe combined immune deficiency syndrome is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			O False/No I True/Yes

episodeDetails/Element:hypoplas

## Definition:

Identifies whether the child has hypoplastic left heart syndrome documented in the case notes prior to or at first contact with the paediatric intensive care service. Include patients of any age but only those cases where a Norwood procedure or equivalent is or was required in the neonatal period to sustain life. Patients who have previously survived to discharge home after surgical repair of hypoplastic left heart syndrome are still included. Patients with similar diagnosis who are not documented as having hypoplastic left heart syndrome are excluded e.g. critical aortic stenosis, mitral atresia, Schones complex and coarctation. Hypoplastic left ventricle is not synonymous with hypoplastic left heart syndrome unless there is also documented ventriculo-arterial concordance.

#### Reason:

Hypoplastic left heart syndrome is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episodeDetails/Element:leukLymph1st

## Definition:

Include only cases where admission is related to leukaemia or lymphoma or the therapy for these. Identifies whether the child has leukaemia or lymphoma for which first induction has been received and completed irrespective of current presumed state of immunity or remission; prior to or at first contact with the paediatric intensive care service.

#### Reason:

Leukaemia or lymphoma after completion of 1st induction is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episodeDetails/Element:liverFail

## Definition:

Identifies whether the child has acute or chronic liver failure as the main reason for this admission to the paediatric intensive care service. Include patients admitted for recovery following liver transplantation for acute or chronic liver failure. Include patients where the primary reason for admission is liver failure (of the graft).

#### Reason:

Liver failure as the main reason for admission to the paediatric intensive care service is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Admitted following cardiac bypass

This field has been deprecated in the PICANet Dataset - please do not submit data for this node

## XML Element:

episodeDetails/Element:cardiacByp

## Definition:

Identifies whether the child has been admitted after having undergone cardiac bypass immediately prior to their admission to your unit.

## Reason:

Cardiac bypass is weighted in PIM/PIM2.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Acute Necrotising Enterocolitis (NEC) main reason for ICU admission

## This field has been added to the PICANet dataset on 01/08/2014

## XML Element:

episodeDetails/Element:AcuteNec

## Definition:

Acute necrotising enterocolitis (NEC) refers to a documented diagnosis of an acute episode of NEC prior to or at first contact with the paediatric intensive care service. If NEC only develops subsequently following admission to your unit and is not present at first contact then do not record.

## Reason:

NEC at first contact with the paediatric intensive care service is weighted in PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype	Definition	
Boolean data: True/False				

episodeDetails/Element:spontCerebHaem

## Definition:

Identifies whether the child has a spontaneous cerebral haemorrhage (e.g. from an aneurysm or AV malformation) documented in the case notes prior to or at first contact with the paediatric intensive care service. Cerebral haemorrhage should be the cause of or be associated with the intensive care admission, which would normally mean it had occurred within 48 hours prior to the intensive care admission. Do not include traumatic cerebral haemorrhage or intracranial haemorrhage that is not intracerebral (e.g. subdural haemorrhage).

#### Reason:

Spontaneous cerebral haemorrhage from an aneurysm or AV malformation is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episodeDetails/Element:neurogenDis

## Definition:

Identifies whether the child has a neurodegenerative disorder documented in the case notes prior to or at admission to the paediatric intensive care service. A neurodegenerative disorder is a disease that leads to a progressive deterioration of neurological function with loss of speech, vision, hearing or locomotion. It is often associated with seizures, feeding difficulties and impairment of intellect. Requires a progressive loss of milestones or a diagnosis where this will inevitably occur. A static disability should NOT be recorded as a neurodegenerative disorder (even if it is severe).

#### Reason:

A neurodegenerative disorder is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Severe developmental delay

This field has been deprecated in the PICANet Dataset - please do not submit data for this node

#### XML Element:

episodeDetails/Element:sevDevDelay

#### Definition:

Identifies whether the child has severe developmental delay documented in the case notes prior to or at admission to your unit. Severe developmental delay must be sufficient to suggest that the IQ would, if it were or could be tested, be less than 35. Normally Down's Syndrome children achieve above this level. Severe developmental delay is a non-progressive impediment to normal behavioural, neurological or educational development.

#### Reason:

Severe developmental delay is weighted in PIM/PIM2.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype l	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

episodeDetails/Element:hiv

## Definition:

Identifies whether the child is HIV antigen positive as documented in the case notes prior to or at admission to the paediatric intensive care service.

## Reason:

The presence of HIV infection is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		No	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Bone marrow transplant recipient

# This field has been added to the PICANet dataset on 01/08/2014

## XML Element:

episode Details/Element: Bone Marrow Transplant Recipient

## Definition:

Identifies whether the child has received a bone marrow transplant during this hospital admission.

## Reason:

Bone marrow transplantation during current hospital admission is weighted in PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:boolean		
		Datatype	Definition		
Boolean data: True,	Boolean data: True/False				

episode Details/Element: Other Past Medical History

## Definition:

Identifies that none of the above apply to the patient on admission to paediatric critical care.

## Reason:

To differentiate between none of the above being applicable and missing data.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype		
Boolean data: True/False				

episodeDetails/Element: SpO2

## Definition:

The patient's oxygen saturation (SpO2), expressed as a percentage.

Record the first SpO2 (pulse oximetry) that has a corresponding FiO2measured and recorded following first face to face contact between the patient and a specialist paediatric intensive care doctor until one hour after admission to your unit.

First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval If there is more than one SpO2 recorded within the specified time period, use the first available SpO2 that has a corresponding measured and recorded FiO2, even if recorded later than an SpO2 with no corresponding FiO2

#### Reason:

To allow calculation of SpO2/FiO2 ratio.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	xs:integer	
		Datatype	Definition	
Integer: Numeric data without a fractional component The value 999 can be submitted to indicate that this value is unknown				

episodeDetails/Element: FiO2SF

## Definition:

The patient's fraction of inspired oxygen (FiO2), expressed as a fraction.

The FiO2 at the time of the first SpO2 measured and recorded following face to face contact between the patient and a specialist paediatric intensive care doctor until one hour after admission to your unit.

First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval.

Record the fraction of inspired oxygen being delivered via endotracheal tube (ETT), non-invasive ventilation (NIV), HFNCT or headbox at the same time that the first SpO2 is measured. This means the FiO2 and SpO2 recorded must relate to the same time.

If SpO2 is unknown or missing [999], then FiO2 will also be unknown or missing: record 999

If room air only record 0.21 (21%)

#### Reason:

To allow calculation of SpO2/FiO2 ratio.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs: picanet Decimal 52 Type	
Datatype Definition				
Decimal number: value must be between -999 and 999, fractional component can be up to 2 digits The value 999 can be used to indicate that this value is unknown				

episodeDetails/Element:bpSys

### Definition:

The first systolic blood pressure measured and recorded within the period following first face to face (not telephone) contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit. First contact may occur in your own hospital (on your ICU, emergency department or ward) or in another hospital on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact and that are current at that time are acceptable. In cases of doubt record the first value of each variable measured after the time of first contact. Systolic blood pressure values are included irrespective of the measurement method used or the site. Record 0 if the patient is in cardiac arrest. (Only when the BP is truly unrecordable e.g cardiac arrest should a value of 0 be collected). Record 30 if the patient is shocked and the blood pressure is so low it is unrecordable.

#### Reason:

Systolic blood pressure at first contact with the paediatric intensive care service is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	xs:integer	
		Datatype		
Integer: Numeric data without a fractional component The value 999 can be submitted to indicate that this value is unknown				

episodeDetails/Element:bgFirstHr

## Definition:

Confirmation that results from a blood gas taken and analysed within the period following first face to face contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit are available. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. The blood gas taken and analysed may be arterial, capillary or venous.

#### Reason:

Acts as a filter for further data entry. Blood gas results are weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

episode Details/Element: paO2Kpa

## Definition:

The first arterial PaO2 measured and recorded within the period following first contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. Only arterial blood gas measurements are acceptable.

#### Reason:

Arterial PaO2 (and associated FiO2) at first contact with a specialist paediatric intensive care doctor is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	picanet Decimal 52 Type	
Datatype Definition				
Decimal number: value must be between -999 and 999, fractional component can be up to 2 digits The value 999 can be used to indicate that this value is unknown				

episodeDetails/Element:paO2Hg

## Definition:

The first arterial PaO2 measured and recorded within the period following first contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. Only arterial blood gas measurements are acceptable.

#### Reason:

Arterial PaO2 (and associated FiO2) at first contact with a specialist paediatric intensive care doctor is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	xs:integer
Datatype Definition			
Integer: Numeric data without a fractional component The value 999 can be used to indicate that this value is unknown			

episodeDetails/Element:fiO2

#### Definition:

Record the FiO2 being given at the same time that the first arterial PaO2 is measured and recorded following first contact between the patient and a specialist paediatric intensive care doctor. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. Only record in association with arterial blood gas measurements.

- Record 0.21 if patient in air
- Record 999 if FiO2 is missing

#### Reason:

Arterial PaO2 and associated FiO2 at first contact with a specialist paediatric intensive care doctor are weighted in PIM2/PIM3 if oxygen is delivered via an ET tube or a head box.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype			
0		Yes	picanet Decimal 52 Type			
	Datatype Definition					
Decimal number: value must be between -999 and 999, fractional component can be up to 2 digits The value 999 can be used to indicate that this value is unknown						

episodeDetails/Element:intubation

# Definition:

Record whether or not the child was intubated at the time of the first arterial PaO2 and associated FiO2 (measured and recorded) following first contact between the patient and a specialist paediatric intensive care doctor. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Intubated is defined as an endotracheal tube, laryngeal mask or tracheostomy in situ.

#### Reason:

PaO2 and associated FiO2 at first contact with a specialist paediatric intensive care doctor are weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	yesNoNKType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>			

#### Headbox

# This field has been deprecated in the PICANet Dataset- please do not submit data for this node

#### XML Element:

episodeDetails/Element:headbox

# Definition:

Record whether or not the child was receiving oxygen via a head box at the time of the first arterial PaO2 and associated FiO2 (measured and recorded) following first contact between the patient and a specialist paediatric intensive care doctor. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval.

#### Reason:

Arterial PaO2 and associated FiO2 at first contact with a specialist paediatric intensive care doctor are weighted in PIM2/PIM3 if oxygen is delivered via an ET tube or a head box.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	yesNoNKType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>			

episodeDetails/Element:baseExcess

# Definition:

The first base excess value measured and recorded from the arterial, capillary or venous blood gas within the period following first contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. Manually calculated in vitro or in vivo base excess values are not accepted. Specify source of result: arterial, capillary or venous blood gas measurement.

#### Reason:

Base excess at first contact with a specialist paediatric intensive care doctor is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	picanetDecimal41Type		
Datatype Definition					
Decimal number: value must be between -999 and 999, fractional component can be up to 1 digit The value 999 can be used to indicate that this value is unknown					

#### Base excess: Source

# This field has been added to the PICANet dataset on 01/08/2014

# XML Element:

episode Details/Element: Base Excess Source

# Definition:

Base excess source of result: arterial, capillary or venous blood gas measurement.

# Reason:

Base excess source at first contact with a specialist paediatric intensive care doctor is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	BloodGasSource		
	Datatype Definition				
Enumerated field:			<ul> <li>1, 'Arterial'</li> <li>2, 'Capillary'</li> <li>3, 'Venous'</li> <li>9, 'Unspecified'</li> </ul>		

episodeDetails/Element:lactate

# Definition:

The first blood lactate value measured and recorded from the arterial, capillary or venous blood gas within the period following first contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit. First contact with a specialist paediatric intensive care doctor refers to first face-to-face (not telephone) contact in your own hospital (on your ICU, emergency department or ward) or another hospital/unit on retrieval. Data that are available to the specialist paediatric intensive care doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. Specify source of result: arterial, capillary or venous blood gas measurement.

#### Reason:

Blood lactate at first contact may predict outcome and be valuable alongside PIM.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	picanetDecimal52Type			
	Datatype Definition					
Decimal number: value must be between -999 and 999, fractional component can be up to 2 digits The value 999 can be used to indicate that this value is unknown						

#### Lactate: Source

# This field has been added to the PICANet dataset on 01/08/2014

# XML Element:

episodeDetails/Element:LactateSource

# Definition:

Lactate source of result: arterial, capillary or venous blood gas measurement.

# Reason:

Lactate source at first contact with a specialist paediatric intensive care doctor is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	BloodGasSource		
	Datatype Definition				
Enumerated field:			<ul> <li>1, 'Arterial'</li> <li>2, 'Capillary'</li> <li>3, 'Venous'</li> <li>9, 'Unspecified'</li> </ul>		

episodeDetails/Element:mechVent

#### Definition:

Specifies whether mechanical ventilation was given at any time within the period following first face to face contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit.

First contact with a specialist paediatric intensive care doctor refers to first face-to-face contact in your own hospital (on your ICU, emergency department or ward), or another hospital/unit on retrieval.

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 simply be defined as a treatment where some or all of the energy required to increase lung volume during inspiration is supplied by a mechanical device.

Mechanical ventilation refers to both invasive (ETT or tracheostomy) and non-invasive (nasopharyngeal airway, mask or nasal prongs). High frequency, jet ventilators, negative pressure ventilators, BiPAP and CPAP are all considered as mechanical ventilation. ECMO and IVOX are not considered as mechanical ventilation, however most patients on ECMO and IVOX are usually also being ventilated.

DO NOT include use of a device to deliver high flow nasal cannula therapy.

#### Reason:

Mechanical ventilation during the first hour of first face to face contact with the paediatric intensive care service is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype			
0		Yes	yesNoNKType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>			

episodeDetails/Element:cpapFirstHr

# Definition:

Identifies whether the child receives CPAP at any time within the period following first face to face contact between the patient and a specialist paediatric intensive care doctor to one hour after admission to your unit. First contact with a specialist paediatric intensive care doctor refers to first face-to-face contact in your own hospital (on your ICU, emergency department or ward), or another hospital/unit on retrieval. CPAP may be given via an endotracheal tube, tracheostomy, facial CPAP mask or nasal CPAP mask / prongs. DO NOT include use of a device to deliver high flow nasal cannula therapy.

#### Reason:

CPAP given during the first hour of first face to face contact with the paediatric intensive care service is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	yesNoNKType		
	Datatype Definition				
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>		

episodeDetails/Element:pupReact

### Definition:

The first observed pupil reaction measured and recorded within the period from the time of first face-to-face contact with your unit doctor to one hour after admission to your unit. First contact with your unit doctor refers to first face-to-face contact and may occur at admission to your unit or prior to admission (e.g. within your hospital on a ward or in another hospital on retrieval). Data that are available to your unit doctor at first contact that are current at that time are acceptable. In cases of doubt record the earliest measurement that was current at time of first contact. Only record as BOTH fixed and dilated if both pupils are greater than 3mm and both are fixed. Pupil reactions are used as an index of brain function. Do not record a pupil reaction as being fixed if it is due to toxins, drugs, local injury to the eye or chronically altered from a previous disease. Pupil reaction must be assessed by exposure to strong direct light.

#### Reason:

Pupillary reactions are used as an index of brain function. Reaction to bright light at first contact with your unit doctor is weighted in PIM2/PIM3.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	pupilReactionType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Both fixed and dilated</li><li>2 Other reaction</li><li>9 N/K</li></ul>			

episodeDetails/Element:AdPalCare

# Definition:

Specifies whether the child was admitted on a palliative care pathway or was receiving palliative care prior to admission to the PICU.

#### Reason:

Required for epidemiological analysis, assessment of health services delivery, measurement of therapeutic interventions, and assessment of mortality risk.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	yesNoNKType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>			

# Tracheostomy

# XML Element:

episodeDetails/Element:intTracheostomy

# Definition:

Specifies whether the child had a tracheostomy performed during their admission to your unit.

# Reason:

Required for epidemiological analysis, assessment of health services delivery and measurement of main therapeutic interventions.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

episode Details/Element: Long Term Ventilation Received

**Description** Specifies whether the child was on home oxygen or long-term ventilation immediately prior to this

admission to your unit.

Reason Required for epidemiological analysis, assessment of health services delivery and measurement of

main therapeutic interventions.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

# episode Details/Element: Long Term Ventilation Type

# Description

If yes selected for Element:HomeVent:

Specifies they type of on home oxygen or long-term ventilation the child was on immediately prior to this admission to your unit. Record highest level of intervention.

If 'Other (specify) selected please use free text description to identify other type of home oxygen or long-term ventilation.

#### Reason

Required for epidemiological analysis, assessment of health services delivery and measurement of main therapeutic interventions.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	LongTermVentilationTypeType
		Datatype	Definition
Enumerated field:			<ul> <li>6 BIPAP via tracheostomy</li> <li>5 CPAP via tracheostomy</li> <li>4 BIPAP via Facemask (oral or nasal)</li> <li>3 CPAP via Facemask (oral or nasal)</li> <li>2 NCPAP</li> <li>8 HHHFT</li> <li>1 Home Oxygen</li> <li>7 Other (specify)</li> <li>9 Unknown</li> </ul>

Other type of home oxygen	/long-term	ventilation	immediately	prior to t	this admission
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episode Details/Element: Long Term ventilation Details

# Definition:

Identifies the type of home oxygen or long-term ventilation that the child was on immediately before admission to hospital, when this doesn't not fit into any of the listed categories

#### Reason:

Required for epidemiological analysis and assessment of health services provision.

# Format:

Free text.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	picanetFreeText255Type		
Datatype Definition					
Text string: 35 characters					

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episodeDetails/Element:clinTrial

# Definition:

Specifies whether the child is part of a clinical trial.

# Reason:

Prior inclusion on a clinical trial may influence subsequent outcome.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

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episode Details/Element: clin Trial Name

# Definition:

The name of the clinical trial the child is participating in.

# Reason:

Prior inclusion on a clinical trial may influence subsequent outcome.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	clin Trial Name Type		
Datatype Definition					
Text string: 255 characters					

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XML Element:	<b>XML</b>	. Ele	me	nt:
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episode Details/Element: height

# Definition:

Height of child in centimetres

# Reason:

 $\label{localization} \mbox{Included at the request of those wishing to conduct studies which involve this parameter.}$ 

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	picanetDecimal41Type			
Datatype Definition						
Decimal number: value must be between -999 and 999, fractional component can be up to 1 digit						

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episode Details/Element: weight

# Definition:

Weight of child in kilograms

# Reason:

Included at the request of those wishing to conduct studies which involve this parameter

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	picanet Decimal 63 Type		
Datatype Definition					
Decimal number: value must be between -999 and 999, fractional component can be up to 3 digits.					

Expected range: 2.6-80kg

#### Abdominal circumference

# This field has been deprecated in the PICANet Dataset- please do not submit data for this node

# XML Element:

episodeDetails/Element:abdoCirc

# Definition:

The abdominal circumference of the child in centimetres

#### Reason:

Included at the request of those wishing to conduct studies which involve this parameter.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype		
0		Yes	picanetDecimal41Type		
Datatype Definition					
Decimal number: value must be between -999 and 999, fractional component can be up to 1 digit					

episodeDetails/Element:ClabsiEpisodes

#### Definition:

Document the number of episodes of PICU-acquired central line associated blood stream infection (CLABSI) ensuring that the child meets <u>all four</u> of the criteria of A, B, C and D:

A: Criteria for blood stream infection as defined by PICU HCAI group\*

#### **AND**

**B:** The presence of at least one central venous catheter (CVC) at the time of the positive blood culture or a CVC that was removed within 48 hours before the positive blood culture

#### **AND**

**C:** The signs and symptoms and the positive laboratory result, including the pathogen cultured from the blood, are not primarily related to infection at another site

#### **AND**

**D:** The child has been admitted to PICU for >48 hours (i.e. not admitted to PICU for or with a CLABSI), or is within 48 hours of a PICU discharge at the time of blood culture sampling

\*See the <u>HCAI expanded dataset definitions and FAQ</u> document for the full BSI criteria, definitions and frequently asked questions in relation to CLABSI.

#### Reason:

For the purposes of clinical audit, epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:integer		
Datatype Definition					
Numerical value (e.g. 3) Expecting a value between 0 and 9 If unknown enter 999					

episodeDetails/Element:CautiEpisodes

#### Definition:

Document the number of episodes of PICU-acquired catheter associated urinary tract infections (CAUTI), ensuring that the child meets all three of the criteria for A, B and C:

A: An indwelling urethral or suprapubic catheter that has been in situ for at least 48 hours or where the urine sample has been obtained within 48 hours of removal of the catheter

#### AND

B: UTI criteria: meets either one of the two below:

- 1. A child of any age with a positive urine culture with >10<sup>3</sup> colony forming units/mL with no more than two species of microorganisms AND at least 1 of the following signs or symptoms:
  - a. Fever > 38°C
  - b. Suprapubic tenderness
  - c. Costovertebral angle pain
  - d. Costovertebral angle tenderness

OR

- 2. A patient <1 year with a positive urine culture with >10³ colony forming units/mL with no more than two species of microorganisms AND at least 1 of the following signs or symptoms:
  - a. Fever >38° C or hypothermia <36° C
  - b. Apnoea
  - c. Bradycardia
  - d. Lethargy
  - e. Vomiting

#### AND

C: The child has been admitted to PICU for >48 hours (i.e. not admitted to PICU for or with a CAUTI) or is within 48 hours of a PICU discharge at the time of urine culture

See the <u>HCAI expanded dataset definitions and FAQ</u> document for frequently asked questions in relation to CAUTI.

#### Reason:

For the purposes of clinical audit, epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:integer			
	Datatype Definition					
Numerical value (e.g. 3) Expecting a value between 0 and 9 If unknown enter 999						

episodeDetails/Element:comments

# Definition:

Any additional information considered relevant to the admission. Text entered in this field may provide extra information about data entered elsewhere in a specific field in the dataset or may provide extra information on the admission, which is not collected as part of the dataset. No identifiers (patient, nurse, doctor, ICU, hospital) should be included in text data entered into this field. As there is limited space in this field all text data should be kept to a minimum and be as concise as possible. Text data must not contain any punctuation except a period (full stop) at the end of each data point.

#### Reason:

No dataset specification covers all eventualities: to deal with this a text field has been included for comments/additional information.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	commentsType		
Datatype Definition					
Text string: 500 characters					

episodeDetails/Element:unitDisStatus

# Definition:

Identifies the status (alive or dead) of the child on discharge from your unit. Dead includes admissions transferred out of your unit to become heart beating organ donors.

# Reason:

Identified as one of the principal outcomes of paediatric intensive care.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	statusType
		Datatype	Definition
Enumerated field:			<ul><li>1 Alive</li><li>2 Dead</li><li>9 N/K</li></ul>

# Date fit for discharge

# XML Element:

episodeDetails/Element:DischargeReadyDate

#### **Definition:**

Identifies the actual date the child was considered fit for discharge as opposed to the actual date of the physical discharge.

The acuity of the patient will vary depending on discharge location (e.g. if patient required surgery/specialist care prior to discharge back to tertiary NICU or another PICU patient may still be ventilated).

#### Reason:

Date of admission to your unit, Time of admission to your unit, Date of discharge from your unit and Time of discharge from your unit is used to calculate total length of stay on your unit.

Accurate recording of timings relating to discharge will allow analysis of ECMO service and delivery e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:date		
Datatype Definition					
Date field: YYYY-MM-DD					

# Time fit for discharge

# XML Element:

episodeDetails/Element:DischargeReadyTime

#### **Definition:**

Identifies the actual time the child was considered fit for discharge as opposed to the actual time of the physical discharge.

The acuity of the patient will vary depending on discharge location (e.g. if patient required surgery/specialist care prior to discharge back to tertiary NICU or another PICU patient may still be ventilated).

#### Reason:

Date of admission to your unit, Time of admission to your unit, Date of discharge from your unit and Time of discharge from your unit is used to calculate total length of stay on your unit.

Accurate recording of timings relating to discharge will allow analysis of ECMO service and delivery e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:time		
Datatype Definition					
Time field (24 hour clock): HH:MM					

episodeDetails/Element:disPalCare

# Definition:

Specifies whether the child was discharged to a palliative care pathway/ receiving palliative care prior to, or at discharge from PICU.

# Reason:

Required for epidemiological analysis, assessment of health services delivery, measurement of therapeutic interventions, and assessment of mortality risk.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	yesNoNKType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>			

# Date of discharge

# XML Element:

episode Details/Element: unit Dis Date

# Definition:

Identifies the date the child was discharged from your unit. Discharge from your unit is defined as the physical discharge and recording of that discharge from a bed or cot in your unit. Discharge does not include temporary transfer from your unit (e.g. surgery) in the expectation of a return to your unit.

#### Reason:

Date of admission to your unit, Time of admission to your unit, Date of discharge from your unit and Time of discharge from your unit is used to calculate total length of stay on your unit.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype		
0		Yes	xs:date		
Datatype Definition					
Date format: YYYY-MM-DD					

# Time of discharge

# XML Element:

episodeDetails/Element:unitDisTime

# Definition:

Identifies the time the child was discharged from your unit. Discharge from your unit is defined as the physical discharge and recording of that discharge from a bed or cot in your unit. Discharge does not include temporary transfer from your unit (e.g. surgery) in the expectation of a return to your unit.

#### Reason:

Date of admission to your unit, Time of admission to your unit, Date of discharge from your unit and Time of discharge from your unit is used to calculate total length of stay on your unit.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:time		
Datatype Definition					
Time format: hh:mm:ss					

episodeDetails/Element:dod

# Definition:

Identifies the date of death if this occurs whilst the child is resident on your unit. Includes admissions who died whilst physically outside your unit but before being discharged from your unit (e.g. in theatre). For admissions declared brainstem dead, the date of death is the date on which the first test indicates brainstem death (even though death is not pronounced until the second test has been completed). Please note that it is possible in special circumstances for a patient to have a date/time of death prior to the data and time of admission.

#### Reason:

Date of death and Time of death are identified as one of the principal outcomes of paediatric intensive care. Required for epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	xs:date	
Datatype Definition				
Date format: YYYY-MM-DD				

episodeDetails/Element:timeDth

# Definition:

Identifies the time of death if this occurs whilst the child is resident on your unit. Includes admissions who died whilst physically outside your unit but before being discharged from your unit (e.g. in theatre). For admissions declared brainstem dead, the date of death is the date on which the first test indicates brainstem death (even though death is not pronounced until the second test has been completed). Please note that it is possible in special circumstances for a patient to have a date/time of death prior to the data and time of admission.

#### Reason:

Date of death and Time of death are identified as one of the principal outcomes of paediatric intensive care. Required for epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:time	
Datatype Definition				
Time format: hh:mm:ss				

episodeDetails/Element:unitDisDest

# Definition:

Identifies the destination the child was directly discharged to from your unit.

# Reason:

Required for epidemiological analysis and assessment of health services delivery.

 $Potentially\ of\ value\ in\ clinical\ audit\ and\ research\ in\ conjunction\ with\ other\ clinical\ data.$ 

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	destination Type	
Datatype Definition				
Enumerated field:			<ul> <li>1 Normal residence</li> <li>2 Hospice</li> <li>3 Same hospital</li> <li>4 Other hospital</li> <li>9 Unknown</li> </ul>	

episode Details/Element: unit Dis Dest Hosp

# Definition:

If destination following discharge is the same hospital or another hospital then identify the hospital area discharged to

# Reason:

Required for epidemiological analysis and assessment of health services delivery.

 $Potentially\ of\ value\ in\ clinical\ audit\ and\ research\ in\ conjunction\ with\ other\ clinical\ data.$ 

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	hospital Type Type	
Datatype Definition				
Enumerated field:			<ul> <li>1 ICU (Adult)</li> <li>2 PICU</li> <li>3 NICU</li> <li>4 Level 2 Unit (HDU)</li> <li>5 SCBU</li> <li>6 Ward</li> <li>7 Other</li> <li>9 N/K</li> </ul>	

episodeDetails/Element:ModeDeath

#### **Definition:**

Specifies the mode of death for the deceased patient

**Treatment withdrawn:** death follows the withdrawal of ongoing organ support For example – an infant admitted with Group B septicaemia is extremely unstable, head CT scan shows complete loss of grey-white differentiation; as the infant deteriorates further decisions are made to stop treatment and extubate.

**Treatment limitation:** death follows a decision to limit on-going organ support and may include a limitation of ongoing organ support and/or a decision that the patient is not for active resuscitation

For example – a child with an underlying congenital condition, which includes immune deficiency is admitted with pneumonia requiring inotropic support but continues to deteriorate. The family agree their child should not be resuscitated; the child arrests and dies

**Brain stem death:** death is confirmed using brain stem death criteria/testing For example: a child with a severe head injury is admitted following a road traffic collision. The child develops fixed dilated pupils and brain stem testing confirms death.

**Failed cardiopulmonary resuscitation:** death immediately follows an unsuccessful attempt at cardiopulmonary resuscitation.

For example: a child with a known renal condition on long-term dialysis develops sepsis and deteriorates despite maximum inotropic support. Cardiac arrest occurs but is unsuccessful

#### Reason:

Required for epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	mode Death Type	
Datatype Definition				
Enumerated field:			<ul> <li>1 Treatment withdrawn</li> <li>2 Treatment limitation</li> <li>3 Death by neurological criteria</li> <li>4 Failed cardiopulmonary resuscitation</li> </ul>	

episodeDetails/Element:TransplantDonor

# Definition:

Identifies whether the deceased patient was a transplant donor, and whether solid organs and/or tissues were removed for transplantation to the body of the recipient

- Organs: may include heart, pancreas, liver, kidneys, lungs or intestines
- Tissues: may include skin, tendons, bone, heart valves and cornea

#### Reason:

Enables review of variance in donor rates. Required for clinical audit, epidemiological analysis and assessment of health services delivery. Acts as a filter for further data entry.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	transplant Donor Type	
Datatype Definition				
Enumerated field:			<ul> <li>1 No</li> <li>2 Yes - solid organs only</li> <li>3 Yes - tissues only</li> <li>4 Yes - both solid organs and tissues</li> </ul>	

Was the patient discharged with home oxygen or long-term ventilation?

# XML Element:

episode Details/Element: Long Term Ventilation Discharge

**Description** Specifies whether the child was on home oxygen or long-term ventilation at point of discharge from your unit.

**Reason** Required for epidemiological analysis, assessment of health services delivery and measurement of main

therapeutic interventions.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	yesNoNKType	
Datatype Definition				
			• 1 Yes	
Enumerated field:			<ul><li>2 No</li><li>9 N/K</li></ul>	

# Type of home oxygen/long-term ventilation at discharge

## XML Element:

episode Details/Element: Long Term Ventilation Discharge Type

**Description** If yes selected:

Specifies they type of on home oxygen or long-term ventilation the child was at point of discharge from your

unit. Record highest level of intervention.

**Reason** Required for epidemiological analysis, assessment of health services delivery and measurement of main

therapeutic interventions.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	LongTermVentilationTypeType
		Datatype	Definition
Enumerated field:			<ul> <li>6 BIPAP via tracheostomy</li> <li>5 CPAP via tracheostomy</li> <li>4 BIPAP via Facemask (oral or nasal)</li> <li>3 CPAP via Facemask (oral or nasal)</li> <li>2 NCPAP</li> <li>8 HHHFT</li> <li>1 Home Oxygen</li> <li>7 Other (specify)</li> <li>9 Unknown</li> </ul>

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episode Details/Element: Long Term ventilation Discharge Details

## Definition:

Identifies the type of home oxygen or long term ventilation that the child was on at the point of discharge hospital, when this doesn't not fit into any of the listed categories

#### Reason:

Required for epidemiological analysis and assessment of health services provision.

#### Format:

Free text.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype		
0		Yes	picanetFreeText255Type		
	Dataty	pe Definition			
Text string: 35 characters					

episodeDetails/Element:fu30DisStatus

## Definition:

Identifies the status (alive or dead) of the child on 30 days post discharge from your unit.

#### Reason:

Identified as one of the principal outcomes of paediatric intensive care. Required for epidemiological analysis and assessment of health services delivery. See the guidance notes at the beginning of this section.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	statusType
		Datatype	Definition
Enumerated field:			<ul><li>1 Alive</li><li>2 Dead</li><li>9 N/K</li></ul>

# This field has been deprecated in the PICANet Dataset- please do not submit data for this node

#### XML Element:

episodeDetails/Element:fu30Location

## Definition:

Identifies the location of the child 30 days post discharge from your unit.

#### Reason:

Identified as one of the principal outcomes of paediatric intensive care. Required for epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	destination Type
		Datatype	Definition
Enumerated field:			<ul> <li>1 Normal residence</li> <li>2 Hospice</li> <li>3 Same Hospital</li> <li>4 Other Hospital</li> <li>9 Not Known</li> </ul>

# This field has been deprecated in the PICANet Dataset- please do not submit data for this node

#### XML Element:

episodeDetails/Element:fu30LocHosp

## Definition:

Identifies the exact destination of the child 30 days post discharge from your unit if they are within your hospital or another hospital.

#### Reason:

Required for epidemiological analysis and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	hospitalTypeType
		Datatype	Definition
Enumerated field:			<ul> <li>1 ICU</li> <li>2 PICU</li> <li>3 NICU</li> <li>4 HDU</li> <li>5 SCBU</li> <li>6 Ward</li> <li>7 Other</li> <li>9 N/K</li> </ul>

#### Invasive ventilation

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:invVent

#### Definition:

Specifies whether the admission received invasive ventilatory support at any time during their stay on your unit. Invasive ventilatory support is defined as any method of ventilation delivered via an endotracheal tube, laryngeal mask or tracheostomy. Examples include SIMV, BiPAP, CPAP, HFOV (oscillation), Jet ventilation and IPPV.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

## Invasive ventilation: days

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:invVentDay

#### Definition:

Specifies the total number of days the admission received invasive ventilation during their stay on your unit. Invasive ventilatory support is defined as any method of ventilation delivered via an endotracheal tube, laryngeal mask or tracheostomy. Examples include SIMV, BiPAP, CPAP, HFOV (oscillation), Jet ventilation and IPPV.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:integer			
Datatype Definition						
Integer: Numeric data without a fractional component						

#### Non-invasive ventilation

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:nonInvVent

#### Definition:

Specifies whether the admission received non-invasive ventilatory support at any time during their stay on your unit. Non-invasive ventilatory support is defined as any method of ventilation NOT given via an endotracheal tube, laryngeal mask or tracheostomy. Non invasive ventilation would include nasal prong or nasal / facial mask CPAP, nasal or facial BiPAP or negative pressure ventilation.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

#### Non-invasive ventilation: days

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:nonInvVentDay

#### Definition:

Specifies the total number of days the admission received non-invasive ventilation during their stay on your unit. Non-invasive ventilatory support is defined as any method of ventilation NOT given via an endotracheal tube, laryngeal mask or tracheostomy. Non invasive ventilation would include nasal prong or nasal / facial mask CPAP, nasal or facial BiPAP or negative pressure ventilation.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:integer			
Datatype Definition						
Integer: Numeric data without a fractional component						

# Extracorporeal membrane oxygenation (ECMO)

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:ecmo

#### Definition:

Specifies whether the admission received ECMO therapy at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

## IV vasoactive drug therapy

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:vasoactive

#### Definition:

Specifies whether the admission received IV vasoactive drug therapy at any time during their admission to your unit. IV vasoactive drugs could include Dobutamine, Dopamine, Adrenaline, Noradrenaline, Vasopressin and Milrinone (this list is not exhaustive: please ask a doctor or nurse if you are unsure whether the child has received IV vasoactive drug therapy).

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

## Left ventricular assist device (LVAD)

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

## XML Element:

episodeDetails/Element:lvad

#### Definition:

Specifies whether the admission received LVAD therapy at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

## Intracranial pressure device

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

## XML Element:

episodeDetails/Element:icpDevice

## Definition:

Indicates whether an ICP device was used.

#### Reason:

Logical filter for ventricular drain or ICP bolt.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype
0		Yes	yesNoNKType
		Datatype	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>

## Intracranial pressure device (ventricular drain)

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:icpVD

#### Definition:

Specifies whether the child had a ventricular drain inserted at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Intracranial pressure device (ICP bolt)

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:icpBolt

#### Definition:

Specifies whether the child had an ICP bolt inserted at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype l	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

# Renal support

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

## XML Element:

episodeDetails/Element:renalSupport

## Definition:

Indicates whether renal support was provided.

#### Reason:

Logical filter for renal support variables.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype		
0		Yes	yesNoNKType		
	Datatype Definition				
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 N/K</li></ul>		

## Renal support: haemofiltration

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:renalHaemFil

## Definition:

Specifies whether the admission received renal therapy support in terms of haemofiltration at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Renal support: haemodialysis

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episode Details/Element: renal Haem Dia

## Definition:

Specifies whether the admission received renal therapy support in terms of haemodialysis at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Renal support: plasmafiltration

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:renalPlasFilt

## Definition:

Specifies whether the admission received renal therapy support in terms of plasmafiltration at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

# Renal support: plasma exchange

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episodeDetails/Element:renalPlasExch

## Definition:

Specifies whether the admission received renal therapy support in terms of plasma exchange at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

## Renal support: peritoneal dialysis

This is a summary intervention - please do not submit data for this node if you are already supplying daily interventions

#### XML Element:

episode Details/Element: renal Peri Dia

## Definition:

Specifies whether the admission received renal therapy support in terms of peritoneal dialysis at any time during their admission to your unit.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	picanet Boolean Type
		Datatype	Definition
Enumerated field:			<ul><li>0 False/No</li><li>1 True/Yes</li></ul>

#### **ECMO Elements**

The following elements were added in February 2024, with the launch of the ECMO data collection on PICANet web. Only PICU's that are designated ECMO centres are required to supply these elements, and they should be left blank for organisations that are not participating in the ECMO data collection.

PICU's participating in the ECMO custom data collection are required to provide the EcmoStatus node for all admissions, even if the patient was never referred for ECMO. All other elements in this section do not need to be supplied for PICU only admissions.

episodeDetails/Element:EcmoStatus

#### Definition:

Identifies the child's ECMO status on admission to the ECMO centre with one of the following:

- Admitted for assessment not a candidate (the child was admitted for consideration of ECMO but after assessment the decision was taken that they were not a candidate for ECMO)
- Admitted for assessment did not require ECMO (the child was admitted for consideration of ECMO but did not require ECMO during this PICU admission)
- Admitted for assessment placed on ECMO
- Admitted on ECMO the child was admitted already on ECMO
- Admitted for PICU care, placed on ECMO later the child was a standard admission to PICU. They subsequently require ECMO during this PICU admission
- Admitted for PICU care only the child was admitted for PICU care, and was never referred for ECMO

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ecmoAdmissionStatusType
		Datatype	- Definition
Enumerated field:			<ul> <li>1 Admitted for assessment - not a candidate</li> <li>2 Admitted for assessment - did not require ECMO</li> <li>3 Admitted for assessment - placed on ECMO</li> <li>4 Admitted on ECMO</li> <li>5 Admitted for PICU care, placed on ECMO later</li> <li>0 Admitted to PICU only</li> </ul>

episodeDetails/Element:NeurologicalStatusAdmission

#### Definition:

Identifies the neurological status on admission using the Paediatric Cerebral Performance Category scale:

- Normal (1): At age-appropriate level; school age child attends regular school
- Mild Disability (2): Conscious, alert, able to interact at age-appropriate level; regular school but cognition perhaps not age appropriate, possibility of mild neurological deficit.
- Moderate Disability (3): Conscious, age-appropriate independent activities of daily life, special education classroom and/or learning
- Severe Disability (4): Conscious, dependent on others for daily support because of impaired brain function
- Coma or vegetative state (5): Any degree of coma, unaware even if awake in appearance, without interaction with the environment, no evidence of cortex function, possibility for some reflexive response, spontaneous eye-opening, sleep-wake cycles
- **Dead** (6)

#### Reason:

To enable effective audit and assessment of health care services and NHSE service specification on neurological follow up

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	pcpcNeurologicalScaleType
		Datatype	Definition
Enumerated field:			<ul> <li>1 Normal</li> <li>2 Mild disability</li> <li>3 Moderate disability</li> <li>4 Severe disability</li> <li>5 Coma or vegetative state</li> <li>6 Brain death/death</li> <li>9 Unknown</li> </ul>

#### episode Details/Eleme Referral Decision Date

#### Definition:

The actual date when clinicians agreed on the outcome of the ECMO referral call resulting in this ECMO admission

This may not be the date of the first telephone call to the PICU or transport service as this may have been for advice or discussion only.

#### Reason:

Date of the referral decision will be used to calculate the total time the referral process takes for each individual patient and assist in linking admission/referral events

Accurate recording of date will allow analysis of resources involved e.g., due to lack of availability of staffed beds or transport teams.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype D	efinition	
Date format: YYYY-MM-DD				

#### episodeDetails/Element:EcmoReason

#### Definition:

Identifies the underlying pathophysiology for requiring ECMO:

**Respiratory failure** – The use of extracorporeal membrane oxygenation with a primary indication for support of respiratory failure

**Circulatory failure –** The use of extracorporeal membrane oxygenation with a primary indication to support the circulation

**ECPR** – Extracorporeal cardiopulmonary resuscitation is the initiation of ECMO after cardiac arrest while CPR is ongoing or just after CPR has been delivered (within 20 minutes of return of circulation)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	ecmoReasonType		
	Datatype Definition				
Enumerated field:			<ul> <li>1 Respiratory failure</li> <li>2 Circulatory failure</li> <li>3 ECPR</li> <li>9 Unknown</li> </ul>		

episodeDetails/Element:EcmoStartCareArea

Definition:

Identifies the location where the ECMO cannulas were place and ECMO initiated

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ecmoCareAreaType
		Datatype D	efinition
Enumerated field:			<ul> <li>1 PICU/cardiac PICU</li> <li>2 NICU</li> <li>3 Emergency department</li> <li>4 Adult ICU</li> <li>5 Cardiac theatre</li> <li>6 Cardiac catheter lab</li> <li>7 Other theatre</li> <li>8 Other</li> <li>9 Unknown</li> </ul>

episode Details/Element: EcmoStart Care Area Details

Definition:

Identifies the location where the ECMO cannulas were place and ECMO initiated

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	picanetFreeText255Type	
		Datatype D	Definition	
Text string: 255 characters				

## episode Details/Element: Cardiac Surgical Patient

Definition:

Identifies if patient is a cardiac surgical patient (includes planned or unplanned).

If yes - specify timing of ECMO

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	YesNoUnknownType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>

#### episode Details/Element: Cardiac Surgical Patient Ecmo Timing

#### Definition:

Identifies timing of ECMO commencement in patients who receive cardiac surgery.

- **Preoperative** patients are placed on ECMO prior to cardiac surgery. This includes patients who were initially placed on ECMO where it was not known that they would require cardiac surgery (e.g. undiagnosed TAPVD)
- Theatre placed on ECMO immediately after cardiac surgery/bypass
- Post-surgery ECPR Placed on ECMO after surgery, outside of cardiac theatre and was ECPR
- Post-surgery Not ECPR Placed on ECMO after surgery, outside of cardiac theatre and was not ECPR
- Not related to surgery Patient underwent cardiac surgery on this PICU admission but it was unrelated to receiving ECMO (e.g. patient underwent cardiac surgery successfully and while admitted to PICU developed influenza and received ECMO for respiratory failure).

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ecmoTimingType
		Datatype D	Definition
Enumerated field:			<ul> <li>1 Preoperative</li> <li>2 Theatre</li> <li>3 Post-surgery – ECPR</li> <li>4 Post-surgery – not ECPR</li> <li>5 Not related to surgery</li> <li>9 Unknown</li> </ul>

## episode Details/Element: Cannula Change

Definition:

Identifies whether at any point whilst the patient was on ECMO they required a change/replacement of cannula(s)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	yesNoUnknownType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>			

episode Details/Element: Left Sided Decompression

Definition:

Identifies whether left side of heart needed decompression whist on ECMO

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	yesNoUnknownType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>			

## Type of left sided decompression – LA vent

# XML Element:

episodeDetails/Element:DecompressionMethodLAVent

# Definition:

If yes (specify) selected for 'Left sided decompression', did this involve a Left atrial (LA) vent

#### Reason:

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype	Definition	
Boolean data: True/False				

# Type of left sided decompression – Septostomy

# XML Element:

episode Details/Element: Decompression Method Septostomy

# Definition:

If yes (specify) selected for 'Left sided decompression', did this involve a septostomy

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:boolean		
		Datatype D	efinition		
Boolean data: True	Boolean data: True/False				

## Type of left sided decompression – Impella Balloon

# XML Element:

episode Details/Element: Decompression Method Impella Balloon

# Definition:

If yes (specify) selected for 'Left sided decompression', did this involve an Impella/Balloon Device.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype	Definition	
Boolean data: True/False				

## Re-operation or catheter intervention

# XML Element:

episodeDetails/Element:CatheterIntervention

# Definition:

Identifies whether the patient required a surgical or catheter intervention whilst on ECMO.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	YesNoUnknownType			
	Datatype Definition					
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>			

# Renal replacement therapy (RRT) during ECMO run?

# XML Element:

episodeDetails/Element:EcmoRrtRequired

# Definition:

Identifies whether renal replacement support was required whilst the child was on ECMO

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	YesNoUnknownType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>

### Reason for RRT – Acute Kidney Injury

# XML Element:

episodeDetails/Element:RrtReasonAki

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

# Reason for RRT – Acute Kidney Injury Grade

# XML Element:

episode Details/Element: Rrt Reason Aki Grade

# Definition:

Identifies the Acute Kidney Injury grade if this is the reason for RRT.

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	Rrt Reason Aki Grade
		Datatype D	efinition
Enumerated field:			<ul> <li>1 Stage 1</li> <li>2 Stage 2</li> <li>3 Stage 3</li> <li>9 Unknown</li> </ul>

#### Reason for RRT - Fluid Removal

# XML Element:

episodeDetails/Element:RrtReasonFluidRemoval

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Pefinition	
Boolean data: True/False				

#### Reason for RRT - Anuria

# XML Element:

episode Details/Element: Rrt Reason Anuria

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Pefinition	
Boolean data: True/False				

### Reason for RRT – Hyperkalaemia

# XML Element:

episodeDetails/Element:RrtReasonHyperkalaemia

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
Datatype Definition				
Boolean data: True/False				

episodeDetails/Element:RrtReasonAcidosis

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

### Reason for RRT - Other

# XML Element:

episodeDetails/Element:RrtReasonOther

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:boolean		
		Datatype D	Definition		
Boolean data: True	Boolean data: True/False				

episodeDetails/Element:RrtReasonOtherDetails

# Definition:

Identifies the clinical indication that was the reason for 'Renal replacement therapy (RRT) during ECMO run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	picanetFreeText255Type	
		Datatype D	Definition	
Text string: 255 characters				

episodeDetails/Element:EcmoComplicationNone

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

episode Details/Element: Ecmo Complication Mechanical

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

### Ecmo run complications - Haemorrhage

# XML Element:

episode Details/Element: Ecmo Complication Haemorrhage

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

### Ecmo run complications - Neurology

# XML Element:

episodeDetails/Element:EcmoComplicationNeurology

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
Datatype Definition				
Boolean data: True/False				

### Ecmo run complications - Renal

# XML Element:

episode Details/Element: Ecmo Complication Renal

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

# Ecmo run complications - Cardiovascular

# XML Element:

episode Details/Element: Ecmo Complication Cardiovas cular

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

# Ecmo run complications - Pulmonary

# XML Element:

episode Details/Element: Ecmo Complication Pulmonary

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:boolean		
		Datatype D	Definition		
Boolean data: True	Boolean data: True/False				

episode Details/Element: Ecmo Complication Metabolic

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

# Ecmo run complications - Limb

# XML Element:

episode Details/Element: Ecmo Complication Limb

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

episode Details/Element: Ecmo Complication Other

# Definition:

Identifies complications that arise during ECMO run(s)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

### Plasma exchange?

### XML Element:

episodeDetails/Element:PlasmaExchange

#### Definition:

Identifies whether plasma exchange was undertaken during the child's ECMO run(s)

Plasma exchange is a procedure involving the separation and removal of the plasma from the blood in order to remove abnormal substances circulating in the plasma

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	YesNoUnknownType
		Datatype D	efinition
Enumerated field:			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>

episodeDetails/Element:InfectionNotTested

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

#### Bloodstream infections - None

# XML Element:

episodeDetails/Element:InfectionNone

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

### Bloodstream infections - Gram positive bacteria

# XML Element:

episodeDetails/Element:InfectionGramPositiveBacteria

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean data: True/False				

### Bloodstream infections – Gram negative bacteria

# XML Element:

episode Details/Element: Infection Gram Negative Bacteria

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:boolean		
		Datatype D	Definition		
Boolean data: True	Boolean data: True/False				

### Bloodstream infections – Mycobacterium

# XML Element:

episodeDetails/Element:InfectionMycobacterium

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:boolean			
	Datatype Definition					
Boolean data: True/False						

### Bloodstream infections – Fungus

# XML Element:

episodeDetails/Element:InfectionFungus

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:boolean			
	Datatype Definition					
Boolean data: True/False						

#### Bloodstream infections – Virus

# XML Element:

episodeDetails/Element:InfectionVirus

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:boolean			
	Datatype Definition					
Boolean data: True/False						

### Bloodstream infections - Protozoa

# XML Element:

episodeDetails/Element:InfectionProtozoa

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:boolean			
	Datatype Definition					
Boolean data: True/False						

#### Bloodstream infections - Other

# XML Element:

episodeDetails/Element:InfectionOther

# Definition:

Identifies the infections associated with the child on ECMO Include infections that occur during the ECMO Run

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:boolean			
	Datatype Definition					
Boolean data: True/False						

episodeDetails/Element:EcmoRunCount

#### Definition:

Identifies the number of ECMO runs for this admission

The first time a patient is placed on ECMO prior to or during this admission is classed as Run 1

Temporary transition of ECLS support to cardiopulmonary bypass (CPB) for cardiac surgery would not be categorised as an additional run

Changes to ECMO mode such as from VA to VV do not constitute a new run in isolation, but are recorded in 'ECMO cannulation/mode changes' section

Provide details of 2<sup>nd</sup> ECMO run (if applicable) in 'ECMO run 2' section. Further ECMO runs are not required to be entered

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	xs:integer			
	Datatype Definition					
Numerical value e.g. 1						
Validation check if range exceeds 3						

episodeDetails/Element:StartDateRun1

# Definition:

Identifies the date that the first ECMO run started

This refers to the time that the extracorporeal blood flow was established through cannulas attached to an ECMO circuit.

This date and time will be prior to the admission date and time in a child who was commenced on ECMO in another organisation prior to being admitted to your ECMO centre.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:date		
Datatype Definition					
Date value: YYYY-MM-DD					

episodeDetails/Element:StartTimeRun1

# Definition:

Identifies the time that the first ECMO run started

This refers to the time that the extracorporeal blood flow was established through cannulas attached to an ECMO circuit.

This date and time will be prior to the admission date and time in a child who was commenced on ECMO in another organisation prior to being admitted to your ECMO centre.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:time		
Datatype Definition					
Time format (24 hour clock): HH:MM:SS					

episodeDetails/Element:EcmoModeRun1

#### **Definition:**

Identifies the mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

W; Venovenous support is where the blood drains from the venous system and reinfuses into the venous system (or pre lung). VV ECMO operates in series with the heart and lungs and does not provide bypass of these organs.

VA: Venoarterial support is where the extracorporeal circuit drains blood from the venous system and returns into the systemic arterial system. VA ECMO operates in parallel with and providing partial, or complete bypass of the heart and lungs

**VVA:** Venovenoarterial is a hybrid configuration of VA and VV where the blood is drained from the venous system and reinfuses both into the venous and systemic arterial systems. VVA ECMO provides both pulmonary and cardiac support in patients with combined cardiopulmonary failure

Other: indicates a support not listed - indicate the primary cannulation configuration in free text

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	ecmoModeType		
	Datatype Definition				
Enumerated value:	<ul> <li>1 VV</li> <li>2 VA</li> <li>3 VVA</li> <li>4 Other</li> <li>9 Unknown</li> </ul>				

episodeDetails/Element:EcmoModeDetailsRun1

# Definition:

Identifies the mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	picanetFreeText255Type			
	Datatype Definition					
Text string: 255 characters						

Cannu	la t	ype:	Run	1
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episodeDetails/Element:CannulaTypeRun1

# Definition:

Specifies whether a single or dual lumen was used

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		Yes	cannula Type Type			
	Datatype Definition					
Enumerated field:			<ul><li>1 Single lumen</li><li>2 Dual lumen</li><li>9 Unknown</li></ul>			

episodeDetails/Element:DualLumenPlacementMethodRun1

### Definition:

For dual lumen, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
Datatype Definition			
<ul> <li>1 Percutaneous</li> <li>Enumerated field:</li> <li>2 Surgical</li> <li>9 Unknown</li> </ul>			

#### Dual Lumen Body side: Run 1

## XML Element:

episodeDetails/Element:DualLumenBodySideRun1

## Definition:

For dual lumen, select one of:

Left – Select if a Dual Lumen cannula was inserted into the Left Internal Jugular

Right- Select if a Dual Lumen cannula was inserted in the Right Internal Jugular

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element: DrainageCannulaPlacementMethodRun1

## Definition:

For drainage cannula, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episodeDetails/Element:DrainageCannulaCentralityRun1

## Definition:

For drainage cannula, select one of:

**Central** – records if the ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO drainage cannula was not directly inserted into the heart

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

Drainage cannula Site: Run 1

## XML Element:

episode Details/Element: Drainage Cannula Site Run 1

## Definition:

For drainage cannula, select one of:

Jugular- records if the ECMO drainage cannula was inserted into the right or left internal jugular vein

Femoral – records if the ECMO drainage cannula was inserted into the right or left femoral vein

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

## Drainage cannula body side: Run 1

## XML Element:

episodeDetails/Element: DrainageCannulaBodySideRun1

## Definition:

For return cannula, select one of:

Left - indicates the ECMO drainage cannula was placed on the left side

Right - indicates the ECMO drainage cannula was placed on the right side

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element: ReturnCannulaPlacementMethodRun1

## Definition:

For return cannula, select one of:

**Percutaneous** – records if the ECMO return cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO return cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Centrality Run 1

## Definition:

For return cannula, select one of:

**Central** – records if the ECMO return cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO return cannula was not directly inserted into the heart

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episodeDetails/Element:ReturnCannulaSiteRun1

## Definition:

For return cannula, select one of:

**Neck -** records if the ECMO return cannula was inserted into the right/left internal jugular vein or carotid artery

Femoral – records if the ECMO return cannula was inserted into the right or left femoral vein/artery

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	return Cannula Site Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Neck</li><li>2 Femoral</li><li>9 Unknown</li></ul>

Return cannula body side: Run 1

## XML Element:

episodeDetails/Element:ReturnCannulaBodySideRun1

## Definition:

For return cannula, select one of:

Left - indicates the ECMO return cannula was placed on the left side

Right - indicates the ECMO return cannula was placed on the right side

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula NAR un 1

## Definition:

Specifies whether or not an additional drainage cannula was inserted during the relevant ECMO run

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean field: True/False				

episode Details/Element: Additional Drainage Cannula Placement Method Run 1

## Definition:

For an additional drainage cannula, select one of:

**Percutaneous** – records if the additional ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the additional ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episodeDetails/Element:AdditionalDrainageCannulaCentralityRun1

## Definition:

For an additional drainage cannula, select one of:

**Central** – records if the additional ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy

Peripheral -records if the additional ECMO drainage cannula was not directly inserted into the heart

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Site Run 1

## Definition:

For an additional drainage cannula, select one of:

**Jugular-** records if the additional ECMO drainage cannula was inserted into the right or left internal jugular vein **Femoral** – records if the additional ECMO drainage cannula was inserted into the right or left femoral vein

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Body Side Run 1

## Definition:

For an additional drainage cannula, select one of:

Left - indicates the additional ECMO drainage cannula was placed on the left side

Right - indicates the additional ECMO drainage cannula was placed on the right side

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element:StartDateRun2

## Definition:

Identifies the date that the second ECMO run started

This refers to the time that the extracorporeal blood flow was established through cannulas attached to an ECMO circuit.

This date and time will be prior to the admission date and time in a child who was commenced on ECMO in another organisation prior to being admitted to your ECMO centre.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype D	Definition	
Date value: YYYY-MM-DD				

episodeDetails/Element:StartTimeRun2

## Definition:

Identifies the time that the second ECMO run started

This refers to the time that the extracorporeal blood flow was established through cannulas attached to an ECMO circuit.

This date and time will be prior to the admission date and time in a child who was commenced on ECMO in another organisation prior to being admitted to your ECMO centre.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:time		
Datatype Definition					
Time format (24 hour clock): HH:MM:SS					

episodeDetails/Element:EcmoModeRun2

#### **Definition:**

Identifies the mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

W; Venovenous support is where the blood drains from the venous system and reinfuses into the venous system (or pre lung). VV ECMO operates in series with the heart and lungs and does not provide bypass of these organs.

VA: Venoarterial support is where the extracorporeal circuit drains blood from the venous system and returns into the systemic arterial system. VA ECMO operates in parallel with and providing partial, or complete bypass of the heart and lungs

**VVA:** Venovenoarterial is a hybrid configuration of VA and VV where the blood is drained from the venous system and reinfuses both into the venous and systemic arterial systems. VVA ECMO provides both pulmonary and cardiac support in patients with combined cardiopulmonary failure

Other: indicates a support not listed - indicate the primary cannulation configuration in free text

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ecmoModeType
		Datatype D	efinition
Enumerated value	:		<ul> <li>1 VV</li> <li>2 VA</li> <li>3 VVA</li> <li>4 Other</li> <li>9 Unknown</li> </ul>

#### ECMO mode run 2 Other

## XML Element:

episodeDetails/Element:EcmoModeDetailsRun2

## Definition:

Identifies the mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	picanetFreeText255Type	
		Datatype D	efinition	
Text string: 255 characters				

episodeDetails/Element:CannulaTypeRun2

## Definition:

Specifies whether a single or dual lumen was used

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Type Type
		Datatype D	efinition
Enumerated field:			<ul><li>1 Single lumen</li><li>2 Dual lumen</li><li>9 Unknown</li></ul>

episodeDetails/Element:DualLumenPlacementMethodRun2

## Definition:

For dual lumen, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

Dual Lumen Body side: Run 2

## XML Element:

episodeDetails/Element:DualLumenBodySideRun2

## Definition:

For dual lumen, select one of:

Left – Select if a Dual Lumen cannula was inserted into the Left Internal Jugular

Right- Select if a Dual Lumen cannula was inserted in the Right Internal Jugular

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element: DrainageCannulaPlacementMethodRun2

#### Definition:

For drainage cannula, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episodeDetails/Element:DrainageCannulaCentralityRun2

## Definition:

For drainage cannula, select one of:

**Central** – records if the ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO drainage cannula was not directly inserted into the heart

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

Drainage cannula Site: Run 2

## XML Element:

episode Details/Element: Drainage Cannula Site Run 2

## Definition:

For drainage cannula, select one of:

**Jugular-** records if the ECMO drainage cannula was inserted into the right or left internal jugular vein

Femoral – records if the ECMO drainage cannula was inserted into the right or left femoral vein

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

## Drainage cannula body side: Run 2

## XML Element:

episodeDetails/Element: DrainageCannulaBodySideRun2

## Definition:

For return cannula, select one of:

Left - indicates the ECMO drainage cannula was placed on the left side

Right - indicates the ECMO drainage cannula was placed on the right side

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element: ReturnCannulaPlacementMethodRun2

## Definition:

For return cannula, select one of:

**Percutaneous** – records if the ECMO return cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO return cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Centrality Run 2

## Definition:

For return cannula, select one of:

**Central** – records if the ECMO return cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO return cannula was not directly inserted into the heart

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episodeDetails/Element:ReturnCannulaSiteRun2

## Definition:

For return cannula, select one of:

**Neck -** records if the ECMO return cannula was inserted into the right/left internal jugular vein or carotid artery

Femoral – records if the ECMO return cannula was inserted into the right or left femoral vein/artery

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	return Cannula Site Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Neck</li><li>2 Femoral</li><li>9 Unknown</li></ul>

Return cannula body side: Run 2

## XML Element:

episodeDetails/Element:ReturnCannulaBodySideRun2

## Definition:

For return cannula, select one of:

Left - indicates the ECMO return cannula was placed on the left side

Right - indicates the ECMO return cannula was placed on the right side

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula NAR un 2

## Definition:

Specifies whether or not an additional drainage cannula was inserted during the relevant ECMO run

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean field: True/False				

episode Details/Element: Additional Drainage Cannula Placement Method Run 2

## Definition:

For an additional drainage cannula, select one of:

**Percutaneous** – records if the additional ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the additional ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episodeDetails/Element:AdditionalDrainageCannulaCentralityRun2

## Definition:

For an additional drainage cannula, select one of:

**Central** – records if the additional ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy

Peripheral -records if the additional ECMO drainage cannula was not directly inserted into the heart

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Site Run 2

## Definition:

For an additional drainage cannula, select one of:

**Jugular-** records if the additional ECMO drainage cannula was inserted into the right or left internal jugular vein **Femoral** – records if the additional ECMO drainage cannula was inserted into the right or left femoral vein

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Body Side Run 2

## Definition:

For an additional drainage cannula, select one of:

Left - indicates the additional ECMO drainage cannula was placed on the left side

Right - indicates the additional ECMO drainage cannula was placed on the right side

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

# Total number of ECMO cannulation/ mode changes

## XML Element:

episodeDetails/Element:EcmoChangeCount

## Definition:

Identifies the number of ECMO cannulation/mode changes for this admission

This is recorded when there is a change of cannula or mode during an ECMO run

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	Xs:integer	
		Datatype D	Definition	
Numerical value e.g. 1				
Validation check if range exceeds 3				

episodeDetails/Element:StartDateChange1

## Definition:

Identifies the date that the first ECMO cannulation/mode changes were commenced.

This specifically refers to the time that the extracorporeal blood flow was established through newly placed cannulas attached to a current ECMO circuit.

Temporary transition of ECLS support to cardiopulmonary bypass (CPB) for cardiac surgery would not be recorded as an additional cannulation or mode change

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	xs:date
Datatype Definition			
Date value: YYYY-MM-DD			

episodeDetails/Element:StartTimeChange1

## Definition:

Identifies the time that the first ECMO cannulation/mode changes were commenced.

This specifically refers to the time that the extracorporeal blood flow was established through newly placed cannulas attached to a current ECMO circuit.

Temporary transition of ECLS support to cardiopulmonary bypass (CPB) for cardiac surgery would not be recorded as an additional cannulation or mode change

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:time		
Datatype Definition					
Time format (24 hour clock): HH:MM:SS					

episodeDetails/Element:EcmoModeChange1

#### **Definition:**

Identifies the new configuration mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

W; Venovenous support is where the blood drains from the venous system and reinfuses into the venous system (or pre lung). VV ECMO operates in series with the heart and lungs and does not provide bypass of these organs.

VA: Venoarterial support is where the extracorporeal circuit drains blood from the venous system and returns into the systemic arterial system. VA ECMO operates in parallel with and providing partial, or complete bypass of the heart and lungs

**VVA:** Venovenoarterial is a hybrid configuration of VA and VV where the blood is drained from the venous system and reinfuses both into the venous and systemic arterial systems. VVA ECMO provides both pulmonary and cardiac support in patients with combined cardiopulmonary failure

Other: indicates a support not listed - indicate the primary cannulation configuration in free text

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ecmoModeType
		Datatype D	efinition
Enumerated value	:		<ul> <li>1 VV</li> <li>2 VA</li> <li>3 VVA</li> <li>4 Other</li> <li>9 Unknown</li> </ul>

episode Details/Element: Ecmo Mode Details Change 1

# Definition:

Identifies the mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	picanetFreeText255Type	
		Datatype D	Definition	
Text string: 255 characters				

episodeDetails/Element:CannulaTypeChange1

# Definition:

Specifies whether a single or dual lumen was used

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Type Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Single lumen</li><li>2 Dual lumen</li><li>9 Unknown</li></ul>

episodeDetails/Element:DualLumenPlacementMethodChange1

## Definition:

For dual lumen, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

Dual Lumen Body side: Change 1

# XML Element:

episodeDetails/Element:DualLumenBodySideChange1

# Definition:

For dual lumen, select one of:

Left – Select if a Dual Lumen cannula was inserted into the Left Internal Jugular

Right- Select if a Dual Lumen cannula was inserted in the Right Internal Jugular

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype [	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element: DrainageCannulaPlacementMethodChange1

## Definition:

For drainage cannula, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episode Details/Element: Drainage Cannula Centrality Change 1

# Definition:

For drainage cannula, select one of:

**Central** – records if the ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO drainage cannula was not directly inserted into the heart

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

Drainage cannula Site: Change 1

# XML Element:

episode Details/Element: Drainage Cannula Site Change 1

## Definition:

For drainage cannula, select one of:

Jugular- records if the ECMO drainage cannula was inserted into the right or left internal jugular vein

Femoral – records if the ECMO drainage cannula was inserted into the right or left femoral vein

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

### Drainage cannula body side: Change 1

# XML Element:

episodeDetails/Element: DrainageCannulaBodySideChange1

# Definition:

For return cannula, select one of:

Left - indicates the ECMO drainage cannula was placed on the left side

Right - indicates the ECMO drainage cannula was placed on the right side

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Placement Method Change 1

## Definition:

For return cannula, select one of:

**Percutaneous** – records if the ECMO return cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO return cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Centrality Change 1

# Definition:

For return cannula, select one of:

**Central** – records if the ECMO return cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO return cannula was not directly inserted into the heart

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Site Change 1

## Definition:

For return cannula, select one of:

**Neck -** records if the ECMO return cannula was inserted into the right/left internal jugular vein or carotid artery

Femoral – records if the ECMO return cannula was inserted into the right or left femoral vein/artery

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	return Cannula Site Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Neck</li><li>2 Femoral</li><li>9 Unknown</li></ul>

Return cannula body side: Change 1

# XML Element:

episodeDetails/Element:ReturnCannulaBodySideChange1

# Definition:

For return cannula, select one of:

Left - indicates the ECMO return cannula was placed on the left side

Right - indicates the ECMO return cannula was placed on the right side

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula NA Change 1

# Definition:

Specifies whether or not an additional drainage cannula was inserted during the relevant ECMO run

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:boolean	
		Datatype D	Definition	
Boolean field: True/False				

episode Details/Element: Additional Drainage Cannula Placement Method Change 1

## Definition:

For an additional drainage cannula, select one of:

**Percutaneous** – records if the additional ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the additional ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episodeDetails/Element:AdditionalDrainageCannulaCentralityChange1

## Definition:

For an additional drainage cannula, select one of:

**Central** – records if the additional ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy

Peripheral -records if the additional ECMO drainage cannula was not directly inserted into the heart

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Site Change 1

## Definition:

For an additional drainage cannula, select one of:

**Jugular-** records if the additional ECMO drainage cannula was inserted into the right or left internal jugular vein **Femoral** – records if the additional ECMO drainage cannula was inserted into the right or left femoral vein

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Body Side Change 1

## Definition:

For an additional drainage cannula, select one of:

Left - indicates the additional ECMO drainage cannula was placed on the left side

Right - indicates the additional ECMO drainage cannula was placed on the right side

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element:StartDateChange2

## Definition:

Identifies the date that the second ECMO cannulation/mode changes were commenced.

This specifically refers to the time that the extracorporeal blood flow was established through newly placed cannulas attached to a current ECMO circuit.

Temporary transition of ECLS support to cardiopulmonary bypass (CPB) for cardiac surgery would not be recorded as an additional cannulation or mode change

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype D	Definition	
Date value: YYYY-MM-DD				

episodeDetails/Element:StartTimeChange2

## Definition:

Identifies the time that the second ECMO cannulation/mode changes were commenced.

This specifically refers to the time that the extracorporeal blood flow was established through newly placed cannulas attached to a current ECMO circuit.

Temporary transition of ECLS support to cardiopulmonary bypass (CPB) for cardiac surgery would not be recorded as an additional cannulation or mode change

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:time	
Datatype Definition				
Time format (24 hour clock): HH:MM:SS				

episodeDetails/Element:EcmoModeChange2

#### **Definition:**

Identifies the new configuration mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

W; Venovenous support is where the blood drains from the venous system and reinfuses into the venous system (or pre lung). VV ECMO operates in series with the heart and lungs and does not provide bypass of these organs.

VA: Venoarterial support is where the extracorporeal circuit drains blood from the venous system and returns into the systemic arterial system. VA ECMO operates in parallel with and providing partial, or complete bypass of the heart and lungs

**VVA:** Venovenoarterial is a hybrid configuration of VA and VV where the blood is drained from the venous system and reinfuses both into the venous and systemic arterial systems. VVA ECMO provides both pulmonary and cardiac support in patients with combined cardiopulmonary failure

Other: indicates a support not listed - indicate the primary cannulation configuration in free text

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	ecmoModeType
		Datatype D	efinition
Enumerated value	:		<ul> <li>1 VV</li> <li>2 VA</li> <li>3 VVA</li> <li>4 Other</li> <li>9 Unknown</li> </ul>

episode Details/Element: Ecmo Mode Details Change 2

# Definition:

Identifies the new configuration mode of drainage and return of blood in the extracorporeal system Select the primary cannulation configuration even if multiple cannulas are placed

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	picanetFreeText255Type	
		Datatype D	Definition	
Text string: 255 characters				

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Carma	,	PC. C		- v

episodeDetails/Element:CannulaTypeChange2

# Definition:

Specifies whether a single or dual lumen was used

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannulaTypeType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Single lumen</li><li>2 Dual lumen</li><li>9 Unknown</li></ul>

episodeDetails/Element:DualLumenPlacementMethodChange2

## Definition:

For dual lumen, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

Dual Lumen Body side: Change 2

# XML Element:

episode Details/Element: Dual Lumen Body Side Change 2

# Definition:

For dual lumen, select one of:

Left – Select if a Dual Lumen cannula was inserted into the Left Internal Jugular

Right- Select if a Dual Lumen cannula was inserted in the Right Internal Jugular

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element: DrainageCannulaPlacementMethodChange2

## Definition:

For drainage cannula, select one of:

**Percutaneous** – records if the ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episode Details/Element: Drainage Cannula Centrality Change 2

# Definition:

For drainage cannula, select one of:

**Central** – records if the ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO drainage cannula was not directly inserted into the heart

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

Drainage cannula Site: Change 2

# XML Element:

episode Details/Element: Drainage Cannula Site Change 2

## Definition:

For drainage cannula, select one of:

Jugular- records if the ECMO drainage cannula was inserted into the right or left internal jugular vein

Femoral – records if the ECMO drainage cannula was inserted into the right or left femoral vein

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainage Cannula Site Type
		Datatype D	efinition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

Drainage cannula body side: Change 2

# XML Element:

episode Details/Element: Drainage Cannula Body Side Change 2

# Definition:

For return cannula, select one of:

Left - indicates the ECMO drainage cannula was placed on the left side

Right - indicates the ECMO drainage cannula was placed on the right side

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Placement Method Change 2

## Definition:

For return cannula, select one of:

**Percutaneous** – records if the ECMO return cannula was inserted peripherally (without incision and dissection of the vessel)

Surgical -records if the ECMO return cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	cannula Placement Method Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Centrality Change 2

# Definition:

For return cannula, select one of:

**Central** – records if the ECMO return cannula was inserted directly centrally into the heart e.g. via sternotomy **Peripheral** -records if the ECMO return cannula was not directly inserted into the heart

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episode Details/Element: Return Cannula Site Change 2

## Definition:

For return cannula, select one of:

**Neck -** records if the ECMO return cannula was inserted into the right/left internal jugular vein or carotid artery

Femoral – records if the ECMO return cannula was inserted into the right or left femoral vein/artery

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	return Cannula Site Type
		Datatype D	Definition
Enumerated field:			<ul><li>1 Neck</li><li>2 Femoral</li><li>9 Unknown</li></ul>

Return cannula body side: Change 2

# XML Element:

episode Details/Element: Return Cannula Body Side Change 2

# Definition:

For return cannula, select one of:

Left - indicates the ECMO return cannula was placed on the left side

Right - indicates the ECMO return cannula was placed on the right side

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula NA Change 2

# Definition:

Specifies whether or not an additional drainage cannula was inserted during the relevant ECMO run

## Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:boolean		
Datatype Definition					
Boolean field: True/False					

episode Details/Element: Additional Drainage Cannula Placement Method Change 2

## Definition:

For an additional drainage cannula, select one of:

**Percutaneous** – records if the additional ECMO drainage cannula was inserted peripherally (without incision and dissection of the vessel)

**Surgical** -records if the additional ECMO drainage cannula was inserted surgically (with incision and dissection of the vessel)

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	cannula Placement Method Type		
Datatype Definition					
Enumerated field:			<ul><li>1 Percutaneous</li><li>2 Surgical</li><li>9 Unknown</li></ul>		

episodeDetails/Element:AdditionalDrainageCannulaCentralityChange2

### Definition:

For an additional drainage cannula, select one of:

**Central** – records if the additional ECMO drainage cannula was inserted directly centrally into the heart e.g. via sternotomy

Peripheral -records if the additional ECMO drainage cannula was not directly inserted into the heart

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	centralityType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Central</li><li>2 Peripheral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Site Change 2

### Definition:

For an additional drainage cannula, select one of:

**Jugular-** records if the additional ECMO drainage cannula was inserted into the right or left internal jugular vein **Femoral** – records if the additional ECMO drainage cannula was inserted into the right or left femoral vein

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	drainageCannulaSiteType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Jugular</li><li>2 Femoral</li><li>9 Unknown</li></ul>

episode Details/Element: Additional Drainage Cannula Body Side Change 2

### Definition:

For an additional drainage cannula, select one of:

Left - indicates the additional ECMO drainage cannula was placed on the left side

Right - indicates the additional ECMO drainage cannula was placed on the right side

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	bodySideType
		Datatype D	Definition
Enumerated field:			<ul><li>1 Left</li><li>2 Right</li><li>9 Unknown</li></ul>

episodeDetails/Element:DecannulationIndication

#### **Definition:**

**Recovery** - ECMO discontinued as patient improved and is expected to recover. If recovery was due to transplant do not choose recovery, select heart transplant instead

**Died on ECMO or ECMO withdrawn** - patient dies whilst on ECMO or ECMO discontinued due to poor prognosis or treatment limitations due to irrevocable disease, patient experienced organ failure, or a diagnosis incompatible with life, or family/patient requested discontinuation.

**Conversion to Ventricular Assist Device (VAD)** - in anticipation of continued need for extracorporeal support the patient was taken off ECMO to be transitioned to a LVAD, RVAD, BiVAD.

Heart Transplant - Patient was decannulated from ECMO due to resolved need after a new heart transplant

**Other reason for decannulation -** such as ECMO complications required withdrawal of ECMO or resource limitations

**Not decannulated prior to discharge -** Patient transferred to another ECMO centre for further specialist treatment whilst on ECMO

#### Reason:

Date and time of decannulation will be used to calculate the total time spent on ECMO

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	decannulation Indication Type
		Datatype D	efinition
Enumerated field:			<ul> <li>1 Recovery</li> <li>2 Died on ECMO or ECMO withdrawn</li> <li>3 Conversion to VAD</li> <li>4 Heart transplant</li> <li>5 Other reason for decannulation</li> <li>6 Not decannulated prior to discharge</li> <li>9 Unknown</li> </ul>

episodeDetails/Element:DecannulationDateRun1

### Definition:

The actual date when the child was decannulated from ECMO Run.

This specifically refers to the date and time that the cannulas are removed

### Reason:

Date and time of decannulation will be used to calculate the total time spent on ECMO

Accurate recording of date and time of decannulation will allow analysis of ECMO service e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype D	Definition	
Date field: YYYY-MM-DD				

episodeDetails/Element:DecannulationTimeRun1

### Definition:

The actual time when the child was decannulated from ECMO Run.

This specifically refers to the date and time that the cannulas are removed

### Reason:

Date and time of decannulation will be used to calculate the total time spent on ECMO

Accurate recording of date and time of decannulation will allow analysis of ECMO service e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:time	
		Datatype D	efinition	
Time field (24 hour clock): HH:MM				

episodeDetails/Element:DecannulationDateRun2

### Definition:

The actual date when the child was decannulated from ECMO Run.

This specifically refers to the date and time that the cannulas are removed

### Reason:

Date and time of decannulation will be used to calculate the total time spent on ECMO

Accurate recording of date and time of decannulation will allow analysis of ECMO service e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype D	Definition	
Date field: YYYY-MM-DD				

episodeDetails/Element:DecannulationTimeRun2

### Definition:

The actual time when the child was decannulated from ECMO Run.

This specifically refers to the date and time that the cannulas are removed

### Reason:

Date and time of decannulation will be used to calculate the total time spent on ECMO

Accurate recording of date and time of decannulation will allow analysis of ECMO service e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	xs:time		
		Datatype D	Pefinition		
Time field (24 hour	Time field (24 hour clock): HH:MM				

episodeDetails/Element:DischargeReadyDate

### Definition:

The date that clinicians agreed that the child was ready for discharge from the ECMO centre to an appropriate destination.

The acuity of the patient will vary depending on discharge location for example if discharge is back to tertiary NICU, patient may still be ventilated but no longer at risk of requiring ECMO.

#### Reason:

Date and time when ready for discharge and date and time of actual discharge will be used to calculate delayed discharge.

Accurate recording of timings relating to discharge will allow analysis of ECMO service and delivery e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:date	
		Datatype D	Definition	
Date field: YYYY-MM-DD				

### Time ready for discharge from ECMO centre

### XML Element:

episodeDetails/Element:DischargeReadyTime

### Definition:

The time that clinicians agreed that the child was ready for discharge from the ECMO centre to an appropriate destination.

The acuity of the patient will vary depending on discharge location for example if discharge is back to tertiary NICU, patient may still be ventilated but no longer at risk of requiring ECMO.

#### Reason:

Date and time when ready for discharge and date and time of actual discharge will be used to calculate delayed discharge.

Accurate recording of timings relating to discharge will allow analysis of ECMO service and delivery e.g. Capacity across the country or year.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		Yes	xs:time	
		Datatype D	Pefinition	
Time field (24 hour clock): HH:MM				

episodeDetails/Element:NeurologicalStatusDischarge

#### Definition:

Identifies the neurological status at discharge using the Paediatric Cerebral Performance Category scale:

- Normal (1): At age-appropriate level; school age child attends regular school
- Mild Disability (2): Conscious, alert, able to interact at age-appropriate level; regular school but cognition perhaps not age appropriate, possibility of mild neurological deficit.
- Moderate Disability (3): Conscious, age-appropriate independent activities of daily life, special education classroom and/or learning
- Severe Disability (4): Conscious, dependent on others for daily support because of impaired brain function
- Coma or vegetative state (5): Any degree of coma, unaware even if awake in appearance, without interaction with the environment, no evidence of cortex function, possibility for some reflexive response, spontaneous eye-opening, sleep-wake cycles
- **Dead** (6)

#### Reason:

To enable effective audit and assessment of health care services and NHSE service specification on neurological follow up

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	pcpcNeurologicalScaleType
		Datatype	e Definition
Enumerated field			<ul> <li>1 Normal</li> <li>2 Mild disability</li> <li>3 Moderate disability</li> <li>4 Severe disability</li> <li>5 Coma or vegetative state</li> <li>6 Brain death/death</li> <li>9 Unknown</li> </ul>

episodeDetails/Element:StatusPostEcmo30

### Definition:

Identifies the status (alive or dead) of the child on 30 days post decannulation if patient received ECMO, or 30 days post ECMO assessment if the outcome of the assessment was 'Did not require ECMO' or 'Not a candidate'

### Reason:

To enable effective audit and assessment of healthcare services delivery and NHSE service specification of patient surviving >30 days post decannulation

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	patientStatusType
		Datatype	e Definition
Enumerated field			<ul><li>1 Alive</li><li>2 Dead</li><li>9 Unknown</li></ul>

### Status at 180 days post ECMO/assessment

### XML Element:

episodeDetails/Element:StatusPostEcmo180

### Definition:

Identifies the status (alive or dead) of the child on 30 days post decannulation if patient received ECMO, or 180 days post ECMO assessment if the outcome of the assessment was 'Did not require ECMO' or 'Not a candidate'

#### Reason:

To enable effective audit and assessment of healthcare services delivery and NHSE service specification of patient surviving >180 days post decannulation

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	patientStatusType
		Datatype	e Definition
Enumerated field			<ul><li>1 Alive</li><li>2 Dead</li><li>9 Unknown</li></ul>

episodeDetails/Element:NeurologicalAssessmentPostEcmo180

### Definition:

Identifies whether the child had a follow up neurological assessment by 180 days post decannulation if patient received ECMO, or 180 days post ECMO assessment if the outcome of the assessment was 'Did not require ECMO' or 'Not a candidate'

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0		Yes	yesNoUnknownType
		Datatype	Definition
Enumerated field			<ul><li>1 Yes</li><li>2 No</li><li>9 Unknown</li></ul>

episodeDetails/Element:NeurologicalStatusPostEcmo180

#### Definition:

To identify the child's neurological status at 180 days post decannulation if patient received ECMO, or 180 days post ECMO assessment if the outcome of the assessment was 'Did not require ECMO' or 'Not a candidateusing the Paediatric Cerebral Performance categories:

- Normal (1): At age-appropriate level; school age child attends regular school
- Mild Disability (2): Conscious, alert, able to interact at age-appropriate level; regular school but cognition perhaps not age appropriate, possibility of mild neurological deficit.
- Moderate Disability (3): Conscious, age-appropriate independent activities of daily life, special education classroom and/or learning
- Severe Disability (4): Conscious, dependent on others for daily support because of impaired brain function
- Coma or vegetative state (5): Any degree of coma, unaware even if awake in appearance, without interaction with the environment, no evidence of cortex function, possibility for some reflexive response, spontaneous eye-opening, sleep-wake cycles
- **Dead** (6)

#### Reason:

To enable effective audit and assessment of health services delivery.

Comply with NHSE service specification of neurological follow up 180 days post ECMO decannulation.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		Yes	pcpcNeurologicalScaleType		
		Datatype	e Definition		
Enumerated field			<ul> <li>1 Normal</li> <li>2 Mild disability</li> <li>3 Moderate disability</li> <li>4 Severe disability</li> <li>5 Coma or vegetative state</li> <li>6 Brain death/death</li> <li>9 Unknown</li> </ul>		

## **Diagnoses and Procedures**

For each patient information is collected on diagnoses and procedures for this admission, a primary diagnoses for reason for admission which can be accompanied by several 'other' diagnoses if recorded. Other information on surgery and procedures performed is also included in this section. For all patients a primary diagnosis must be recorded and if a patient is admitted following surgery a surgical procedure must be provided.

Information in this section is expected to be submitted in the SNOMED clinical code system, but can also be supplied in Read codes for legacy exports. This information is required for audit, epidemiological analysis and assessment of health services delivery. Each diagnoses and procedures node is made up of 2 separate elements, a clinical code and a free text description of the diagnosis. SNOMED codes also have an additional element, for the fully specified name for this node. This can be left blank, and will be reviewed by PICANet when a new SNOMED code is received by PICANet.

If both Read and SNOMED codes are imported for the same events, the Read codes will be discarded and only the SNOMED codes are saved.

snomedPrimaryDiagnosis/Element:

- sctid
- description
- fullySpecifiedName

### Definition:

The primary diagnosis for this admission of the child to your unit as assessed and recorded in the child's notes. The primary diagnosis may only be confirmed during the child's stay on your unit. It may not be obvious at admission. For example a child might be admitted with apnoeas, the diagnosis for this admission is later confirmed as Bronchiolitis. In this case Bronchiolitis should be recorded as the Primary diagnosis for this admission. Where there are multiple diagnoses, select just one as a primary diagnosis and code the others as 'Other reasons for admission to your unit'. Do not code the primary diagnosis for this admission to your unit as a procedure or a cause. Code the underlying condition that required that procedure.

#### Reason:

Required for clinical audit, and epidemiological analysis.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
1	1	Yes	snomed Code Type clinical Term Description Type snomed Description Type
		Datatype	Definition
Text string: 20 char Text string: 255 cha	aracters		

snomed Other Reason/Element:

- sctid
- description
- fullySpecifiedName

## Definition:

Other reasons for the admission of the child to your unit as assessed and recorded at admission. Other reasons for admission may include additional diagnoses or procedures that may or may not necessitate intensive care.

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
1	1	Yes	snomed Code Type clinical Term Description Type snomed Description Type		
		Datatype	Definition		
Text string: 20 characters Text string: 255 characters Text string: 255 characters					

snomed Operation Or Procedure / Element:

- sctid
- description
- fullySpecifiedName

## Definition:

Any operations and / or procedures performed during this admission to PIC or during the current hospital spell and relating to this admission to PIC. Where type of admission to the unit is Planned – following surgery or Unplanned – following surgery at least one operation or procedure is required for this admission event.

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
1	1	Yes	snomed Code Type clinical Term Description Type snomed Description Type	
		Datatype	Definition	
Text string: 20 characters Text string: 255 characters Text string: 255 characters				

snomedComorbidity/Element:

- sctid
- description
- fullySpecifiedName

## Definition:

Co-morbidity recorded on admission of the child to your unit. Identifies other problems the child had prior to admission to your unit, which may not be related to the reason for this admission. Co-morbidity relates to any underlying condition recorded in the notes e.g. Trisomy 21.

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
1	1	Yes	snomed Code Type clinical Term Description Type snomed Description Type		
		Datatype	Definition		
Text string: 20 characters Text string: 255 characters Text string: 255 characters					

primaryDiagnosis/Element:

- readCode
- description

#### Definition:

The primary diagnosis for this admission of the child to your unit as assessed and recorded in the child's notes. The primary diagnosis may only be confirmed during the child's stay on your unit. It may not be obvious at admission. For example a child might be admitted with apnoeas, the diagnosis for this admission is later confirmed as Bronchiolitis. In this case Bronchiolitis should be recorded as the Primary diagnosis for this admission. Where there are multiple diagnoses, select just one as a primary diagnosis and code the others as 'Other reasons for admission to your unit'. Do not code the primary diagnosis for this admission to your unit as a procedure or a cause. Code the underlying condition that required that procedure.

#### Reason:

Required for clinical audit, and epidemiological analysis.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
1	1	Yes	read Code Type clinical Term Description Type			
		Datatype	Definition			
Text string: 5 characters Text string: 255 characters						

otherReason/Element:

- readCode
- description

### Definition:

Other reasons for the admission of the child to your unit as assessed and recorded at admission. Other reasons for admission may include additional diagnoses or procedures that may or may not necessitate intensive care.

### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
1	1	Yes	read Code Type clinical Term Description Type		
		Datatype	Definition		
Text string: 5 characters Text string: 255 characters					

operationOrProcedure/Element:

- readCode
- description

### Definition:

Any operations and / or procedures performed during this admission to PIC or during the current hospital spell and relating to this admission to PIC. Where type of admission to the unit is Planned – following surgery or Unplanned – following surgery at least one operation or procedure is required for this admission event.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
1	1	Yes	read Code Type clinical Term Description Type		
		Datatype	Definition		
Text string: 5 characters Text string: 255 characters					

coMorbidity/Element:

- readCode
- description

### Definition:

Co-morbidity recorded on admission of the child to your unit. Identifies other problems the child had prior to admission to your unit, which may not be related to the reason for this admission. Co-morbidity relates to any underlying condition recorded in the notes e.g. Trisomy 21.

#### Reason:

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
1	1	Yes	read Code Type clinical Term Description Type		
		Datatype	Definition		
Text string: 5 characters Text string: 255 characters					

# **Daily Interventions**

For each calendar day a child is admitted to PICU information on the interventions required by that child are completed. These interventions include all those collected as part of the paediatric critical care minimum data-set (PCCMDS) plus additional interventions of interest for clinical audit and health service delivery reasons.

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daily Intervention / Element: activity Date

## Definition:

The date the critical care activity was performed on.

### Reason:

Part of the Paediatric Critical Care Minimum Dataset.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
1	1	No	xs:date		
Datatype Definition					
Date format: YYYY-MM-DD					

 $\ daily Intervention/Element: no Crit$ 

## Definition:

True if there was no defined critical care activity received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 99)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

Continuous	<b>ECG</b>	monit	oring
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dailyIntervention/Element:ecg

## Definition:

True if continuous ECG monitoring was received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 50)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

 $\ daily Intervention / Element: cpox$ 

## Definition:

True if continuous pulse oximetry was received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 73)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	xs:boolean	
Datatype Definition				
Boolean data: True/False				

daily Intervention/Element: in vVentET

## Definition:

True if invasive ventilation via endotracheal tube was received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 51)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	xs:boolean	
Datatype Definition				
Boolean data: True/False				

daily Intervention/Element: in vVent TT

## Definition:

True if invasive ventilation via tracheostomy tube was received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 52)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	xs:boolean	
Datatype Definition				
Boolean data: True/False				

dailyIntervention/Element:niv

## Definition:

True if non-invasive ventilatory support was received that day. Do NOT include use of a device to deliver high flow nasal cannula therapy

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 53)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

Advanced	ventilatory	/ support	(jet ventilation
, , , , , , , , , , , ,	TOTICH GOOD	,	1100 1011011011

dailyIntervention/Element:avsJet

## Definition:

True if advanced ventilatory support (jet ventilation) was received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 56)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

Advanced ventilatory support toscillatory ventilation	Advanced ventilator	rv support	(oscillator	v ventilation
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dailyIntervention/Element:avsOsc

## Definition:

True if advanced ventilatory support (oscillatory ventilation) was received that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 56)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	xs:boolean	
Datatype Definition				
Boolean data: True/False				

Nasop	hary	/ngeal	airway

dailyIntervention/Element:naso

## Definition:

True if a nasopharyngeal airway was in place that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 55)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	xs:boolean	
Datatype Definition				
Boolean data: True/False				

Tracheostomy	v cared	for b	v nursing	staff
Tracine Obtoing	, carca		תוווטוטוון,	Juli

dailyIntervention/Element:trach

## Definition:

True if a tracheostomy was cared for by nursing staff that day

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 13)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype	
0		No	xs:boolean	
Datatype Definition				
Boolean data: True/False				

Supplemental oxygen therapy (ir	respective of ventilatory state)
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 ${\it daily Intervention/Element:} ox The rapy$ 

## Definition:

True if supplemental oxygen therapy (irrespective of ventilatory state) was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 09)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0 No xs:boolean						
	Datatype Definition					
Boolean data: True,	Boolean data: True/False					

dailyIntervention/Element:HHHFT

### Definition:

If heated humidified high flow therapy (HHHFT) was received that day, to include devices such as Airvo, Optiflow, Vapotherm and high flow settings on a ventilator.

### Reason:

To enable the audit of delivery of this therapy (Activity code 88)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

### High flow nasal cannula therapy

This field has been deprecated in the PICANet Dataset - please do not submit data for this node

### XML Element:

dailyIntervention/Element:HiFlowNasal

#### Definition:

If high flow nasal cannula therapy (HFNCT) was received that day, record the maximum flow in I/min that day

#### Reason:

To enable the audit of delivery of this therapy (Activity code 88)

Minimum Occurrences	ls Node Nillable? XMI datatype					
0		xs:integer				
Datatype Definition						
Integer: Numeric data without a fractional component						

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11	nnar airwa	v obstruction	radiliring	nahiilicad	adronalino	lanınanhrın	Δ1
v	ppci ali wa	y obstruction	I CUUII II IE	Hebullseu	aurchanne	(CDIIICDI II II I	-

dailyIntervention/Element:obsAir

## Definition:

True if there was an upper airway obstruction requiring nebulised epinephrine / adrenaline that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 57)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0 No xs:boolean						
	Datatype Definition					
Boolean data: True,	Boolean data: True/False					

dailyIntervention/Element:apnoea

## Definition:

True if there was an apnoea >3 in 24 hours or requiring bag and mask ventilation that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 58)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		No	xs:boolean			
	Datatype Definition					
Boolean data: True/False						

	Acute severe asthma	requiring intraveno	us bronchodilator therap	v or continuous r	nebuliser
--	---------------------	---------------------	--------------------------	-------------------	-----------

 $\ daily Intervention / Element: as thm a IVBeph$ 

## Definition:

True if there was acute severe asthma requiring intravenous bronchodilator therapy or continuous nebuliser that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 59)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		No	xs:boolean			
	Datatype Definition					
Boolean data: True,	Boolean data: True/False					

### Unplanned extubation

# This field has been added to the PICANet dataset on 01/08/2014

#### XML Element:

 $\ daily Intervention / Element: Unplanned Extubation$ 

### Definition:

True if there was dislodgement of the ETT from the trachea, without the intention to extubate immediately and without the presence of airway competent clinical staff appropriately prepared for the procedure occurs. Record the number of unplanned extubations that day.

#### Reason:

To audit PICS Standard and CRG reporting requirements (Activity code 90)

Minimum Maximum Is Node Nillable? XML datatype Occurrences					
0 Yes xs:integer					
Datatype Definition					
Integer: Numeric data without a fractional component					

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 $\ daily Intervention/Element: art Line$ 

## Definition:

True if arterial line monitoring was received that day.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 60)

Minimum Occurrences	Is Node Nillable?					
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

External	nacing
LACCITIO	Pacific

dailyIntervention/Element:extPace

## Definition:

True if external pacing was received that day.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 61)

Minimum Occurrences	Is Node Nillable?						
0 No xs:boolean							
Datatype Definition							
Boolean data: True/False							

 $\ daily Intervention/Element: Central Venous Catheter$ 

#### Definition:

True if a central venous catheter is in situ that day, regardless of the number of lumens and the nature of the CVC.

This includes any venous vascular catheter that ends close to or in the great vessels (femoral, subclavian, jugular etc.), chest or within abdominal cavity. This includes peripherally inserted central catheters. CVCs may be short or long term. Common names are PICC, CVC, Portacath, Hickman, Broviac, Leaderflex, UVC etc.

#### Reason:

Required for clinical audit, epidemiological analysis, and assessment of health services delivery.

Minimum Occurrences	Is Node Nillable? XML datatype					
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

## Central venous pressure monitoring

# XML Element:

daily Intervention / Element: cvpMon

## Definition:

True if central venous pressure monitoring was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 62)

Minimum Occurrences	Is Node Nillable? XMI datatype						
0 No xs:boolean							
Datatype Definition							
Boolean data: True/False							

	Continuous	infusion	of inotrope.	vasodilator	or prostag	landin
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 $\ daily Intervention / Element: infl not rope$ 

## Definition:

True if there was a continuous infusion of inotrope, vasodilator or prostaglandin that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 06)

Minimum Occurrences	Is Node Nillable?						
0 No xs:boolean							
Datatype Definition							
Boolean data: True/False							

dailyIntervention/Element:bolus

## Definition:

True if there were bolus IV fluids (>80 ml/kg/day) in addition to maintenance IV fluids that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 63)

Minimum Occurrences	Is Node Nillable?						
0 No xs:boolean							
Datatype Definition							
Boolean data: True/False							

 $\ daily Intervention/Element: cpr$ 

## Definition:

True if cardio-pulmonary resuscitation was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 64)

Minimum Occurrences	Is Node Nillable? XMI datatype						
0 No xs:boolean							
Datatype Definition							
Boolean data: True/False							

dailyIntervention/Element:ecmo

## Definition:

True if extracorporeal membrane oxygenation (ECMO) was received that day. Include use of an interventional lung assist device (iLA)

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 65)

Minimum Occurrences	Is Node Nillable?					
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

dailyIntervention/Element:vad

## Definition:

True if a ventricular assist device (VAD) was in place that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 65)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

Aortic balloon pump	Aortic	ballo	on p	umi
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daily Intervention/Element: abPump

## Definition:

True if an aortic balloon pump was in place that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 65)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

dailyIntervention/Element:ArrhythmiaAATherapy

### Definition:

True if an intravenous anti-arrhythmic drug is administered to a patient with a cardiac arrhythmia at any point in that calendar day.

Examples would include, but not be confined to, adenosine, amiodarone, propranolol, flecanide, isoprenaline.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 94)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		No	xs:boolean			
Datatype Definition						
Boolean data: True/False						

dailyIntervention/Element:UrineCatheter

### Definition:

True if urinary catheter is in situ that day. This relates to any urethral or suprapubic catheter that is inserted into the bladder, connected to a closed drainage system, and left in-situ.

This category does NOT include intermittent catheterisation or non-invasive drainage systems such as condom catheter.

#### Reason:

Required for clinical audit, epidemiological analysis, and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

	Peri	tone	eal d	lialy	vsi:
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 ${\it daily Intervention/Element:} periDia$ 

## Definition:

True if peritoneal dialysis was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 05)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

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 $\ daily Intervention / Element: hae moFilt$ 

## Definition:

True if haemofiltration was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 16)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0 No xs:boolean					
Datatype Definition					
Boolean data: True/False					

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 ${\it daily Intervention/Element:} hae moDia$ 

## Definition:

True if haemodialysis was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 66)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0 No xs:boolean						
Datatype Definition						
Boolean data: True/False						

 $\ daily Intervention / Element: plasma Filt$ 

## Definition:

True if plasma filtration was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 67)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype				
0		No	xs:boolean				
	Datatype Definition						
Boolean data: True/False							

Plasma	exch	ange
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 $\ daily Intervention / Element: plasma Exch$ 

## Definition:

True if plasma exchange was received that day.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 67)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype				
0		No	xs:boolean				
	Datatype Definition						
Boolean data: True,	Boolean data: True/False						

## ICP-intracranial pressure monitoring

# XML Element:

daily Intervention / Element: icp Mon

## Definition:

True if intracranial pressure monitoring (ICP) was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 68)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype				
0		No xs:boolean					
	Datatype Definition						
Boolean data: True/False							

daily Intervention/Element: int Cath Evd

## Definition:

True if an intraventricular catheter or external ventricular drain was in place that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 69)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype				
0		No	xs:boolean				
	Datatype Definition						
Boolean data: True/False							

 $\ daily Intervention/Element: Status Epilepticus AED rugs$ 

### Definition:

True if a patient has status epilepticus at any point in that calendar day AND is receiving a continuous intravenous infusion of an anti-epileptic drug for a period of at least 4 hours in that calendar day.

Examples would include, but not be confined to, midazolam (or another benzodiazepine), thiopentone, propofol.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 97)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype				
0		No xs:boolean					
	Datatype Definition						
Boolean data: True,	Boolean data: True/False						

dailyIntervention/Element:LowGCS

#### Definition:

True if a patient has a recorded Glasgow Coma Scale (GCS) score of 12 or below at any point in that calendar day AND is having hourly (or more frequent) assessment and recording of GCS.

Note that the patient must be having GCS monitoring for a period of at least 4 hours in that calendar day. AVPU assessment should not be considered as equivalent to GCS.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 95)

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype			
0		No xs:boolean				
Datatype Definition						
Boolean data: True/False						

dailyIntervention/Element:DeliriumScreening

#### Definition:

Identifies whether the child has any positive threshold score on a validated screening tool for delirium within each 24-hour period.

Delirium screening is conducted at least once per 12-hour nursing shift. If the screen is positive on any occasion, enter 'positive'.

Positive threshold scores are as follows:

- 1. Cornell Assessment of Pediatric Delirium (CAPD)
  - a. positive if the score is 9 or above
- 2. Sophia Observation withdrawal Score-Paediatric Delirium (SOS-PD)
  - a. positive if the score is 4 or above
  - b. or 4 AND child is hallucinating
  - c. OR a parent or carer states behaviour is different to usual or is unrecognisable
- 3. Pediatric Confusion Assessment Method for the Intensive Care Unit (pCAM-ICU)
  - a. positive if features 1 (change or fluctuation in mental status), 2 (inattention), and 3 (altered level of consciousness) are present
- 4. PreSchool Confusion Assessment Method for the Intensive Care Unit (psCAM-ICU)
  - a. positive if features 1 (change or fluctuation in mental status), 2 (inattention), and 3 (altered level of consciousness) are present
  - b. Or positive if features 1 (change or fluctuation in mental status), 2 (inattention), and 4 (disorganised brain) are present

**Negative**: identifies that the child did not screen positive on the validated delirium screening tool used in the unit (i.e. did not reach the threshold indicating delirium)

**Unable to assess**: identifies that the child was exempt from delirium screening due to any of the following reasons:

- being unarousable [comatose]
- deeply sedated
- receiving continuous neuromuscular blocking agents
- is a pre-term baby <37 weeks gestation
- admitted within the four hours prior to midnight or discharged within four hours from midnight

**Did not assess:** identifies that the child was not exempt from delirium screening but was not assessed for any other reason than those specified in 'Unable to assess'.

#### Reason:

Required to record prevalence and burden of delirium occurrence for epidemiological analysis

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs: deliriumScreeningResultType		
Datatype Definition					
Enumerated field:			<ul> <li>1 – Positive</li> <li>2 – Negative</li> <li>3 – Unable to assess</li> <li>4 – Did not assess</li> </ul>		

## Epidural catheter in situ

## XML Element:

 $\ daily Intervention/Element: Epidural Catheter$ 

## Definition:

True if epidural catheter is in situ for the purpose of delivery of epidural analgesia at any point in that calendar day.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 85)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype			
0		No xs:boolean				
Datatype Definition						
Boolean data: True/False						

 $\ daily Intervention/Element: ContIVS edative$ 

#### Definition:

True if a patient is receiving a continuous intravenous infusion of a sedative agent for at least 4 hours in that calendar day.

Examples would include, but not be confined to, midazolam (or another benzodiazepine), clonidine, thiopentone, propofol.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 96)

Minimum Occurrences	Maximum Occurrences	ls Node Nillable?	XML datatype			
0		No xs:boolean				
Datatype Definition						
Boolean data: True/False						

Diabetic ketoacidosis	(DKA)	requiring	continuous	infusion	of insul	in
Diabetic Retoaciaosis	$\cup \cup \cup \cup$	I CAUII III E	CONTINUOUS	1111 431011	OI III3AI	

dailyIntervention/Element:dka

## Definition:

True if diabetic ketoacidosis (DKA) requiring continuous infusion of insulin was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 70)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype				
0		No	xs:boolean				
	Datatype Definition						
Boolean data: True/False							

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 $\ daily Intervention / Element: exTrans$ 

## Definition:

True if exchange transfusion was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 04)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable? XML datatype				
0		No	xs:boolean			
Datatype Definition						
Boolean data: True,	Boolean data: True/False					

Intravenou	s throm	bolysis
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daily Intervention/Element: in Throm

## Definition:

True if intravenous thrombolysis was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 71)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

Extracor	ooreal live	er support	using m	olecular	absorbent	recirculatin	ig s'	vstem (	MARS
		2. Oappo.c	~~		4000100110	. con caracii	. ~	,	,

dailyIntervention/Element:mars

## Definition:

True if extracorporeal liver support using molecular absorbent recirculating system (MARS) was received that day

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 72)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype		
0		No	xs:boolean		
Datatype Definition					
Boolean data: True/False					

dailyIntervention/Element:cubicle

## Definition:

True if patient was nursed in a single occupancy cubicle that day. Specify the reason for isolation in the text box provided.

### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code 74)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable? XML datatype				
0		No	xs:boolean			
Datatype Definition						
Boolean data: True/False						

XML Element:	<b>XML</b>	. Ele	me	nt:
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 ${\it daily Intervention/Element:} nox$ 

## Definition:

True if nitric oxide was administered that day.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code X84.1)

Minimum Occurrences	Maximum Occurrences	Is Node Nillable? XML datatype				
0		No	xs:boolean			
Datatype Definition						
Boolean data: True/False						

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 $\ daily Intervention / Element: surfact ant$ 

## Definition:

True if surfactant was administered that day.

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset (Activity Code X84.2)

Minimum Occurrences	Is Node Nillable? XML datatype					
0		No	xs:boolean			
Datatype Definition						
Boolean data: True,	Boolean data: True/False					

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Reason	tor	ICO	ISTICE
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 $\ daily Interventions/Element: isolation Reason$ 

## Definition:

If patient nursed in single occupancy cubicle, state reason for isolation

#### Reason:

Part of the Paediatric Critical Care Minimum Dataset

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	Yes	icdCodeType
Datatype Definition			
Text string: between 3 and 11 characters in length			