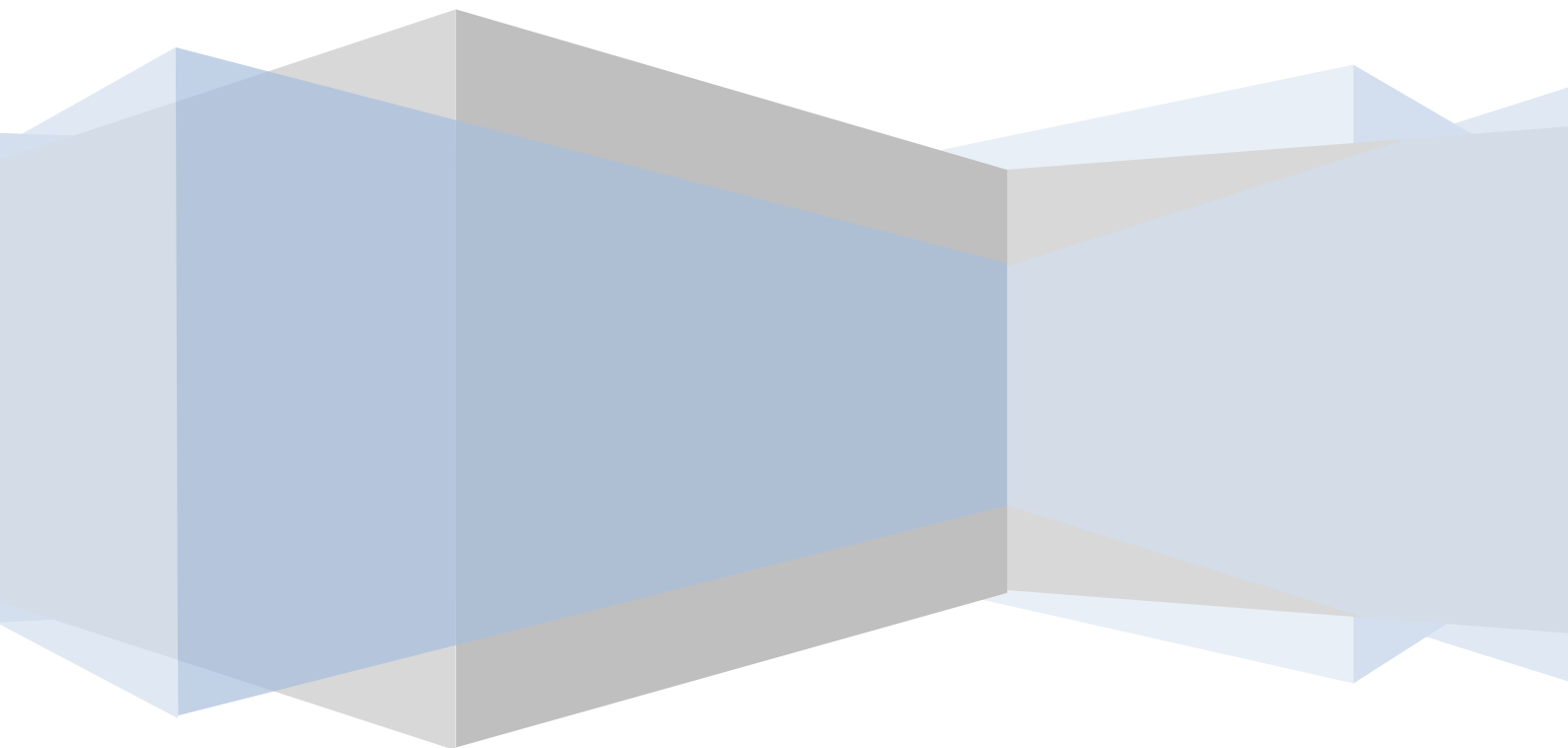




# PICANet ECMO Referral Schema Manual

Version 1.0 February 2024



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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.

## Local id

---

### XML Element:

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.

## 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 PICA Net 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 characters			



## Family name 2

---

### XML Element:

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 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			
Text string: 35 characters			

## Postcode

---

### XML Element:

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	Is Node Nillable?	XML datatype
0		Yes	postcodeType
Datatype Definition			
Text string: 7 characters			

## NHS, CHI or H&C number

---

### XML Element:

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: 10 characters			

## Ineligible for NHS, CHI or H&C number

---

### XML Element:

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/False			

## Date of birth

---

### XML Element:

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	Is Node Nillable?	XML datatype
0		Yes	xs:date
Datatype Definition			
Date format: YYYY-MM-DD			

## Indicate if date of birth is estimated

---

### XML Element:

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	dobEstimatedType
Datatype Definition			
Enumerated field			<ul style="list-style-type: none"><li>• 0 Not estimated</li><li>• 1 Estimated</li><li>• 2 Anonymised</li><li>• 9 DOB N/K</li></ul>

## Sex

---

### XML Element:

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	Is Node Nillable?	XML datatype
0		Yes	sexType
<b>Datatype Definition</b>			
Enumerated field:			<ul style="list-style-type: none"><li>• 1 Male</li><li>• 2 Female</li><li>• 3 Ambiguous</li><li>• 9 N/K</li></ul>



## Comments

---

### XML Element:

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			

## Referral node

---

PICANet collects data for each ECMO referral event. An ECMO referral is all requests for transport and/or a PICU admission when clinicians agree that the provision of ECMO is required. The 'Referral' node contains specific information on an ECMO referral event not collected elsewhere. All 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.

## Agent Organisation

---

### XML Element:

referral/Element:agentOrg

### Definition:

The organisation completing the referral form.

### Reason:

To enable effective audit and assessment of health services delivery.

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

## Referral date

---

### XML Element:

referral/Element:referraldate

### Definition:

The actual date when clinicians agreed that the patient required PIC transport and/or a PICU bed, based on the patient's clinical condition (not the availability of a team or a bed).

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

### Reason:

Date and time the referral was agreed will be used to calculate the total number of referral calls for each individual patient. Accurate recording of date and time will allow analysis of organisational delays e.g. due to lack of availability of staffed beds or transport teams.

To enable effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:date
Datatype Definition			
Date format: YYYY-MM-DD			

## Referral time

---

### XML Element:

referral/Element:referraltime

### Definition:

The actual time when clinicians agreed that the patient required PIC transport and/or a PICU bed, based on the patient's clinical condition (not the availability of a team or a bed).

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

### Reason:

Date and time the referral was agreed will be used to calculate the total number of referral calls for each individual patient. Accurate recording of date and time will allow analysis of organisational delays e.g. due to lack of availability of staffed beds or transport teams.

To enable effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:time
Datatype Definition			
Time format: hh:mm:ss			

## Referral Number

---

### XML Element:

referral/Element: ReferralNumber

### Definition:

Unique identifier assigned to each consecutive referral event.

As recorded within your organisation to identify each referral episode.

### Reason:

Referral number provides a unique identifier for each referral episode to an organisation participating in PICANet and thus allows identification of a series of one or more referral events from another.

Required for effective audit and assessment of geographical distribution of referring population to individual transport services/units.

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

## Referring unit

---

### XML Element:

referral/Element:referringOrg

### Definition:

Identifies the referring hospital, DGH or PICU where patient is located at the time of the referral call.

### Reason:

Required for effective audit and assessment of geographical distribution of referring population to individual units/transport services.

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

## Referring unit other

---

### XML Element:

referral/Element:referringOrgOther

### Definition:

Identifies the referring hospital, DGH or PICU where patient is located at the time of the referral call if 'other'.

### Reason:

Required for effective audit and assessment of geographical distribution of referring population to individual units/transport services.

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



## Referring Area

---

### XML Element:

referral/Element:ReferringArea

### Definition:

Identifies the care area where the patient is located at the time of the referral call.

**X-ray, endoscopy, CT scanner or similar** - identifies that the child came from an area where diagnostic procedures may have been carried out at the time of collection from the referring hospital

**Recovery only** - means the child was receiving care in the recovery area at the time of collection from the referring hospital

**HDU (step up/step down area)** - means the child was receiving care in a high dependency area at the time of collection from the referring hospital

**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

**Theatre and recovery** - means the child has undergone all or part of a surgical procedure or has received an anaesthetic for a procedure and was receiving care within the theatre and recovery area at the time of collection from the referring hospital

**Other transport service** - the patient is received from a different transport service i.e. at an airport or port for international transfer.

**ICU** means the child was receiving care within an adult or other specialist ICU, which is not designated as a PICU, at the time of collection from the referring hospital

**PICU** means the child was receiving care within PICU at the time of collection from the referring hospital

**NICU** means the child was receiving care within NICU at the time of collection from the referring hospital

**Ward** means the child was receiving care in a ward at the time of collection from the referring hospital.

**A&E** means the child was receiving care within an Accident and Emergency Department at the time of collection from the referring hospital.

### Reason:

To enable effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	collectionAreaType
<b>Datatype Definition</b>			
Enumerated Field:			<ul style="list-style-type: none"><li>• <b>1 - X-ray, endoscopy, CT scanner or similar</b></li><li>• <b>2 - Recovery only</b></li><li>• <b>3 - HDU (step up/step down area)</b></li><li>• <b>4 - Other intermediate care area</b></li><li>• <b>7 - Theatre and recovery</b></li><li>• <b>10 - Other transport service</b></li><li>• <b>11 - ICU</b></li><li>• <b>12 - PICU</b></li><li>• <b>13 - NICU</b></li><li>• <b>6 - Ward</b></li><li>• <b>8 - A&amp;E</b></li><li>• <b>99 – Unknown</b></li></ul>

## Referring speciality

---

### XML Element:

referral/Element:referringSpeciality

### Definition:

Specialty from which this request for admission is made. Record the parent specialty of the doctor who made this call resulting in a transfer.

Examples:

- A patient has elective surgery in a DGH; the operation is complicated and the anaesthetist decides the patient needs PICU for post-op recovery - code Anaesthetics.
- The transport team call the PICU to request a bed and arrange admission - code Paediatric Intensive Care Transport Service.

### Reason:

Describes the background from which patients are received for effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	Speciality
<b>Datatype Definition</b>			
Enumerated field:			
<ul style="list-style-type: none"><li>• 1 General paediatrics</li><li>• 2 Sub-specialty paediatrics</li><li>• 3 Neonates</li><li>• 4 Anaesthetics</li><li>• 5 General ITU</li><li>• 6 Neurosurgery</li><li>• 7 General surgery</li><li>• 8 Accident and Emergency</li><li>• 9 Burns and plastics</li><li>• 10 ENT</li><li>• 11 Other</li><li>• 12 PICU</li><li>• 13 Paediatric Intensive Care Transport Service</li><li>• 99 Unknown</li></ul>			

## ECMO support requested

---

### XML Element:

referral/Element:requestedEcmoSupport

### Definition:

Defines the ECMO support type that has been requested

**Respiratory** – The use of extracorporeal membrane oxygenation with a primary indication for support of respiratory failure by providing gas exchange support. Does not imply ECLS mode or cannula configuration

**Cardiac** – The use of extracorporeal membrane oxygenation with a primary indication for support of left and/or right ventricle failure by providing cardiac and gas exchange support. Does not imply any specific ECLS mode or cannulation configuration

**Both** – Mixture of both respiratory and cardiac definitions above.

### Reason:

To enable effective audit and assessment of health services delivery and NHSE service specification.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoSupportType
Datatype Definition			
Enumerated field:		<ul style="list-style-type: none"><li>• 1 Respiratory</li><li>• 2 Cardiac</li><li>• 3 Both respiratory and cardiac</li><li>• 9 Unknown</li></ul>	

## Date of referral decision

---

### XML Element:

referral/Element:EcmoReferralDecisionDate

### Definition:

The actual date when clinicians agreed on the outcome of the ECMO referral call. This is based on the patient's eligibility for ECMO (not the availability of a team or a bed).

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 and time of the referral decision will be used to calculate the total time the referral decision takes for each individual patient.

Accurate recording of date and time will allow analysis of organisational delays e.g., due to lack of availability of staffed beds or transport teams.

To enable effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:date
Datatype Definition			
Date field:YYYY-MM-DD			

## Time of referral decision

---

### XML Element:

referral/Element:EcmoReferralDecisionTime

### Definition:

The actual time when clinicians agreed on the outcome of the ECMO referral call. This is based on the patient's eligibility for ECMO (not the availability of a team or a bed).

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 and time of the referral decision will be used to calculate the total time the referral decision takes for each individual patient.

Accurate recording of date and time will allow analysis of organisational delays e.g., due to lack of availability of staffed beds or transport teams.

To enable effective audit and assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:time
Datatype Definition			
Time field(24 hour clock):HH:MM			

## Referral decision

---

### XML Element:

referral/Element:EcmoReferralDecision

### Definition:

Specifies patients' status as an ECMO candidate and outcome of referral decision.

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoReferralDecisionType
Datatype Definition			
Enumerated field:			<ul style="list-style-type: none"><li>• 1 Accepted at initial ECMO centre</li><li>• 2 Referred to other ECMO centre - no staffed bed</li><li>• 3 Referred to other ECMO centre - specialist service required</li><li>• 4 Did not require ECMO assessment at the time of referral (but patient considered a candidate for ECMO)</li><li>• 9 Unknown</li></ul>

## Reason not ECMO candidate - Comorbidity

---

### XML Element:

referral/Element:ReasonNotEcmoCandidateComorbidity

### Definition:

Specifies why the patient is not an ECMO candidate

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:boolean
Datatype Definition			
Boolean field: True/false			

## Reason not ECMO candidate - Prognosis

---

### XML Element:

referral/Element:ReasonNotEcmoCandidatePrognosis

### Definition:

Specifies why the patient is not an ECMO candidate

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:boolean
Datatype Definition			
Boolean field: True/false			



## Reason not ECMO candidate – Other

---

### XML Element:

referral/Element:ReasonNotEcmoCandidateOther

### Definition:

Specifies why the patient is not an ECMO candidate

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:boolean
Datatype Definition			
Boolean field: True/false			

## Reason not ECMO candidate – Other details

---

### XML Element:

referral/Element:ReasonNotEcmoCandidateOtherDetails

### Definition:

Specifies why the patient is not an ECMO candidate

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:string
Datatype Definition			
String filed: 255 characters			

## Second opinion sought?

---

### XML Element:

referral/Element:EcmoSecondOpinionSought

### Definition:

Specifies whether the referring centre sought a second opinion

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	yesNoUnknownType
Datatype Definition			
Enumerated field:		<ul style="list-style-type: none"><li>• 1 Yes</li><li>• 2 No</li><li>• 9 Unknown</li></ul>	

## Ecmo centre providing second opinion

---

### XML Element:

referral/Element:SecondOpinionEcmoCentre

### Definition:

Specifies the ECMO centre that was contacted for further advice regarding the referral

### Reason:

To enable effective audit and assessment of health services delivery, including NHSE service specification compliance

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoCentreType
Datatype Definition			
String field: 6 characters			

## Accepting ECMO centre

---

### XML Element:

referral/Element:AcceptingEcmoCentre

### Definition:

The accepting ECMO centre identifies the exact destination where the child was accepted for admission/transfer

### Reason:

Required for geographic information to be linked to assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoCentreType
Datatype Definition			
String field: 6 characters			

## Number of additional ECMO units referred to prior to accepting centre

---

### XML Element:

referral/Element:AcceptingEcmoCentre

### Definition:

If 'Referred to other ECMO centre (no staffed bed)' or 'Referred to other ECMO centre (specialist service required)' specify the number of additional ECMO units that the patient was referred to prior to acceptance in chronological order.

You do not need to include the owner centre or the accepting centre as additional units. This is intended to collect the number of refusals.

Example – Unit A receives ECMO referral, and starts PICANet Referral form. Unit A is at capacity so refers to units B and C, who also cannot accommodate. Unit D accepts patient for ECMO assessment.

Here there are 2 additional ECMO units the patient was referred to, B and C. Unit A is the owner organisation, Unit D is the accepting centre. Information on units A and D are not included as this information is collected elsewhere

Record the names of up to 5 additional centres in the order of referral.

### Reason:

To enable effective audit and assessment of health services delivery.

Required for geographic information to be linked to assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:integer
Datatype Definition			
Numeric field: i.e 1			
Validation check if greater than 5			

## Additional ECMO centres

---

### XML Element:

referral/Element:AdditionalEcmoCentre1  
referral/Element:AdditionalEcmoCentre2  
referral/Element:AdditionalEcmoCentre3  
referral/Element:AdditionalEcmoCentre4  
referral/Element:AdditionalEcmoCentre5

### Definition:

If 'Referred to other ECMO centre (no staffed bed)' or 'Referred to other ECMO centre (specialist service required)' specify the number of additional ECMO units that the patient was referred to prior to acceptance in chronological order.

You do not need to include the owner centre or the accepting centre as additional units. This is intended to collect the number of refusals.

Example – Unit A receives ECMO referral, and starts PICANet Referral form. Unit A is at capacity so refers to units B and C, who also cannot accommodate. Unit D accepts patient for ECMO assessment.

Here there are 2 additional ECMO units the patient was referred to, B and C. Unit A is the owner organisation, Unit D is the accepting centre. Information on units A and D are not included as this information is collected elsewhere

Record the names of up to 5 additional centres in the order of referral.

### Reason:

To enable effective audit and assessment of health services delivery.

Required for geographic information to be linked to assessment of health services delivery.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoCentreType
Datatype Definition			
String field: 6 characters			

## Transport decision

---

### XML Element:

referral/Element:EcmoTransportDecision

### Definition:

This intends to identify the decision that was made during the referral process, the outcome of the referral may be different.

**Accepted for conventional retrieval** – the referral for ECMO was accepted, and the decision made for the child to be transported by conventional retrieval.

**Accepted for mobile ECMO** – The referral for ECMO was accepted, and the decision made to transport the patient using mobile ECMO.

**Transport not requested** – Patient was already at the referring centre so no transport required.

### Reason:

To enable effective audit and assessment of health services delivery

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoTransportDecisionType
Datatype Definition			
Enumerated field:		<ul style="list-style-type: none"><li>• 1 Accepted for conventional retrieval</li><li>• 2 Accepted for mobile ECMO</li><li>• 3 Transport not requested</li><li>• 9 Unknown</li></ul>	



## Mode of transport

---

### XML Element:

referral/Element:EcmoTransportMode

### Definition:

Identifies the main mode of transport used by the transport team at any time during the journey with the child.

This may differ from the original decision made as part of the referral call.

**Conventional by road** – The child was transported without ECMO by road transport

**Conventional by air**– The child was transported without ECMO by air (helicopter/airplane)

**Mobile ECMO by road** – The child was transported on ECMO by road transport

**Mobile ECMO by air**–The child was transported on ECMO by air (helicopter/airplane)

### Reason:

To enable effective audit and assessment of health services delivery

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoTrasportModeType
Datatype Definition			
Enumerated field:			<ul style="list-style-type: none"><li>• 1 Conventional by road</li><li>• 2 Conventional by air</li><li>• 3 Mobile ECMO by road</li><li>• 4 Mobile ECMO by air</li><li>• 9 Unknown</li></ul>

## Transport team

---

### XML Element:

referral/Element:transportOrg

### Definition:

The 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:

To enable effective audit and assessment of health services delivery.

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

## Transport team other

---

### XML Element:

referral/Element:transportOrgOther

### Definition:

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

### Reason:

To enable effective audit and assessment of health services delivery.

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

## Transport outcome

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### XML Element:

referral/Element:EcmoTransportOutcome

### Definition:

The result of the transport episode once the decision to mobilise the transport team has been made and/or the transport journey has been completed.

**Patient transported** - the child has been transported to the destination specified

**Not transported - condition improved** - the transport team arrived at the collection unit, the child's condition improved and PIC/ECMO transport was no longer required

**Not transported - condition deteriorated** - the transport team arrived at the collection unit, the child's condition deteriorated and PIC/ECMO transport was no longer appropriate

**Not transported - other reason** - the transport was cancelled either after initial acceptance, when the transport team were en route to the collection unit or after the transport team arrived at the collection unit, the child was not transferred to another unit or location by the transport team. Enter reason in comments box

**Patient died before transport team arrived** - the child died after the transport team was mobilised but prior to arrival at the collection unit

**Patient died while transport team present** - the child died whilst the transport team were providing care at the collection unit

**Patient died during transit** - the child died during the return journey from the collection unit

### Reason:

To enable effective audit and assessment of health services delivery

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	trasportOutcomeType
Datatype Definition			
Enumerated field:			<ul style="list-style-type: none"><li>• 1 Patient transported</li><li>• 2 Not transported - condition improved</li><li>• 3 Not transported - condition deteriorated</li><li>• 4 Not transported - other reason</li><li>• 5 Patient died before transport team arrived</li><li>• 6 Patient died while transport team present</li><li>• 7 Patient died during transit</li><li>• 9 Unknown</li></ul>

## Admission outcome

---

### XML Element:

referral/Element:EcmoAdmissionOutcome

### Definition:

Identifies the admission outcome

**Admitted to PICU only** – admitted for PICU care only

**Admitted for ECMO assessment** – admitted for assessment for ECMO on PICU

**Admitted on ECMO** – Admitted already on ECMO

### Reason:

To enable effective audit and assessment of health services delivery

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	ecmoAdmissionOutcomeType
Datatype Definition			
Enumerated field:		<ul style="list-style-type: none"><li>• 1 Admitted to PICU only</li><li>• 2 Admitted for ECMO assessment</li><li>• 3 Admitted on ECMO</li><li>• 9 Unknown</li></ul>	

## Status at 30 days post referral

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### XML Element:

referral/Element:StatusPostReferral30

### Definition:

Identifies the status (alive or dead) of the child at 30 days post referral

### Reason:

Required for epidemiological analysis, assessment of health services delivery and NHSE Service Specification.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	patientStatusType
Datatype Definition			
Enumerated field:		<ul style="list-style-type: none"><li>• 1 Alive</li><li>• 2 Dead</li><li>• 9 Unknown</li></ul>	

## Status at 180 days post referral

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### XML Element:

referral/Element:StatusPostReferral180

### Definition:

Identifies the status (alive or dead) of the child at 180 days post referral

### Reason:

Required for epidemiological analysis, assessment of health services delivery and NHSE Service Specification.

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	patientStatusType
Datatype Definition			
Enumerated field:		<ul style="list-style-type: none"><li>• 1 Alive</li><li>• 2 Dead</li><li>• 9 Unknown</li></ul>	

## Date of death

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### XML Element:

referral/Element:RDateDeath

### Definition:

Identifies the date of death if this occurs following the ECMO referral and is identified at the 30- or 180-day follow-up

### 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.

The time of death is important for this purpose if it is during or immediately following the referral episode. If the death occurs after this period and the time of death is not known then the time of death may be left blank

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:date
Datatype Definition			
Date field: YYYY-MM-DD			



## Time of death

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### XML Element:

referral/Element:RTimeDeath

### Definition:

Identifies the time of death if this occurs following the ECMO referral and is identified at the 30- or 180-day follow-up

### 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.

The time of death is important for this purpose if it is during or immediately following the referral episode. If the death occurs after this period and the time of death is not known then the time of death may be left blank

Minimum Occurrences	Maximum Occurrences	Is Node Nillable?	XML datatype
0	1	No	xs:date
Datatype Definition			
Time field (24 hour clock): HH:MM			