



**PICANet Renal Dataset
supplement**

**Renal Daily
Interventions**

Version 2.0 (March 2017)

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Recording Daily Interventions

Record all interventions and results for each day Continuous Renal Replacement Therapy (CRRT) - (any or a combination of CVVH/CVVHD/CVVHDF/PD) is given (00.00-23.59hrs), using a cross [X] or numeric value.

Date of initiation of CRRT is used to identify the date on which the recording of the daily interventions commences.

24 hour period, starting from 00hr00mins, 23.59 is the end of one day and 00.00 is the start of the next day.

Record the date for each day CRRT is given.

CRRT given in 24 hour period

Definition	The type(s) of CRRT the patient received during each PICU day (00.00-23.59hrs) Choose all that apply from Peritoneal dialysis (where peritoneal dialysis actively occurs via PD catheter, do not include if patient just has a PD catheter in situ) CVVH Continuous Venovenous Haemofiltration CVVHD Continuous Venovenous Haemodialysis CVVHDF Continuous Venovenous Haemodiafiltration CVVHDF
Reason	To establish which CRRT therapies are utilised during single PICU admission and how this changes over time.
Format	Insert [X] for all that apply: Peritoneal Dialysis CVVH CVVHD CVVHDF
Validation rule	Cannot be left blank. Validation check if nil completed or all boxes ticked.

Variable name	PeriDial	GroupID	1	AttributeID	6
Variable name	CVVH	GroupID	1	AttributeID	7
Variable name	CVVHD	GroupID	1	AttributeID	8
Variable name	CVVHDF	GroupID	1	AttributeID	9

Laboratory Measured values

Creatinine highest value

Definition	The highest creatinine value measured by the laboratory on each PICU day (Days are 00:00-23:59hrs) that the patient is undergoing CRRT (any or a combination of CVVH/CVVHD/CVVHDF/PD).
Reason	To monitor trend in creatinine, and to calculate AKI score over time.
Format	Creatinine value in micromol/litre [$\mu\text{mol/L}$] to nearest whole number. Expected range 50-115
Validation rule	Validation check if zero or >500 Record 9999 for not measured/unknown

Variable name	CreatinineHighVal	GroupID	1	AuditID	1
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Ammonia highest value (required if hyperammonia was indication for RRT)

Definition	The highest ammonia value measured on each day (00:00-23:59) that the patient is undergoing CRRT (any or a combination of CVVH/CVVHD/CVVHDF/PD).
Reason	To monitor trend in ammonia level over time and to assess efficacy of ammonia clearance by CRRT. Only required if Toxin removal - ammonia is specified in Indication for RRT in the core renal dataset.
Format	Ammonia value in micromoles/litre rounded up to the nearest whole number. micromols /litre [$\mu\text{mol/L}$]. Whole number (e.g. 545); expected range 100-2000
Validation rule	Validation check if outside range 100-2000 Record 9999 if not measured/unknown

Variable name	AmmoniaHighVal	GroupID	1	AttributeID	2
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Lactate highest value

Definition	The highest lactate value measured on each day (00:00-23:59hrs) that the patient is undergoing CRRT (any or a combination of CVVH/CVVHD/CVVHDF/PD).
Reason	To monitor trend in lactate over time and to assess efficacy of lactate clearance by CRRT.
Format	Value rounded up to nearest 1 decimal place in millimols/litre (e.g. 13.5) Range 0.1 to 20.0
Validation rule	Validation check if zero or >30.0 Record 88.8 if out of range reading Record 99.9 if not measured/unknown

Variable name	LactateHighVal	GroupID	1	AttributeID	3
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Net fluid balance in PICU day

Definition	The net cumulative fluid balance over 24 hrs at the end of each sequential PICU day (00:00-23:59hrs) that the patient is undergoing CRRT (any or a combination of CVVH/CVVHD/CVVHDF/PD).
Reason	To monitor trend in fluid balance over time to and assess efficacy of fluid removal by CRRT.
Format	+/- millilitres e.g. – 1300 or + 400
Validation rule	Required value. Validation check if outside range -10000 to +10000 Record 99999 if not known.

Variable name	NetFluidBallnDay	GroupID	1	AttributeID	4
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Total urine output in PICU day

Definition	Total urine output over 24hrs for each day (00:00-23:59 hrs) that patient is receiving CRRT ((any or a combination of CVVH/CVVHD/CVVHDF/PD).
Reason	To assess trends in urine output and AKI score over time.
Format	Record as millilitres in whole numbers (e.g. 550)
Validation rule	Validation check if > 10000. Can be zero Record 99999 if not known

Variable name	TotUrineOutInDay	GroupID	1	AttributeID	5
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Peritoneal Dialysis

(only required for PD, not applicable to CVVH, CVVHD, and CVVHDF)

Peritoneal dialysis complications

Definition	When Peritoneal dialysis therapy received on this day choose one or more of the following that apply: No peritoneal dialysis complications - where there have been no complications Catheter replacement - where catheter inserted for PD has been replaced in order to continue with PD therapy. Inadequate flow - where PD therapy has been interrupted due to inadequate flow of fluid into or out of the peritoneal catheter(s). Catheter leakage - where PD therapy has been interrupted due to excess leakage of fluid around the peritoneal catheter insertion site. Peritonitis - where PD therapy has been interrupted or stopped due to actual or suspected peritonitis. Peritonitis: cloudy peritoneal effluent is associated with increased number of white blood cells (>100/ml ³) with at least 50% polymorphonuclear leucocytes. This is usually associated with abdominal pain and/or temperature.
Reason	To assess frequency of complications affecting PD therapy during single PICU episode.
Format	Insert [X] for all that apply: No peritoneal dialysis complications Catheter replacement Inadequate flow Catheter leakage Peritonitis
Validation rule	One or more boxes may be ticked May be blank if peritoneal dialysis not given Validation query: if peritoneal dialysis given during day and nil boxes ticked

Variable name	NoPeriDialComp	GroupID	1	AttributeID	10
Variable name	CatheterReplace	GroupID	1	AttributeID	11
Variable name	InadequateFlow	GroupID	1	AttributeID	12
Variable name	CatheterLeakage	GroupID	1	AttributeID	13
Variable name	Peritonitis	GroupID	1	AttributeID	14

Extra-corporeal CRRT

(only required for CVVH, CVVHD, CVVHDF, not applicable to PD)

Vascular access change

Definition When Extra-corporeal CRRT (CVVH, CVVHD, CVVHDF) received on this day (00.00-23.59hrs)
choose one or more of the following that apply:

No vascular access change(s) – where there have been no vascular access change(s)

Line clotted - vascular access changed because the existing venous catheter used for CRRT became blocked

Bleeding from line insertion site -vascular access changed because bleeding from site of insertion of vascular access used for CRRT was considered excessive and could not be controlled by other means

Line dislodged - vascular access changed because existing venous catheter used for CRRT had become dislodged after a period when it was working

Line infection - vascular access used for CRRT was changed because of suspected or proven infection of the existing catheter

Elective change - catheter used for CRRT was changed electively (e.g., planned change after 7 days)

Other - vascular access used for CRRT was changed for reasons other than those listed above. Select other and describe in the notes section below.

Reason To record the frequency and impact of complications relating to vascular access during CRRT.

Format Insert [X] for all that apply:
No vascular access change(s)
Line clotted
Bleeding from line insertion site
Line dislodged
Line infection
Elective change
Other –describe in free text in the notes section below

If extra-corporeal CRRT given on this day one or more of the responses must be selected

May be blank if extra-corporeal CRRT not given on day

Validation query: if CVVH, CVVHD or CVVHDF given during day and nil boxes ticked

Variable name	NoVascAccChange	GroupID	1	AttributeID	15
Variable name	LineClotted	GroupID	1	AttributeID	16
Variable name	BleedingInsertionLine	GroupID	1	AttributeID	17
Variable name	LineDislodged	GroupID	1	AttributeID	18
Variable name	LineMalfunction	GroupID	1	AttributeID	19
Variable name	ElectiveChange	GroupID	1	AttributeID	20
Variable name	OtherVascAcc	GroupID	1	AttributeID	21

CRRT filter changes

Definition When Extra-corporeal CRRT (CVVH, CVVHD CVVHDF) received on this day (00.00-23.59hrs)

choose either

No CRRT filter change(s) – where there have been no CRRT filter changes
or

If the whole CRRT circuit or an isolated CRRT filter are changed during the specified day (00.00-23.59hrs) record the number of elective and/or unplanned filter changes

Elective filter change(s) - The number of elective whole CRRT circuit and/or isolated CRRT filter changes during the specified day (00.00-23.59hrs) day (i.e. routinely at 72hours, or to facilitate patient movement etc)

Unplanned filter change(s) - The number of unplanned whole CRRT circuit and/or isolated CRRT filter changes during the specified day (00.00-23.59hrs)

Only required for CVVH, CVVHD, CVVHDF, not applicable to peritoneal dialysis

Reason To record the frequency of planned and unplanned whole CRRT circuit and/or isolated CRRT filter changes and the reason for the change.

Format Insert [X] if
No CRRT filter changes
Or insert number if
Elective filter changes or
Unplanned filter changes
Whole Number e.g. 02

Validation rule If extra-corporeal CRRT given on this day at least one response must be selected
May be blank if extra-corporeal CRRT not given on day
Validation query: if CVVH, CVVHD or CVVHDF given during day and nil boxes ticked or recorded number is >05

Variable name	NoCRRTFilterChanges	GroupID	1	AttributeID	22
Variable name	ElectFilterChanges	GroupID	1	AttributeID	23
Variable name	UnplannedFilterChanges	GroupID	1	AttributeID	24

Anticoagulation

Definition The anticoagulation therapy used for the maintenance of CRRT circuit during each PICU day (00.00-23.59hrs).
There may be a switch from one therapy to another.
Insert [X] for all that apply:
No anticoagulation given
Heparin
Citrate
Prostacyclin
Other (*use free text to describe in notes section below*)

Reason To document anticoagulation therapy used for maintenance of CRRT circuit during each PICU day. As there may be a switch from one therapy to another, record all that apply.

Format Insert [X] for all that apply:
No anticoagulation given
Heparin
Citrate
Prostacyclin
Other (*describe in notes section below*)

Validation rule One or more responses expected if CRRT given
Validation query if none

Variable name	NoAnticoagGiven	GroupID	1	AttributeID	25
Variable name	Heparin	GroupID	1	AttributeID	26
Variable name	Citrate	GroupID	1	AttributeID	27
Variable name	Prostacyclin	GroupID	1	AttributeID	28
Variable name	OtherAnticoag	GroupID	1	AttributeID	29

Blood products transfused

Definition The blood products received by the patient each day (00.00-23.59hrs) that they are receiving CRRT.
Required for CVVH, CVVHD, CVVHDF and peritoneal dialysis.

Choose from

No blood products transfused

Packed red blood cells – CRRT circuit prime - patient received packed red cells either as direct transfusion or as priming of new circuit during planned or unplanned CRRT circuit change- patient received packed red blood cells as priming of new circuit during planned or unplanned CRRT circuit change

Packed red blood cells – transfusion - patient received packed red cells as a direct transfusion

Platelets - patient received platelet s

Fresh Frozen Plasma - patient received fresh frozen plasma (FFP)

Cryoprecipitate - patient received Cryoprecipitate transfusion

Reason To record the type and frequency of blood products received by the patient during each PICU stay.

Format Insert [X] for all that apply:
No blood products transfused
Packed red blood cells – CRRT circuit
Packed red blood cells – transfusion
Platelets
Fresh Frozen Plasma
Cryoprecipitate

Validation rule Expect one or more values to be ticked
Validation query if none

Variable name	NoBloodProdTrans	GroupID	1	AttributeID	30
Variable name	PackedRBCCRRTCircuitPrime	GroupID	1	AttributeID	31
Variable name	PackedRBCTransfusion	GroupID	1	AttributeID	32
Variable name	Platelets	GroupID	1	AttributeID	33
Variable name	FreshFrozenPlasma	GroupID	1	AttributeID	34
Variable name	Cryoprecipitate	GroupID	1	AttributeID	35

Notes

Description

Any additional information considered relevant to this daily data collection

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 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.

Format

Free text

Variable name	VascularAccessNotes	GroupID	2	AttributeID	36
Variable name	AnticoagulationNotes	GroupID	2	AttributeID	37