fluid TRIPS	**Unit Survey**	Country ID: I__I__I__I Hospital ID: I__I__I__I

This form only needs to **be completed ONCE per ICU** for the chosen study day.

TOTAL ICU PATIENT NUMBER

Please indicate the **total number of patients in the ICU on the study day ≥ 16 years old**. This should include all patients present in the ICU at the start of the study day and any admitted during the 24-hour study period. Please note that this total should also include patients who do not receive fluid resuscitation.

0.01 I__I__I/I__I__I/I__I__I__I__I Date of study day (DD/MM/YYYY)

0.02 I__I__I__I Total number of patients in the ICU on the study day

FLUID AVAILABILITY

Please indicate whether each fluid type is usually available in your ICU.

Crystalloids:

0.03 Y N 0.9% Saline (Normal saline/NS)

0.04 Y N Hypertonic saline (>0.9% e.g. 3%, 7%, 7.5%, 20%)

0.05 Y N Hartmann's

0.06 Y N Lactated Ringer's

0.07 Y N Plasmalyte A

0.08 Y N Plasmalyte R

0.09 Y N Plasmalyte 148 Replacement

0.10 Y N Ringer's Acetate

0.11 Y N Balanced glucose (e.g. Plasmalyte solutions with glucose)

0.12 Y N Dextrose (5%D, D5W)

0.13 Y N Dextrose/saline (4%N/5, 3.75%N/4, 2.5%N/2 etc)

0.14 Y N Hypertonic glucose (>5% e.g. 10%, 20%, 50% D)

Colloids:

0.15 Y N Albumin 4-5% NSA

0.16 Y N Albumin 20-25% NSA

0.17 Y N 6% HES (130/0.4x) in saline

0.18 Y N 6% HES (130/0.4x) in balanced salt solution

0.19 Y N Other starch

0.20 Y N 706 plasma replacement

0.21 Y N Gelofusine

0.22 Y N Haemaccel

0.23 Y N Dextran 40 or 70

fluid TRIPS	**Unit Survey**	Country ID: I__I__I Hospital ID: I__I__I

FLUID UNIT COST

In addition to the availability of fluids we would like to understand the cost of various fluid preparations to the hospital and whether this information is available to staff. This information may be available in the ICU or from the hospital pharmacy or other sources.

0.24 Y N Do clinical staff working in this ICU have access to information regarding the cost of various fluid preparations used in the ICU (i.e. the cost paid by the hospital to purchase the fluid preparation)?

If **no**, this form is finished.
If **yes**, go to question **0.25**

0.25 Indicate the PRIMARY currency for cost information: (i.e. if multiple currencies are used, select the most commonly used currency) _____

Please provide the unit cost and unit volume for each fluid listed below (if information is available). Please provide cost using the currency specified in **0.25**.

Crystalloids		**Unit cost**	**Unit volume (mL)**
0.26	0.9% Saline (Normal saline/NS)	I__I__I__I__I	I__I__I__I__I
0.27	Hypertonic saline (>0.9% e.g. 3%, 7%, 7.5%, 20%)	I__I__I__I__I	I__I__I__I__I
0.28	Hartmann's	I__I__I__I__I	I__I__I__I__I
0.29	Lactated Ringer's	I__I__I__I__I	I__I__I__I__I
0.30	Plasmalyte A	I__I__I__I__I	I__I__I__I__I
0.31	Plasmalyte R	I__I__I__I__I	I__I__I__I__I
0.32	Plasmalyte 148 Replacement	I__I__I__I__I	I__I__I__I__I
0.33	Ringer's Acetate	I__I__I__I__I	I__I__I__I__I
0.34	Balanced glucose (e.g. Plasmalyte solutions with glucose)	I__I__I__I__I	I__I__I__I__I
0.35	Dextrose (5%D, D5W)	I__I__I__I__I	I__I__I__I__I
0.36	Dextrose/saline (4%N/5, 3.75%N/4, 2.5%N/2 etc)	I__I__I__I__I	I__I__I__I__I
0.37	Hypertonic glucose (>5% e.g. 10%, 20%, 50% D)	I__I__I__I__I	I__I__I__I__I

Colloids

0.38	Albumin 4-5% NSA	I__I__I__I__I	I__I__I__I__I
0.39	Albumin 20-25% NSA	I__I__I__I__I	I__I__I__I__I
0.40	6% HES (130/0.4x) in saline	I__I__I__I__I	I__I__I__I__I
0.41	6% HES (130/0.4x) in balanced salt solution	I__I__I__I__I	I__I__I__I__I

		Unit cost	Unit volume (mL)
0.42	Other starch	I__I__I__I__I	I__I__I__I__I
0.43	706 plasma replacement	I__I__I__I__I	I__I__I__I__I
0.44	Gelofusine	I__I__I__I__I	I__I__I__I__I
0.45	Haemaccel	I__I__I__I__I	I__I__I__I__I
0.46	Dextran 40 or 70	I__I__I__I__I	I__I__I__I__I

0.47 Please indicate where the information above was sourced from: (select all that apply)

- ☐ ICU manager
- ☐ From other sources in the ICU
- ☐ Hospital pharmacy
- ☐ Other source, please specify: _____

Thank you. Please complete Forms 1-4 for each patient that receives fluid resuscitation on the study day.

fluid TRIPS	**ICU ADMISSION DATA FORM 1**	Country ID: I__I__I Hospital ID: I__I__I Patient ID: I__I__I

GENERAL PATIENT INFORMATION

1.01 ☐ M ☐ F Patient's sex

→ If **female**, go to question **1.02**

→ If **male**, go to question **1.04**

1.02 ☐ Y ☐ N Is the patient pre-menopausal?

→ If **no**, go to question **1.04**

→ If **yes**, go to question **1.03**

1.03 ☐ Y ☐ N Has pregnancy been excluded by pregnancy test or previous sterilisation?

1.04 I__I__I Patient's age (years) (only include patients 16 years or older)

1.05 I__I__I/I__I__I/I__I__I__I ICU admission date (dd/mm/yyyy)

1.06 From where was the patient admitted to the ICU? (tick one box only)

☐ Y Accident and Emergency Department

☐ Y Hospital Floor

☐ Y Transfer from another ICU

☐ Y Transfer from another hospital (except from another ICU)

☐ Y Admitted from Operating Theatre following **EMERGENCY** surgery

☐ Y Admitted from Operating Theatre following **ELECTIVE** surgery

1.07 ☐ Y ☐ N Has this patient previously been in ICU in **THIS** hospital during **THIS** hospital admission?

1.08 ☐ Y ☐ N Was this a **POST-OPERATIVE** admission to ICU? (Answer **yes** if patient admitted **DIRECT** from the operating theatre or the recovery room)

→ If **no**, go to question **1.10**

→ If **yes**, go to question **1.09**

1.09 What was the *primary* **POST-OPERATIVE** diagnosis that necessitated this admission to ICU? (tick one box only)

Cardiovascular:

☐ Y Dissecting/ruptured aorta

☐ Y Peripheral vascular disease - no bypass graft

☐ Y Peripheral artery bypass graft

☐ Y Elective abdominal aortic aneurysm

☐ Y Carotid endarterectomy

☐ Y Valvular heart surgery

☐ Y Coronary artery bypass graft

☐ Y Coronary artery bypass graft with valve replacement

☐ Y Other cardiovascular disease

Gastrointestinal:

☐ Y Perforation / rupture

☐ Y Inflammatory disease

☐ Y Bleeding

☐ Y Obstruction

☐ Y Neoplasm

☐ Y Cholecystitis / cholangitis

- [ ] Liver transplant
- [ ] Other gastrointestinal diseases

Respiratory:

- [ ] Respiratory infection
- [ ] Neoplasm of lung
- [ ] Neoplasm – mouth / larynx / sinus / trachea
- [ ] Other respiratory diseases

Neurological:

- [ ] Intracerebral haemorrhage
- [ ] Subdural / epidural haematoma
- [ ] Subarachnoid haemorrhage
- [ ] Laminectomy / spinal cord injury
- [ ] Craniotomy for neoplasm
- [ ] Other neurologic disease

Trauma:

- [ ] Traumatic brain injury with or without multiple trauma
- [ ] Multiple trauma without traumatic brain injury
- [ ] Burns
- [ ] Multiple trauma + spinal cord injury

Renal:

- [ ] Renal neoplasm
- [ ] Other renal diseases

Gynaecological:

- [ ] Hysterectomy
- [ ] Pregnancy related disorder

Orthopaedic:

- [ ] Hip or extremity disorder

Other:

- [ ] Surgery for soft tissue sepsis
- [ ] Other surgery

Form 1 is now complete. Please go to Form 2

1.10 What was the *primary* **MEDICAL** diagnosis that necessitated this admission to ICU? (tick one box only)

Cardiovascular:

- [ ] Cardiogenic shock
- [ ] Cardiac arrest
- [ ] Aortic aneurysm
- [ ] Congestive cardiac failure
- [ ] Peripheral vascular disease - medical
- [ ] Rhythm disturbance
- [ ] Acute myocardial infarction
- [ ] Hypertension
- [ ] Other non-surgical cardiovascular disease

Sepsis:

- ☐ Sepsis other than urinary tract
- ☐ Sepsis of urinary tract origin

Trauma:

- ☐ Traumatic brain injury with or without multiple trauma
- ☐ Multiple trauma without traumatic brain injury

Respiratory:

- ☐ Aspiration pneumonia
- ☐ Respiratory neoplasm including larynx / trachea
- ☐ Respiratory arrest
- ☐ Pulmonary oedema (non-cardiac)
- ☐ Bacterial / viral pneumonia
- ☐ Chronic obstructive pulmonary disease
- ☐ Pulmonary embolism
- ☐ Mechanical airway obstruction
- ☐ Asthma
- ☐ Parasitic pneumonia
- ☐ Other non-surgical respiratory diseases

Gastrointestinal:

- ☐ Hepatic failure
- ☐ Perforation / obstruction
- ☐ Bleeding – varices
- ☐ Inflammatory disease (ulcerative colitis, Crohn's, pancreatitis)
- ☐ Bleeding – ulceration / laceration
- ☐ Bleeding – diverticulitis
- ☐ Other non-surgical gastro-intestinal disease

Neurological:

- ☐ Intracerebral haemorrhage
- ☐ Subarachnoid haemorrhage
- ☐ Ischaemic stroke
- ☐ Neurologic infection
- ☐ Neurologic neoplasm
- ☐ Neuromuscular disease
- ☐ Seizure
- ☐ Other neurological disease

Metabolic:

- ☐ Metabolic coma
- ☐ Diabetic ketoacidosis
- ☐ Drug overdose
- ☐ Other metabolic disease

Haematological:

☐ Coagulopathy / Neutro / Thrombo

☐ Other haematological diseases

Renal:

☐ Renal disease

Other:

☐ Other medical diseases

This form is finished. Please complete Form 2 for this patient.

fluid TRIPS	**BASELINE DATA FORM 2**	Country ID: I__I__I__I Hospital ID: I__I__I__I Patient ID: I__I__I__I

GENERAL PATIENT INFORMATION

2.01 I__I__I__I Patient's weight (kg) (use recorded value if available otherwise please estimate)

2.02 Was the above weight known or estimated?

Y Estimated

Y Known

TRAUMA

2.03 Y N Was the patient's primary reason for <u>hospital</u> admission trauma (include burns or any type of trauma including falls in the elderly)?

→ If **no**, go to question **2.11**

→ If **yes**, go to question **2.04**

2.04 Which of the following criteria for TRAUMA did the patient meet? (refer to Data Dictionary for definitions)

Y N An injury to the body produced by mechanical forces

Y N A primary admission diagnosis of burns

→ If **no**, go to question **2.06**

→ If **yes**, answer question **2.05**

2.05 I__I__I__I What was the percentage of body area of burns?

2.06 I__I__I What was the last GCS prior to sedation?

2.07 Was the GCS recorded in the patient record or estimated from a description of the patient's neurological state?

Y Recorded

Y Estimated

2.08 Y N Was a cranial CT scan performed prior to ICU admission?

→ If **no**, go to question **2.11**

→ If **yes**, answer question **2.09**

2.09 Y N Was there an abnormality on cranial CT consistent with acute traumatic brain injury?

2.10 Y N Was there intracranial haemorrhage on cranial CT?

SEPSIS, ARDS, DISEASE SEVERITY SCORE

Complete questions **2.11-2.12** using the information from the **24 hours prior to the first resuscitation episode**.

SEPSIS AT BASELINE

2.11 Y N Did the patient meet BOTH of the following criteria for sepsis? (refer to Data Dictionary for definitions)

- a defined focus of infection (positive cultures not required)
- 2 or more of the **S**ystemic **I**nflammatory **R**esponse **S**yndrome criteria
  - Core temperature >38°C or <36°C.
  - WCC >12 x 10^9/L or < 4 x 10^9/L or > 10% immature neutrophils (Band forms)
  - Tachycardia - Heart rate >90 beats/minute
  - Tachypnoea - >20 breaths per minute or a $PaCO_2$ <32 mmHg or mechanical ventilation

fluid TRIPS	**BASELINE DATA FORM 2**	Country ID: I__I__I Hospital ID: I__I__I Patient ID: I__I__I

ACUTE RESPIRATORY DISTRESS SYNDROME (ARDS) AT BASELINE

2.12 Y N Did the patient meet ALL of the following criteria for ARDS? (refer to Data Dictionary for definitions)

- Within 1 week of a known clinical insult or new or worsening respiratory symptoms
- Bilateral opacities not fully explained by effusions, lobar/lung collapse, or nodules
- Respiratory failure not fully explained by cardiac failure or fluid overload
- $PaO_2/FiO_2 \leq 300$ mmHg with PEEP or CPAP $\geq$ 5cm H_2O

ADMISSION SEVERITY OF DISEASE SCORE

2.13 Y N On admission was a severity of disease score calculated for this patient (e.g. APACHE II; SAPS II)?

→ If **no**, go to question **2.16**

→ If **yes**, answer question **2.14**

2.14 Please name the severity of disease score used: _____

2.15 I__I__I What was the severity of disease score value?

2.16 I__I What was the chronic health points score (part C)? (see Data Dictionary)

2.17 If the patient had chronic health points, indicate all that apply below:

Y N	Liver	Biopsy proven cirrhosis & documented portal hypertension (PH); episodes of upper GI bleeding due to PH; or prior episodes of hepatic failure/encephalopathy/coma
Y N	Renal	Receiving chronic dialysis
Y N	Cardiovascular	New York Heart Association Class IV – symptoms at rest
Y N	Respiratory	Chronic restrictive, obstructive or vascular disease resulting in severe exercise restriction (i.e. unable to climb stairs, perform household duties); or documented chronic hypoxia, hypercapnia, 2^o polycythemia, severe pulmonary hypertension (>40mmHg) or respiratory dependency
Y N	Immunocompromised	Patient has received therapy that suppresses resistance to infection, e.g. immuno-suppression, chemotherapy, radiotherapy, long term or recent high dose steroids, or has a disease sufficiently advanced to suppress resistance to infection (eg leukaemia, lymphoma, AIDS)

This form is finished. Please complete Form 3 for this patient.

fluid TRIPS	**FLUID RESUSCITATION FORM 3**	Country ID: I__I__I Hospital ID: I__I__I Patient ID: I__I__I

FLUID RESUSCITATION

Please answer the following questions for **ALL** episodes of fluid resuscitation given at any stage during the 24-hour study period.

A resuscitation episode is defined as an hour during which a patient receives any of the following:

- **A bolus of crystalloid**
- **A bolus of colloid**
- **A crystalloid infusion of 5mL/kg/hour or greater for one or more hours**
- **Any colloid by infusion**

Bolus- Resuscitation episodes are defined as an hour during which a patient receives a BOLUS of either crystalloid or colloid to increase or maintain intra-vascular volume. If a fluid bolus is given over a period longer than one hour, then begin a new resuscitation episode for the second hour. Resuscitation episodes are defined by time, NOT by the fluid administration. Where two fluid boluses are given in one hour, these are treated as a single episode. Each additional hour where a fluid bolus is received is a new resuscitation episode.

Infusion- Resuscitation episodes are defined as the first hour of **any** colloid infusion or the first hour of a crystalloid infusion of 5mL/kg/hour or more. Where fluid resuscitation is given as either a continuous colloid infusion or a continuous crystalloid infusion of 5mL/kg/hour or more, take the first hour of the infusion as the resuscitation episode and complete the resuscitation episode data for that hour. The remaining volume of the infusion should be recorded on Form 4.

If the patient has more than 3 fluid resuscitation episodes, please use Form 3a for the additional episodes.

FLUID RESUSCITATION EPISODES

3.01 What was the total number of fluid resuscitation episodes for this patient during the 24-hour study period? I__I__I

		Episode 1	Episode 2	Episode 3
3.02	Start time of resuscitation episode (24 hour clock)	I__I__I:I__I__I	I__I__I:I__I__I	I__I__I:I__I__I

INDICATIONS

What were the indications for fluid for this resuscitation episode? (more than one can apply)

		Episode 1	Episode 2	Episode 3
3.03	Hypotension	Y N	Y N	Y N
3.04	Increasing inotrope or vasopressor requirements	Y N	Y N	Y N
3.05	Low CVP	Y N	Y N	Y N
3.06	Low PCWP	Y N	Y N	Y N
3.07	Tachycardia	Y N	Y N	Y N
3.08	Low urine output	Y N	Y N	Y N
3.09	Low measured cardiac output via invasive haemodynamic monitoring	Y N	Y N	Y N

3.10	Low measured cardiac output via echocardiographic findings	Y N	Y N	Y N
3.11	Low intravascular volume as assessed by echocardiography	Y N	Y N	Y N
3.12	Clinical signs of poor peripheral perfusion	Y N	Y N	Y N
3.13	Low $S_vO_2/S_{cv}O_2$	Y N	Y N	Y N
3.14	Ongoing bleeding	Y N	Y N	Y N
3.15	Other ongoing fluid loss	Y N	Y N	Y N
3.16	Unit protocol or standing orders	Y N	Y N	Y N
3.17	Increasing or persisting acidosis or lactate	Y N	Y N	Y N
3.18	Positive Straight Leg Raise Test	Y N	Y N	Y N
3.19	Abnormal indices of Pulse Pressure Variation	Y N	Y N	Y N
3.20	Other, specify _____	Y N	Y N	Y N

PRESCRIBER CHARACTERISTICS

3.21 Who decided the choice of fluid for this resuscitation episode? (select only one)

	Episode 1	**Episode 2**	**Episode 3**
ICU doctor	Y	Y	Y
Surgical doctor	Y	Y	Y
Medical doctor	Y	Y	Y
Nurse acting independently	Y	Y	Y
Nurse following unit protocol	Y	Y	Y
Other	Y	Y	Y

3.22 If you chose ICU, surgical or medical doctor in **3.21**, specify the doctor's level (select only one). Otherwise, go to question **3.23**

	Episode 1	**Episode 2**	**Episode 3**
Specialist/Consultant/Attending	Y	Y	Y
Registrar/Fellow/Senior Trainee	Y	Y	Y
Resident/HMO/Junior Trainee	Y	Y	Y
Intern/House officer	Y	Y	Y

CLINICAL AND LABORATORY DATA

	Episode 1	**Episode 2**	**Episode 3**
3.23 SOFA score – **respiration**	I__I	I__I	I__I
3.24 SOFA score – **cardiovascular**	I__I	I__I	I__I

3.25 Renal replacement therapy?	Y N	Y N	Y N
3.26 Mechanical ventilation? (Include NIPPV but not mask CPAP)	Y N	Y N	Y N
3.27 On ECMO?	Y N	Y N	Y N
3.28 ICP monitor?	Y N	Y N	Y N
3.29 ICP (mmHg)	I__I__I N/A	I__I__I N/A	I__I__I N/A
3.30 Heart rate (bpm)	I__I__I__I	I__I__I__I	I__I__I__I
3.31 MAP (mmHg)	I__I__I__I	I__I__I__I	I__I__I__I
3.32 Systolic ABP (mmHg)	I__I__I__I	I__I__I__I	I__I__I__I
3.33 Diastolic ABP (mmHg)	I__I__I__I	I__I__I__I	I__I__I__I
3.34 CVP (mmHg)	I__I__I	I__I__I	I__I__I
3.35 PCWP (mmHg)	I__I__I	I__I__I	I__I__I
3.36 Creatinine (µmol/L)	I__I__I__I__I	I__I__I__I__I	I__I__I__I__I
3.37 Bilirubin (µmol/L)	I__I__I__I	I__I__I__I	I__I__I__I
3.38 Base excess (mEq/L / mmol/L)	I__I__I.I__I	I__I__I.I__I	I__I__I.I__I
3.39 Base deficit (mEq/L / mmol/L)	I__I__I.I__I	I__I__I.I__I	I__I__I.I__I
3.40 Lactate (mmol/L)	I__I__I.I__I	I__I__I.I__I	I__I__I.I__I
3.41 Serum Albumin (g/L)	I__I__I	I__I__I	I__I__I

FLUID OUTPUT

3.42 Urine output previous complete hour (mL)	I__I__I__I__I	I__I__I__I__I	I__I__I__I__I
3.43 Total fluid output previous complete hour (mL)	I__I__I__I__I	I__I__I__I__I	I__I__I__I__I

Form continues on next page

FLUID TYPE AND VOLUME

Crystalloids received as boluses or infusions ≥ 5mL/kg/hour:

		Episode 1	Episode 2	Episode 3
3.44	0.9% Saline (Normal saline/NS) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.45	Hypertonic saline (>0.9% e.g. 3%, 7%, 7.5%, 20%) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.46	Hartmann's (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.47	Lactated Ringer's (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.48	Plasmalyte A (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.49	Plasmalyte R (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.50	Plasmalyte 148 Replacement (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.51	Ringer's Acetate (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.52	Other balanced salt solution, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.53	Balanced glucose (e.g. Plasmalyte solutions with glucose) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.54	Dextrose (5%D, D5W) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.55	Dextrose/saline (4%N/5, 3.75%N/4, 2.5%N/2 etc) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.56	Hypertonic glucose (>5% e.g. 10%, 20%, 50% D) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.57	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.58	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I

Colloids received as boluses or infusions:

3.59	Albumin 4-5% NSA (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.60	Albumin 20-25% NSA (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.61	6% HES (130/0.4x) in saline (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.62	6% HES (130/0.4x) in balanced salt solution (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.63	10% HES (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.64	Other hydroxyethyl starch (HES), specify _____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.65	706 plasma replacement (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.66	Gelofusine (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.67	Haemaccel (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I

3.68	Other gelatin, specify :_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.69	Dextran 40 (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.70	Dextran 70 (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.71	Other dextran, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.72	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.73	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I

Please fill out Form 3a if the patient received more than 3 episodes of fluid resuscitation.

Otherwise, please go to Form 4.

ADDITIONAL FLUID RESUSCITATION FORM 3A

Country ID: I__I__I__I
Hospital ID: I__I__I__I
Patient ID: I__I__I__I

FLUID RESUSCITATION

If the patient has more than 3 fluid resuscitation episodes, please use this form for the additional episodes. Print as many copies as you need to record **ALL** fluid resuscitation episodes on the study day. Enter episode number where applicable throughout form.

ADDITIONAL FLUID RESUSCITATION EPISODES

		Episode __	Episode __	Episode __
3.01	Enter fluid resuscitation episode number:			
3.02	Start time of resuscitation episode (24 hour clock)	I__I__I:I__I__I	I__I__I:I__I__I	I__I__I:I__I__I

INDICATIONS
What were the indications for fluid for this resuscitation episode? (more than one can apply)

		Episode __	Episode __	Episode __
3.03	Hypotension	Y N	Y N	Y N
3.04	Increasing inotrope or vasopressor requirements	Y N	Y N	Y N
3.05	Low CVP	Y N	Y N	Y N
3.06	Low PCWP	Y N	Y N	Y N
3.07	Tachycardia	Y N	Y N	Y N
3.08	Low urine output	Y N	Y N	Y N
3.09	Low measured cardiac output via invasive haemodynamic monitoring	Y N	Y N	Y N
3.10	Low measured cardiac output via echocardiographic findings	Y N	Y N	Y N
3.11	Low intravascular volume as assessed by echocardiography	Y N	Y N	Y N
3.12	Clinical signs of poor peripheral perfusion	Y N	Y N	Y N
3.13	Low $S_vO_2/S_{cv}O_2$	Y N	Y N	Y N
3.14	Ongoing bleeding	Y N	Y N	Y N
3.15	Other ongoing fluid loss	Y N	Y N	Y N
3.16	Unit protocol or standing orders	Y N	Y N	Y N
3.17	Increasing or persisting acidosis or lactate	Y N	Y N	Y N
3.18	Positive Straight Leg Raise Test	Y N	Y N	Y N
3.19	Abnormal indices of Pulse Pressure Variation	Y N	Y N	Y N
3.20	Other, specify _____	Y N	Y N	Y N

fluid TRIPS	**ADDITIONAL FLUID RESUSCITATION FORM 3A**	Country ID: I__I__I Hospital ID: I__I__I Patient ID: I__I__I

PRESCRIBER CHARACTERISTICS

3.21 Who decided the choice of fluid for this resuscitation episode? (select only one)

	Episode__	**Episode__**	**Episode__**
ICU doctor	Y	Y	Y
Surgical doctor	Y	Y	Y
Medical doctor	Y	Y	Y
Nurse acting independently	Y	Y	Y
Nurse following unit protocol	Y	Y	Y
Other	Y	Y	Y

3.22 If you chose ICU, surgical or medical doctor in **3.21**, specify the doctor's level (select only one). Otherwise, go to question **3.23**

	Episode_	**Episode_**	**Episode_**
Specialist/Consultant/Attending	Y	Y	Y
Registrar/Fellow/Senior Trainee	Y	Y	Y
Resident/HMO/Junior Trainee	Y	Y	Y
Intern/House officer	Y	Y	Y

CLINICAL AND LABORATORY DATA

	Episode__	**Episode__**	**Episode__**
3.23 SOFA score – **respiration**	I__I	I__I	I__I
3.24 SOFA score – **cardiovascular**	I__I	I__I	I__I
3.25 Renal replacement therapy?	Y N	Y N	Y N
3.26 Mechanical ventilation? (Include NIPPV but not mask CPAP)	Y N	Y N	Y N
3.27 On ECMO?	Y N	Y N	Y N
3.28 ICP monitor?	Y N	Y N	Y N
3.29 ICP (mmHg)	I__I__I N/A	I__I__I N/A	I__I__I N/A
3.30 Heart rate (bpm)	I__I__I__I	I__I__I__I	I__I__I__I
3.31 MAP (mmHg)	I__I__I__I	I__I__I__I	I__I__I__I
3.32 Systolic ABP (mmHg)	I__I__I__I	I__I__I__I	I__I__I__I
3.33 Diastolic ABP (mmHg)	I__I__I__I	I__I__I__I	I__I__I__I
3.34 CVP (mmHg)	I__I__I	I__I__I	I__I__I

3.35 PCWP (mmHg)	I__I__I	I__I__I	I__I__I
3.36 Creatinine (µmol/L)	I__I__I__I__I	I__I__I__I__I	I__I__I__I__I
3.37 Bilirubin (µmol/L)	I__I__I__I	I__I__I__I	I__I__I__I
3.38 Base excess (mEq/L / mmol/L)	I__I__I.I__I	I__I__I.I__I	I__I__I.I__I
3.39 Base deficit (mEq/L / mmol/L)	I__I__I.I__I	I__I__I.I__I	I__I__I.I__I
3.40 Lactate (mmol/L)	I__I__I.I__I	I__I__I.I__I	I__I__I.I__I
3.41 Serum Albumin (g/L)	I__I__I	I__I__I	I__I__I

FLUID OUTPUT

3.42 Urine output previous complete hour (mL)	I__I__I__I__I	I__I__I__I__I	I__I__I__I__I
3.43 Total fluid output previous complete hour (mL)	I__I__I__I__I	I__I__I__I__I	I__I__I__I__I

FLUID TYPE AND VOLUME

		Episode __	Episode __	Episode __
Crystalloids received as boluses or infusions ≥ 5mL/kg/hour:				
3.44	0.9% Saline (Normal saline/NS) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.45	Hypertonic saline (>0.9% e.g. 3%, 7%, 7.5%, 20%) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.46	Hartmann's (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.47	Lactated Ringer's (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.48	Plasmalyte A (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.49	Plasmalyte R (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.50	Plasmalyte 148 Replacement (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.51	Ringer's Acetate (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.52	Other balanced salt solution, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.53	Balanced glucose (e.g. Plasmalyte solutions with glucose) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.54	Dextrose (5%D, D5W) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.55	Dextrose/saline (4%N/5, 3.75%N/4, 2.5%N/2 etc) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.56	Hypertonic glucose (>5% e.g. 10%, 20%, 50% D) (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.57	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.58	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I

ADDITIONAL FLUID RESUSCITATION FORM 3A

Country ID: I__I__I
Hospital ID: I__I__I
Patient ID: I__I__I

		Episode __	Episode __	Episode __
Colloids received as boluses or infusions:				
3.59	Albumin 4-5% NSA (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.60	Albumin 20-25% NSA (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.61	6% HES (130/0.4x) in saline (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.62	6% HES (130/0.4x) in balanced salt solution (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.63	10% HES (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.64	Other hydroxyethyl starch (HES), specify _____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.65	706 plasma replacement (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.66	Gelofusine (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.67	Haemaccel (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.68	Other gelatin, specify :_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.69	Dextran 40 (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.70	Dextran 70 (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.71	Other dextran, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.72	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I
3.73	Other, specify:_____ (mL)	I__I__I__I__I__I	I__I__I__I__I__I	I__I__I__I__I__I

Please fill out additional copies of Form 3a as necessary.

Otherwise, please go to Form 4.

fluid TRIPS	**DAY SUMMARY FORM 4**	Country ID: I__I__I Hospital ID: I__I__I Patient ID: I__I__I

STUDY DAY FLUID TOTALS

This form is to record total fluid input and output volumes for the 24 hours of the study day.

Questions **4.02-4.18** refer to fluid resuscitation infusions that continued for more than one hour. For these episodes, the first hour of infusion is captured on Form 3 or 3A, and the remainder of the infusion (excluding the first hour) is captured on this form.

4.01 Y N Did this patient receive a fluid resuscitation ***infusion*** during the study day that lasted for longer than one hour?

If **no**, go to question **4.19**

If **yes**, go to question **4.02**

INFUSION TOTALS

Crystalloids received as infusions ≥ 5mL/kg/hour

4.02	What was the total volume of **0.9% Saline (Normal saline/NS)** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.03	What was the total volume of **Hartmann's** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.04	What was the total volume of **Plasmalyte A** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.05	What was the total volume of **Plasmalyte R** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.06	What was the total volume of **Plasmalyte 148 Replacement** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.07	What was the total volume **Lactated Ringer's** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.08	What was the total volume of **Ringer's Acetate** received by infusion during the study day? (do not include the first hour of an infusion of ≥5mL/kg/hr, record that first hour on Form 3 or 3A) (mL)	I__I__I__I__I__I
4.09	What was the total volume of any **other crystalloid** received as a continuous infusion of ≥5mL/kg/hr during the study day? (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL) Specify crystalloid type :_____	I__I__I__I__I__I
4.10	What was the total volume of any **other crystalloid** received as a continuous infusion of ≥5mL/kg/hr during the study day? (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL) Specify crystalloid type :_____	I__I__I__I__I__I

4.11	What was the total volume of any **other crystalloid** received as a continuous infusion of ≥5mL/kg/hr during the study day? (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL) Specify crystalloid type :_____	|__|__|__|__|__|__|

Colloids received as infusions

4.12	What was the total volume of **4-5% albumin** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL)	|__|__|__|__|__|__|
4.13	What was the total volume of **20-25% albumin** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL)	|__|__|__|__|__|__|
4.14	What was the total volume of **6% HES (130/0.4x) in saline** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL)	|__|__|__|__|__|__|
4.15	What was the total volume of **6% HES (130/0.4x) in balanced salt solution** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL)	|__|__|__|__|__|__|
4.16	What was the total volume of any **other colloid** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL) Specify colloid type :_____	|__|__|__|__|__|__|
4.17	What was the total volume of any **other colloid** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL) Specify colloid type :_____	|__|__|__|__|__|__|
4.18	What was the total volume of any **other colloid** received as a continuous infusion during the study day (do not include the first hour of the infusion, record first hour on Form 3 or 3A) (mL) Specify colloid type :_____	|__|__|__|__|__|__|

INPUT AND OUTPUT TOTALS

4.19	What was the total volume of **fluid input** for the study day (mL)	|__|__|__|__|__|__|
4.20	What was the total volume of **fluid output** for the study day? (mL)	|__|__|__|__|__|__|

Thank you. Data collection is now complete for this patient.