Swiss Donation Pathway

Evaluation and treatment of pediatric donors in intensive care units

Module — 4

Version 6.0 — February 2026

CNDO
Nationaler Ausschuss für Organspende
Comité National du don d'organes

swiss transplant

Contents

For ease of reading, the generic masculine form is used. However, all references to persons apply to all genders. Where applicable, the term "organ donation" also includes tissue donation.

1.0
Introduction

1.1 Scope and objectives

The recommendations for the evaluation and treatment of pediatric donors are intended for medical and nursing staff (physicians, nurses, therapists) in intensive care units in Switzerland. The recommendations apply to pediatric DBD donors (donation after brain death), although the fundamental aspects also apply to pediatric DCD donors (donation after cardiocirculatory death).

The information from the medical history, laboratory results, current clinical values, and the results of imaging examinations form the basis for medical decisions regarding organ allocation.

It also ensures that the adequate measures are taken to provide the best possible treatment for donors and preserve organs.

1.2 Legal framework

The topic of preparatory measures is dealt with in the transplantation law [1] and in the guidelines of the Swiss Academy of Medical Sciences (SAMS) "Determination of death with regard to organ transplantation and preparation for organ procurement" [2].

Preparatory medical measures are activities that are carried out exclusively for the purpose of possible organ donation and are not undertaken for the treatment of the patient. The measures may only involve minimal risks and stress for the donor and may be necessary both before and after the determination of death.

A distinction is made between **diagnostic measures** (e.g., HLA typing, serological analyses, imaging procedures) and **organ-preserving measures** (e.g., continuation of therapies already begun, such as ventilation, administration of medications and fluids to maintain circulatory function and homeostasis).

It is important to divide preparatory medical measures into the time taken **before** and **after** the determination of death.

1.2.1 Preparatory medical measures before the determination of death

Medical measures carried out before death include the continuation of therapies already begun (continuation of ventilation, administration of medication, hormones, and fluids to maintain circulatory function and homeostasis) and laboratory analyses to monitor treatment. The continuation of therapies that have already been started is not considered a preparatory medical measure as long as they still serve purposes other than organ removal (e.g., saying goodbye to relatives, palliative care).

Preparatory medical measures are not permitted if they could hasten death or lead to a permanent vegetative state.

Since, according to the Transplantation law, a binding declaration of donation can only be made from the age of 16, preparatory medical measures may only be carried out on children and adolescents with the consent of their next of kin. Measures that have already been taken may be maintained until the next of kin can be reached. If there are no relatives or they cannot be reached in time, no further preparatory medical measures for organ donation may be taken and organ donation is excluded.

1.2.2 Preparatory medical measures after death has been determined

After the patient's death, preparatory medical measures may be carried out until consent or refusal is obtained from the relatives. After death has been determined, further measures to maintain organ perfusion (mechanical resuscitation, insertion of femoral cannulas for organ perfusion, ECMO insertion) are permitted, as these can no longer harm the deceased.

Preparatory medical measures may be carried out after the patient's death for a maximum of 72 hours [2].

1.3 Resuscitation during donor treatment

DBD: If a brain-dead patient with consent for organ donation suffers cardiac arrest prior to organ removal, resuscitation measures including defibrillation and chest compressions are strongly recommended.

DCD: Mechanical resuscitation measures are not permitted before death has been determined.

The guidelines of the Swiss Academy of Medical Sciences (SAMS) [2] (Section H: Negative List) advise against performing mechanical resuscitation **before** death; the performance of mechanical resuscitation **after** death is left open.

2.0
Monitoring

The following recommendations for monitoring are limited to parameters relevant to donor treatment and organ evaluation.

2.1 Standard monitoring

Parameter	Measurement interval	Comments	SOAS documentation
Heart rate	Continuous		Record parameters after brain death diagnosis (DBD) or opening of donation file (DCD). Then update every 4 hours. For unstable donors, update frequency in SOAS as agreed with Swisstransplant.
Heart rhythm	Continuous		
Type Blood pressure measurement (sys / dias / mean)	Continuous		
CVD	Continuous if possible, otherwise every 4 hours		
Temperature (central)	Every 4 hours		
Diuresis	Every 4 hours		
Fluid balance	Every 4 hours	Hourly in cases of diabetes insipidus	
Ventilation parameters	Continuous	See also chapter 4.1	
Peripheral oxygen saturation	Continuous		

2.2 Advanced monitoring

Monitoring	Measurement interval	Comments	SOAS documentation
Mixed venous / central venous saturation SO_2 (SvO_2 / $ScvO_2$)	Continuous	In cases of manifest/suspected organ hypoperfusion	Record the parameters after brain death diagnosis (DBD) or opening of the donor file (DCD). Then update every 4 hours. For unstable donors, update frequency in SOAS as agreed with Swisstransplant.
PAC / PiCCO	Continuous	PAC: in cases of manifest/suspected cardiac output impairment with left ventricular ejection fraction < 40% PiCCO: in cases of manifest/suspected distributive shock (SIRS/sepsis)	Record parameters only after consulting Swisstransplant.

3.0
Laboratory tests and imaging diagnostics

3.1 Laboratory tests

Blood group determination	Measurement interval	Comments	SOAS documentation
Blood group (ABO & Rhesus)	Twice (if possible)		Entry + Attachement Laboratory sheet

HLA typing	Measurement interval	Comments	SOAS documentation
HLA typing	Once		Entry + Attachement Laboratory sheet

Serology/virology	Measurement interval	Comments	SOAS documentation
Serologies: HIV, hepatitis B & C, CMV, syphilis, toxoplasmosis, EBV, HTLV I & II, herpes simplex & herpes zoster	Once		Entry + Attachement Laboratory sheet
PCR: HIV, HBV, HCV	If indicated	In case of positive serology or risk factors, after consultation with Swisstransplant	Entry + Attachement Laboratory sheet
Other	If indicated	For risk factors, consult with infectious disease specialists (see document "Infectious diseases consultations" on the Extranet).	Entry + Attachement Laboratory sheet

Haematology	Measurement interval	Comments	SOAS documentation
Complete blood count	At least every 24 hours		Entry

Coagulation	Measurement interval	Comments	SOAS documentation
INR, PT, PTT, fibrinogen, factor V	Once (if values are normal)		Entry

Blood gas analysis	Measurement interval	Comments	SOAS documentation
Arterial blood gas analysis (ABGA)	Once	At PEEP 5 mbar and FiO_2 0.4 for 10 min	Entry
Arterial blood gas analysis (ABGA)	Every 4 hours, if lungs are available	At PEEP 5 mbar and FiO_2 1.0 for 10 min	Entry

Clinical chemistry	Measurement interval	Comments	SOAS documentation
Serum osmolality	Every 24 hours		Entry
Sodium, potassium	Every 4–8 hours	If unstable: every 2–4 hours	Entry
Calcium, magnesium, phosphate,	Once (if values are normal)		Entry
Creatinine and urea	Once (if values are normal)		Entry
Ammonia	Once (if values are normal)		Entry
Direct and total bilirubin	Every 8–12 hours		Entry
Total protein, albumin	Once (if values are normal)		Entry
LDH, CPK, CK-MB, pancreatic amylase, lipase, alkaline phosphatase	Once (if values are normal)		Entry
ASAT, ALAT, GGT	Every 8–12 hours		Entry
CRP	Once (if values are normal)		Entry
Troponin (I or T)	Once (if values are normal)	Every 12 hours during vasopressin therapy	Entry + Attachment Laboratory sheet
Glucose	Every 4–8 hours	If unstable: every 2–4 hours	Entry
HbA1c	Once		Entry

Lactate	Every 8–12 hours	If unstable: every 2–4 hours	Entry

Urine analysis	Measurement interval	Comments	SOAS documentation
Strip test and sediment	Once		Entry + Attachement Laboratory sheet
Clinical chemistry (Na, K, osmolality, protein, albumin, creatinine)	Once		Entry + Attachement Laboratory sheet

Cultures	Measurement interval	Comments	SOAS documentation
Blood	If indicated		Entry + Attachement Findings
Tracheal secretion	If indicated		
Urine	Once	No older than 48 hours prior to planned kidney removal.	
Other (e.g., cerebrospinal fluid)	If indicated	For risk factors, consult with infectious disease specialists (see document "Infectious diseases consultations" on the Extranet).	

3.2 Imaging diagnostics

Procedure	Measurement interval	Comments	SOAS/NEXUS Documentation
CT chest / abdomen	Once	For lung evaluation: Generally no older than 48 hours (if older: consult with Swisstransplant)	Upload donor lung/abdominal/kidney evaluation forms and CT report as attachments (SOAS) Transfer findings to input fields (SOAS) Upload images (NEXUS)

Chest X-ray	Only if CT is not feasible	After consultation with Swisstransplant	Upload donor lung/abdominal/kidney evaluation forms and report as an attachment (SOAS) Transfer findings to input fields (SOAS) Upload image material (NEXUS)
Abdominal ultrasound	Only if CT is not feasible	After consultation with Swisstransplant	
Electrocardiogram (12 channels)	Once	For evaluation of the heart	Upload donor heart evaluation form + ECG as attachment (SOAS) Transfer findings to input fields (SOAS)
Echocardiography (TTE/TEE)	Once	For evaluation of the heart. At the earliest 4 hours after brain death. Ideally without vasoactive drugs.	Upload donor heart evaluation form + report as attachment SOAS (SOAS) Transfer findings to input fields (SOAS) Upload image material (NEXUS)
Coronary angiography	If indicated	Depending on risk factors and heart function. Consultation with Swisstransplant required.	Upload donor heart evaluation form + report as attachment (SOAS) Transfer findings to input fields (SOAS) Upload images (NEXUS)
Bronchoscopy/BAL	If indicated	After consultation with Swisstransplant	Upload donor lung evaluation form + report as attachment (SOAS) Transfer findings to input fields (SOAS)

4.0
Point-by-point recommendations for donor treatment

4.1 Ventilation

Goals

- Adequate oxygenation with lung-protective ventilation

Interventions

- Oral or nasal intubation, cuffed tube
- Intratracheal suction with open or closed suction system, depending on indication (secretions or deoxygenation).
- Aspiration prophylaxis, including raising the head to at least 30°.
- Actively integrate atelectasis prevention into treatment (regular position changes) and avoid PEEP losses, especially when repositioning in the operating room.
- Use of lung-protective ventilation: tidal volume of 6 ml/kg, driving pressure ≤15 mbar (≈ cmH_2O), pressure plateau < 28–30 mbar, PEEP of at least 5 mbar, higher in cases of pediatric acute respiratory distress syndrome (PARDS) according to the ARDS Network.
- If the clinical situation requires it, high-frequency ventilation may be considered.
- Permissive hypercapnia (maintain pH > 7.25) and hypoxemia (SaO_2 > 85%) can be used to prevent potential ventilator-associated lung injury and oxygen toxicity.
- For patients with high oxygen demand or deoxygenation: perform recruitment maneuvers (increase PEEP) until oxygenation improves. Then gradually reduce PEEP to 2 mbar above the occlusion pressure.

Caution: Ventilated, brain-dead patients may exhibit an autotrigger phenomenon, which simulates spontaneous breathing. In such cases, the inspiratory trigger should be switched off or set to a lower sensitivity.

4.2 Hemodynamics

Goals

Adequate organ perfusion is indicated by the following:

- Warm extremities and good capillary refill time
- Age-appropriate arterial blood pressure (see table1)
- Age-appropriate heart rate (see table2)
- Lactate levels within the normal range
- Urine output 1–4 ml/kg/h
- Central venous pressure (CVP 8–12 mmHg)
- Mixed venous oxygen saturation ($_{SvO_2}$) > 65% or central venous oxygen saturation ($_{ScvO_2}$) > 70%

Age	Systolic blood pressure
Newborns (0–28 days)	< 60 mmHg
Infants (1–12 months)	< 70 mmHg
Children 1–10 years (5th BP percentile)	< 70 mmHg + (age in years x 2) mmHg
Children >10 years	< 90 mmHg

Table 1 : Definition of hypotension based on systolic blood pressure and age

Age	Beats/min
Newborns up to 3 months	80
3 months to 2 years	75
2 to 10 years	60
> 10 years	50

Table 2: Normal heart rate values

Interventions

Procedure in case of **inadequate organ perfusion/hypotension**

In transplant medicine, there are different expectations regarding the balance between volume and vasoactive therapies . For heart transplantation, no or minimal doses of vasoactive agents should be used during donor treatment (possibly with more volume), whereas for lung transplant, the primary focus should be on restrictive volume supply. The therapeutic goal of adequate perfusion of all organs should therefore be achieved with the lowest possible dose of vasoactive agents in order to best meet the conflicting expectations.

1. **Exclusion of obstructive shock**, e.g., tension pneumothorax, pulmonary embolism, pericardial effusion/pericardial tamponade

2. **Hypovolemic shock,** e.g., due to (occult) bleeding, dehydration

   Hypovolemia frequently occurs in brain-dead patients due to the absence of central stimulation of the vascular system, upregulation of proinflammatory cytokines, and the occurrence of antidiuretic hormone deficiency, and is associated with a significant loss of transplantable organs.

   – Crystalloids (Ringer's lactate, Ringer's acetate) until normovolemia is achieved
   – If there are signs of bleeding/coagulation disorders, consider transfusion (see chapters 4.8 - 4.10).

   The effect of fluid administration should be monitored to avoid fluid overload. In case of hypervolemia, administer diuretics (e.g., furosemide).

3. **Cardiogenic shock**

   Signs:
   – Cold extremities, marbled skin
   – 2D echocardiography: impaired heart function (e.g., LV-EF < 45%)
   – Increased oxygen extraction: SvO_2 < 65% or: $ScvO_2$ < 70%

   The following cardiac support is recommended here:
   – Milrinone 0.5–1 mcg/kg/min and/or dobutamine 2.5–10 mcg/kg/min
   – Alternatively, epinephrine 0.05–1 mcg/kg/min

   Also consider the following if the above measures are unsuccessful
   – Low-dose hydrocortisone 3 times daily 2–5 mg/kg

Caution: In cases of Takotsubo cardiomyopathy, serial echocardiograms are indicated for further cardiac evaluation, after consultation with Swisstransplant.

4. **Distributive shock** (vasodilation in sepsis, anaphylaxis, or spinal cord injury)

   Signs:
   - Clinical presentation: Warm extremities (cool in sepsis with massive hypovolemia)
   - 2D echocardiography: Preserved cardiac function (possibly diffusely impaired in septic cardiomyopathy)
   - Normal oxygen extraction SvO_2 > 65% or: $ScvO_2$ > 70% (may be elevated in sepsis with massive hypovolemia)

   The following vasoactive support is recommended here:
   a. Norepinephrine 0.1 mcg/kg/min (up to 0.5 mcg/kg/min may be necessary)
   b. Argipressin (Empressin®) 0.0003–0.002 IU/kg/min

   Also consider
   - Low-dose steroids: Hydrocortisone 2–5 mg/kg 3 times daily
   - Additional volume

- There is little evidence for the use of triiodothyronine T3 (e.g., Thyrotardin®) for circulatory stabilization. If refractory shock persists after hemodynamic assessment, intravenous use of T3 may be considered (continuous infusion 0.05 mcg/kg/h).

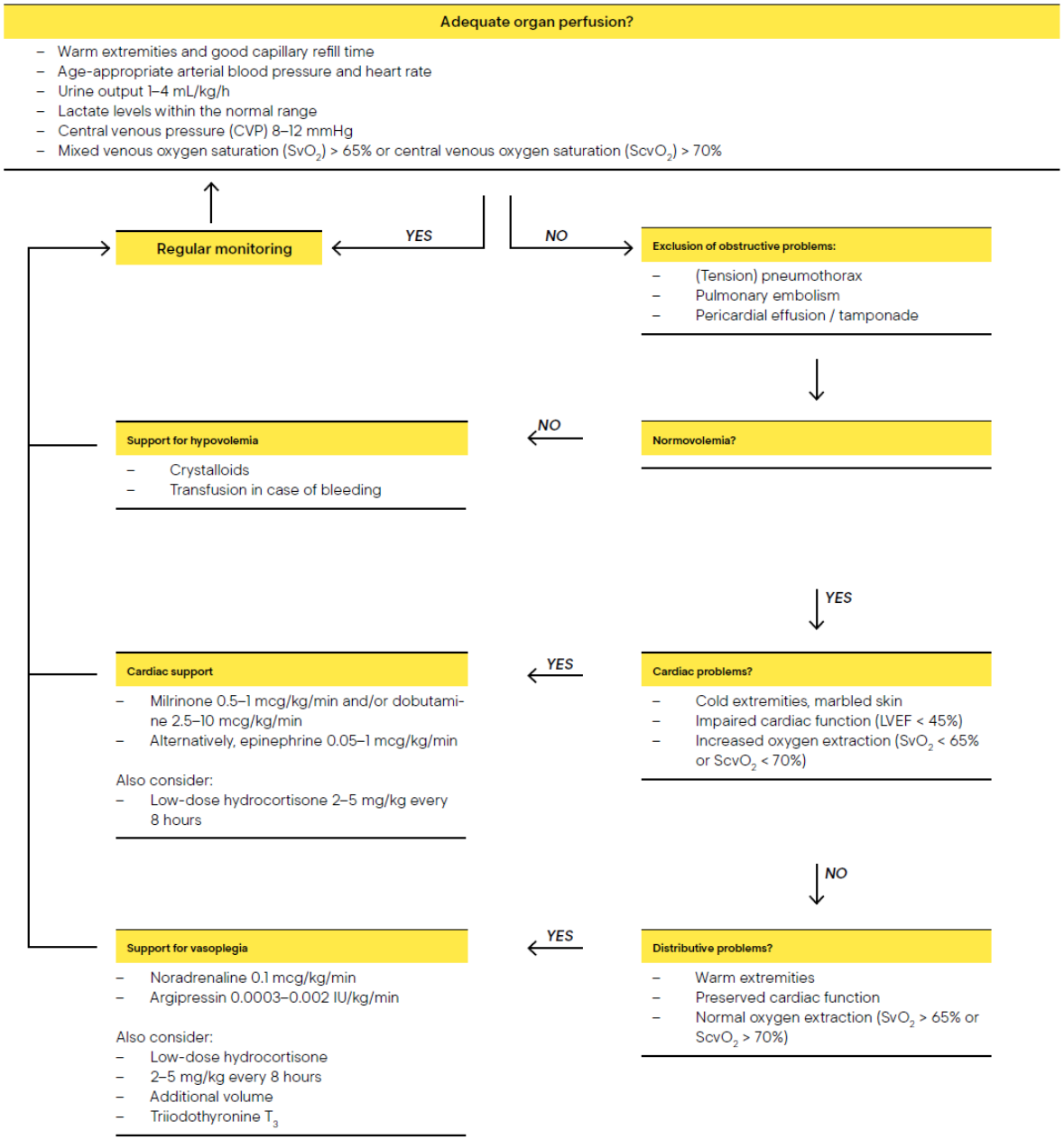

Figure1 : Algorithm for the treatment of inadequate organ perfusion

Procedure for **hypertension**

- Urapidil 1–10 mg/kg/h or labetalol 0.25–3 mg/kg/h
- Alternatively: nitroprusside 0.1–1 mcg/kg/min or clonidine bolus 2 mcg/kg

Procedure for **arrhythmias**

Bradycardia

- In case of bradycardic sinus rhythm: Check body temperature, electrolytes, and administered medications
- Dobutamine 5 mcg/kg/min or isoprenaline 0.05–1 mcg/kg/min as a continuous infusion
- In the presence of total AV block (grade 3), external pacing or temporary transvenous pacer, isoprenaline for bridging

Caution: Atropine is not effective in brain-dead patients for the treatment of bradycardic arrhythmias.

Tachycardia

- Correction of any fluid and electrolyte imbalances (potassium, magnesium), hyperthermia, or hypoxemia
- Possibly electroconversion (if possible, take blood samples beforehand to determine cardiac enzymes)
- Amiodarone 15–20 mg/kg/d (10–15 mcg/kg/min) as continuous infusion

4.3 Body temperature

Goals

– Normothermia

Interventions

Procedure for **hypothermia**

– Warm infusion solutions, warmed breathing gases, thermal blankets, etc.

Procedure for **hyperthermia**

– Check for possible infections (central hyperthermia is rather unusual in brain-dead patients)
– Physical cooling methods (antipyretics are usually insufficient)

Caution: During the determination of death (brain death diagnosis), the core body temperature must be > 35 °C (guidelines of the Swiss Academy of Medical Sciences – SAMS)

4.4 Diabetes insipidus

Diabetes insipidus occurs in up to 80% of all DBD donors and manifests itself as follows:

- Urine output > 2 L/m2/d or 4 ml/kg/h for two consecutive hours
- Serum sodium 145 mmol/l and rising (**caution**: can rise rapidly!)
- Serum osmolarity ≥ 300 mOsmol/l
- Urine osmolarity ≤ 300 mOsmol/l
- Or urine/serum osmolality ratio < 1

Goals

- The goal of interventions is primarily based on the patient's fluid status, serum sodium concentration, and osmolarity, and only secondarily on urine output, which should be maintained between 1.0–4 ml/kg/h.

Interventions

- Desmopressin (Minirin®) nasal 5–10 mcg 12–24 h (not per kg!) or 0.5–2 mcg as a short infusion
- Alternatively, argipressin (Empressin®), especially in cases of concomitant hypotension, as a continuous infusion of 0.0003–0.002 IU/kg/min

4.5 Sodium

Goals

- Serum sodium: 135–145 mmol/l

Interventions

Procedure for **hypernatremia**

- Discontinue infusions containing NaCl; search for other sources of sodium (e.g., colloidal solutions, penicillin antibiotics, etc.) or for reasons for osmotic diuresis (hyperglycemia, elevated serum urea, mannitol therapy, etc.)
- In cases of concomitantdiabetes insipidus: desmopressin or argipressin (see point 4.4)
- In cases of hypovolemia (hypertonic hypovolemia): administer volume bolus (initially NaCl 0.9%, then switch to hypotonic or balanced solutions to achieve a reduction in sodium)
- In cases of hypervolemia (hypertonic hypervolemia): natriuretic diuretics (e.g., hydrochlorothiazide)

Procedure for **hyponatremia**

- In chronic hyponatremia, aim for an increase in serum sodium of 0.5 mmol/l/h; in acute hyponatremia, aim for an increase of 1.5–2 mmol/l/h.
- Acute hyponatremia: NaCl 3% 1–3 ml/kg to increase serum sodium > 125 mmol/l
- Hypovolemia (hypotonic hypovolemia): To maintain and rehydrate, infuse NaCl 0.9% over 48 hours.

– In cases of hypervolemia (hypotonic hypervolemia) or signs of ADH hypersecretion (hyponatremia, normovolemia, urine sodium > 20 mmol/l, urine/serum osmolarity > 1): Restrict intake, consider diuretics

Caution:
- Hypernatremia can damage the liver in particular.
- The provision of free water via an enteral tube increases the risk of aspiration and thus endangers the lungs.

4.6 Potassium, calcium, magnesium, phosphate

Goal

– The values should be kept within the normal range.

Interventions

– Replace electrolytes if necessary. If potassium, calcium, or phosphate requirements are elevated, consider the possibility of hypomagnesemia and correct if necessary.
– In the case of massive transfusion (especially with FFP): replace calcium.

Caution: Calcium and magnesium should be administered intravenously slowly, as too rapid injection can lead to hypertension and/or bradycardia.

4.7 Blood sugar

Goals

– 4–10 mmol/l

Interventions

Procedure for **hyperglycemia**

- Reduce glucose intake as much as possible and, if necessary, administer a careful continuous infusion of insulin

Procedure for **hypoglycemia**

- Increase glucose intake, consider higher concentrations (e.g., glucose 30%), depending on volume and electrolyte status

4.8 Haemoglobin

Goals

- Haemoglobin > 70 g/l in stable patients (no increased need for inotropic support and no volume requirements in the last 2 hours)
- Aim for 80 g/l in heart removal

Interventions

- Transfuse erythrocyte concentrate (leukocyte-depleted) through a 170–260 µm filter. 3 ml/kg increases Hb by approximately 5–10 g/l.
- Whenever possible, transfuse blood products only after blood samples have been taken for HLA typing and serological/virological testing.

4.9 Platelets

Goals

- Platelets > 100 G/l if there is no bleeding
- Platelets > 500 G/l in case of active bleeding
- Platelets > 1000 G/l in cases of life-threatening and intracranial bleeding.

Interventions

- Transfusion of 1–2 bags of platelets per 10 kg body weight (max. 6 bags) through an 80–170 µm filter (pooled; for multi-transfused recipients with antibodies, suitable individual donors)
- Transfusion of blood products, whenever possible only after taking blood samples for HLA typing and serological/virological testing

4.10 Coagulation

Goals

- INR: < 2.0 in the presence of bleeding
- Fibrinogen: > 1 g/l

Interventions

- Check INR regularly in the absence of bleeding, without transfusion (no studies have proven a link between elevated INR and spontaneous bleeding)
- Vitamin K 0.3 mg/kg IV (max. 10 mg every 6–24 hours)
- Transfusion of FFP 10–15 ml/kg until bleeding stops (not to normalize INR), ideally ABO compatible
- If volume replacement with FFP is contraindicated or bleeding does not stop despite FFP, consult a hematologist regarding the administration of coagulation factors (Prothromplex® or Beriplex®).
- Fibrinogen administration (Haemocomplettan®) 20–40 mg/kg IV
- Protamine in patients treated with heparin (1 mg/100 U heparin or 0.5 mg/100 U heparin if last dose was > 1 hour ago)
- Active inhibition of fibrinolysis using tranexamic acid (Cyklokapron®) 10–15 mg/kg over 8 hours i.v.

4.11 Corticosteroids

High-dose corticosteroids (intravenous methylprednisolone 15 mg/kg) in the event of planned removal of the lung and/or liver after consultation with the transplant team.

Low-dose corticosteroids (intravenous hydrocortisone 1–5 mg/kg, 6–8 hours) Recommended in cases of persistent hypotension and/or reduced cardiac output;
a prior ACTH test (Synacthen®test) is not necessary.

4.12 Antibiotic therapy

Antibiotics only in cases of confirmed or suspected infection (after taking cultures), no prophylactic antibiotic therapy.

4.13 Nutrition

Continue existing enteral or parenteral nutrition, including vitamin and trace element supplementation.

Authors

Contributing medical experts since the first edition (in alphabetical order)

- Dr. med. Denis Bachmann
- Prof. Dr. med. Bernhard Frey
- Sébastien Hechinger
- Dr. med. Damian Hutter
- Dr. med. Thomas Jaecklin
- Dr. med. Dietrich Klauwer
- Dr. med. Mirjam Korner
- Dr. med. Malaika Mendonca
- Dr. med. Tom Riedel
- Prof. Dr. med. Peter Rimensberger
- PD Dr. med. Bendicht Wagner

References

[1] Wook K E, Bryan N B et al. Care of the potential organ donor. N Engl J Med 2004; 351: 2730-2739

[2] Munoz R, Vetterly C, Roth SJ, Cruz ED (Eds.). Handbook of Pediatric Cardiovascular Drugs. 1st Edition., 2008. ISBN: 978-1-84628-952-1

[3] Dowd MD, September 2003. Management of pediatric septic shock in the emergency department.pem-database.org

[4] Hoeft A, Metzler H, Pasch T (Eds.). Monitoring in Anesthesia and Intensive Care Medicine, 2008

[5] Portman et al. Thyroid hormone regulation of heart metabolism. Thyroid 2008; 18: 217–225

[6] Critical pathway for the pediatric organ donor. https://unos.org/wp-content/uploads/Critical_Pathway_Pediatric.pdf

[7] Nelson KL. Rogers' textbook of pediatric intensive care,6thedition 2023. Chapter 17: Organ donation

[8] ARDS Network; Brower RG, Matthay MA, Morris A, Schoenfeld D, Thompson BT, Weehler A. Ventilation with lower tidal volumes as compared with traditional tidal volumes for acute lung injury and the acute respiratory distress syndrome. N Engl J Med 2000; 342: 1301 – 1308

[9] Khemani RG, Parvathaneni K, Yehya N, Bhalla AK, Thomas NJ, Newth CJL. Positive end-expiratory pressure lower than the ARDS Network Protocol is associated with higher pediatric acute respiratory distress syndrome mortality. Am J Respir Crit Care Med 2018. 198: 77–89

[10] De Jager P, Kamp T, Dijkstra SK, et al. Feasibility of an alternative, physiologic, individualized open-lung approach to high-frequency oscillatory ventilation in children. Ann Intensive Care 2019; 9: 9

[11] American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, 2010, Volume 122, Issue 18, Part 14: Pediatric Advanced Life Support.

[12] Cheetham T, Baylis P. Diabetes insipidus in children: pathophysiology, diagnosis and management. Paediatr Drugs 2002; 4(12):785-796

[13] Silvestre C, Vyas H. Paediatric acute respiratory distress syndrome (PARDS). Paediatrics and Child Health, 2021, 31(6): 229-232

Changes

Date	Version	Changes
February 2026	6.0	Entire module: New chapter structure and changes/corrections to improve readability. Structure aligned with Module 3 (Treatment of adult donors). Chapters 2.0 and 3.0: Information previously provided in free text in various places has been consolidated into tabular overview lists and updated to the latest version. Chapter 4.0: Figure 1 (algorithm for the treatment of inadequate organ perfusion) revised in terms of content and visuals. References: Added
December 2020	5.0	Revision
June 2018	4.0	Revision
March 2018	3.1	New logo
April 2014	3.0	Layout & title adapted
June 2011	2.0	
June 2009	1.0	Original version

Swisstransplant
Effingerstrasse 1
3011 Bern
T: +41 58 123 80 00

info@swisstransplant.org
www.swisstransplant.org

CNDO
Nationaler Ausschuss für Organspende
Comité National du don d'organes

swiss transplant