The Swiss Donation Pathway

Donor recognition – SOP

Module — 1 — SOP

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CNDO
Nationaler Ausschuss für Organspende
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swiss transplant

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[1] DBD: Donation after brain death
[2] DCD: Donation after cardio-circulatory death
[3] SOAS: Swiss Organ Allocation System

For further reading, please refer to the detailed standard document.

The term "organ donation" also includes tissue donation wherever appropriate.

1.0

Summary

The Swiss Transplantation Act is the legal basis for the transplantation of organs, tissues and cells in Switzerland. It establishes the overriding objectives and governs who has which responsibilities. The highest priority is to protect human dignity, privacy and health. Any organs donated are to be donated free of charge, organ trafficking is prohibited and organs are to be allocated fairly. No one is to be discriminated against. Responsibilities under the Federal Act on the Transplantation of Organs, Tissues and Cells, to this end, are distributed among various authorities, in particular the Confederation, additionally the cantons and the Agency for Therapeutic Products, Swissmedic. The tasks of the cantons and the persons responsible for local coordination of transplantation are defined by law. The cantons must ensure that hospitals with an intensive care unit (ICU) have defined processes for donor recognition and for caring for the relatives of potential organ donors, and they must ensure that all processes are running properly 24 hours a day. In Switzerland, Medical Professionals in Organ and Tissue Donation (FOGS) work as organ donation coordinators in hospitals. They have joint responsibility for ensuring that the organ donation process in Swiss hospitals runs smoothly and they are supported on the ground
by local networks. The organ donation networks act in accordance with federal and cantonal regulations. The governing body for organ donation networks on the national level is the National Committee for Organ Donation (CNDO), which is responsible for guaranteeing organ donation across Switzerland. Its role is to coordinate organ donation in Switzerland and implement the strategy of Organ Donation Switzerland under the overall leadership of Swisstransplant, the Swiss National Foundation for Organ Donation and Transplantation.
The prerequisites for organ procurement in deceased persons are defined by law. Organ procurement from a deceased person may only take place if consent has been obtained and the person's death has been verified. With regard to the determination of death with a view to organ transplantation and the preparatory medical measures prior to death, the SAMS4 guidelines are legally binding (namely Item II. 3. as well as Item III. C–H).

Death can occur either through primary brain damage, in which the irreversible loss of brain function leads to death (donation after brain death – DBD), or through sustained cardio-circulatory arrest, which reduces or interrupts the blood supply to the brain until irreversible loss of brain function and loss of respiratory function occur, resulting in death (donation after cardio-circulatory death – DCD).
Preparatory medical measures are activities that are carried out exclusively for the purpose of organ donation with a view to transplantation. They therefore serve solely to preserve the organ rather than to treat the patient. They are associated with only minimal risks and burdens for the donor and are often also called non-invasive measures.
A potential donor can be identified in any hospital department. A potential donor is a patient with an infaust prognosis. This means that there is no hope for recovery or the treatment options available will not be effective. They are a patient who will die due to primary brain damage or a disease of the brain, or due to continuous cardio-circulatory arrest and the loss of respiratory function, and in whom there is no contraindication for organ donation.

[4] SAMS: Swiss Academy of Medical Sciences.

These recommendations apply to all departments in Swiss hospitals, but they are particularly directed at ICUs and accident and emergency departments, due to the high incidence of patients with an infaust prognosis in these departments.

2.0
Legal basis

2.1 Introduction

The Swiss Federal Act of 8 October 2004 on the Transplantation of Organs, Tissues and Cells (Swiss Transplantation Act; Bundesgesetz vom 8. Oktober 2004 über die Transplantation von Organen, Geweben und Zellen – Transplantationsgesetz) is the legal basis for the transplantation of organs, tissues and cells in Switzerland. It establishes the overriding objectives and governs who has which responsibilities [1]. The relevant constitutional article stipulates that the Swiss Confederation legislates in the field of organ, tissue and cell transplantation, with the highest priority being the protection of human dignity, privacy and health [1]. The law states that the donation of human organs, tissues and cells is free of charge and that organ trafficking is prohibited. Particular emphasis is placed on allocating organs, tissues and cells fairly [1].

Federal Act of 8 October 2004 on the Transplantation of Organs, Tissues and Cells (Swiss Transplantation Act) [1]
https://www.admin.ch/opc/en/classified-compilation/20010918/202001010000/810.21.pdf

2.2 The Swiss Transplantation Act

2.2.1 Overriding objectives

The overriding objectives according to the Swiss Transplantation Act are as follows:

1. To establish the prerequisites for the use of organs, tissues or cells for transplantation purposes
2. To ensure the availability of human organs, tissues or cells for transplantation purposes
3. To protect human dignity, privacy and health
4. To prevent the improper handling of organs, tissues and cells

To this end, the Swiss Transplantation Act (which determines the overriding objectives) establishes certain framework conditions, from which responsibilities are derived. The fulfilment of these responsibilities is delegated to the cantons. The Swiss Transplantation Act applies to the handling of organs, tissues or cells of human or animal origin and products obtained from

them (transplant products) intended for transplantation into humans. For the purposes of the Swiss Transplantation Act, organs means any part of the body whose cells and tissues together comprise a functional unit.

The Act states that there is a **general duty of care** in the handling of organs, tissues, cells or transplant products, which stipulates that any measures that may be required in accordance with the current state of scientific and technical knowledge in order not to endanger human health must be taken.

The accompanying regulations for the Swiss Transplantation Act that govern implementation include:
- The **Swiss Transplantation Ordinance**
- The **Organ Allocation Ordinance**
- The **Organ Allocation Ordinance of the FDHA**[5]

2.2.2 Tasks of the cantons

The tasks of the cantons and the persons responsible for local coordination of transplantation are defined by law [1].

The defined processes to be guaranteed by the cantons in hospitals include:
1. Donor recognition and care of potential organ donors, as well as notifying the local coordinator about potential donors
2. Determination of death
3. Informing and taking care of the relatives, which includes obtaining consent for organ donation

The person responsible for local coordination in a hospital must ensure that the processes listed below are performed and coordinated correctly in the hospital in question.

2.2.3 Tasks to be carried out in hospitals

1. Donor recognition and care of potential organ donors
2. Determination of death
3. Informing and taking care of the relatives, which includes obtaining consent for organ donation
4. Notifying the National Allocation Office about potential donors
5. Informing the tissue and cell banks about donors
6. Organ procurement

The person responsible for local coordination is also responsible for **quality assurance and monitoring of these processes.** They work together with the National Allocation Office, the transplant centres and the tissue and cell banks.

In Switzerland, FOGS work as organ and tissue donation coordinators in hospitals. FOGS

[5] FDHA: Federal Department of Home Affairs

work not only in ICUs, but also outside of the ICU in other areas of the hospital. They have joint responsibility for ensuring that the organ donation process in hospitals runs smoothly. FOGS are supported in the performance of their various tasks on the ground by local networks. There are five Swiss networks: Programme Latin du Don d'Organes (PLDO), Organspende Netzwerk Schweiz Mitte (CHM), Organspende Netzwerk Luzern (LU), Donor Care Association (DCA) and Netzwerk Organspende Ostschweiz (NOO). The organ donation networks act in accordance with federal and cantonal regulations.

2.2.4 Tasks of the organ donation networks

1. Donor recognition and care of potential organ donors
2. Taking care of families and relatives
3. Performance recording, data verification, quality controls
4. Training and further education of medical professionals
5. Distribution of tasks between central and peripheral hospitals
6. Optimal use of resources

The governing body that oversees these five organ donation networks on the national level is the CNDO, which is responsible for guaranteeing organ and tissue donation across Switzerland. The role of the CNDO is to coordinate organ and tissue donation in Switzerland and implement the strategy of Organ Donation Switzerland (OSCH). The five organ donation networks and the CNDO, under the overarching national management of Swisstransplant, implement the requirements of their stakeholders and ensure that organ and tissue donation continues to develop in a coordinated and systematic manner. This organisational structure is intended to ensure that both regional aspects and the Switzerland-wide perspective are taken into account.

Since 2009, Swisstransplant as the national organisation has had the mandate from the Swiss Conference of the Cantonal Ministers of Public Health (CMPH) to define and establish national standards for organ and tissue donation. The objective is to leverage synergies in training and continuing professional development and to harmonise communicative measures. At the network level, the five network heads and training officers are responsible for implementing the decisions made and measures decided upon at national level in their own networks and in the hospitals belonging to their networks. Various technical instruments are used to implement the objectives.

- **"Swiss Donation Pathway":**
  This guideline contains the rules that have to be followed during the donation process. It was written as a national standard for Swiss hospitals and it is revised at regular intervals.

- **"Blended Learning":**
  An online training portal that is standardised throughout Switzerland and is based on the national guidelines set out in the Swiss Donation Pathway. Its purpose is to help ensure that donor recognition and the donation process are in accordance with quality standards.

- **"Swiss Monitoring of Potential Donors" ("SwissPOD"):**
  A database that was developed in accordance with the guidelines of the Swiss Transplantation Act for the identification of organ and tissue donors in hospitals and for monitoring the donation process. Its purpose is to optimise the quality of the donation process.

- **"Critical Incident Reporting System" ("CIRS"):**
  A system for reporting critical incidents in the donation process which also aims to enable mutual learning and process optimisation.

2.3 Legal prerequisites for organ procurement

The Swiss Transplantation Act defines the prerequisites for the procurement of organs, tissues and cells from deceased persons [1]. The key regulations are the following:
- Organs, tissues and cells can only be procured from a deceased person if consent has been obtained and the person's death has been verified
- If the wishes of the deceased person are not known, relatives can decide on the behalf of the deceased person
- The relatives may only be consulted about organ procurement when it has been decided to stop life support measures
- If the wishes of the deceased person are not known and no relatives are present or reachable, it is prohibited to procure organs, tissues or cells from the deceased person
- The wishes of the deceased person take priority over those of the relatives
- The relatives are not given any information about who organs are allocated to

The **extended consent solution** applies throughout Switzerland. This means that the relatives or persons of trust are involved in the decision about the procurement of organs, tissues or cells from deceased persons. According to the Transplant Ordinance, relatives are (TxV Art. 5 (2)):
a. Wife / husband, registered partner, life partner
b. Children, parents and siblings
c. Grandparents and grandchildren
d. Other persons close to the deceased person

2.4 Determination of death

2.4.1 Causes of brain death

The following pathologies can lead to **brain death** (listed in descending order of incidence):
- Stroke (haemorrhagic or ischemic infarction)
- Anoxic brain injury
- Craniocerebral trauma
- Other cerebral diseases (e.g. infections, intoxications)

Brain death is the irreversible loss of function of the brain, including the brainstem ("full brain death concept").

2.4.2 Prerequisites for the diagnosis of death

In chapter 2.2 of the Swiss Transplantation Ordinance, the law states that the medical-ethical guidelines of the Swiss Academy of Medical Sciences (SAMS) on "Determination of death with regard to organ transplantation and preparations for organ removal" (version dated 16 November 2017) are to be followed with regard to the determination of death [2].

Medical-ethical guidelines of the SAMS: "Determination of death with regard to organ transplantation and preparation for organ procurement" [2]
www.samw.ch/dam/jcr:4a69851d-bd05-49b3-a209-3ce28d66372e/richtlinien_samw_feststellung_tod_organentnahme.pdf

In the guideline, these prerequisites for the diagnosis of death are set out as follows.

Death may be due to the following causes:
1. Due to **primary** brain damage, in which the **irreversible loss of function** of the brain, including the brainstem, leads to death (donation after brain death – DBD).
2. Due to **sustained cardio-circulatory arrest,** which reduces or interrupts the blood supply to the brain until **irreversible loss of function** of the brain and the brainstem and loss of respiratory function occur, resulting in death (donation after cardio-circulatory death – DCD).

In the scenario of possible organ donation, the focus is on patients with very severe brain damage and on those requiring very substantial support of vital functions, in whom the withdrawal of said support is expected to bring about death rapidly.
Brain death is diagnosed in accordance with the requirements set out in the aforementioned SAMS guidelines [2].
Clinically speaking, the prerequisite is either irreversible brain damage of known aetiology or damage to other organs, whose cessation of function leads secondarily to death. Therefore, any conditions preventing correct clinical diagnosis of brain death must first be **ruled out** [2].

The following clinical conditions must be met before carrying out brain death diagnostics [2].

- Coma of known aetiology
- Body temperature >35 °C
- No shock
- No effects attributable to neurodepressive medications
- No effects attributable to muscle relaxants
- No effects attributable to anticholinergics
- No metabolic imbalance
- No polyradiculoneuropathy (e.g. Guillain-Barré syndrome)

For further details, please refer to the corresponding reference, which also contains a **checklist of clinical signs of death** and provides information about **additional technical examinations** [2] (www.samw.ch/en/Publications/Medical-ethical-Guidelines.html).

With regard to the key **professional** qualifications and **structural** requirements, please refer to the SAMS guidelines, including the required specialist qualifications for physicians diagnosing brain death [2]. If a hospital does not meet the necessary professional and structural requirements for a formally correct diagnosis of brain death, a potential donor must either be transferred to a central hospital or the central hospital must provide the required expertise [2]. In the case of transfer to an organ procurement hospital, brain death diagnostics must be repeated – i.e. carried out again in accordance with the decision of the CNDO and Swisstransplant.

2.4.3 Clinical diagnosis of death

a. Death due to primary brain damage
The determination of death involves a clinical examination in which **all seven** of the following signs must be observed by two specialists using the "four-eyes principle" [2].

b. Death after sustained cardio-circulatory arrest
By definition, death following sustained cardio-circulatory arrest includes an irreversible loss of brain and brainstem function. This occurs as a result of sustained interruption of circulation in the brain. According to the SAMS guidelines, after cardio-circulatory arrest (absence of cardiac activity) has been diagnosed and a waiting period (without resuscitation measures) of at least five minutes has elapsed, the following **six clinical signs are to be assessed;** they **must all** be observed [2].

Based on the fact that spontaneous respiration has not resumed within the five-minute waiting period, there is adequate evidence of its absence and therefore an apnoea test is **not** required [2].

For adults, the time of death is the exact moment when the clinical examination is completed.

If an additional examination is required after the clinical determination of death, the time of death is the moment when the additional examination is completed.
For **infants,** which is to say children aged over 28 days but less than one year, or, in the case of preterm infants, more than 44 weeks' postmenstrual age, the determination of brain death involves two clinical examinations separated by a 24-hour observation period. For infants, the time of death is the moment when the second clinical examination is completed. If brain death is determined via an additional examination, the time of death is the moment when the additional technical examination is completed.
In **neonates** in Switzerland, the procurement of organs for transplantation is to be avoided in accordance with the Swiss Transplantation Act.

2.5 Preparatory medical measures

The SAMS document defines the scope of the guidelines as follows. The guidelines are addressed to physicians and other medical professionals caring for patients who qualify as potential deceased organ donors. They exclusively concern the requirements for organ procurement and the assessments required for it [2].

Medical-ethical guidelines of the SAMS: "Determination of death with regard to organ transplantation and preparation for organ procurement" [2]
www.samw.ch/dam/jcr:4a69851d-bd05-49b3-a209-3ce28d66372e/richtlinien_samw_feststellung_tod_organentnahme.pdf

Preparatory medical measures are activities carried out exclusively for the purpose of organ donation with a view to transplantation. They therefore serve solely to preserve the organ rather than to treat the patient. They may only be associated with minimal risks and burdens for the donor such as blood typing, examination of organ function (bronchoscopy, ultrasound, coronary angiography) or measures taken to optimise organ function (circulatory stabilisation, optimisation of ventilation).

Preparatory medical measures do **not** include palliative intensive care measures such as symptom-relieving analgosedation or terminal extubation.

It is important to be aware that preparatory medical measures are divided into measures taken in the period **before** determination of death and those taken in the period **after.**

2.5.1 Preparatory medical measures prior to determination of death

Among the preparatory medical measures carried out **before** death are the continuation of existing treatments (continuation of ventilation, administration of medications and solutions to maintain circulatory function), laboratory analyses to guide treatment, and hormone replacement to maintain the internal milieu. Existing treatments may be continued, **without**

counting as a preparatory medical measure, as long as they serve purposes other than organ procurement (e.g. enabling relatives to say goodbye, palliative care).
The SAMS guidelines also include a **negative list** [2], provided below, that lists the preparatory measures that are **not permitted prior to** determination of death (the list is exhaustive):

- Placement of an arterial cannula (e.g. double-balloon triple-lumen catheter) for cold perfusion
- Mechanical resuscitation

Preparatory medical measures are furthermore **not** permitted if they could hasten death or may lead to a permanent vegetative state. Preparatory medical measures can only be carried out with **the patient's consent** (donor card, advance directive, donor app etc.). If there is **no** written record of the patient's wishes recorded in advance, the patient's wishes in this regard must be determined with the help of the relatives, as explained above. If no declaration from the patient is available, the measures that have already been taken may be continued until the relatives can be reached. If no relatives can be reached, or if they cannot be contacted in time, the performance of preparatory medical measures before death is **not** permitted and **organ donation must be ruled out**. The medical treatment team must respect the patient's decision for or against donation and also respect the decision of the relatives.

2.5.2 Preparatory medical measures after determination of death

After death has been determined, measures to maintain organ perfusion (cardiac massage, placement of femoral cannulae for organ perfusion, extracorporeal membrane oxygenation (ECMO)) are permitted. Because these measures cannot harm the deceased (because they are already dead), they may be carried out until the relatives' consent or refusal is available, as described in detail above.
The preparatory medical measures may be performed for **no longer than 72** hours after the patient's death [2].

In the event of a **death not due to natural causes** or a death whose **cause is unclear,** the legal authorities must be informed in accordance with the applicable cantonal procedure in order to obtain permission for organ procurement.

3.0
Donor recognition

3.1 Recognising potential donors

A potential donor can be identified **in any hospital department,** e.g. the accident and emergency department, the internal medicine ward, neurology, neurosurgery, paediatrics etc. However, these recommendations are particularly directed at **all intensive care units and accident and emergency departments,** due to the high incidence of patients with an infaust prognosis in these departments.
A potential donor is a patient with an infaust prognosis. This means that there is no hope for recovery or the treatment options available will not be effective. They are a patient who will die due to primary brain damage or a disease of the brain, or due to continuous cardiocirculatory arrest and the loss of respiratory function, and in whom there is **no contraindication** for organ donation.

"The World Health Organization (WHO) Critical Pathway for Deceased Donation" has proven a useful tool for donor recognition in everyday practice. The advantage of this guideline is that it uses consistent definitions and process descriptions, which cover both DBD and DCD donations (see **Figure 1**) [3].

3.1.1 Criteria for recognising potential DBD donors

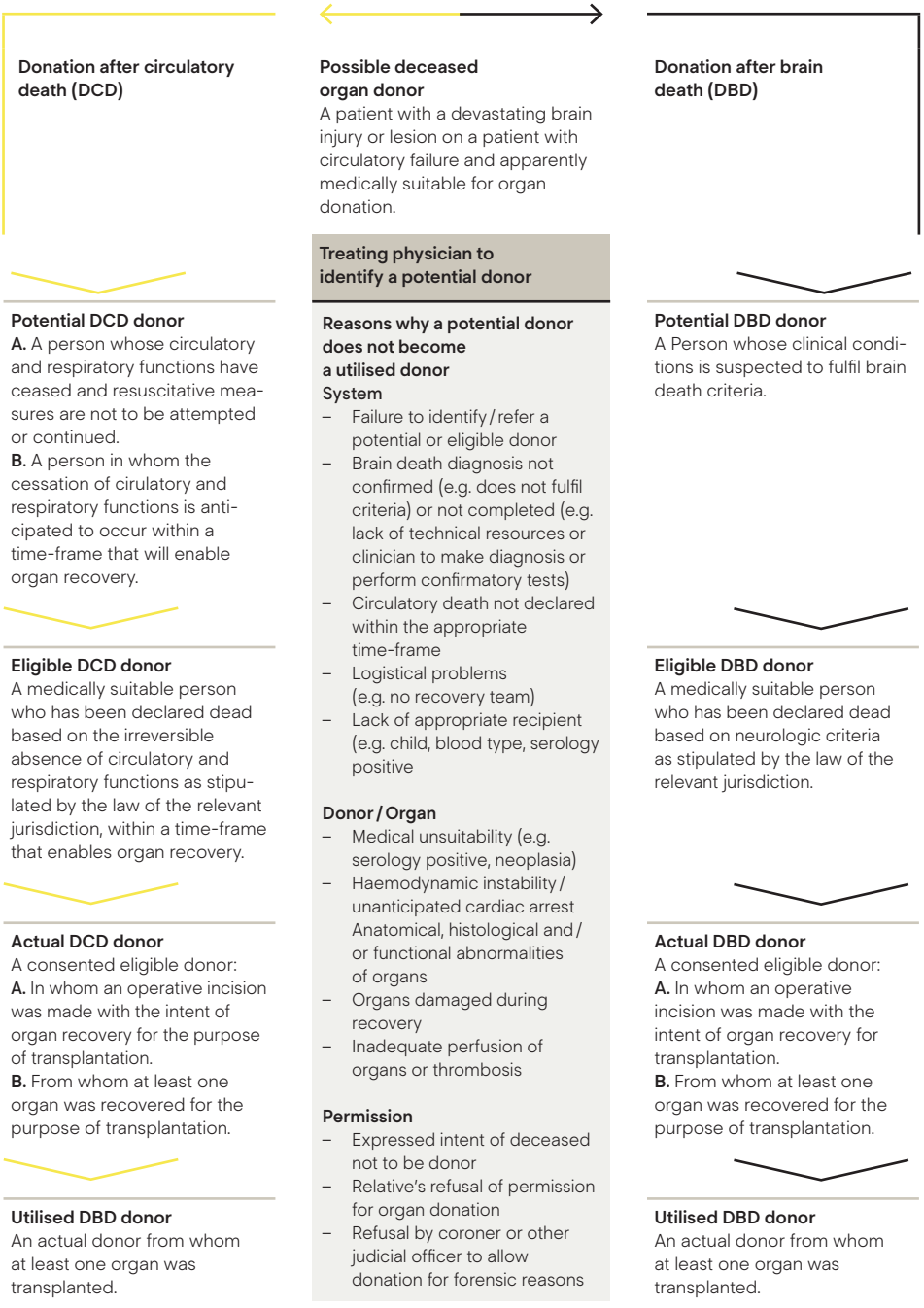
A potential DBD donor is a patient with irreversible brain damage who is being considered as a potential organ donor. The key criteria for recognising a DBD donor are the following:
- Infaust prognosis with no hope for recovery or the treatment options will not be effective
- Irreversible brain damage or deep coma of known aetiology
- Clinical or radiological proof that the patient has reached brain death or that brain death may occur in the 48 hours following consent to organ donation
- **No** contraindications for organ donation

If a potential DBD donor does not reach brain death within 48 hours after consent to organ donation, they are then a potential DCD donor.

3.1.2 Criteria for recognising potential DCD donors

A potential Maastricht category III DCD donor is a patient with a confirmed change of

Figure 1: WHO Critical Pathway for Deceased Donation, adapted according to [3]



treatment objective to palliative care who is estimated to be likely to die within 120 minutes after cessation of life support measures (including extubation) that make DCD donation possible (see **Figure 2** and **Figure 3**). The DCD organ donation process can be terminated if none of the following three values are lower than the following criteria after more than 60 minutes after the cessation of life support measures (including extubation): pH value <7.2; systolic blood pressure <70 mmHg; oxygen saturation measured by pulse oximetry (SpO_2) <70% The decision is the responsibility of the treating intensive care physician.

Hereinafter, the term DCD donation will be used to refer to Maastricht category III DCD donation only. A Maastricht category II donation (after unsuccessful resuscitation) is also possible, but this will not be dealt with in this module. DCD donation is therefore not limited to patients with severe, irreversible brain damage – it is also relevant in the case of terminal illness, such as respiratory or cardiovascular diseases with an infaust prognosis an no treatment options.

The key criteria for **recognising a DCD donor** are the following:
- Infaust prognosis
- Confirmed change of treatment objective to palliative care
- High probability of imminent death (cardio-circulatory arrest is expected within 120 minutes after withdrawal of treatment)
- **No** contraindications for organ donation

3.1.3 Contraindications for organ donation

The contraindications for organ donation are as follows:
- Neonates <28 days old or postmenstrual age <44 weeks
- **Refractory** systemic infections
- Certain degenerative diseases of the central nervous system (CNS) e.g. rabies, prion disease etc.

Nowadays, a **very differentiated** approach is required when it comes to **malignant neoplasms.** In principle, it is possible for malignant neoplasms to be transferred to immunosuppressed organ recipients from donors with a known or unknown malignant tumour, but the risk is small

Figure 2: Process flow chart for DCD

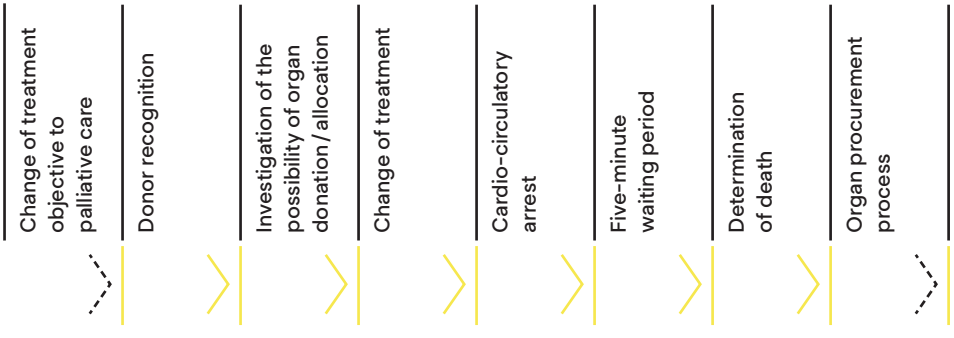
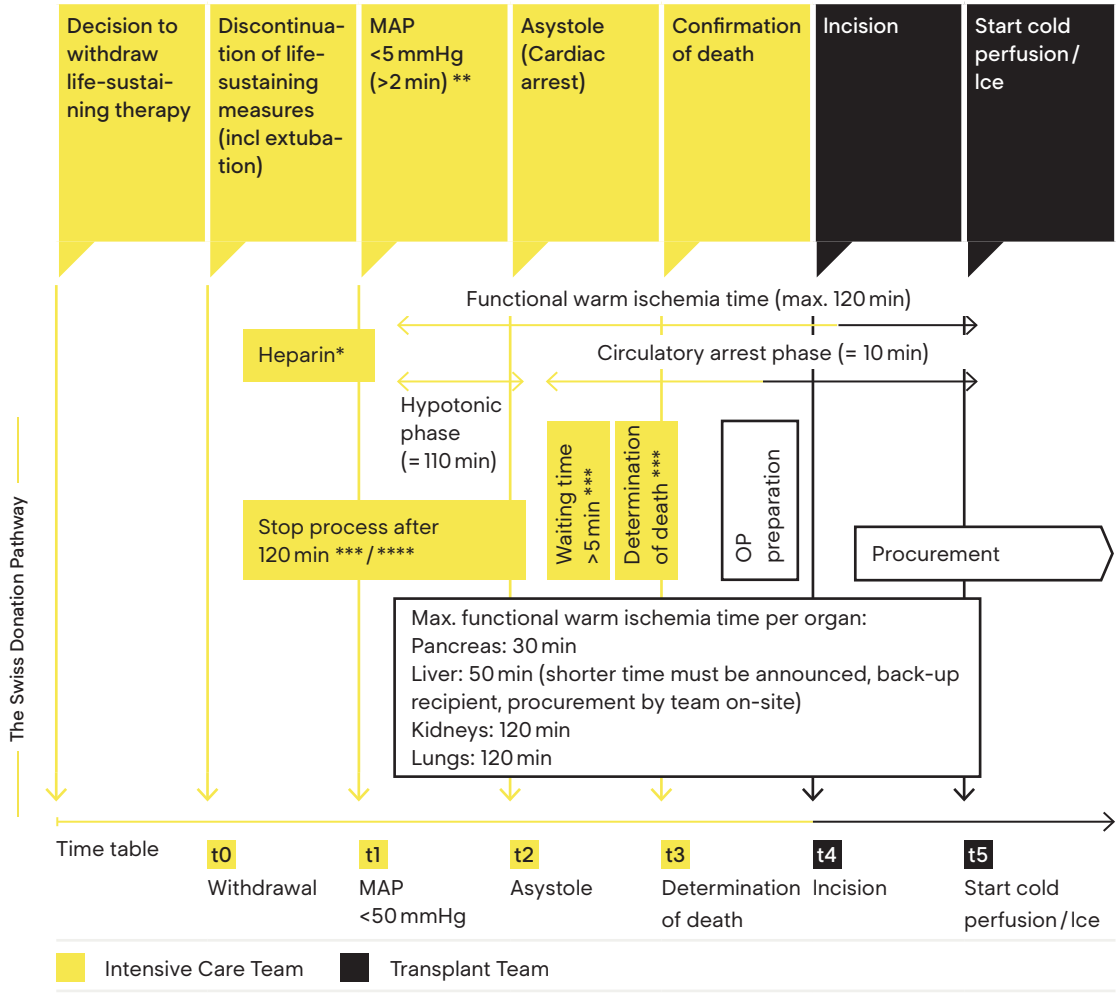


Figure 3: DCD flow chart: rapid procurement (RP)



* **Heparin administration** at to (300 IE / kg iv). It the likelihood of mortality is low and / or there is an increased risk of bleeding, the attending IC doctor may decide to administer the heparin later; however, the dose must be injected no later than at t1 (MAP <50 mmHg).

** **MAP <50 mmHg (depending on age):** The following values are tobe used, depending on age category: **0 to 1 year: <35 mmHg; 1 to 3 years: <40 mmHg; 3 to 5 years: <45 mmHg; 5 years and above: <50 mmHg (for a minimum of 2 minutes).**

*** Swiss Academy of Medical Sciences (SAMS)

**** Premature termination may occur, if after >60 minutes from tO none of the 3 criteria are not met: **pH <7.2; BP syst <70 mmHg; SpO_2 <70%**

if the donors are selected carefully [3]. However, **particular caution** must be exercised with regard to the detection and evaluation of malignant neoplasms in donors. A detailed donor's medical history is crucial, as are laboratory tests including possible tumour markers, although routine tumour marker screening is **not** considered appropriate [3]. Imaging procedures should be carried out with great care. In some in individual cases, a tissue biopsy during organ procurement can also help to rule out a malignant tumour through differential diagnosis. During organ procurement, the procurement surgeon must also inspect all intrathoracic and intraabdominal organs (including the intestines and genitals), even if there are no plans to transplant these organs.
There is no international consensus on criteria for freedom from tumour recurrence – the required time free from tumours ranges between more than five and more than ten years, depending on the type and stage of tumour [3].
Primary tumours in the central nervous system (CNS): The two most important factors for the assessment of CNS tumours with regard to their risk of transmission in the context of organ donation are 1) the histologically determined WHO grade of the CNS tumour and 2) any tumour-related intervention (surgery, shunt, chemotherapy and/or radiotherapy). The general rule is: the higher the tumour grade (higher than WHO grade III) and the more interventions required, the higher the risk of transmission [3].
Malignant melanoma: Due to high transmission rates, a superficial tumour with a tumour thickness of more than 1.5 millimetres following curative tumour resection and a recurrence-free period of more than ten years is considered an acceptable risk with low transmission rate for the recipient.

There is **no** contraindication in the case of:
- Primary basal cell carcinoma of the skin
- Cervical carcinoma in situ
- Localised, clearly demarcated tumour of low malignancy
  E.g. renal cell carcinoma <2 centimetres

Therefore, in any **cases where there is doubt,** Swisstransplant should always be asked to check whether the person may be a potential donor **before** they are categorically ruled out.

In addition, the following points should always be borne in mind:
- Advanced age is not a general contraindication for organ donation.
- Hepatitis C virus (HCV): HCV antibody-positive and PCR-negative donors can donate organs to HCV-antibody negative recipients. Organs from donors that are both HCV antibody-positive and PCR-positive can be transplanted to recipients with urgent status.
  In both of these cases, the recipient must provide written consent prior to transplantation.
  The more liberal rules on allocation have resulted in major advances in the treatment of HCV.
- Hepatitis B virus (HBV): HBV antibody-positive and HBsAg-negative donors can donate organs to HBV-antibody negative recipients. The recipient must provide written consent prior to transplantation.
- Human immunodeficiency virus (HIV): Organs may be transplanted as long as the recipient's HIV test result is also reactive. The recipient must provide written consent prior to transplantation.

In **all cases where there is doubt,** it is recommended to have Swisstransplant carry out a donor evaluation.
The decision about whether a patient is medically eligible to be an organ and/or tissue donor

is the responsibility of Swisstransplant.

3.2 Opening a SOAS listing

The opening of a donor listing in the computer-based national allocation system, the Swiss Organ Allocation System (SOAS), marks the end of donor recognition. The listing is opened by the donation or transplantation coordinator. The timing for opening a SOAS listing depends on the type of donation.

3.2.1 DBD donor

In the case of a DBD donation, the SOAS listing is opened after brain death is diagnosed and after the donor or the relatives has / have consented to organ donation (see the module 2: "Taking care of relatives and communication"). The donor is now a qualified DBD donor (see **Figure 1**).

A **qualified** DBD donor is a person who is medically eligible to be an organ donor (transplantable organs, no contraindications) and who has been diagnosed with brain death in accordance with the applicable guidelines.

3.2.2 DCD donor

For logistical reasons, in the case of a DCD donation, the SOAS listing is created **before** the objective of treatment is changed to palliative care and **before** the determination of death. The consent of the donor or the relatives to donation must be obtained before opening a donor listing in SOAS. The donor is now a potential DCD donor (see **Figure 1**).

A **potential** DCD donor is a patient whose cardiovascular and respiratory functions have ceased and for whom resuscitation measures are not used or have been terminated, or a patient whose cardiovascular and respiratory functions cease following withdrawal of treatment after a defined period of time, during which resumption of organ function in the recipient is possible (see **Figure 1**).

4.0

Donor reporting

4.1 Recommendations for donor reporting

Every successful donation programme is based on the systematic identification of potential donors and on donor reporting. Early donor notification is particularly beneficial, with positive effects for the entire donation process.
Recommendations for donor reporting are outlined below.

4.1.1 Reporting a DBD donor

If required, a DBD donor can be reported to Swisstransplant for clarification of donation potential. For as long as the donor is thought to meet the criteria for clinical signs of brain death, they are called a potential donor (see **Figure 1**).

A **potential** DBD donor is an intubated, comatose patient who is thought to meet the criteria for clinical signs of brain death.

4.1.2 Reporting a DCD donor

A DCD donor is reported to Swisstransplant as soon as the decision to change the treatment objective to palliative care has been made and consent to donation has been obtained.

A **potential** DCD donor is a patient whose cardiovascular and respiratory functions have ceased and for whom resuscitation measures are not used or have been terminated, or a patient whose cardiovascular and respiratory functions cease following withdrawal of treatment after a defined period of time, during which resumption of organ function in the recipient is possible (see **Figure 1**).

4.2 Hotlines

The Swisstransplant hotline operates **24 hours** a day. The Swisstransplant hotline can be used to clarify potential donor status, report a potential donor or check the register. For further details, please refer to the standard operating procedure (SOP) for "Donor recognition".

Swisstransplant:	+41 58 123 80 40

In addition to the Swisstransplant hotline, the coordinators of the organ donation networks also operate hotlines for donor reporting or for questions about the process:

Organspende Netzwerk Schweiz Mitte:	+41 61 265 25 25 (Cantons of Aargau, Basel-Landschaft and Basel-Stadt)
Organspende Netzwerk Schweiz Mitte:	+41 31 632 83 95 (Cantons of Bern and Solothurn, as well as Visp)
Donor Care Association (DCA):	+41 44 255 22 22
Organspende Netzwerk Lucerne:	+41 41 205 64 00
Programme Latin du Don d'Organes (PLDO):	Hotline for medical queries (e.g. clarification of donor status) via the on-call list on the PLDO website: www.pldo.hug-ge.ch/. For notifying the transplant coordinator about a donor: +41 22 372 24 00
Netzwerk Organspende Ostschweiz (NOO):	+41 71 494 70 60

4.3 Transfer of potential donors

If organ procurement cannot be done at a particular hospital due to a lack of infrastructure, the patient is transferred to an organ procurement hospital with the relatives' permission. This may happen in the following ways:

- **Possible / potential DBD donors** may be transferred to an organ procurement hospital
- **Possible / potential DCD donors** may be transferred to an organ procurement hospital

In accordance with the CNDO recommendation, brain death is diagnosed in the procurement hospital or central hospital, i.e. after the transfer of the patient. Therefore, the register listing should only be called up if brain death is anticipated in the next **48 hours,** and once the infaust prognosis has been discussed with the relatives or if the possibility of organ donation has been discussed previously. For logistical reasons, it is advisable to check the register before any transfer of the patient to rule out any registered refusal of organ donation.
The transfer may be organised in conjunction with Swisstransplant if necessary. In order to avoid additional costs for the relatives and the donor detection hospitals, the costs incurred by the transfer of the potential donor and the return of the deceased person to their place of origin are covered by Swisstransplant (see the module 8: "Transport Organisation").

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Versions

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February 2023	1.1	Correction

References

1. Federal Act of 8 October 2004 on the Transplantation of Organs, Tissues and Cells (Swiss Transplantation Act), SR 810.21. November 2017

2. Swiss Academy of Medical Sciences (SAMS). Medical-ethical guidelines. Determination of death with regard to organ transplantation and preparations for organ procurement. November 2017

3. European Committee (Partial Agreement) on Organ Transplantation (CD-P-TO). Guide to the quality and safety of organs for transplantation. European Directorate for the Quality of Medicines and HealthCare (EDQM). 7th edition. 2018

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