

Procedure – Declaration of Death and Organ and Tissue Donation

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1. Purpose

This procedure will familiarize coroners and pathologists on processes to be followed in cases where there is an opportunity for organ and/or tissue donation; creating uniformity and consistency in the approach to these cases; and ensuring that Regional Supervising Coroners (RSCs) and Forensic Pathologists (FPs) are made aware of potentially problematic cases for the purpose of providing guidance and assistance. The procedure also ensures consistency in the approach of the death investigation service (OCC/OFPS) when death determination is contested by family members or others.

2. Scope

This procedure applies to all coroners and pathologists in Ontario.

3. Abbreviations and Acronyms

DCD: Donation after Circulatory Determination
FP: Forensic Pathologist
MRP: Most Responsible Physician
NDD: Neurological Determination of Death
NOK: Next of Kin
NPOD: Non-Perfused Organ Donation
OCC: Office of the Chief Coroner
OFPS: Ontario Forensic Pathology Service
RSC: Regional Supervising Coroner
TGLN: Trillium Gift of Life Network

4. Introduction

- 4.1 Determining when a person has died usually presents no difficulty. It is most often obvious when a person has taken a final breath, and the heart has stopped beating irreversibly. Brain death typically follows shortly thereafter.

- 4.2 The criteria for determining death have not been legislatively prescribed either federally or in Ontario. The medical practice of using neurological and cardiorespiratory criteria to diagnose death has been accepted by Canadian courts.
- 4.3 Historically, the single criterion used to determine death medically was cardiorespiratory failure, i.e. when the heart and lungs irreversibly stop functioning.
- 4.4 At times, where a person suffers total loss of neurological function while being maintained on a mechanical ventilator, there may be associated complexity. With mechanical assistance, the heart and lungs continue to function, and other organs can continue to perform their ordinary functions.
- 4.5 Medical practice has developed a second criterion to determine death: Neurological Determination of Death (NDD). Satisfaction of specific medical criteria are required for NDD. There is a consensus in Canadian medical practice that if brain death (or NDD) has occurred, the human person has died.
- 4.6 In the case of a TGLN donation, applicability of the death investigation authority arises from the *Trillium Gift of Life Act*, coupled with the fact that NDD is not disputed by the family or others.
- 4.7 When a coroner is contacted by a health care professional reporting a NDD outside of the context of TGLN organ donation and there is any dispute whatsoever as to the determination of death, then the Coroner shall do the following:
- 4.7.1 The coroner shall not accept the case for investigation and shall not issue a death certificate or Warrant to Bury the Body of a Deceased Person until the dispute is resolved (legally or if cardiorespiratory determination of death occurs).
 - 4.7.2 The OCC/OFPS will remain a neutral party to the contested determination of death.
 - 4.7.3 If there is legislatively required involvement of the OCC/OFPS, after the dispute is resolved the coroner will provide the date of death within the context of their health care knowledge and perspective.
- 4.8 While NDD accounts for many of Ontario's organ donors, Death by Circulatory Determination (DCD) is an additional option, pursued when NDD criteria are not met. For example, patients who will not survive a catastrophic illness or injury and a decision to withdraw life sustaining measures has been made by the family/substitute decision maker and health care team. DCD accounts for a significant proportion of Ontario's organ donors.
- 4.9 DCD must occur within two hours after the withdrawal of ventilatory support for organ donation to occur. If the patient lives beyond the two-hour period, potentially for a variable period (hours, days, weeks, etc.) following the withdrawal of ventilatory support, organ donation is not possible, although tissue donation may be considered after death.
- 4.6 When DCD has yet to occur in a TGLN case, coroners do not have authority to issue a death certificate or Warrant to Bury the Body of a Deceased Person.

- 4.7 Non-Perfused Organ Donation (NPOD) is a type of DCD. In these circumstances, the patient has died after an unsuccessful resuscitation, NOK consent is obtained shortly after death, and any suitable organs are recovered within 180 minutes after death.
- 4.8 Coroners, healthcare professionals, other members of the death investigation team or families may identify that the deceased person expressed intent (or may be a potential suitable candidate) to donate organs and/or tissues at end-of-life. The OHIP card (reverse side) may provide indication of the desire of a deceased person to donate, but its absence is not a deterrent to making a referral to TGLN.
- 4.8.1 For investigations outside of a hospital setting, tissue donation should be considered when the deceased person is under 76 years of age at the time of death and is believed to be deceased less than 12 hours (i.e. witnessed death or other information to indicate recent death). Details are provided in 6.7.
 - 4.8.2 TGLN must be contacted to discuss potential donation opportunity.
 - 4.8.3 Once a referral is made, TGLN will screen for preliminary suitability of potential donors.
- 4.9 Organ and tissue donation are generally possible without compromising the death investigation, or civil or criminal proceedings arising from the death.
- 4.10 For cases of organ donation, coroners and pathologists should ideally support organ donation in all cases. This includes homicides, criminally suspicious cases and pediatric cases.

5. General Principles

- 5.1 The OCC/OFPS are committed to collaborating with TGLN to facilitate the donation of organs and tissue for transplantation in cases investigated by the death investigation system. Although it is their default intention to agree with organ and tissue donation, the OCC/OFPS recognize that there are occasional circumstances where restricting organ/tissue donation may be reasonable (as it may impact the outcome of the death investigation).
- 5.2 TGLN must inform the NOK during the consent process that consent may occasionally not lead to the recovery of all organs and/or tissues if they are required for examination to inform the death investigation.
- 5.3 Although TGLN coordinators may be important aides in gathering information, it is pertinent that the investigative coroner speaks with the MRP directly about information required to inform the death investigation and provide guidance regarding organ/tissue donation.

- 5.4 When a post mortem examination is anticipated to be completed under the authority of **s. 28(1)** of the *Coroners Act*, the coroner and pathologist should ensure that important forensic pathology issues, such as the cause and mechanism of death or injury evaluation and documentation, are not impacted by organ and/or tissue donation. Additional antemortem diagnostic testing may be warranted (CT scan of the chest, abdomen and/or pelvis) to evaluate for undetected injuries.
- 5.5 Medical suitability of organ and tissue donation is not within the expertise of coroners or pathologists. The expertise and responsibility lie with TGLN and the transplant clinical experts and surgeons.

6. Procedure

6.1 Jurisdiction

6.1.1 The *TGLN Act* (section 6) indicates that when considering organ and tissue donation, contacting the coroner is indicated (potentially prior to the determination of death) if the physician is of the belief that **s. 10** criteria may apply and consent for donation has been obtained. The early involvement of the coroner ensures that **s. 11** (non-interference with the body) is considered in the organ and tissue donation process. The decision to allow organ and tissue donation is based on discussions involving the coroner, the investigating police service and, as required, the OFPS. In most cases, donation is compatible with the forensic post mortem examination, even in homicide cases.

6.1.2 The date and time in NDD organ donor cases is the legal time/date of death, even if the organ retrieval does not occur that day. This determination of death in a TGLN case provides coroners with authority to investigate in cases where families have provided consent for organ/tissue donation.

6.1.3 The procedure for DCD is similar to NDD, but death has not occurred when a coroner is contacted for DCD cases. The coroner's investigative authority under the *Coroners Act* does not apply. For instance, the coroner cannot complete a *Warrant to Take Possession of the Body*, a *Warrant for Post Mortem Examination*, an *Authority to Seize*, or a *Medical Certificate of Death*. However, the *TGLN Act* (section 6) provides the coroner with the authority to make reasonable inquiries (e.g. reviewing the medical records, speaking with police or attending physicians) in order to provide direction regarding the donation of organs/tissue in cases of DCD.

6.2 Death Investigation in Cases of Organ Donation after NDD

- 6.2.1 Hospitals should contact Provincial Dispatch if there is the belief that the case circumstances fulfill **s. 10**, the MRP has confirmed death by NDD criteria and consent has been provided by the NOK for organ donation. If the coroner believes that the case requires investigation, he/she should ensure suitable steps have been taken to investigate and decide whether to authorize the donation.
- 6.2.2 The *TGLN Act* permits coroners to investigate the circumstances of death while the patient's body is maintained on ventilatory and hemodynamic support, providing authorization for donation as appropriate.
- 6.2.3 The following steps will be completed by the coroner (with involvement of the OFPS where indicated below):
- i. Speak with the MRP, TGLN coordinator, and investigating police service (if applicable).
 - ii. Review all relevant medical records.
 - iii. Examine the body, especially focused on items of forensic significance.
 - iv. Determine whether a post mortem examination is required.
 - v. If a post mortem examination is not required, the coroner must speak with the RSC if they believe there is a circumstance where authorization for **organ** donation may be limited.
 - vi. If there is a concern about how organ donation may affect a post-mortem examination (note: largely limited to criminally suspicious deaths / homicides), then the FP on call should be contacted to discuss benefit/need for steps to gather additional information, such as additional antemortem radiology (e.g. CT scan, skeletal survey), photographs (e.g. police), or the potential benefit of the FP attending the hospital to examine the patient prior to the donation procedure.
 - vii. If there is a circumstance where authorization for **organ** donation may be limited by the pathologist, then they must seek explicit permission from either the Chief FP or one of the Deputy Chief FPs. The coroner and TGLN must be informed by the pathologist of the decision and rationale if authorization is limited.
 - viii. Advise TGLN of the decision as soon as reasonably possible.
 - ix. Complete the *Warrant for Post Mortem Examination and the Coroner Permission Form* (as required). The *Coroner Permission Form* is outlined in 7.1 (Appendix A).
 - x. Issue an *Authority to Seize* the hospital admission blood/urine samples for toxicology testing (as required) and provide direction for sample transfer.
 - xi. Arrange for body transfer post-organ/tissue donation, as required.
 - xii. A copy of the medical records, including charting relating to the procedure of organ/tissue donation, should accompany the body (as required).

- xiii. If requested by the FP, organs that were not transplanted should be forwarded for his/her examination.

6.2.4 As of June 2018, a *Medical Certificate of Death and/or a Warrant to Bury the Body of a Deceased Person* are no longer required before organ donation can proceed. Donation specific documents (*Confirmation of Neurological Determination of Death or a Pronouncement of Death: Organ Donation after Cardio-Circulatory Death*) signed by MRP(s) are required.

6.3 Death Investigation in Cases of Organ Donation after DCD

6.3.1 Hospitals should contact Provincial Dispatch if there is the belief that the case circumstances fulfill **s. 10**, the healthcare team determines that withdrawal of life sustaining measures and DCD is being considered (and consent has been provided by the NOK for donation). If the coroner believes that the case requires investigation, he/she should ensure suitable steps have been taken to investigate and decide whether to authorize the donation.

6.3.2 Coroners are to complete any relevant steps during their investigation, as outlined in 6.2.3.

6.3.2.1 Coroners should ensure the laboratory is contacted to request that ALL blood and urine samples be retained pending DCD at which time seizure documentation will be provided.

6.3.3 Generally, only one coroner is involved in a DCD case because circulatory determined death usually rapidly follows the withdrawal of ventilatory support, and that coroner will conduct the death investigation.

6.3.3.1 Should the patient survive for days (or longer) after the removal of ventilatory support, efforts will be made to have the initial coroner complete the death investigation. If he/she is unavailable, another coroner will assume responsibility.

6.3.4 If the initial coroner is unavailable to complete the investigation, the information gathered by that coroner must be made available to the second coroner by completing the "*Donation After Circulatory Determination (DCD): Transfer of Information Form*", (Appendix B) analogous to the transfer of care from one health care professional to another in clinical medicine.

6.3.4.1 A completed *Donation After Circulatory Determination (DCD): Transfer of Information Form* (Appendix B) is to be sent to the

appropriate RSC office (via fax, EATS or secure email), where it will be maintained and made available to the coroner who subsequently conducts the death investigation.

6.3.5 Generally, the initial coroner (who has done most of the investigation) will be paid the usual death investigation fee, and compensation for the second coroner will be decided upon in consultation with the RSC on a case by case basis.

6.4 Death Investigations in Cases of Tissue Donation (Exclusively)

6.4.1 TGLN personnel will contact the coroner via Provincial Dispatch, if the referring organization (e.g. hospital) has identified that the death may meet **s. 10** and consent has been provided by the NOK for donation.

6.4.1.1 Notable exceptions include cases of known homicides or criminally suspicious deaths, pediatric deaths (<18 years old) and deaths where the only tissue being considered by TGLN is heart valves. In these circumstances, TGLN will contact the coroner prior to approaching the NOK for consent.

6.4.2 TGLN may also contact the coroner to obtain NOK contact information for cases that are subject to investigation by the coroner.

6.4.3 Coroners are to complete any relevant steps during their investigation, as outlined in 6.2.3, with specific consideration as noted in 6.4.5 below.

6.4.4 The coroner will provide permission for tissue donation via the *Coroner Permission Form* (details in 7.1) (Appendix A).

6.4.5 Restrictions on tissue donations may be contemplated under appropriate circumstances. The coroner must consult with the RSC if they believe restriction is indicated.

Eyes:**

- need for analysis of vitreous fluid in sudden deaths of diabetics
- need for evaluation for retinal hemorrhages in pediatric blunt force traumatic head injuries

Heart Valves:

- need to examine heart in setting of a sudden cardiac death that may have an underlying genetic etiology

Bones:

- Need for examination of limb fractures or unexplained limb injuries

Skin:

- Need for examination to inform the death investigation, e.g. bruises, sharp force injury, apparent bullet wounds, skin lesions, rash

**In non-criminally suspicious cases involving hanging or other apparent asphyxia deaths it is not reasonable to restrict donation of corneas. If petechiae are present, they are observed on the palpebral conjunctiva.

6.4.6 If the coroner has concern(s) or questions about appropriateness of donation, they can consult the RSC, Deputy Chief Coroner, Chief Coroner, or Deputy Chief FP.

6.4.7 Tissue recovery may occur within a hospital, funeral home, or the Tissue Recovery Suite at the Forensic Services and Coroners Complex.

6.5 Donation in Medical Assistance in Dying (MAiD) Cases

If a death meets legal criteria for MAiD and is suitable for organ/tissue donation, TGLN will contact the MAiD Review Team via Provincial Dispatch. This may occur before (DCD cases) or after (tissue-exclusive) the MAiD procedure has occurred. Instructions about donation are to be documented on the *Coroner Permission Form* (details in 7.1). The MAiD Team member will consult the RSC, Chief Coroner or FP as required.

6.6 Death Investigations in NPOD Cases

6.6.1 Coroners are to complete any relevant steps during their investigation, as outlined in 6.2.3.

6.6.2 When contacting Provincial Dispatch, TGLN is to clearly articulate the time constraints (donation must be completed within 180 minutes) surrounding the case.

6.6.3 Given that NPOD is currently an uncommon event and there is specific time constraints, the RSC will be directly involved in primary discussions with TGLN.

6.6.4 TGLN will collect blood in two red top tubes and provide it to the OFPS in cases proceeding to post mortem examination. Alternatively, when post mortem examination is not planned, TGLN shall work with the coroner to allow seizure of the samples of blood collected and facilitate transfer to the Forensic Services and Coroners Complex by forensic service technologist.

6.6.5 TGLN will provide the coroner with the correct timing of donation, to ensure he/she arrives at the appropriate time (i.e. not at the start of organ recovery).

6.6.6 TGLN will contact the coroner after completing the chart review. Should TGLN need to contact them before, TGLN will ensure the coroner is aware of any and all updates. TGLN will confirm which coroner is completing the case should the case extend into the next day (similar to 6.3.3.1).

6.7 Donation Outside a Hospital Setting (Coroner Referrals)

6.7.1 Coroners should make referral to TGLN regarding deceased persons who may be suitable donors (< 76 years old and death occurred < 12 hours) as soon as possible (416-363-4438 or 1-877-363-8456; press 2 when prompted).

6.7.2 The coroner will provide the name of the deceased person, date of birth, apparent time of death, suspected cause of death and whether a post-mortem examination has been requested. If available, provision of the Health Card Number would be valuable to inform the process. Past medical history should be provided if available.

6.7.3 If the NOK contact information is available, the coroner will provide it to TGLN. It is TGLN's responsibility to approach families about donation.

6.7.4 If a post-mortem examination is planned, Provincial Dispatch or coroner (depending on region) will arrange transfer to the applicable facility for post mortem examination following routine procedure.

6.7.5 If eligibility for multi-tissue donation is determined and no post-mortem examination is planned, TGLN will obtain consent from the NOK to arrange transfer to the applicable facility to facilitate donation. If the deceased person is a potential eye-only donor, donation will occur at the funeral home. The family will therefore contact the funeral home of their choice for transfer to their location. If the NOK has not chosen a funeral home, TGLN will evaluate transfer options.

6.7.6 If tissue recovery is to occur at the Forensic Services and Coroners Complex, TGLN will fax a copy of the *Coroner Permission Form* to Provincial Dispatch (416-314-0888) to inform them that recovery staff will arrive onsite. TGLN will coordinate a recovery time with Provincial Dispatch. TGLN will inform the pathology assistants when there is a need for delay in completion of the post mortem examination.

- 6.7.7 If tissue recovery is to occur at a hospital, TGLN will follow their routine hospital protocol.
- 6.7.8 After tissue recovery is complete, TGLN will notify Provincial Dispatch or the hospital's department responsible for releasing bodies. If the deceased did not undergo a post mortem examination, TGLN will arrange transfer to the funeral home of the NOK's choice.

7. Information Sharing between the OCC, OFPS, and TGLN

7.1 The *Coroner Permission Form* was developed collaboratively by the OCC, OFPS, and TGLN to document decision making regarding organ and/or tissue donation (Appendix A).

7.1.1 TGLN may complete the form with the coroner by telephone or provide a blank copy for the coroner to complete and return to the TGLN coordinator.

7.1.2 TGLN will upload the completed form into the donor's TGLN electronic record, provide one completed copy to the hospital (if applicable), and forward a copy to the appropriate RSC office. If a tissue recovery occurs at the Forensic Services and Coroners Complex, this form will also be sent directly to Provincial Dispatch to inform them of a pending TGLN recovery.

7.2 The TGLN consent form states in part, "*I authorize access by and release to Trillium Gift of Life Network or an associated tissue bank of any and all records and reports of a Medical Examiner, Coroner or Pathologist*". TGLN requires this information for recovery staff and recipient health, as well as accreditation purposes.

7.2.1 The coroner, FP or RSC may inform TGLN of the initial examination findings by telephone.

7.2.2 Final post-mortem examination reports will be made available to TGLN by the RSC office to distribute to the appropriate transplant programs/tissue banks.

7.2.3 In cases involving the criminal justice system, the RSC may need to discuss report release with the investigating police service before releasing the final post-mortem examination report to TGLN.

8. Quality Control

To inform optimal decision making, TGLN will advise the OCC/OFPS of cases in which a coroner or FP did not provide authorization for organ/tissue donation, or when other issues are identified. The RSC/FP group will review these cases from a lessons learned perspective and, where it is felt that different decisions relating to organ/tissue donation could have occurred, provide feedback to the coroner or pathologist to enable constructive learning and increased donations in the future.

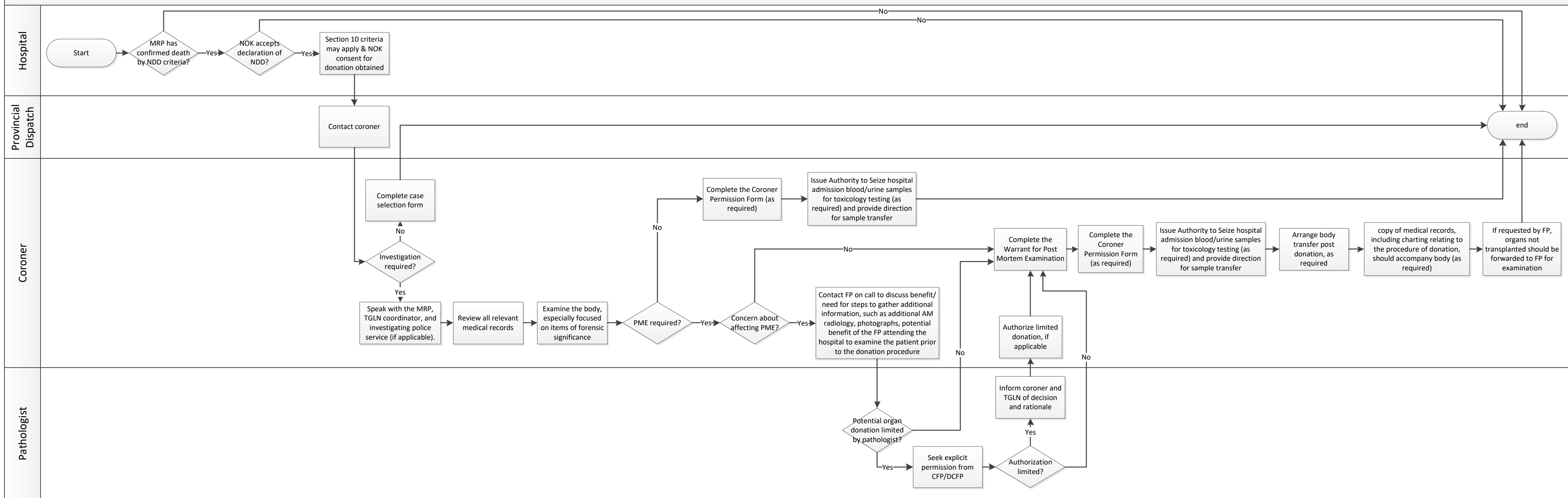
9. References

- i. Coroners Act R.S.O. 2009
- ii. Trillium Gift of Life Network Act
- iii. Memo 02-05 Disposition of Non-Transplanted Organs and Tissues
- iv. Memorandum 04-01 – Coroner Involvement in Organ Retrieval
- v. Memorandum 14-03 – Protocol for Donating a Body to a School of Anatomy
- vi. Memorandum 17-01 – Organ and Tissue Donation (Best Practice Guidelines#10)
- vii. Chapter 03 – Coroners Investigation Manual version 1.3

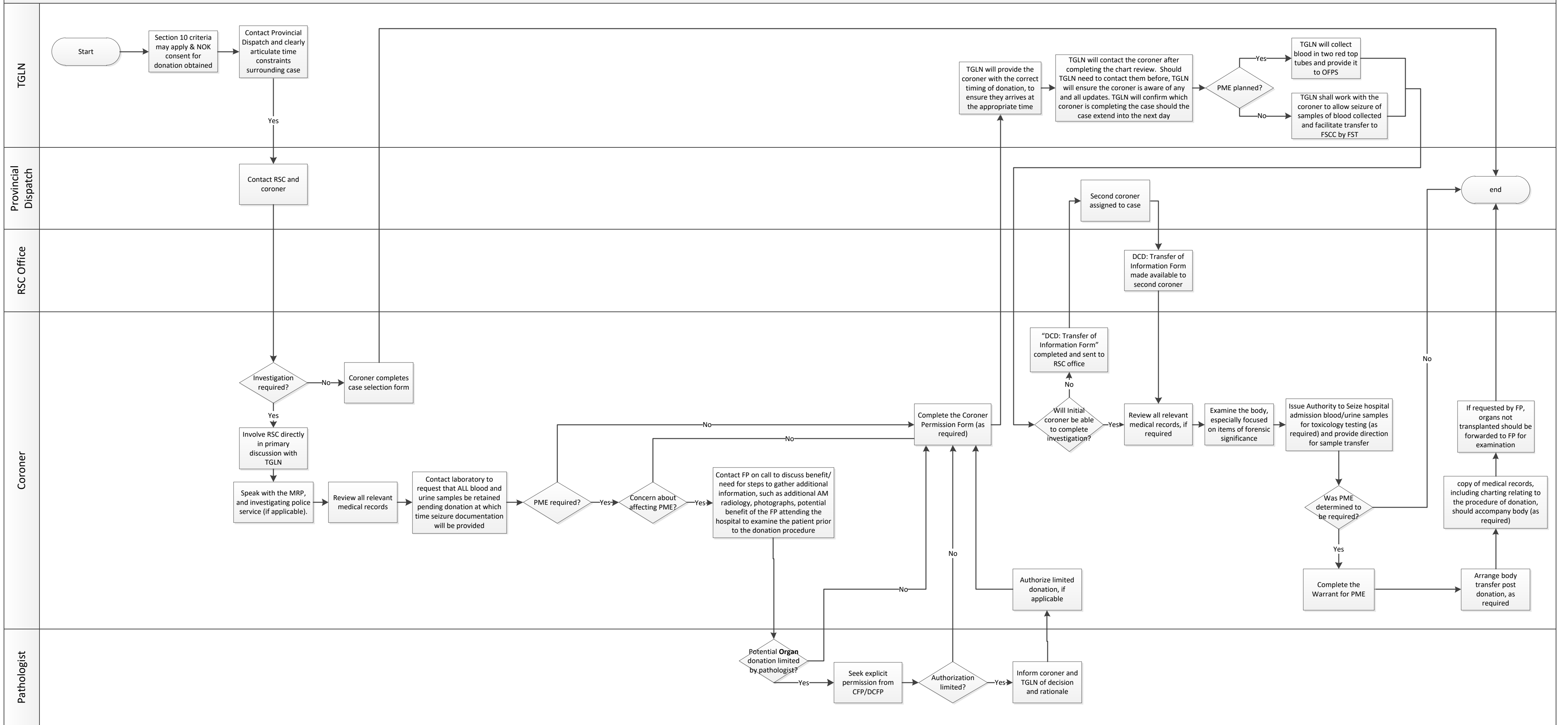
10. Revision History

Version	Date Effective	Authorized By (Name/Position)	Initials	Revision Summary
01	June 19, 2020	Dirk Huyer, Chief Coroner	DH	Standardized formatting and review for the coroners' documentation

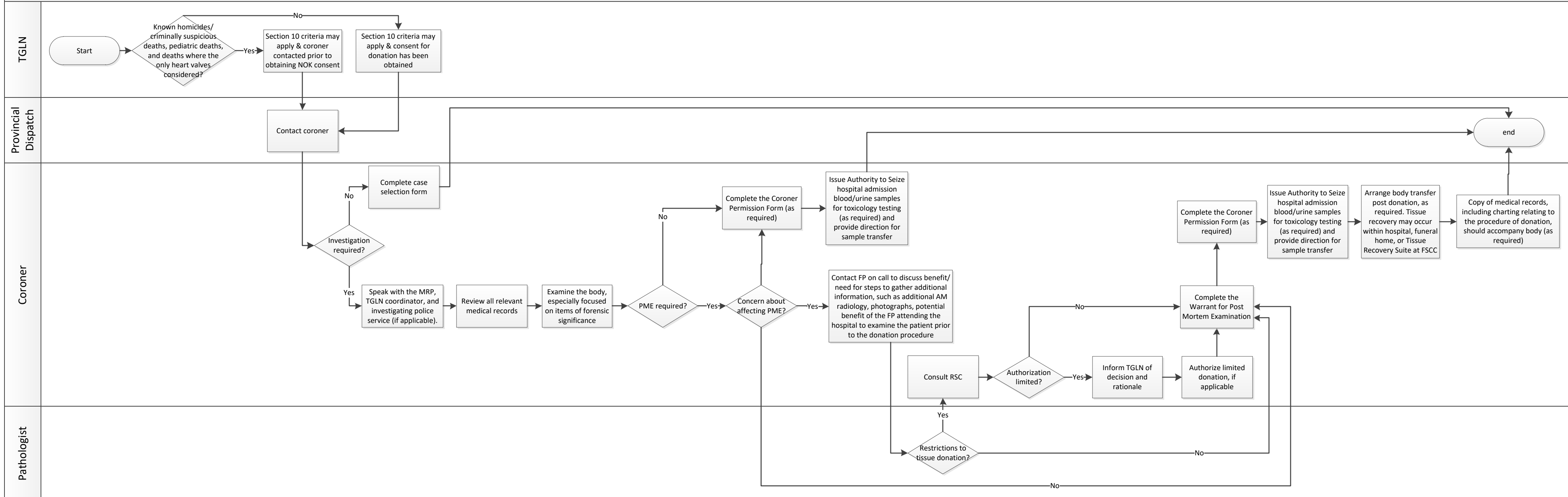
Process Map - Death Investigation in Cases of Organ Donation After Neurological Determination of Death



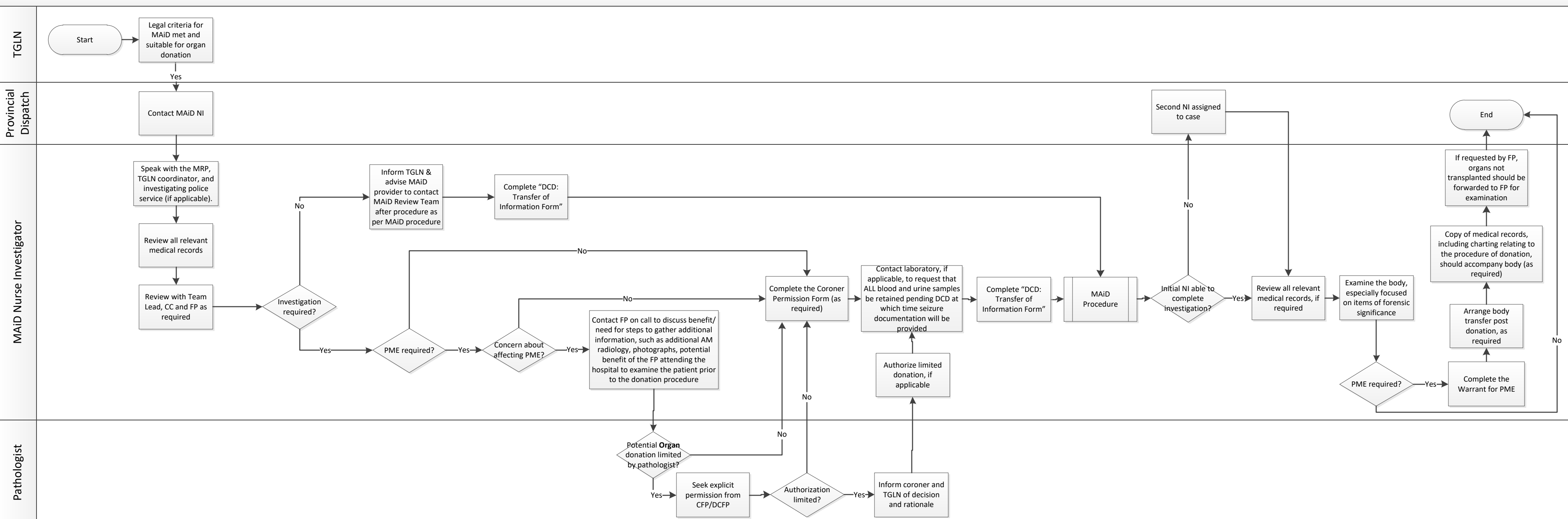
Process Map - Death Investigation in Cases of Non-Perfused Organ Donation



Process Map - Death Investigation in Cases of Tissue Donation

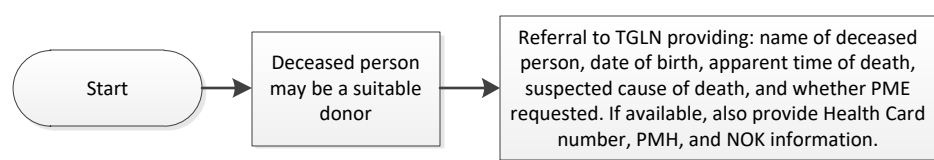


Process Map - MAiD Cases of Organ Donation After Circulatory Determination of Death

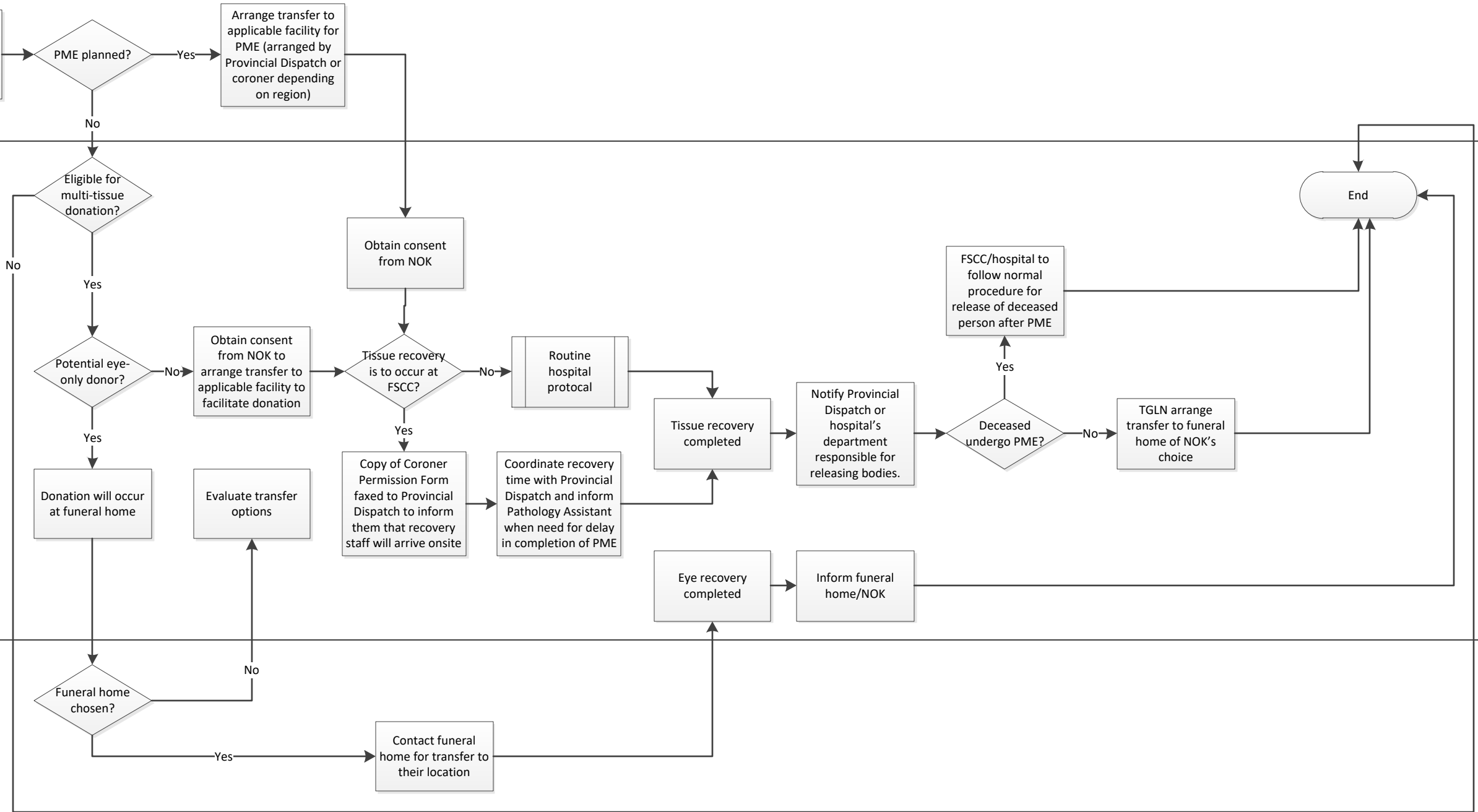


Donation Outside Hospital Setting (Coroner Referrals)

Coroner



TGLN



NOK

