

Death Investigation and Organ & Tissue Donation

*A Resource for Organ & Tissue Recovery Agencies,
Medical Examiners, and Coroners*

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We would like to thank the task force members and their sponsoring organizations for contributing their time and expertise to the success of this initiative. Through the collaboration of medical examiners, coroners, other death investigation specialists, and organ and tissue recovery agencies, this resource can be utilized to successfully promote organ and tissue donation.

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INTRODUCTION

Medical examiners and coroners (MEs/Cs) play an integral role in organ and tissue donation. Because the majority of donation cases fall under their jurisdiction, MEs/Cs are responsible for investigating unexpected and violent deaths; for providing accurate, defensible determinations of the cause and manner of death for each case; and for releasing the organs and tissues for donation as requested. In many cases, MEs/Cs are accountable for the recognition and collection of critical medical evidence and for the reconstruction of how the injury occurred. Some situations that require investigation include: (1) sudden death of an individual who was in apparent good health, (2) deaths by violence, (3) homicides or suicides, (4) accidental or industrial deaths, and (5) death of patients hospitalized less than 24 hours.

Good working relationships between organ and tissue recovery agencies and their local MEs/Cs can positively influence the donation process across the country and can decrease the organ shortage that affects thousands of people each day. This booklet provides information such as state legislation; city, county, and cooperative protocol examples; and initiatives that various members of the procurement community have used. Our goal is to help organ and tissue recovery agencies foster a positive, interactive relationship with both their local MEs/Cs and their designees. This booklet was designed as a resource for recovery personnel as well as MEs/Cs.



DEATH INVESTIGATION SYSTEMS IN THE UNITED STATES¹

Death investigation systems in the United States are of three basic types: medical examiner, coroner, or a combination of both. The variance between jurisdictions is often considerable. The type of system employed in a particular area may be consistent throughout that area, or it may vary from region to region. The following are general descriptions of each system.

⌘ Medical Examiner Systems

Twenty-one states and the District of Columbia have various types of medical examiner systems. The three medical examiner systems that exist are state, district, and county.

State Medical Examiner Systems

- Nineteen states use this type of system.
- The chief medical examiner is appointed by the governor, a medicolegal investigation body, or a division/board of health.
- In one state, the Board of Health contracts to have death investigation services provided.
- In all but one state, the chief medical examiner must be a physician.
- A further requirement can include certification in forensic pathology or training in pathology.
- Although the majority have no specific statutory provision regarding the medical examiner's term, some terms for these appointments are 5 or 10 years.
- The chief medical examiner is generally free to select deputies, assistants, or county/regional medical examiners as required.

District Medical Examiner Systems

- Florida is the only state that employs the district system.
- The governor appoints most of the district medical examiners from nominees submitted by the Medical Examiners Commission.
- Appointees must be practicing physicians in pathology.
- A 3-year term is served.
- Associate medical examiners may be appointed by the district medical examiner as necessary.

¹Combs, D.L., Parrish, R.G., Ing, R. (1995). Death investigation in the United States and Canada, 1995. Washington, DC: U.S. Department of Health and Human Services.

County Medical Examiner Systems

- Two states (Arizona and Michigan) use a county medical examiner system.
- The major portion of the county medical examiners are appointed by the County Board of Supervisors.
- In Michigan, the medical examiner serves a 4-year term, whereas in Arizona, there is no specific statutory term provision.
- Both states require the medical examiner to be a physician. Arizona stipulates that the physician be certified in pathology and skilled in forensic pathology.

🔗 Coroner Systems

The coroner system is the death investigation mechanism for 11 states. Nine of the 11 have a system that operates at the county level. The majority of the county coroners are elected for a term of 4 years; however, a few states appoint their coroners. Four states require the coroner to be a physician; the remainder requires that the coroner be 18 years of age and a citizen of that county. In two states, the sheriff is the ex officio coroner.

🔗 Mixed Medical Examiner and Coroner Systems

Eighteen states have one of two types of mixed death investigation systems: a state medical examiner with county coroners/medical examiners (7), or county medical examiners/coroners only (11).

State Medical Examiner with County Coroner/Medical Examiner Systems

- In all but one state, the state medical examiner is an appointed position.
- The majority of county coroners are elected; in one exception, county judges serve as coroners.
- All 18 states require the medical examiner to be a physician.
- County-level medical examiners are generally appointed.
- Terms, when defined, are 4 years.

County Medical Examiner/Coroner Systems

- Whether to have a medical examiner or coroner position is decided at the county level.
- In this mixed system, coroners are elected, and medical examiners are appointed.
- The majority of states require the medical examiner to be a physician, whereas a few states have no statutory provisions for qualifications.
- Coroners are required to be residents of their county of service.
- Terms, when indicated, are 4 years.

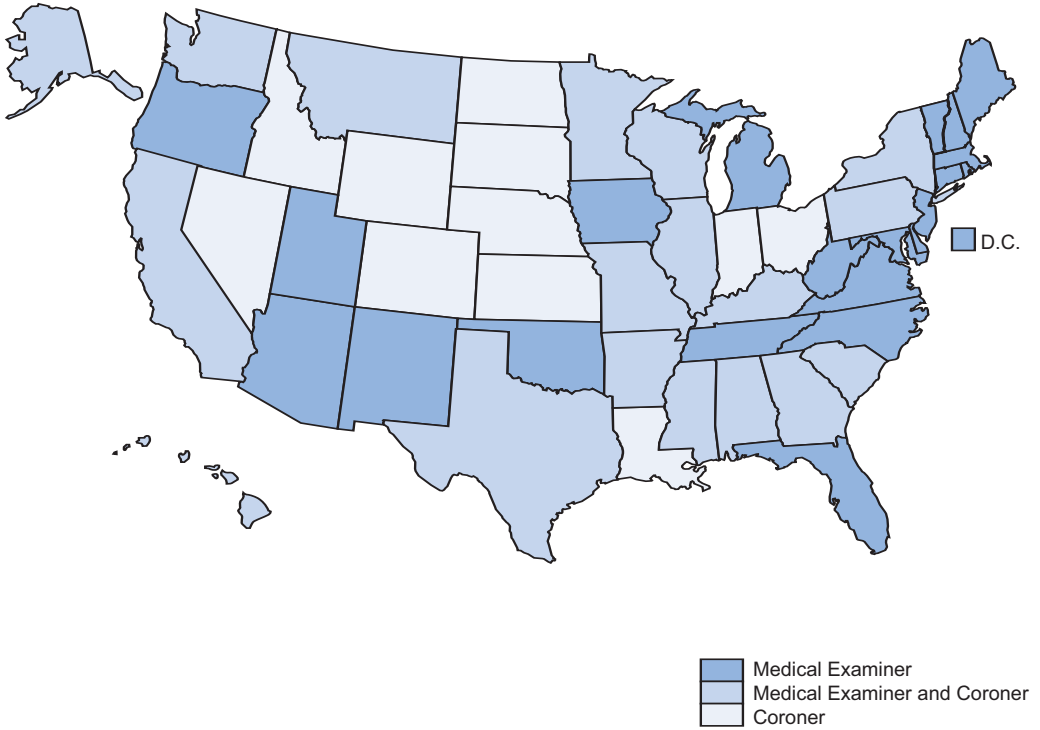
Authorization for Death Investigation Systems

All states and the District of Columbia have legislation outlining the specifics of their own death investigation system. Whether the legislation is the state code, statutes, constitutional articles, acts, general laws, or bills, the information contained in these decrees is precise. Directives for death investigators regarding organ and tissue donation are contained in some of these diverse legal documents.

On the following page is a map that geographically represents medical examiners, coroners, and mixed medical examiner and coroner systems throughout the country.



Figure 1. Death Investigation System by State, 1995



MEDICAL EXAMINER/CORONER POLICY STATEMENTS

TO FACILITATE ORGAN AND TISSUE RECOVERY:

A working group representing the medical examiner/coroner and donation/transplantation communities was convened in 1994 at the request of the National Association of Medical Examiners (NAME) and the Association of Organ Procurement Organizations (AOPO) to examine the role of medical examiner/coroners in the organ and tissue donation process. The following policy statement is the culmination of the work of this group.

IT WAS RECOGNIZED:

- 1) Medical examiner/coroner cases constitute the single greatest source for healthy organ and tissue donation.
- 2) There is generally good cooperation with and support for the transplant community from the medical examiners/coroners across the United States. There is apparent variability in the level of cooperation and support of medical examiner/coroners from jurisdiction to jurisdiction and there remains significant opportunity to continue to improve the number of organs and tissues for transplantation.
- 3) On occasion, there are individual cases where permission for transplant agencies to pursue potential organ or tissue donation may be denied by medical examiner/coroners because of their legal and medical mandate to determine cause and manner of death and investigate related circumstances.

IMPROVEMENT:

Key issues were identified to overcome existing barriers toward the improvement of the potential donation of organs and tissues from medical examiner/coroner cases in the United States. Each representative was asked to solicit from their organizations an endorsement of the provisions below in an effort to reach an initial consensus enabling further examination of these issues and promote improvement in the provision of needed organs and tissues.

- 1) It will be very beneficial to develop and promote national guidelines acceptable to the representative national organizations. These basic guidelines will facilitate the establishment of specific protocols on a local level.
- 2) Local cooperation and support is strongly encouraged. Establishment of local protocol consistent with the above national guidelines should be developed through the cooperative effort of the medical examiner/coroner office, procurement agencies, state and district attorney offices and local law enforcement. Compelling legislation is strongly discouraged.
- 3) Using the established guidelines, there should be no compromise to the quality practice of forensic medicine.

- 4) To the extent that state or municipal funds are not available to medical examiner/coroner offices to support organ and tissue donation activities, it is appropriate for reimbursement to be made. This reimbursement should be in the form that would not compromise, or even give the appearance of compromising, the objectivity and independence of the medical examiner and coroner office, the transplant agencies or their staff or agents.
- 5) Local and national educational and liaison activities should be established for the continued success and improvement of the provision of needed organs and tissues from medical examiner/coroner offices.

REGARDING DONATION AFTER CARDIAC DEATH:

The OPTN/UNOS Medical Examiner and Coroner Task Force was convened in 1999 to address dynamic new issues in the realm of organ and tissue donation. Organizations represented on the task force include: the American Academy of Forensic Sciences, American Association of Tissue Banks, American Society of Transplantation, American Society of Transplant Surgeons, Association of Organ Procurement Organizations, College of American Pathologists, Division of Transplantation, Eye Bank Association of America, International Association of Coroners and Medical Examiners, International Association of Forensic Nurses, National Association of Medical Examiners, National District Attorneys Association, and North American Transplant Coordinators Organization. The task force met over the course of the last four years to address such topics as educational outreach projects, creation of updated resources, low denial and no denial practice areas of the U.S., donation after cardiac death (DCD), licensing and certification examination opportunities, and ways to engage the various law professions regarding organ and tissue donation. The current statement regarding DCD was drafted and approved by the task force at its May 31, 2002 meeting.

OPTN/UNOS Medical Examiner and Coroner Task Force Statement Regarding Donation after Cardiac Death (DCD)

[Also known as the Non-heartbeating Donor (NHBD)]

Rationale. As the scarcity of suitable organs for transplantation continues to grow, supplementary sources for organs have been described and others suggested. One suggestion is to expand recovery of organs from selected cardiac dead donors. An increased number of organs for transplantation could result from the recovery of organs from cardiac dead donors.

Statement. Recovery of organs from brain dead donors remains the primary focus of organ procurement in the U.S. In an effort to preserve the option of donation for potential donors and their families, the OPTN/UNOS Medical Examiner and Coroner Task Force supports donation after cardiac death. Realizing that there are two types of DCD, controlled and uncontrolled,* the task force endorses the recovery of controlled cardiac dead donors. Recovery of uncontrolled cardiac dead donors can prove problematic regarding metabolic laboratory readings post cannulation and perfusion and should be further studied before implementing.¹

Communication, cooperation and education among the medical examiner/coroner and donation/transplantation communities have improved significantly in the last decade. The OPTN/UNOS Medical Examiner and Coroner Task Force recommends that any organ recovery agency wishing to pursue organ donation from either type of cardiac dead donors, work closely with their respective medical examiners and coroners prior to initiation of any protocol. A collaborative approach to DCD is proposed with a high level of ongoing communication and education among respective recovery agencies and medical examiners and coroners.

**Controlled cardiac dead donors are donors where death and organ removal can be predictably controlled and planned following withdrawal of life support. In uncontrolled cardiac dead donors, the occurrence of cardiac arrest is unplanned and the timing and some other aspects of organ recovery are not controlled. Cardiac dead donors are donors whose death is determined by cessation of heart and respiratory functions, not whole brain function.*

¹Institute of Medicine. Division of Health Care Services. Committee On Non-Heart-Beating Transplantation. *Non-Heart-Beating Transplantation Medical and Ethical Issues in Procurement*. Washington, DC, National Academy Press, 1997.



NATIONAL ASSOCIATION OF MEDICAL EXAMINERS (NAME)

POLICY AND GUIDELINES ON HUMAN ORGAN AND TISSUE PROCUREMENT

The National Association of Medical Examiners (NAME) has developed policies and guidelines to assist its members with timely, lawful, and ethical procurement of organs and tissues. These practices take into consideration jurisdiction, legal responsibilities, and resources available to medical examiners and coroners.

Outlined in the policies and guidelines are the following: (1) instructions for working within the legal framework regarding violent or sudden death statutes, (2) responsibilities of organ procurement organizations and tissue banks in developing a working relationship with medical examiners and coroners, (3) NAME's policy on organ and tissue procurement, and (4) recommendations for medical examiner conduct regarding the organ and tissue donation process.

This informational pamphlet is available from NAME. The address is 430 Pryor Street SW, Atlanta, GA 30312, Attention: Executive Director, or call (404) 730-4781 for more information. Their Web site address is www.thename.org.



LEGAL FRAMEWORK

MEs/Cs work under state and sometimes local legislation that gives them lawful possession and physical custody of the decedent's body. Until the early 1990s, most directives regarding organ and tissue donation fell within state statutes, codes, constitutions, or other forms of legislation that establish the ME/C office and functions of the investigator. Currently, some states have legislation regarding the role of MEs/Cs in organ and tissue donation.

🎗️ Uniform Anatomical Gift Act

The Uniform Anatomical Gift Act (UAGA) of each state outlines responsibilities of the ME/C and the director/commissioner of health. In similar language they state the following core responsibilities. Various state UAGAs address these issues independently. Some states have modified specific sections of their UAGA to reflect particular changes:

- (a) A medical examiner, coroner, coroner's physician, as applicable, may release and permit the removal of a part from a body within that official's custody, for transplantation or therapy if:
 - 1. The official has received a request for the part from a hospital, physician, surgeon, or procurement organization;
 - 2. The hospital, physician, surgeon, or procurement organization certifies that the entity or person making the request has made a reasonable effort, taking into account the useful life of the part, to locate and examine the decedent's medical records and inform person listed of their option to make, or object to making, an anatomical gift;
 - 3. The official does not know of a refusal or contrary indication by the decedent or objection by a person having priority to act as listed;
 - 4. The removal will be by a physician, surgeon, or technician; but in the case of eyes, by one of them or by an enucleator;
 - 5. The removal will not interfere with any autopsy or investigation;
 - 6. The removal will be in accordance with accepted medical standards; and
 - 7. Cosmetic restoration will be done, if appropriate.
- (b) If the body is not within the jurisdiction of a medical examiner, the coroner's physician, the director of health may release and permit the removal of any part from the body in the director's jurisdiction for transplantation or therapy if the requirements of subsection (a) are met.
- (c) An official releasing and permitting the removal of a part shall maintain a permanent record of the name of the decedent, the person making the request, the date and purpose of the request, the part requested, and the person to whom it was released.

⌘ Samples of Amendments to a State UAGA

The following are two typical examples of amendments to state UAGAs. These amendments further illustrate expanded duties and responsibilities of medical examiners regarding organ and tissue donation.

New Mexico

New Mexico reauthorized its UAGA in 1995. Section 4 discusses the Authorization of the Office of the Medical Investigator.

- A. The office of the state medical investigator may release and permit the removal of a part from a body within that official's custody, for the transplantation or therapy, if:
 - 1. the official has received a request for the part from a hospital, physician, surgeon or procurement organization;
 - 2. a procurement organization has made a reasonable effort, taking into account the useful life of the part, to locate and examine the decedent's medical records and inform persons listed in Subsection A of Section 3 of the Uniform Anatomical Gift Act (1987) of their option to make, or object to making, an anatomical gift;
 - 3. the official does not know of a refusal or contrary indication by the decedent or objection by a person having priority to act as listed in Subsection A of Section 3 of the Uniform Anatomical Gift Act (1987);
 - 4. the removal will be by a physician, surgeon or technician; but in the case of eyes, by one of them or by an enucleator;
 - 5. the removal will not interfere with any autopsy or investigation;
 - 6. the removal will be in accordance with accepted medical standards; and
 - 7. cosmetic restoration will be done, if appropriate.
- B. If the office of the state medical investigator permits the removal of a part, it shall maintain a permanent record of the name of the decedent; the person making the request, the date and purpose of the request, the part requested and the person to whom it was released.

Texas

73rd Legislature, House Bill 1206, 5/24/93 - An Act relating to anatomical gifts.

Be it enacted by the Legislature of the State of Texas: Section 1. Sections 11B (f) and (g), Chapter 173, Acts of the 47th Legislature, Regular Session, 1941, are amended to read as follows:

- (f) If the deceased is not a declared donor and if a person listed in Section 692.004, Health and Safety Code, is not ~~[cannot be identified and]~~ contacted within four hours after death is pronounced ~~[and the medical examiner determines that no reasonable likelihood exists that a person can be identified and contacted during the four-hour period]~~, the medical examiner may permit the removal of a visceral organ or tissue. In this subsection, "visceral organ" means the heart, lung, kidney, liver, or other organ or tissue that requires a patient support system to maintain the viability of the organ or tissue.
- (g) A person who carries ~~[performs in good faith in carrying]~~ out this section is not civilly or criminally liable ~~[for the person's good faith efforts to comply with this section]~~. The legislature recognizes that because swiftness of action is required in organ and tissue donation situations, good-faith errors are preferable to delay as a matter of public policy. Medical examiners are encouraged to permit organ and tissue removal at the earliest possible time consistent with their duties regarding the Texas Civil Statutes, shall be honored without obtaining the approval or consent of any other person.

🎗️ State Legislation Examples

In addition to UAGAs and their amendments, some states have enacted legislation dealing specifically with the duties of medical examiners and coroners in accommodating organ and tissue donation.

Missouri Revised Statutes
Chapter 58
Section 58.720
Coroners and Inquests
August 28, 1999

Medical examiner, certain counties, to investigate, when—death certificate issued, when—place of death—two counties involved, how determined—efforts to accommodate organ donation.

1. When any person dies within a county having a medical examiner as a result of:
 - (1) Violence by homicide, suicide, or accident;
 - (2) Thermal, chemical, electrical, or radiation injury;
 - (3) Criminal abortions, including those self-induced;
 - (4) Disease thought to be of a hazardous and contagious nature or which might constitute a threat to public health; or when any person dies;
 - (a) Suddenly when in apparent good health;
 - (b) When unattended by a physician, chiropractor, or an accredited Christian Science practitioner, during the period of thirty-six hours immediately preceding his death;
 - (c) While in custody of the law, or while an inmate in a public institution;
 - (d) In any unusual or suspicious manner;

the police, sheriff, law enforcement officer or official, or any person having knowledge of such a death shall immediately notify the office of the medical examiner of the known facts concerning the time, place, manner and circumstances of the death.

Immediately upon receipt of notification, the medical examiner or his designated assistant shall take charge of the dead body and fully investigate the essential facts concerning the medical causes of death. He may take the names and addresses of witnesses to the death and shall file this information in his office. The medical examiner or his designated assistant shall take possession of all property of value found on the body, making exact inventory thereof on his report and shall direct the return of such property to the person entitled to its custody or possession. The medical examiner or his designated assistant examiner shall take possession of any object or article which, in his opinion, may be useful in establishing the cause of death, and deliver it to the prosecuting attorney of the county.

2. When a death occurs outside a licensed health care facility, the first licensed medical professional or law enforcement official learning of such death shall contact the county medical examiner. Immediately upon receipt of such notification, the medical examiner or the medical examiner's deputy shall make a determination if further investigation is necessary, based on information provided by the individual contacting the medical examiner, and immediately advise such individual of the medical examiner's intentions.
3. In any case of sudden, violent or suspicious death after which the body was buried without any investigation or autopsy, the medical examiner, upon being advised of such facts, may at his own discretion request that the prosecuting attorney apply for a court order requiring the body to be exhumed.
4. The medical examiner shall certify the cause of death in any case where death occurred without medical attendance or where an attending physician refuses to sign a certificate of death, and may sign a certificate of death in the case of any death.
5. When the cause of death is established by the medical examiner, he shall file a copy of his findings in his office within thirty days after notification of the death.
6. When a person is being transferred from one county to another county for medical treatment and such person dies while being transferred, the county from which the person is first removed shall be considered the place of death and the medical examiner of the county from which the person was being transferred shall be responsible for the certificate of death and for investigating the cause and manner of the death. If the coroner or medical examiner in the county in which the person died believes that further investigation is warranted and a postmortem examination is needed, such coroner or medical examiner shall have the right to further investigate and perform the postmortem examination at the expense of such coroner or medical examiner and shall be responsible for the certificate of death and for investigating the cause and manner of death. Such coroner or medical examiner shall immediately notify the coroner or medical examiner of the county from which the person was being transferred of the death of such person and after an investigation is completed shall notify such coroner or medical examiner of his findings. If a person does not die while being transferred and is institutionalized after such transfer and subsequently dies while in such institution, the coroner or medical examiner of the county in which the person dies shall immediately notify the coroner or medical examiner of the county from which such person was transferred of the death of such person. In such cases, the county in which the deceased was institutionalized shall be considered the place of death.
7. Except as provided in subsection 6 of this section, if a person dies in one county and his body is subsequently transferred to another county, the county coroner or medical examiner where the death occurred shall be responsible for the certificate of death and for investigating the cause and manner of the death.
8. In performing his duties, the coroner or medical examiner shall make reasonable efforts to accommodate organ donation.

(L. 1973 S.B. 122 §§ 7, 8, A.L. 1989 S.B. 389, A.L. 1990 H.B. 1416, A.L. 1996 H.B. 811)
MO. Rev. Stat. 58-720, (1999)

New Jersey

52:17B-88.7. Autopsy and organ or tissue analysis to be performed in manner calculated to preserve organs or tissues for proposed organ donation.

Notwithstanding any provision of law to the contrary, if a deceased person whose death is under investigation pursuant to section 9 of P.L.1967, c. 234 (C. 52:17B-86) is a donor of all or part of his body as evidenced by an advance directive, will, card or other document, or as otherwise provided in the "Uniform Anatomical Gift Act," P.L.1969, c. 161 (C. 26: 6-57 et seq.), the State Medical Examiner or the county medical examiner, or his designee, who has notice of the donation shall perform an examination, autopsy or analysis of tissues or organs only in a manner and within a time period compatible with their preservation for the purposes of transplantation.

L.1993, c. 276, § 1, eff. Dec. 13, 1993.

52:17B-88.8. Removal of anatomical gift from donor whose death is under investigation; procedures; biopsy of tissues or organs possibly involved in cause of death.

A health care professional authorized to remove an anatomical gift from a donor whose death is under investigation pursuant to section 9 of P.L.1967, c. 234 (C. 52:17B-86), may remove the donated part from the donor's body for acceptance by a person authorized to become a donee, after giving notice to the State Medical Examiner or the county medical examiner, or his designee, if the examination, autopsy or analysis has not been undertaken in the manner and within the time provided in section 1 of this act.¹ The State Medical Examiner or the county medical examiner, or his designee shall be present during removal of the anatomical gift if in his judgment those tissues or organs may be involved in the cause of death. In that case, the State Medical Examiner or the county medical examiner, or his designee, may request a biopsy of those tissues or organs or deny removal of the anatomical gift. The State Medical Examiner or the county medical examiner, or his designee, shall explain in writing his reasons for determining that those tissues or organs may be involved in the cause of death and shall include the explanation in the records maintained pursuant to section 15 of P.L.1967, c. 234 (C. 52:17B-92).

L.1993, c. 276, § 2, eff. Dec. 13, 1993.

¹Section 52:17B-88.7

N.J. REV. STAT. §§52:17B-88.7-88.8

New York

Section 674-a. Manner of investigation when decedent is a donor of an anatomical gift.

1. Notwithstanding any provision of law to the contrary, if the decedent who is under the jurisdiction of the coroner or medical examiner as defined in this chapter is a donor of all or part of his body as defined in the public health law including properly, executed consent, such body or part thereof being medically suitable for transplant and the donation having been executed pursuant to the

provisions of the public health law, the coroner, the coroner's physician or the medical examiner who has notice of such donation shall only perform an autopsy and/or analysis of tissues or organs in a manner and within a time period compatible with the preservation for the purposes of transplantation of said donation.

2. A physician or surgeon authorized to remove the anatomical gift by the public health law may remove the donated part or parts of said donor's body for acceptance by a person authorized to become a donee by the public health law under the following circumstances:
 - a. after completion of an autopsy and/or analysis of tissues or organs of said donor by the coroner, the coroner's physician or medical examiner as provided in subdivision one of this section; or
 - b. after notice to the coroner or medical examiner, if such autopsy and/or analysis is not undertaken in the manner and within the time provided in subdivision one of this section. The coroner, medical examiner or representative thereof may be present during removal of the anatomical gift.
3. The physician performing a transplant from a donor under the coroner's or medical examiner's jurisdiction shall file with such coroner or medical examiner a report detailing the condition of and the relationship to the cause of death of the part of the body that is the anatomical gift. If appropriate, such report shall include a biopsy or medically approved sample from the anatomical gift. Such report shall become part of the coroner's or the medical examiner's report.

N.Y. COUNTY LAW (Consol.) 674-a

Texas Health and Safety Code

Chapter 693. Removal of Body Parts, Body Tissue, and Corneal Tissue Subchapter A. Removal of Body Parts or Tissue

Sec. 693.002. Removal of Body Part or Tissue from Decedent who Died Under Circumstances Requiring an Inquest.

- (a) (1) On a request from a qualified organ procurement organization, as defined in Section 692.002, the medical examiner may permit the removal of organs from a decedent who died under circumstances requiring an inquest by the medical examiner if consent is obtained pursuant to Section 693.003.
- (2) If no autopsy is required, the organs to be transplanted shall be released in a timely manner to the qualified organ procurement organization, as defined in Section 692.002, for removal and transplantation.
- (3) If an autopsy is required and the medical examiner determines that the removal of the organs will not interfere with the subsequent course of an investigation or autopsy, the organs shall be released in a timely manner for removal and transplantation. The autopsy will be performed in a timely manner following the removal of the organs.

- (4) If the medical examiner is considering withholding one or more organs of a potential donor for any reason, the medical examiner shall be present during the removal of the organs. In such case, the medical examiner may request a biopsy of those organs or deny removal of the anatomical gift. If the medical examiner denies removal of the anatomical gift, the medical examiner shall explain in writing the reasons for the denial and shall provide the explanation to the qualified organ procurement organization.
 - (5) If, in performing the duties required by this subsection, the medical examiner is required to be present at the hospital to examine the decedent prior to removal of the organs or during the procedure to remove the organs, the qualified organ procurement organization shall or request reimburse the county or the entity designated by the county for the actual costs incurred in performing such duties, not to exceed \$1,000. Such reimbursements shall be deposited in the general fund of the county. The payment shall be applied to the additional costs incurred by the medical examiner's office in performing such duties, including the cost of providing coverage beyond the regular business hours of the medical examiner's office. The payment shall be used to facilitate the timely procurement of organs in a manner consistent with the preservation of the organs for the purposes of transplantation.
 - (6) At the medical examiner's request, the health care professional removing organs from a decedent who died under circumstances requiring an inquest shall file with the medical examiner a report detailing the condition of the organs removed and their relationship, if any, to the cause of death.
- (b) On a request from a qualified tissue procurement organization, as defined in Section 692.002, the medical examiner may permit the removal of tissue believed to be clinically usable for transplants or other therapy or treatment from a decedent who died under circumstances requiring an inquest by the medical examiner if consent is obtained pursuant to Section 693.003 or, if consent is not required by that section, no objection by a person listed in Section 693.004 is known by the medical examiner.

Amended by Acts 1995, 74th Leg., ch. 523, Sec. 1, eff. June 13, 1995.

TEX. HEALTH & SAFETY CODE ANN. §693.002

The Code of Virginia

§ 32.1-283 Investigation of deaths; obtaining consent to removal of organs, etc.

- A. Upon the death of any person from trauma, injury, violence, poisoning, accident, suicide or homicide, or suddenly when in apparent good health, or when unattended by a physician, or in jail, prison, other correctional institution or in police custody, or suddenly as an apparent result of fire, or in any suspicious, unusual or unnatural manner, or the sudden death of any infant less than eighteen months of age whose death is suspected to be attributable to Sudden Infant Death Syndrome (SIDS), the medical examiner of the county or city in which death occurs shall be notified by the physician in attendance, hospital, law-enforcement officer, funeral director or any other person having knowledge of such death. Good faith efforts shall be made by such person or institution having custody of the dead body to identify the next of kin of the decedent, and such identity, if determined, shall be provided to the Chief Medical Examiner upon transfer of the dead body. After identification of the next of kin, the person or institution, or agent of such person or institution, having custody of the dead body shall attempt to obtain consent for removal of the pituitary or other organs, glands, eyes or tissues for use in transplants or therapy.
- B. Upon being notified of a death as provided in subsection A, the medical examiner shall take charge of the dead body, make an investigation into the cause and manner of death, reduce his findings to writing, and promptly make a full report to the Chief Medical Examiner. In order to facilitate his investigation, the medical examiner is authorized to inspect and copy the pertinent medical records of the decedent whose death he is investigating. Full directions as to the nature, character and extent of the investigation to be made in such cases shall be furnished each medical examiner by the Chief Medical Examiner, together with appropriate forms for the required reports and instructions for their use. The facilities and personnel under the Chief Medical Examiner shall be made available to medical examiners in such investigations.
- C. A copy of each report pursuant to this section shall be delivered to the appropriate attorney for the Commonwealth and a copy of any such report regarding the death of a victim of a traffic accident shall be furnished upon request to the State Police and the Highway Safety Commission.
- D. For each investigation under this article, including the making of the required reports, the medical examiner shall receive a fee established by the Board within the limitations of appropriations for the purpose. Such fee shall be paid by the Commonwealth, if the deceased is not a legal resident of the county or city in which his death occurred. In the event the deceased is a legal resident of the county or city in which his death occurred, such county or city shall be responsible for the fee; however, the Commonwealth shall reimburse such county or city to the extent such fee exceeds twenty dollars.
- E. Nothing herein shall be constructed to interfere with the autopsy procedure or with the routine obtaining of consent for removal of organs as conducted by surgical teams or others.

§ 32.1-287. Authority of Chief Medical Examiner or deputies to provide organs, tissues and pituitary glands for transplant or therapy; immunity from liability for nonnegligent compliance.

Upon consent being obtained, the Chief Medical Examiner or any of his assistant chief medical examiners may provide such body organ, gland, eye or other tissue to the transplanting surgeon or the physician prescribing therapy or the appropriate tissue, organ or eye bank operating in accordance with the laws of Virginia if providing such body organ, gland, eye, or other tissue will not interfere with the subsequent course of the investigation or autopsy.

However, if no consent has been obtained by the person or institution having first or original custody of the dead body because the next of kin cannot be contacted as provided in § 32.1-283, then the Chief Medical Examiner or an assistant chief medical examiner may remove and preserve the pituitary gland. If consent has not been obtained before the body is removed from custody of the Chief Medical Examiner or an assistant chief medical examiner then the pituitary gland shall be replaced.

There shall be no civil or criminal liability on the part of, and no cause of action for damages shall arise against, the Chief Medical Examiner or an assistant chief medical examiner for nonnegligent compliance with the provisions of this section.

Nothing herein shall be construed to interfere with the autopsy procedure or with the routine contact with the decedent's family and the obtaining of consent for removal of organs in compliance with § 32.1-127.

VA. CODE §32.1-287 (eff. 7/1/00)



MEDICAL EXAMINER AND CORONER ORGAN AND TISSUE DONATION PROTOCOLS

Organ and tissue donation protocols for ME/C cases can facilitate timely release of these cases. One positive outcome of an effective protocol is the development or enhancement of a good working relationship among the participating groups. Provisions for protection of necessary forensic evidence can be made within such protocols. Often the need for legislation can be avoided with successful development and implementation of an efficient protocol. Various types of protocols exist and are identified for our purposes by geography, authorship, or a specific type of case. Some of the geographical protocols are collaborative and are developed by multiple representatives.

🎗️ City and County Protocol Example

City and County of Honolulu

Medical Examiner's Policy – Organ Donation

General: Requests may be made for removal of tissue or organs for transplantation purposes from bodies under the jurisdiction of the Medical Examiner. *It is our policy to facilitate these requests when possible.* The following procedures will be employed.

1. Requests and coordination of the transplantation will be made only by a designated representative of the Organ Donor Center of Hawaii.
2. There must be a determination of brain death according to Hawaii Revised Statutes. Copies of written hospital records documenting death must accompany the body to the Medical Examiner's facility.
3. The Organ Donor Center of Hawaii will obtain legal written permission from the decedent's next-of-kin for the removal of organs or tissue. A copy of this permit must accompany the body to the Medical Examiner's office.
4. When contacted by the organ donation office, the ME/C on duty will go to the hospital and examine, record and photograph the injuries. This must be done to determine if the harvesting will interfere with the medicolegal investigation.
5. After obtaining all pertinent information, the ME/C on duty *may* give approval for organ removal if death did not result from suspected homicide. Any questions should be referred to the Medical Examiner on call.
6. In cases of suspected homicide or child abuse, the entire body is viewed as evidence. These cases must be individually reviewed by the Medical Examiner on call. Permission will only be given for removal of tissue or organ(s) if such removal will not obscure legal evidence obtained at autopsy. The Medical Examiner may require an investigation and examination of the body prior to and/or during the procedure to remove the tissue or organ(s).
7. All bone harvesting should be done after the autopsy.

For more information regarding the protocol contact the Organ Donor Center of Hawaii: (808) 599-7630.

⌘ Cooperative Protocol Examples

Colorado and Wyoming

Organ/Tissue Donation Protocol for Coroner Cases

Written: January 1993; Revised: April 1999

In accordance with the laws of Colorado and Wyoming, and the needs of our community, all efforts will be made to maximize the opportunity for organ/tissue donation in coroner cases. The success of this effort is dependent on careful, effective communication and strong cooperation between the medical/legal and the organ/tissue recovery agencies. The recovery agencies are identified as Donor Alliance and Rocky Mountain Lions Eye Bank. Donor Alliance recovers hearts, lungs, livers, kidneys, pancreas and the small intestine, as well as bone/tissue, skin and heart valves. Rocky Mountain Lions Eye Bank recovers corneas and whole eyes. This is an agreement between the following parties: Donor Alliance, Rocky Mountain Lions Eye Bank, Colorado Coroner's Association, Colorado District Attorney Council, Wyoming Coroner's Association, and the Wyoming Prosecuting Attorney Association. The following protocols and procedures are to be utilized by the recovery agency(ies) in all coroner cases.

Notification by Hospital:

- The death of a potential donor will be reported promptly to the coroner's office by the hospital staff caring for the patient, according to the hospital policy.

Release/Restrictions:

- The final decision for release is to be made by the coroner in consultation and agreement with the district attorney (Colorado) county attorney (Wyoming), or by established criteria.
- A coroner's release may consist of:
 1. Release of all organs and tissues.
 2. Release of selected organs and/or tissues prior to autopsy.
 3. Release of selected tissues after autopsy.
 4. Or any combination thereof.
- Reasons for coroner rule-out will be communicated to the recovery agency(ies) for their records and case documentation.
- If permission for donation is granted, the coroner's office will clarify and communicate any specific requests or restrictions to the general procedures outlined in the protocol.
- A call from the recovery agency(ies) will be made to the coroner's office to obtain/confirm release, inquire about any restrictions prior to organ and/or tissue recovery, and provide any additional requested information. The recovery

agency(ies) will assure the coroner that such requests can be fulfilled, negotiate mutually acceptable alternatives, or discontinue the organ and/or tissue recovery.

- Variations from the standard protocol will be documented by both the coroner and the recovery agency(ies).

Organs/Tissues Unsuitable for Transplantation:

- The coroner will indicate if organs and/or tissues may be used for purposes other than transplantation, when consented for by the next-of-kin.
- If consent for research is ruled-out by the coroner, any organs and/or tissues that are initially determined to be unsuitable for transplantation must be left in the body and not recovered for research or educational purposes.
- Additionally, if organs and/or tissues are removed and later determined to be unsuitable for transplantation, they should be returned to the coroner unless other arrangements are approved by the coroner in each case. Any requests for the return of any residual tissue from the donor should be clearly communicated by the coroner to the recovery agency(ies) prior to the organ and/or tissue recovery.

Tissue Donor Transport:

- Suspected homicide cases will not be transported for donation prior to autopsy.
- In cases where homicide is not suspected, the recovery agency will obtain an informed consent (which is included on the Anatomical Gift Form), from the next-of-kin and permission from the coroner to transport the donor to an alternate recovery facility.
- After tissue recovery, the donor will be transported at a time and to a location mutually agreed upon by the coroner and the recovery agency.

Organ Operative Report:

- A formal, typewritten original of the recovery thoracic and/or abdominal surgeon's "Operative Report to Supplement Autopsy Report" will be forwarded to the coroner's office in a timely fashion (recommended two weeks).
- This report is intended to be filed in the permanent file of the deceased.
- The operative report will be signed by the recovery surgeon(s) and include the following information:
 1. Identification of the donor with hospital/medical record number and statement of next-of-kin consent for donation.
 2. Date, time, and name of physician pronouncing death.
 3. Brief clinical history and evaluation as a suitable donor.
 4. Pre-operative condition of the area of the body that is involved in or impacted by the organ recovery.

5. Names of all surgeons involved in the recovery.
6. Description of abdominal and/or thoracic conditions including any pre-existing injuries within the site of dissection.
7. Description of each organ recovered as normal, or specify any abnormalities.
8. General statement of the operative procedure and the condition of the body after the organ recovery is completed.

Bone/Tissue Operative Report:

- A formal, typewritten report of the bone/tissue recovery will be forwarded to the coroner's office.
- This report is intended to be filed in the permanent file of the deceased.
- The report will be signed by the bone/tissue recovery staff and include the following information:
 1. Identification of the donor, name/location of procurement, date of the procurement, beginning and ending time for the procedure.
 2. Statement of the next-of-kin consent for donation.
 3. Names of the recovery personnel involved in the procurement.
 4. Description of each bone/tissue recovered as normal, or specify any abnormalities.
 5. General statement of the condition and location of the body after the recovery is completed.

Eye Operative Report:

- A report will be forwarded to the coroner's office following the recovery of eye tissue in coroner's cases.
- The report will include the following information:
 1. Identification of the donor, date and time of the recovery.
 2. Name of the recovery staff.
 3. Type of eye tissue recovered, whether vitreous and/or blood samples were collected.
 4. A general statement of abnormalities or noteworthy conditions existing prior to recovery.

Court Testimony:

- The recovery surgeons and the recovery agency(ies) personnel agree to the requirement by the coroners and the district attorneys to testify in court as needed regarding their observations and findings.
- Outcome regarding the transplanted organs and/or tissues may be requested with every effort made to protect the identity of the recipient(s).

Failure to Comply:

- Any incidents of failure to comply with the above protocol outlined in the document will immediately be documented and reported to the recovery agency(ies), the coroner's office, and the district attorney's office.

Amendments/Agreements:

- This protocol may be amended or revised as agreed upon by Donor Alliance, Rocky Mountain Lions Eye Bank, Colorado Coroner's Association, Colorado District Attorney Council, Wyoming Coroner's Association, and the Wyoming Prosecuting Attorney Association. Notice of proposed changes to the main body of this protocol must be submitted in writing and agreed upon by all identified organizations. Any party may terminate this agreement if other parties are not in compliance.

Colorado's Organ and Tissue Donation Coroner Protocol Addenda

The following addenda contain detailed information of the recovery procedures as mentioned in the main protocol. This information reflects the minimum standards required. The minimum standards in this section cannot be decreased without the formal agreement of all parties listed on page 21. The standards may be expanded, or amended so as not to fall below the minimum standards, without formal agreement by all the parties.

Addendum #1 - Coroner Autopsy after Recovery of Organs/Tissues, Coroner Kit Collection:

- Blood and urine samples will be obtained during organ and/or tissue recovery as requested by the coroner.
- A standard requested sample will include: 1 red top tube, 2 gray top tubes, 2 purple top tubes, and 3 gray top tubes of urine on organ cases only. Any deviation from the standard will be clearly communicated by both the coroner and the recovery agency. An identification form will accompany the samples to the coroner describing who obtained and sealed the samples, where they were obtained, and other pertinent information.
- The draw site will be identified with a blood draw sticker.
- Samples will be labeled with the name of the donor, date, time, and initials of the person obtaining the sample.

- In certain cases, a pre-transfusion/infusion serum sample may be available. The coroner may request all or some of the sample. Recovery agency(ies) will discuss any specific needs with the coroner to balance the forensic investigation donor serology screening related to this sample.
- Samples will be packaged securely in the provided coroner kit. They will be sealed and initialed by the person completing the kit.
- It is understood that while these samples are to be obtained in most organ and/or tissue cases, there may be rare occasions when insufficient samples can be obtained. These circumstances will be immediately communicated to the coroner's office.
- Samples and any specific paperwork or materials from the recovery agency(ies) (e.g. coroner's case form, copy of the chart, unionall, etc.) will accompany the body to the coroner's office.

Addendum #2 - Coroner Autopsy after Recovery of Corneas/Eyes:

- The vitreous sample(s) will be collected in individual red and/or gray top tubes, or any combination available as requested per the coroner's office.
- The vitreous sample(s) will be labeled with the donor's name, technician collecting the specimen, date and time of sample collection, and from which eye the specimen was drawn.
- The samples(s) will be packaged and sealed and taped to the donor's chest unless otherwise requested by the coroner.

Addendum #3 - Coroner Investigation in Conjunction with Organ Recovery:

- In specific cases, the coroner has the right to observe the organ recovery prior to the autopsy. The recovery agency staff will communicate and coordinate the necessary arrangements.

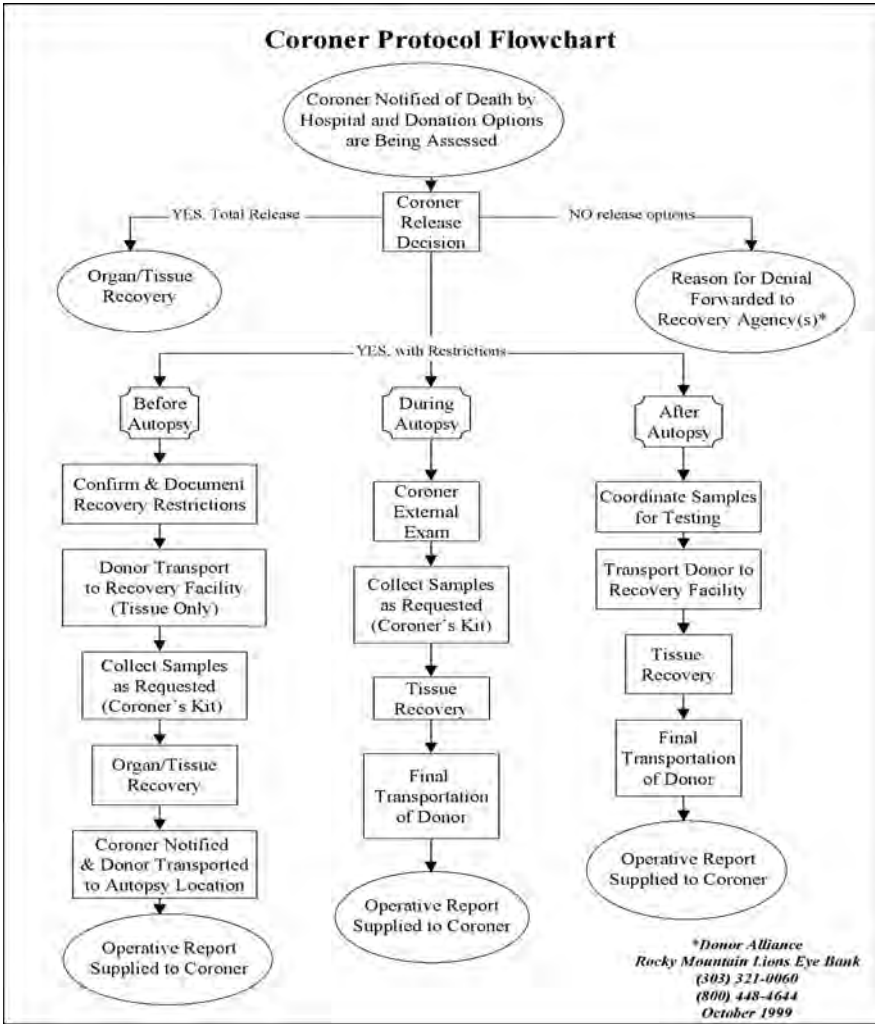
Addendum #4 - Coroner Autopsy in Conjunction with Tissue Recovery:

- In specific cases, the coroner may request to participate in the tissue recovery (usually heart for valves), prior to the coroner's complete autopsy. The recovery staff will arrive at the coroner's office at an agreed upon time prior to the autopsy.
- The coroner may request photos, measurements, and/or an external exam prior to the recovery.
- Blood samples are to be drawn prior to the heart excision.
- Autopsy may follow completion of the aseptic tissue recovery.

Addendum #5 - Coroner Autopsy Prior to Tissue Donation:

- Communication between the coroner's office and the recovery agency(ies) will occur to verify post-autopsy release of specific tissues (e.g. eyes, bone, skin, etc.).

- The recovery agency(ies) will request a blood sample(s) to be drawn by the coroner to include a minimum of 1 serum separator (or tiger top), or 1 red top tube and 1 yellow top tube. Serology tubes will be provided by the recovery agency(ies) upon coroner request.
- The blood samples will be labeled with the donor's name, date, time and name of the person preparing the sample.
- The coroner will notify the recovery agency(ies) if blood samples are not available.
- The coroner will give an estimated time of the autopsy completion, or call when the procedure is completed. At this time, the recovery agency(ies) will request preliminary findings that are essential to the placement of transplantable tissues.
- The recovery agency(ies) and the coroner will establish a time and location for the tissue recovery.
- The body will be released either to the coroner or the designated mortuary after the recovery is completed.
- The donor's personal belongings will remain at the coroner's office.



****For further information about this cooperative protocol, contact Donor Alliance at (303) 321-0060.***

New York Organ Donor Network and CryoLife collaborating with Charles V. Wetli, M.D., Chief Medical Examiner, Suffolk County, Hauppauge, NY.

CryoLife Technical Memorandum Modified Cardiectomy Procedure for the Medical Examiner/Coroner Program

Introduction

CryoLife recognizes and supports the duties and responsibilities of the Medical Examiner and Coroner in determining the cause, manner and effect of death, and the need to protect and preserve medical and forensic evidence. Nearly one half of all potential tissue donors fall under the jurisdiction of the Medical Examiner or Coroner. As the demand for heart valves is greater than the supply, we have implemented a Medical Examiner and Coroner program that has the potential to increase the availability of heart valves to the cardiac surgeons and their patients. This program was developed in 1994 to assure that pathological information from the heart was made available to the Medical Examiner or Coroner while heart valves were processed.

Medical Examiner and Coroner Options

The program includes four options: 1) the residual cardiac tissue is returned to the local pathologist in 3 to 5 days with dissection notes; 2) the residual tissue along with the dissection notes is sent to CryoLife's contracted pathologist for a complete examination (the pathology report is available within 5 to 7 days and if requested, slides can be sent along with the report); 3) a portion of the apex of the heart can be left with the body for immediate examination by the Medical Examiner or Coroner; or 4) the Medical Examiner or Coroner can perform an immediate examination through a modified cardiectomy as described in this memorandum.

When a heart is donated, there is the potential to process the aortic, pulmonary and mitral valve for implantation. There are hearts donated that are not released due to the Medical Examiner or Coroner's discomfort in releasing evidence. In these cases the recovery technique can be altered to meet the needs of the Medical Examiner. This procedure allows for the examination and sampling of the coronary arteries, visualization of the myocardium, mural endocardium and a direct visualization of all heart valves from the intraventricular aspect. The examination of the heart using this altered technique can alleviate issues for the Medical Examiner or Coroner in determining the cause of death for a particular donor. The Medical Examiner should follow strict aseptic technique and always include the assistance of the tissue recovery team in their area.

Modified Cardiectomy Procedure⁽¹⁾

Once the heart is recovered, it is handed to the Medical Examiner to be weighed. The epicardium is examined and serial cross sections of the coronary arteries are made at 2-3mm intervals distal to the proximal 1 cm of the right and the left main coronary arteries. Occlusive and stenotic lesions distal to the proximal 1cm may be biopsied.

Once the coronary arteries have been serially sectioned and biopsied, one or two transverse cuts across the apex of the heart are made. The section should be below the origin of the papillary muscle to avoid jeopardizing the retrieval of the mitral valve. The pathologist may retain the cardiac apex.

The transverse section exposes the interventricular septum. Two parallel transmural incisions are made on either side of the interventricular septum toward the base of the heart and ending not less than 2.5 cm from the valve rings. Reflection of the right and left ventricular walls now allows easy visualization of all four cardiac valves from below. The atria may also be opened to visualize the mitral and tricuspid valves from above. The prosector should not touch the leaflets of the heart valves at any time.

The heart is handed back to the tissue recovery team for packaging. The standard protocols are followed for shipping. Once the heart is processed by CryoLife, the residual heart tissue can be returned to the Medical Examiner or forwarded onto CryoLife's contracted pathologist.

Closing

CryoLife in cooperation with organ and tissue recovery groups will do everything possible to increase the medical examiner's and coroner's comfort in allowing for the release of tissue for implantation while maintaining the needed pathological information. There are many people that can benefit from the gift of a homograft heart valve. As the medical examiner or coroner is involved in half of all tissue donations, it is essential to these patients in need that CryoLife works closely with you.

For more information regarding this procedure please contact New York Organ Donor Network, 132 West 31st Street, 11th floor, New York, NY 10001, (646) 291-4444.

References:

1. MD Wetli, V Charles, RM Kolovich, L Dinhofer. A Modified Cardiectomy Technique: A Reasonable Solution to the Dilemma Regarding Determining Cause of Death vs. Heart Valve Procurement for Tissue Donation. Presented at the Annual American Association of Tissue Banks Meeting, Sept 2000; the National Association of Medical Examiners Meeting, Sept 2000; and the American Society of Clinical Pathologists Meeting, Oct 2000.

Sedgwick County, Wichita, KS

This protocol was first developed in conjunction with the Donor Network of Arizona (DNA), Cryolife and Mary H. Dudley, MD, while she was a Medical Examiner in Maricopa, Arizona and Medical Director of tissue services for DNA. Dr. Dudley is now the Chief Medical Examiner and District Coroner for Sedgwick County, Kansas. For more information, contact Dr. Dudley at (316) 383-4500 or mdudley@sedgwick.gov.

SIDS/Infant Fatality Cases

Heart for Valves Recovery Procedures

Upon authorization of heart for valves recovery from the Medical Examiner, Donor Network of Arizona will perform the following procedures:

1. **Blood samples**

After obtaining the minimum blood sample required for serological testing, Additional blood will be collected for the Medical Examiner's office. One red top tube and one gray top tube will each be filled with approximately 5cc's of blood.

2. **Blood blots** (SIDS cases only, unless ordered by the M.E.)

Blood blots will be obtained in the usual fashion. In addition, blood blots for metabolic studies will be obtained.

3. **Blood cultures** (SIDS cases only, unless ordered by the M.E.)

A sterile blood sample will be obtained for aerobic and anaerobic blood cultures. An intracardiac blood draw will be performed following the midline sternotomy. Two *BACTEC* culture bottles will be prepped with betadine prior to inoculation, one for aerobic and one for anaerobic. Approximately 5cc's of blood will be injected into each bottle.

4. **Lung cultures** (SIDS cases only, unless ordered by the M.E.)

Sterile lung cultures will be obtained. A small scalpel incision will be made into each lung and a sterile swab stick will be inserted to obtain the culture. A separate culture will be obtained from each lung. A *Culturette II* collection system will be used for this procedure.

5. **Total body X-ray and Photographs** (per M.E. request)

A total body X-ray and photographs will be performed by the death investigator on call for the Medical Examiner's office prior to heart recovery.

In addition to the above procedures, a pathology report and tissue slides will be performed by Cryolife. The remnant heart tissue may also be returned at the request of the Medical Examiner.

Heart for Valves Criteria and Contraindications

Criteria:

Age:	Full-term birth through age 55.
Weight:	Minimum weight of 10 pounds.
Gender:	Male or Female.
Blood group:	Any blood group is acceptable.
Recovery time:	Must be recovered within 24 hours.

Contraindications:

Malignant neoplasms
Leukemia
Autoimmune disease

Contraindications (continued):

- Previous surgery
- Communicable neurological disease (Creutzfeldt Jakob)
- High risk for HIV
- AIDS
- Active infectious disease processes:
 - Mycotic (fungal)
 - Mycobacterial (tuberculosis)
 - Encephalitis
 - Viremia
 - Meningitis
 - Hepatitis B or C
- Human pituitary growth hormone
- Unknown cause of death

Spokane County

Spokane County Protocol for Recovery of Organs for Transplantation
Coroner's Cases*

This protocol is divided into four stages, corresponding to the chronological sequence of events involved. For straightforward medical incidents, not involving traumas or with legal implications, Stages II - IV may be deleted per the deputy coroner's discretion. The four stages are as follows:

- Stage I Request for Permission to Recover Organs
- Stage II The Organ Recovery
- Stage III Items to be Provided When the Body Is Released
- Stage IV Provision for Follow-up Information

Stage I
Request for Permission to Recover Organs

When a potential brain dead organ donor is identified whose death is reportable to the coroner's office, the following steps are to be taken:

- (1) The request to recover the organs is made verbally to the deputy coroner taking the case. Information given to the deputy coroner by organ procurement should include:
 - a. The name, age, sex and admit date of the potential donor.
 - b. Date and time of pronouncement of brain death or potential pronouncement of brain death.
 - c. Name of organ procurement coordinator.
 - d. Organs requested for transplantation (specific organs being requested).

- e. Hospital at which organ recovery will take place.
 - f. Donor's attending physician.
 - g. The law enforcement agency involved in the incident (if known and available).
 - h. The name of the law enforcement officer handling the case (if known and available).
 - i. If the name of the investigating agency is unknown, the location of the incident (as specifically as possible, including city and/or county and state).
 - j. Verbal account of injuries and/or medical conditions documented to date (include verbal reports of CT scans, x-ray reports, physician admission history/physical exams). This information preferably is provided by the attending physician or primary care nurse. If unavailable, this information can be relayed by the organ procurement coordinator.
- (2) The death is reported to the coroner's office in the usual manner by hospital personnel other than members of the transplant team.
- (3) The deputy coroner then contacts the principal law enforcement officer, if any, on the case and relays the request for organ recovery. The deputy coroner documents the response obtained, including the name of the officer, agency, and date and time of response.
- (4) The deputy coroner contacts the coroner and/or the forensic pathologist and relays the request, known circumstances surrounding the event, and the response of the investigating law enforcement agency.
- (5) If further questions exist for the coroner, pathologist, or the investigating officer, the coroner and/or pathologist should contact the officer and discuss the case.
- (6) The coroner and/or the forensic pathologist, having been apprised of all of all above information, may:
- a. Give permission to proceed with the organ recovery without the pathologist being present.
 - b. Give permission to proceed with the organ recovery with the pathologist or his/her designee in attendance at the procedure.
 - c. Refuse permission for the organ recovery, providing the reasons to the organ procurement agency.

If the pathologist intends to be present at the organ recovery procedure, he/she should make appropriate arrangements with the organ procurement agency coordinator.

NOTE: The granting or denial of permission for organ recovery should be formally communicated to the organ procurement agency coordinator by the coroner/deputy coroner.

Stage II
The Organ Recovery

Before organ recovery can proceed, it is necessary that there be complete documentation of the clinical findings, with special attention to injuries. The pathologist may wish to discuss this with the organ procurement coordinator and/or the donor's attending physician(s) prior to granting permission for organ recovery.

The CORONER'S INFORMATION FORM, Part 2, which outlines the following aspects of clinical documentation, would be completed by the organ procurement agency coordinator.

- (1) The medical records are to be reviewed to ensure that they are complete and include, where applicable:

paramedic and emergency department records,

admitting history and physical with clear documentation of all injuries—externally visible injuries, fractures, internal injuries,

reports of radiologic and laboratory studies,

consultations,

progress notes, including documentation of brain death,

organ donor work-up sheet

NOTE: If patterns of injuries (including bite marks) are present, they may pose an obstacle to the granting of permission for organ recovery, especially if they are situated on the torso. Such injuries are of major evidentiary value and may be disturbed during the course of the organ recovery procedure. If such injuries are confined to the head and extremities, it may be possible to give permission for organ recovery, but it is essential that the pathologist is aware of this prior to consenting for recovery. In homicides with suspected rape, permission for organ recovery will NOT be granted until a full rape evaluation has been performed by the appropriate hospital staff, preferably with consultation with the forensic pathologist prior to the exam.

- (2) In cases of suspected child abuse, in addition to the above, the following items should be obtained at some time prior to organ recovery:

CT scan or MRI of the head,

examination for and description of presence or absence of external signs of injury to the head, including examination of the mouth, nose or ears for injury,

the presence or absence of retinal hemorrhage or other injury to the eyes (especially important prior to cornea retrieval),

a skeletal survey with special reference to the long bone metaphyses, clavicles and the posterior ribs, coagulation screen

- (3) For those donors who are declared brain dead while still in the emergency department, or within 24 hours of admission, the deputy coroner should contact the local law enforcement agency and request that an investigator and the IDENT unit respond to the facility for the collection of any evidence (clothing, trace evidence, etc.) and for the photographing of any externally visible injuries.
- (4) For those donors who are declared brain dead following a 24-hour admission period, the deputy coroner will contact the local law enforcement agency and request a response as noted in (3) IF the reporting facility notes ANY externally visible signs of injury.
- (5) A sample of blood drawn from the donor, at or shortly after admission, should be held for the coroner/deputy coroner. The admission specimens should be kept in a secure, refrigerated area until they can be picked up by the coroner/deputy coroner. If only a small sample of admission blood is available, priority will be given to the organ procurement agency for serology testing.
- (6) All unusual findings noted during the organ recovery procedure are to be:
 - a. described in writing by the surgeon(s) on the CORONER'S INFORMATION FORM, which is to be given to the deputy coroner upon release of the body

OF PARTICULAR IMPORTANCE ARE BRUISES OR OTHER SIGNS OF INJURY TO THE SOFT TISSUES, MUSCLE OR SKELETAL TISSUE OF THE CHEST AND ABDOMINAL WALL
- (7) It is also important for the retrieval team to document the functioning (normal or abnormal with description) of the internal organs immediately prior to retrieval.
- (8) When the recovery procedure is complete, all vascular access lines and other therapeutic appliances attached to the donor should be left in place. Those lines/appliances that have been inadvertently discontinued should have the insertion site circled and marked with an "Rx," indicating the site as a therapeutic intervention.
- (9) Procedures for the recovery of specific organs and tissues include the following:
 - a. CORNEA RETRIEVAL: The retrieval team should draw a specimen of vitreous fluid and retain for pick-up by the deputy coroner.
 - b. BONE RETRIEVAL: If any signs of injury exist on the target extremity, radiographic documentation of fractures is essential as well as a detailed description of the injury. In the event of an auto-pedestrian incident with evidence of external injuries to the extremities, the investigating agency may desire photographs prior to retrieval.
 - c. SKIN RETRIEVAL: If any visible external trauma or skin abnormalities, cover the areas with a dressing. The deputy coroner will contact the law enforcement agency and/or IDENT for a decision regarding documentation of the injuries/abnormalities prior to retrieval.

- d. HEARTS FOR VALVES: The agency that retrieves the valves will return a written report of the condition of the heart and will return the heart to the coroner's office within 48 to 72 hours of retrieval. This will allow the forensic pathologist to proceed with examination of the heart in a timely manner.

Stage III

Items to be Provided When the Body Is Released

When the body is released to the deputy coroner, the following items should be supplied to the coroner's office:

- (1) A copy of the medical records as outlined in STAGE II.
- (2) A copy of the CORONER'S INFORMATION FORM.

NOTE: The final operative report of the recovery procedure is not needed at this stage, but should be forwarded to the coroner's office when available.

- (3) The admission blood/urine sample, if available
- (4) The vitreous fluid, if applicable

Stage IV

Provision for Follow-up Information

It is conceivable that the health of a donated organ may be called into question during subsequent legal proceedings, despite the fact that organ function was tested by transplant personnel prior to organ recovery. If this should occur, the organ procurement agency may be requested by the coroner's office forensic pathologist to advise as to the outcome of the transplant surgery, at least as to whether or not the organ recipient survived. There would be no necessity to know the identity of the recipient(s) of the organ(s).

Surgeons performing organ recovery procedures might be asked to testify in court at a later date as to their findings at the time of the retrieval, at no cost to the state.

(The accompanying forms for this protocol are not included.)

For further information about this protocol, contact LifeCenter Northwest Donor Network at (425) 201-6563.

* Adapted in part from San Bernardino County Coroner's Office, California.

San Bernardino County Protocol for Recovery of Internal Organs for Transplantation in Coroner's Cases—Contact the coroner's office at (909) 387-2545 for more information.

Sample OPO Protocol

Some OPOs formulate their own death investigation protocols. It is highly recommended that each OPO have one. OPOs may want to create sample protocols to recommend for use in conjunction with the death investigators in their service area.

Michigan

Transplantation Society of Michigan
Medical Examiner Policy 5-15
Revised March 11, 1997

Policy:

The Transplantation Society of Michigan (TSM) will seek medical examiner approval prior to organ and tissue recovery on all cases under medical examiner's jurisdiction. In seeking medical examiner approval, TSM will ensure compliance with restrictions or requests the medical examiner may have in regard to organ and tissue donation.

Comment:

Public Act 181 provides for the medical examiner to investigate and determine "the cause and manner of death in all cases of persons who have come to their death" under any of the following circumstances:

1. Violence (e.g. asphyxiation, shooting, stabbing, poisoning, etc.)
2. Accidental Death (e.g. traffic, falls, drowning, drug overdose, etc.)
3. While in Custody (e.g. prisoners)
4. Abortion under any circumstances
5. Sudden and unexpected where the deceased was previously in apparent good health
6. Without Medical Attendance for 48 hours, unless in cases of a chronic illness where the attending physician will sign the death certificate if the cause of death is reasonably certain, and that no foul play was involved
7. Death under any suspicious circumstances (e.g. unidentified bodies)
8. Administration of drugs, therapeutic procedures, or anesthesia

Public Act 181 also requires that:

1. The need for autopsy examination in certain cases will be determined by the medical examiner.
2. It is a misdemeanor to remove a body without permission of the medical examiner.
3. Immediate reporting of any medical examiner case is required by the statute.

Procedure

- I. The on site donation coordinator will confer with the donor's attending physician, or other authorized hospital representative, whether the patient's death is under jurisdiction of the medical examiner. The donation coordinator is to immediately notify the organ resource manager on call if the hospital representative elects not to notify the medical examiner when it appears to be a death that may fall under the jurisdiction of a medical examiner.
- II. The donation coordinator will coordinate the telephone call between the authorized hospital representative, him/herself, and the appropriate county medical examiner office.
 - A. In the event of a conflict between the medical examiners of different counties, the donation coordinator will request that the two medical examiners directly communicate with each other to determine their respective investigative needs.
 - B. The coordinator will tape record all telephone conversations with the medical examiner's office or document in the narrative section of the donor log a reason why recording was not able to be performed.
- III. The medical examiner is to be called as close to the time of brain death determination as possible, unless otherwise specified by medical examiner policy.
 - A. The Medical Examiner Information Form is to be completed before contacting the medical examiner's office for certain counties that require its completion.
 - B. Under certain conditions (e.g. weekends, holidays, complex cases), the medical examiner's office may be contacted before the patient is declared brain dead as a means for allowing the medical examiner to pre-screen the potential donation.
- IV. The donation coordinator will clarify with the medical examiner's office specific organs that may be surgically removed from the donor before a medical examiner investigation, and the tissues/eyes that may be surgically removed before or after medical investigation.
- V. The donation coordinator will document a "Yes" **or** "No" response by the medical examiner to donation in the donor log.
- VI. In the event of a medical examiner refusal for organs that may be medically suitable for whole organ transplant, the on site donation coordinator is to contact TSM management in the following priority for the purpose of attempting to obtain approval:
 - A. Operations Director
 - B. Executive Director
 - C. Organ Resource Manager
 - D. Administrator On Call

- VII. The donation coordinator will document all of the following information associated with an organ donor involved with a medical examiner's investigation:
- A. Name of medical examiner and/or investigator,
 - B. Date and time of contact,
 - C. Case number,
 - D. Restrictions to donation,
 - E. If an autopsy is to be performed,
 - F. Specimens and documentation requested.
- VIII. The donation coordinator will communicate all pertinent medical examiner information to the on call coordination specialist/screening coordinator.
- IX. The donation coordinator will obtain all specimens and documentation copies requested by the medical examiner. Each specimen will be dated, timed and initialed by the coordinator who obtains the specimens. Specimens are to accompany the body following the surgical recovery procedure or forwarded to the medical examiner's office at their direction. **At a minimum, TSM will provide each medical examiner with:**
- A. Consent Form copy,
 - B. Operative Report copy,
 - C. Clotted blood in a red top or speckled top vacutainer,
 - D. Urine specimen,
 - E. Bile specimen (if the liver is recovered),
 - F. Medical Examiner Information Form (if required), **or** Medical Examiner Thank You Letter.
- X. Following the surgical recovery procedure, a TSM representative will immediately notify the medical examiner's office about the availability of the body for medical investigation.
- A. The donation coordinator will be responsible for calling the medical examiner following the completion of organ-only procedures.
 - B. The screening coordinator will be responsible for calling the medical examiner following organ and tissue/eye procedures.
 - C. The screening coordinator will request that a representative of the Michigan Eye-Bank and Transplantation Center call the medical examiner following organ and eye procedures.

- XI. In the event of a problem with donor documentation or specimen delivery to the medical examiner's office, the organ resource manager must be immediately notified for resolution.

For further information about the OPO protocol, contact the Gift of Life Michigan at (734) 973-1577.

⌘ Specific Types of Case Protocols

Specific types of case protocols are specialized procedures especially written for certain geographic areas. Potential child abuse case protocols are examples of this type of protocol. Two organ procurement organizations have this particular type of protocol. For more information regarding child abuse case protocols, contact:

Lifesharing: Community Organ Donation in San Diego, CA, at (619) 521-1983

LifeCenter Northwest Donor Network in Seattle, WA, at (425) 201-6563



EVIDENCE KITS AND INFORMATION FORMS

Nearly all medical examiner/coroner organ and tissue donation case protocols require submission of necessary information and appropriate specimens. Some recovery agencies have developed their own kits to fulfill these procedural requirements. In some areas, the local death investigator's office creates forms to gather the information it requires. Finally, information-gathering forms exist that have been designed cooperatively by all involved parties. If interested in evidence kits and examples of forms, contact the following:

Center for Organ Recovery & Education at (800) 366-6777

Donor Alliance at (303) 321-0060

LifeCenter Northwest Donor Network at (425) 201-6563

San Bernardino County Coroner's Office at (714) 387-2978

Gift of Life Michigan at (734) 973-1577



OPO INITIATIVES

For years the possibility of organ/tissue donation from ME/C cases had been non-existent in many circumstances. Over time, improved relationships between an OPO and its local ME/C office have grown, as evidenced by a three-fold increase in the number of OPO ME/C liaisons in the last few years. Not only do OPOs have ME/C liaisons, some OPOs have assisted in the development of recovery rooms at their local ME/C office to perform tissue recoveries. This is largely due to the development of various initiatives to improve OPO relationships with medical examiners and coroners. This section highlights some of these efforts.

- The California Transplant Donor Network has developed a Coroner Task Force to strengthen their relationship with 40 plus counties. **For more information call California Transplant Donor Network at (888) 570-9400.**
- Donor Alliance has a semi-annual newsletter titled *Coroner Update*. This newsletter which is produced for coroners in Wyoming and Colorado, reports on topics of interest to coroners and has a legal profile column and a question-and answer segment. Coroners from Donor Alliance's service territory are generally contributing writers. **For more information call Donor Alliance at (303) 321-0060.**
- Illinois Secretary of State Jesse White continues to increase donor awareness through the state's "Life Goes On" program, instituted in 1993. Illinois' organ donor education program has earned a national reputation, having created the largest state registry in the country, with nearly 5 million participants as of 2000. Each month, an additional 40,000 people sign up for the registry. This represents 45% of those who visit a driver's license facility. As Illinois' first African-American Secretary of State, White is making minority awareness a particular focus. Other efforts include a statewide media campaign, outreach to senior citizens and teenagers, and a program to educate medical professionals. Illinois was the first state to earmark state dollars for organ donor awareness and education. The 1993 "Live & Learn" legislation passed the General Assembly unanimously, providing \$2 million each year for donor awareness and education programs. **For more information contact the "Life Goes On" program office at (217) 782-0578.**
- LifeBanc, the OPO for the Cleveland, Ohio, area, produced a workshop for coroners in September 1996. The workshop, "A Coroner's Challenge," featured nationally renowned pathologist/medical examiner, Patrick E. Besant-Matthews, MD, of Dallas, Texas. Topics at this event included "The Coroner's Role in the Donation Process," "Preserving Evidence in the Organ/Tissue Donor," and "How the OPO Can Assist in the Coroner's Investigation of Homicides, SIDS and Child Abuse Cases." **For more information call LifeBanc at (216) 752-LIFE.**
- New Mexico Donor Services participates in morning report Monday-Friday at the Office of the Medical Investigator (OMI). All reportable deaths statewide are called in from hospitals and field investigators to the OMI Central Office in Albuquerque. Decedents within and outside Albuquerque are transported to the OMI Central Office where autopsies are performed by a team of forensic pathologists. A tissue coordinator attends morning report, reviews the docket for donor potential and obtains permission from the investigator and pathologist to approach the next-of-kin. A tissue coordinator also contacts the OMI at intervals during the weekday and weekends for updates on potential tissue donors. This collegial approach and support accounted for approximately

25% of all tissue donors in 1998. NMDS has one of the highest recovery rates per capita of pediatric and adult heart valve donors. **For more information call New Mexico Donor Services at (505) 843-7672.**

- In the Commonwealth of Virginia, Chief Medical Examiner Marcella F. Fierro, MD entered into a collaborative working relationship with the organ procurement organizations (OPOs) and eye banks serving Virginia. This relationship, as defined in a jointly executed memorandum of understanding (MOU), is intended to increase organ and tissue donation in Virginia. The essence of this agreement is the appointment of the OPOs and eye banks as agents for the Office of the Chief Medical Examiner (OCME) under specific sections of the Virginia Code. This relationship has permitted the eye banks and OPOs of Virginia to establish unprecedented levels of cooperation with both the OCME and law enforcement agencies. Organizations as diverse as the Virginia State Police, city police departments and county sheriffs offices are reviewing and revising policies to allow for the unencumbered exchange of information with OPOs in cases falling within the jurisdiction of the OCME. This program has already shown a significant increase in donations from potential donors who die in the pre-hospital environment in certain geographic areas. Ultimately its impact is likely to lead to significant gains throughout the Commonwealth of Virginia. **For more information contact Ray Murray at LifeNet: 800-TISSUE-1.**



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NOTES

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