AUTOPSIES: PROCEDURES AND PROBLEMS

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I. Introduction

An autopsy,[2] also called a *PM* or *post,* is a scientific, postmortem examination of a body. Depending upon the purpose of the procedure, the condition of the remains, and, possibly, on any limitation on consent, an autopsy will include an external examination of the body and an internal examination of structures and systems, as well as the removal of tissue samples, and occasionally entire organs, for more in depth study.

Emotions will probably be running high when questions come to you. Law enforcement officials will be anxious to move on with their investigation. Family members will be subject to the stress of dealing with a loved one's death or with the discovery of a body that may bring closure to days or months of anxious waiting. Astute criminals will fear the interpretive skills of the pathologists and the analyses of the toxicologists.[3]

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[2] All autopsies should be done by pathologists, doctors of medicine or osteopathy with special training in the structural and functional bodily changes caused by disease, injury, or insult. Ideally, the forensic autopsy (see Section II, Procedure) should be done by a board certified forensic pathologist. The Armed Forces Medical Examiner (AFME) System, established in 1988, at the Armed Forces Institute of Pathology (AFIP) in Washington, DC, provides consultative services and personnel to assist in autopsies and exhumations, as necessary. See generally, AR 40-57/BUMEDINST 5360.26/AFR 160-99 (hereafter AR 40-57).

[3] A toxicologist is one who specializes in the scientific study of poisons, their detection, and, to some extent, the treatment of resulting conditions. The terminal degree in this field is a Ph.D. Toxicological tests are, then, chemical analyses performed to ascertain the presence or absence of chemicals and metals and, if detected, the concentrations thereof. Drug testing (urinalysis) is, for example, a toxicological procedure.

II. The Procedure

Depending upon the specific purpose for which the autopsy is being performed--to make a legal and/or medical determination as to the cause[4] and/or manner[5] of death; to identify the decedent; to allay concerns of survivors;[6] to advance medical science through research; or to assist in the anatomical training of physicians--the pathologists and other personnel concerned may refer to it as a *forensic autopsy* or a *hospital autopsy.* These are shorthand characterizations explaining the primary purpose of a particular autopsy.

A *forensic autopsy* is a postmortem done to determine the time of death, the cause of death, the manner of death, the sequence and significance of injuries, and, perhaps, the identity of the decedent. It may well also be a source of evidentiary materials. The *forensic autopsy* is a very thorough external and internal examination. It typically includes both an external and an internal examination; and it may include the examination of gross sections of organs,[7] the microscopic examination of tissue and organs, and the toxicological examination of tissues and body fluids.

A *hospital autopsy,* sometimes also called a *medical* autopsy, or a *teaching* autopsy, is typically performed to determine only the cause of death, whether for purposes of insurance settlement, familial genetic counseling, research, or education. It may be of limited scope, e.g., examination of the brain to confirm a congenital, vascular defect.

An additional distinction involved the requirement for

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[4]"Cause of death is the original underlying medical condition which initiates the lethal chain of events culminating in death." *Spitz and Fisher's Medicolegal Investigation of Death* 178, 3rd ed., ed. Werner U. Spitz, M.D. (1993).

[5]*Id*. at 17. "(M)anner of death is legal classification of death, whether it be natural, suicide, homicide, accident, or undetermined." Further information can be found at page 175 of the same reference.

[6]In the case of an unexplained death of an infant, for example, the parents may want to know whether a congenital abnormality existed and, if it did, whether it was the cause, or a contributing cause, of the death. If such a condition did exist, they will probably want to know whether the condition is hereditary, if that can be determined.

[7]Organs may be removed and then thinly sliced to allow the pathologist to search for a particular, suspected abnormality or anomaly. Materials (gross organs, tissue blocks, and microslides) accessioned to the AFIP repository or, in the case of tissue blocks or microslides, made from material obtained from the AFIP repository shall be retained as specified in DoD Directive 5154.24 and/or AR 40-31/ BUMENINST 5360.26/AFT 160-99.

consent by the-next-of kin. In general, forensic autopsies are often required, i.e., directed by competent authority, without the permission of the decedent's next-of-kin. Hospital, i.e., educational, autopsies are typically consensual; that is, requested by the next-of-kin or performed with his permission.

In either case, the prosector[8] will make a record of his findings, often recording them, during the course of the procedure, for transcription at a later date.[9] If the autopsy is of the forensic type, in addition to the protocol, there may well be x-rays, photographs,[10] photomicrographs,[11] and a report of toxicological findings. Microslides and tissue blocks,[12] if made, will be retained and filed also.[13]

III. Potential Problems

Problems concerning autopsies most often involve jurisdictional issues: Who has the authority to order a forensic autopsy? What is the effect of a waiver of jurisdiction? Is consent of the next-of-kin required? What can be done if a crime is suspected and the next-of-kin will not consent to an autopsy? What happens overseas? You may also be asked to address concerns or complaints about violation of religious beliefs; and, less frequently, questions about the reasonableness of, or necessity for, specific medical or scientific procedures involved in a particular autopsy. A pathologist at your local MTF should be able to answer questions of the latter type and to provide you with references as to generally acceptable procedures should that be necessary.

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[8]The prosector, in times past sometimes referred to as the *autopsy surgeon,* is the physician responsible for performing the autopsy.

[9]The written report of an autopsy is called an *autopsy protocol*.

[10]Unless photographs are requested for use in court, 5 x 7'5 and 8 x 10's are usually not printed; photographs are typically printed directly from negatives, so they are the same size as 35mm negatives. These are called *strip sheets* or *contact prints.* If slide film was used, a pathologist may well tell you that there are no *photographs;* in his jargon, these are usually called *kodachromes.*

[11]Photomicrographs are *kodachromes* that were taken through a microscope.

[12]Tissue blocks are small paraffin blocks with pieces of tissue embedded in them. When these are sliced into thin pieces, the pieces are called *sections.* A section is mounted on a glass slide (microslide) for viewing under a light microscope.

[13]If you have occasion to investigate a claim IAW AR 27-20 or prepare a litigation report IAW AR 27-40, you may find that these records and materials are no longer available locally. In such a case, they may be on file at the AFIP. You may find it advantageous to work through the Legal Counsel there to facilitate release of information concerning retained materials or release of materials themselves for examination by other experts.

Please note: there is presently a considerable effort to enlarge federal autopsy jurisdiction. One proposal would effect autopsy authority only in criminal investigations, e.g., in instances of deaths due to terrorism; the other would specifically increase the authority of the AFME and would create for the Navy/Marine Corps a provision akin to 10 USC 4711 and 10 USC 9711.[14]

A. Jurisdiction

Try looking at jurisdiction in this instance as though it is of two types: jurisdiction over the land and jurisdiction over the remains of the decedent. Each is relevant in determining who has the authority to *order* an autopsy, that is, who has the authority to require it without the permission of the decedent's next-of-kin. Now, consider jurisdiction over the land as being of two types: exclusive or concurrent.

On an area of exclusive jurisdiction, only the federal government has the authority to order an autopsy. If the particular facts do not require in-depth investigation, there may, however, be no need to exercise that authority. On an area of concurrent jurisdiction, the state has primary authority, but it may waive, or relinquish, that authority to the federal government. The prior status of the now deceased becomes determinative. The appropriate military authority exercising his secondary right on an area of concurrent jurisdiction could then order an autopsy on the remains of a servicemember, but not of a civilian. In such a situation, the military could not perform an autopsy on the remains of a civilian without the permission of the next-of-kin.

Let us look at this from a different perspective. Consider the issue, not from the legal perspective of jurisdiction, but, from the more practical one of whether consent of the next-of-kin is required.

B. Consent

1. Authority for Non-Consensual Autopsies: When Consent is Not Required

10 USC 4711 provides, in pertinent part, that--

[14]Personal conversation with Jerry D. Spencer, M.D., J.D. (CAPT, USN, Ret.), Armed Forces Medical Examiner, in June, 1999.

> (a) When a person is found dead under circumstances that require investigation, at a place garrisoned by the Army and under the exclusive jurisdiction of the United States, the commanding officer shall direct a summary court-martial ***to investigate the circumstances of the death***. [Emphasis added.]

Although this statute does not specifically use the phrase *medicolegal investigation of death* and does not contain the word *autopsy,* it is certainly reasonable to expect that the professional standard for death investigations will be met and will, in appropriate circumstances, include an autopsy. Further, AR 600-8-1, addressing the conduct of a military inquest, states, at paragraph 7-6.b.--

> If an autopsy is necessary to determine the exact cause and time of death, the summary court officer will immediately notify the appointing authority so that arrangements can be made to perform the autopsy.

With two important differences, DoD Directive 5154.24 gives that same authority to *order* autopsies to the AFME. The authorizing language is both more explicit and more limiting. It is more specific in that it states- -

> The AFME shall have the authority to order a medicolegal investigation, *to* ***include an autopsy***.[15] [Emphasis added.]

And, it is more limiting in so far as it applies directly only to- -

> the death of any **Service member on active duty or member** of the **Reserve components on active duty for training** where the Federal Government has exclusive jurisdictional authority, and where the circumstances surrounding the death are suspicious, unexpected, or unexplained.[16] [Emphasis added.]

An Army installation commander then has the authority to order an autopsy on the remains of any person, military *or* civilian, found dead on an Army installation under exclusive federal jurisdiction.[17] The AFME has the authority to order an

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[15]DoD Directive 5154.24, para C.4.b.(1).
[16]Ibid.
[17]10 USC. 4711; 10 USC 9711 grants like authority with regard to areas of exclusive jurisdiction under the control of the Air Force; there is no

autopsy if the individual found dead on an area of exclusive jurisdiction is a servicemember on active duty or active duty for training

In areas where the United States does not have exclusive jurisdiction, i.e., in areas of concurrent state/federal diction,[18,19] which you may find it helpful to think of as *the*

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similar grant of authority with regard to the Navy/Marine Corps. When an autopsy is needed on the remains of a civilian found dead in an area of exclusive jurisdiction not covered by 10 USC 4711 or by 10 USC 9711, it may be possible to obtain an autopsy by an All Writs Application, pursuant to 28 USC 1651, to the appropriate U.S. District Court for an ex parte order to conduct an autopsy. Information on this procedure can be obtained from the Office of the Armed Forces Medical Examiner at AFIP.

[18]Jerry D. Spencer, CDR, MC, USN, "Medical Examiner/Coroner Jurisdiction in Cases Involving Federal Interests," Journal of Forensic Science 410, April 1982; and Natalie K. Shemonsky, COL, MC, USA, Kari B. Reiber, LCDR, MC, USNR, Larry D. Williams, LTC, A, USA, and Richard C. Froede, MD., "Death Investigations on Military Installations," Military Medicine, 581, September 1993.

[19]All states have laws providing that medical examiners or coroners have the authority to order autopsies under certain circumstances, i.e., to perform autopsies without the permission of the next-of-kin. As you might imagine, these differ significantly. A typical statute might, however, provide that:

> (T)he medical examiner or coroner may order an autopsy where the circumstances surrounding the death are suspicious, obscure, mysterious, or otherwise unexplained, such circumstances including, but not being limited to:
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> a) unnatural or violent deaths whether homicide, suicide, or the result of trauma of unknown origin;
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> b) sudden deaths not caused by readily recognizable disease;
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> c) deaths under suspicious circumstances;
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> d) deaths of persons whose bodies are to be cremated or otherwise disposed of so as to be thereafter unavailable for examination; or
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> e) deaths possibly related to disease which might constitute a threat to the public health.

This authority is valid and primary in all places having concurrent (state/federal) jurisdiction, except as it has been statutorily limited by very specific federal grants of authority to the National Transportation Safety Board (49 USC 1441) and the Federal Bureau of Investigation (18 USC 1751 and 10 USC 351).

The National Transportation Safety Board has overall investigatory jurisdiction in civil aviation accidents, and it is empowered to draw on federal and state agencies in carrying out its investigations. It might, for example, call upon forensic anthropologists from the Smithsonian, fingerprint experts from the Federal Bureau of Investigation (FBI), and forensic odontologists from the Armed Forces Institute of Pathology. The FBI has a similar grant of authority with regard to the investigation of the assassination of the President, Vice President, President-Elect, Vice President-Elect, and any member of Congress or member of Congress-elect.

right of first refusal.

If the state waives its authority, then, and only then, may the *appropriate* Army commander (generally considered to be the installation commander)[20] or the AFME, order an autopsy on the remains of a servicemember.[21]

In the situation where a state chooses not to exercise its authority and the decedent is a civilian, the military can not order an autopsy. Once a decision has been made, it may be difficult if not impossible to reverse it. Such problems are better avoided in the first place than solved after the fact. Often early coordination between the AFME and the civilian authorities will prevent such an impasse.

2. When Consent *is* Required

In the large number of cases where (a) neither the installation commander nor the AFME has the authority, pursuant to 10 USC 4711 or DoD Directive 5154.24, to order an autopsy or (b) an autopsy is not required by state or host nation law and ordered by that authority, the permission of the next-of-kin must be secured before an autopsy is performed.[22]

It should also be noted that if consent is required before performance of an autopsy, any consent given can be limited.[23] For example, the consenting individual may stipulate that there will be no internal examination of the cranium, that the autopsy will be completed within a certain period of time so as to permit burial in accordance with specific religious tenets, or that any organs, tissues, or portions thereof taken for examination shall be returned for later burial with the body.

Restrictions similar to these may make performance of an

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[20]By inference, AR 600-8-1; but see AR 40-2, para 4-2.a., which appears over broad. To further obfuscate this point, see Memorandum of the Assistant Secretary of Defense for Health Affairs, for the Secretaries of the Army, Navy, and Air Force, subject: Memorandum of Instruction Concerning Procedures for Conducting an Autopsy, dated 27 May 1994.

[21]This right to authorize an autopsy on the remains of a servicemember found dead on an area of concurrent jurisdiction is based on relinquishment of primary *in rem* jurisdiction by the civilian authority and on *in personam* military jurisdiction. The authority of the commander or AFME may be derived from the general statutory grant of authority to the Secretary of the Army (10 USC 3012) as implemented by regulation and/or directive.

[22]AR 40-2, para 4-4.b.; note 16, supra; and, by inference, DoD Directive 5154.24.

[23]Any limitations or restrictions on the autopsy should be specifically noted on the autopsy authorization form.

autopsy either impossible or impracticable. If that is the situation, medical personnel should explain to the next-of-kin, without being coercive, why the restrictions prevent performance of an autopsy and why doing the procedure is important. If the next-of-kin is not convinced and does not remove or lessen the stipulated restrictions, the choices are only two: comply with the restrictions or do not perform the autopsy.

C. Deaths Overseas

In general, the law of the host nation governs. Applicable Status of Forces Agreements (SOFAs), treaties, and other international agreements should be reviewed for possible exemptions relating to the U.S. Forces. Local regulations and policy statements from the appropriate Army medical headquarters should also be consulted. These policy statements may address such procedural matters as where autopsies will be performed (host nation facilities or U.S. military MTFs) and when observers (host nation or U.S. military) are permitted or required.

D. Religious Objections

Members of certain faith traditions believe that all parts of the body must be buried and that if certain parts (organs, for example) have been removed those should thereafter be buried with the primary remains. Embalming and cremation are prohibited or strongly discouraged by some religions or religious groups.

All personnel should endeavor to show respect for the religious beliefs of their fellow soldiers. Embalming a body is common practice in the United States but it is by no means always required. If the religion of the deceased requires all parts of the body to be buried together, an effort should be made to return all possible material to the body cavities. An autopsy can, for example, be performed with the body laying on a pad of sheets so as to absorb any bodily fluid; the sheets can then be packaged and buried with the body.

Typically, by the time you become involved in a situation of this type, the damage[24] has already been done; you are tasked

[24]See *Trerice v. U.S.,* Memorandum Opinion, Civ. No. 82-74930 (U.S.C.D., E.D. Michigan), 1982; *Kohn v. U.S.,* 591 F. Supp 568, (1984); *Burgess v. Perdue,* 721 P.2d 239(1986); *Yang v. Sturner,* 750 F.Supp 558 (1990); and *Sabow v. U.S.*, 93 F.3d 1445 (1996).

with answering a letter of complaint or a Congressional inquiry, investigating a claim, or preparing answers to interrogatories. Depending upon the circumstances, the affront may have been a matter of ignorance or negligence, or, because of distance, combatant activity, or the necessity of retaining evidence for trial, it may have been unavoidable.

By discussing these matters at grand rounds, in ethics committee meetings, in *decisions at the end of life* classes, or in consultation with students in clinical pastoral education, you may well raise awareness and prevent similar incidents.

E. Failure to Communicate

All of us have heard that we should not ask someone's opinion, if we do not care about the answer; and that we should not ask permission if we plan to press ahead come what may. But, explaining why is not asking permission. When an autopsy is going to be directed, it is not a good idea for personnel to ask permission to do it. What happens when the answer is, "No." Many hurt feelings, many letters of complaint, and probably a number of more serious actions would be avoided if the time to explain the reasons for an action, such as a forensic autopsy, were taken. Again, this is something that could be talked about in a departmental class or departmental rounds.

IV. Conclusion

Military authority to perform autopsies is far from all encompassing. It can be restricted by virtue of the decedent's status, i.e., military or civilian, and by virtue of the situs of death.

Jurisdictional problems can be minimized by prior coordination involving the AFME, the hospital pathologists, the civilian medical examiner or coroner, the hospital judge advocate, and the MTF commander or chief of pathology.

Litigation in this area can best be countered by working to increase health care providers' understanding of the importance of clear and honest answers to family members' questions or obvious concerns about the time involved in having an autopsy performed, the possibility of disfigurement, the retention and disposition of organs or tissues taken for examination, and, most importantly, what may be gained by performing the procedure.