Autopsy as a Risk Management Tool

“Let those who interdict the opening of bodies well understand their errors. When the cause of a disease is obscure, in opposing the dissection of a corpse which must soon become the food of worms, they do no good to the inanimate mass and they cause a grave damage to the rest of mankind; for they prevent the physicians from acquiring a knowledge which may afford the means of a great relief eventually to individuals attacked by a similar disease.”

So wrote Marcello Donato – in 1586. Today, the same argument rings true for those in risk management, patient safety and quality improvement. Yet more than 400 years after Donato’s prescient remarks, health care continues to struggle with autopsy often rejected by families.

Autopsy offers answers that go beyond forensic investigations seen in movies and popular televisions series. Speak to an attorney expert in trust and estates, and she can tell that the results of an autopsy can decide who died first in a catastrophic event. Such a determination can prove interesting under state simultaneous death statutes and the findings by courts dealing with claims to the estates of the decedents. Autopsy results may also help care providers increase performance outcomes.

For risk management professionals, autopsy may shed light on the root cause of a patient’s demise. Indeed, the results can make or break a lawsuit for professional liability. It may also be the key to unraveling a series of untimely deaths that might otherwise be ascribed to professional incompetence on the part of a physician, nurse or pharmacist.
Notwithstanding the benefits of an autopsy, it is a medical process that persists as one of the most misunderstood in the healthcare field. As discussed here, there are a host of explanations offered for the low rate of autopsies conducted. There are many ways to address such concerns, raising the specter on autopsy as a powerful risk management tool.

The Challenges to Autopsy in Contemporary Society

Some in society shudder at the idea of a pathologist “cutting up” a dead person. Others flatly refuse autopsy procedures on the basis of religious belief. Indeed, the issue of medical-legal autopsies required by state law have led to serious legal challenges based on religious belief.⁵

It is difficult to gauge whether television programming or material on YouTube or the Internet might serve as a positive influence in favor of autopsy. Some might speculate too, whether those who are in favor of autopsy to help promote medical science would take the same attitude when the decedent is a close relative or friend.

Improprieties in the performance of publicized autopsies do little to persuade the public about the importance of autopsy procedures. Situations have occurred in which subsequent to interment of the body, family members have learned that organs removed for evaluation at autopsy were not replaced.⁶ The emotional and psychological trauma to loved ones can be a deterrent to others contemplating autopsy procedures.

There are more practical barriers to autopsy. For example, for non medico-legal autopsies, there is a concern about the financial burden for the family.⁷ Still others express concern about delaying funerals to accommodate the schedule of a pathologist retained to perform an autopsy. For families who want a public viewing, there is sometimes a sincere concern about the appearance of the body after an autopsy.

The discussion around medical-legal autopsies is managed quite well by coroners and medical examiners. Obliged as they are to carry out external and internal examinations, they do so with deference to the family and their needs in a time of unexpected loss.

For the non-medical-legal autopsy, steps can be taken to dispel many of the barriers to autopsy. Care providers can anticipate such concerns as part of the
communication process with those responsible for authorizing or refusing consent for an autopsy.

**Overcoming Barriers to Non-Medical-Legal Autopsy**

The healthcare field faces barriers to autopsy in two camps. The first involves healthcare professionals who may find it difficult to seek permission for an autopsy. Being empathetic to the needs of the decedent’s bereaved family, care providers avoid obtaining consent for the post-mortem procedure. Uncertain about a family’s religious or cultural beliefs about autopsy, care providers might elect to refrain from a conversation about autopsy. Others may start the discussion but stop when they encounter pushback from the family.

The other camp is the decedent’s family. Without a framework for understanding what is involved in an autopsy, they refuse permission for the examination. A care provider may assume that “they” understand what is done during an autopsy. However, in a diverse society, such assumptions are flawed and may result in a rejection of an autopsy.

Overcoming such barriers involves some straightforward measures. For example:

- **Care provider education** – how to approach the family for permission to authorize an autopsy. What should be said? To whom should the conversation be directed?
- **Know the audience** – Is there a potential religious or cultural prohibition to a full autopsy? If there is uncertainty, who can be consulted in the healthcare organization or community to address such issues? Is there a need for a language interpreter? A cultural broker?
- **Provide a clear explanation** – Bearing in mind health literacy and the fact that one is working with a bereaved family, offer a succinct rationale for requesting the autopsy. Anticipate what the family would want to know, including, what is involved in the autopsy? How long will it take? When will they get the results? Who pays for it? How will it effect funeral arrangement? How will it help the family? How will it benefit society? How will it assist progress in medicine?
Using the Autopsy As a Risk Management Tool

There are examples in the literature that demonstrate the power of autopsy as a tool to facilitate risk management programs. In a recent report, researchers completed a systemic review of observational studies involving autopsy-confirmed diagnostic errors in an adult ICU setting. The researchers reported that 41% of the leading causes of lethal misdiagnosis were infection and vascular events. The most common Class I - potentially lethal – diagnostic errors were pulmonary emboli (PE), myocardial infarction (MI), pneumonia and aspergillosis.

The study is important in that it uses autopsy results to underscore the rate of potentially lethal misdiagnosis in the ICU setting. It goes beyond the obvious implications for process improvement; it reinforces the importance of risk management participation from a loss prevention and loss control standpoint. Indeed, as the study noted, in the United States, it is possible that as many as 40,500 adult patients may due due to an ICU misdiagnosis annually.

In an original contribution article in the Journal of the American Medical Association (JAMA), the Stillbirth Collaborative Research Network Writing Group, the authors set out to find the causes of stillbirth in the United States. With 1 in 160 pregnancies affected by stillbirth in the United States, a rate higher than in other developed nations, the authors looked at medical history, postmortem fetal and placental pathology, laboratory tests, and karyotype. The common causes for stillbirth were obstetric conditions and placental abnormalities. Further, there was a difference in the causes of stillbirth based on race and ethnicity.

In their commentary the authors asserted that the results of the study reinforced the importance of conducting

“….perinatal postmortem examination, placental histology, and karyotype in all cases of stillbirth because the majority of stillbirths (66%) had at least 1 positive result out of these 3 components of the evaluation.”

The study determined that the leading cause of antepartum stillbirth was placental disease.

Why is this important from a risk management standpoint? In so-called “baby” cases, plaintiffs assert that it was the failure of the care provider to meet applicable standard of care that led to the demise of the stillborn or the birth of the impaired neonate. The results of a complete postmortem or autopsy could
help refute such allegations in a professional liability claim. The same may be true for a timely, thorough placental pathology examination.

A good example was reported 15 years ago involving a woman who was at 38 weeks gestation when she presented at a hospital with abdominal pain and vaginal bleeding. The initial impression was that the woman was experiencing a placental abruption. She underwent an emergency Cesarean section. The woman’s child, a boy, had an Apgar score of one. Noting that the neonate had lost a considerable amount of blood, staff provided appropriate treatment. However, the volume of the neonate’s diminished blood volume raised the possibility that he had sustained brain damage.

When the placenta was delivered it did not appear abruptly. Because it was uncertain why there had been so much blood loss that likely led to the child’s poor health at birth, a decision was made to have the placenta evaluated by an expert in placental pathology.

The findings were important for the hospital staff and for the patient’s parents. The placental pathologist found a condition that was quite rare. The placenta was not formed properly. As the cervix underwent the process of dilation, an abnormally located blood vessel ruptured leading to the massive blood loss. It was the opinion of the placental pathologist that this was unforeseeable anomaly and that when it does occur, most babies bleed to death before care providers recognize or respond to the problem.

This was not the end of the situation. The pathologist encouraged the hospital to permit him to share the results with the baby’s family so that they could understand what had happened during the birth and that appropriate action had been taken once the problem was identified. Both hospital administration and the risk manager agreed and a meeting was set up with the placental pathologist and the parents. The baby accompanied them to the meeting. Diagrams and slides were used to demonstrate the difference between the baby’s placenta and a normally formed placenta. The parents were given an opportunity to ask questions and they were comfortable with the responses provided. Moreover, they were impressed with the lengths to which the hospital had gone to address any questions about the circumstances of the baby’s birth.

Placental pathology is a tool within the realm of autopsy. The results can be used to thwart litigation, especially in those situations where the results reveal the most likely cause of a birth event or injury. Coupled with a discussion with the parents, the information from the pathological examination can help to reduce the
potential for litigation and reputational loss. Rather than seeing care providers and the healthcare organization in a bad light, the parents come away feeling supported by a caring team of professionals.

The outcome could be the same subsequent to the autopsy of a patient. Family members may harbor feelings of distrust or lack of confidence in the explanation for the patient’s death provided by a healthcare practitioner. Having information from an autopsy that demonstrates the cause or causes of a patient’s demise may help alleviate any doubts in the level of care provided prior to death.

There is also another perspective. The autopsy may reveal a departure from a recognized standard of care. It may involve misdiagnosis or missed diagnosis. As part of an adverse outcome disclosure, the results of the autopsy may help achieve an early and fair resolution of a claim that could be far more expensive should such a matter go to trial. Even in these circumstances, much can be learned from the adverse outcome to help drive clinical process change, education, and in-service programs. As such, autopsy and placental pathology can be powerful tools in the risk management quiver.

Strategies for Using Autopsy as a Risk Management Tool
Several practical risk management strategies may help to increase the rate of autopsy, thereby enhancing the process as a key aspect of loss prevention and loss control measures. Strategies that may also prove helpful, including the following:

1. **Evaluate Current Autopsy Request Measures.**
   Review with care providers what steps are followed to request permission for autopsies. Include in this review requests for placental pathology and postmortem after stillbirth. Consider the following factors:
   a. Cultural.
   b. Religion.
   c. Language interpretation requirements.
   d. Health literacy.
   e. Use of literature or brochures to explain the autopsy, placental pathology or postmortem after stillbirth.
   f. Time of request.
   g. Location where the request is made.
   h. Relationship of those present.

   Identify gaps in the discussion process and areas for improvement.
Involve chaplains, social workers, and clinical personnel in the process improvement initiative. Think about obtaining assistance from cultural brokers as well.

2. **Set Reasonable Expectations with Family Members.**

   Recognize that permission to perform autopsy procedures follows the informed consent process. Explain the indications for an autopsy, what is involved in the autopsy, the probable benefits and probable risks, alternatives to an autopsy and the likely consequences of declining to authorize either recommended or alternate measures. Highlight the following information:
   a. **Indications** – explain why an autopsy is recommended in the case. Do the same for placental pathology and postmortem after stillbirth.
   b. **Explanation** – use understandable terms to describe the nature of the autopsy. Be thoughtful, noting that the utmost respect will be shown to the decedent and that steps will be taken to preserve integrity of the body should funeral plans include a viewing. Point out if there is a limited postmortem process intended in the situation rather than a complete autopsy.
   c. **Probable benefits** – explain that the autopsy may help identify the cause or causes of the patient’s death. To the extent that it may impact parents considering future pregnancies, describe the potential benefits of placental pathology and postmortem after stillbirth.
   d. **Probable risks** – be forthright in the explanation that there are situations in which the results may be inconclusive. Talk about the timeframe for receiving results, especially tests that may not be available for several days or weeks. Be clear about the financial costs associated with a non-forensic autopsy.
   e. **Alternatives** – discuss options such as partial autopsy and “virtual autopsy” procedures (see number 3 below) and the benefits and risks of using these alternatives.
   f. **Refusing recommended or alternative measures** - Ask appropriate questions to confirm the decision to decline such measures is an informed choice.

   Use of teach-back methods may be helpful to help confirm understanding of what is being authorized by the individual making such decisions.

3. **Consider the Virtual Autopsy in Appropriate Cases.**

   Think about utilizing the so-called “virtual autopsy” as an option to traditional autopsy procedures. Advanced radiographic methods are
used for this purpose, including CT and MRI. Virtual autopsy research has shown that it may detect abnormalities seen in a traditional autopsy. Recognizing that it may be a useful process beyond the scope of forensic cases, virtual autopsy may be an option in appropriate non-medico-legal (non-forensic) situations.

4. **Provide Education for Staff Seeking Consent for Autopsy.**
Recognize that successful consent processes regarding autopsy depends to a large extent on effective care provider communication skills on this sensitive topic. Think about role-playing and management of complex discussions, including potential religious, cultural or health literacy challenges.

5. **Use Effective Communication Strategies for Sharing Autopsy Results with Family Members.**
Consider use of an empathetic, compassionate approach to discussion of autopsy results. Think about use of illustrative graphs consistent with the informational needs of the family members. Recognize the importance of using language interpreters as well.

6. **Utilize Autopsy Results for Loss Prevention and Loss Control.**
Glean from autopsy data information that can be used to address clinical and systemic risk exposures. Do the same with regard to information from postmortem examinations after stillbirth and placental pathology. Evaluate autopsy data trends to identify opportunities to reduce, prevent and eliminate loss exposures. Apply early outcome resolution methods to autopsy-confirmed losses as well.

**Conclusion.**
Autopsy results can help reshape clinical processes and procedures. The outcomes can point to areas for improvements in diagnostic testing and medication management. However, absent completion of autopsy procedures, such improvements may be impossible.

At the same time, autopsy and placental pathology may provide a solid, evidentiary defense to claims for professional liability claims. Using the results preemptively as part of a disclosure process may thwart the potential for litigation and help the patient’s family understand the reason for the person’s death had
nothing to do with the level of care provided by practitioners and healthcare facilities.

In those cases in which the results point to a breach of a standard of care, appropriate early resolution measures may be followed to prevent a claim from going to court. What is learned may then be used as part of clinical and systemic loss prevention measures.

If you would like assistance with autopsy consent communication, please contact us at (860) 242-1302.

3 See, e.g. In re Estate of Viviano, 624 S.W.2d 130 (Mo. Ct. App. 1981)
5 See, e.g., In re Schwartz, 162 Misc. 2d 313; 616 N.Y.S.2d 921 (Ct. Claims 1994).
7 The cost of autopsy procedures was of note in an article published by ProPublica. The article stated in part:
   “Hospitals have powerful financial incentives to avoid autopsies. An autopsy costs about $1,275, according to a survey of hospitals in eight states. But Medicare and private insurers don’t pay for them directly, typically limiting reimbursement to procedures used to diagnose and treat the living. Medicare bundles payments for autopsies into overall payments to hospitals for quality assurance, increasing the incentive to skip them, said Dr. John Sinard, director of autopsy service for the Yale University School of Medicine.
   “The hospital is going to get the money whether they do the autopsy or not, so the autopsy just becomes an expense,” Sinard said.”
9 Id.
11 Id.
12 Id.
13 Id. at 2465-2466.
15 St. Paul Medical Services, “Preventive Measures are Best Rx to Avoid Malpractice Claims,” 1997 Hospital Update, 12-13; 15, 1997.
16 Id.
17 Id.
18 Id.
19 Id.
20 For more information on consent communication practices see, F.A. Rozovsky, CONSENT TO TREATMENT: A PRACTICAL GUIDE, 4TH EDITION. New York: Aspen Publishers, 2007 with annual updates.